

ANALYSIS OF FOREIGN EXPERIENCE AND STANDARDS IN THE FIELD OF LIFELONG LEARNING

Project Output No. 2 – SPECIFIC PROJECT OBJECTIVE C1 –
Improving Access to Education at Universities through
Micro-credentials, NATIONAL RECOVERY PLAN FOR
HIGHER EDUCATION FOR 2022–2024



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Project

The National Recovery Plan (NRP) of the Czech Republic is built on six priorities, namely digital transformation, physical infrastructure and green transition, education and labour market, institutions and regulation and support for entrepreneurship, research, development and innovation, and health and resilience. These priorities are implemented through 27 components. The implementation of the Czech NRP will be funded by the European Union through the Recovery and Resilience Facility between 2021 and 2026.

The project - Specific Project Objective C1 - Improving Access to Education at Universities through Micro-credentials of the NRP for Higher Education between 2022 and 2024 is part of the objectives set out in Reform 3.2.1 *Transformation of Universities to Adapt to New Forms of Learning and in Response to Changing Labour Market Needs* under Component 3.2 *Adaptation of the Capacity and Focus of the School Programmes* of the NRP established under Regulation (EU) 2021/241 of the European Parliament and of the Council of February 12, 2021.

The project has brought together 26 public universities to share experience and work systematically on the development of an analytical and methodological framework and background information systems for the implementation of the micro-credentials concept in the environment of public universities in the Czech Republic and their connection to the wider European framework.

Project Partners

The materials were prepared with the support of the Ministry of Education, Youth and Sports and the NRP within the project Transformation of Universities at CUNI (NPO_UK_MSMT-16602/2022) and are intended for educational and methodological purposes.

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- ▶ Charles University (UK)
- ▶ Palacký University Olomouc (UPOL)
- ▶ University of Pardubice (UPCE)
- ▶ Tomáš Baťa university in Zlín (UTB, abbreviated: UTB in Zlín)
- ▶ University of Veterinary Sciences Brno (VETUNI)
- ▶ Mining University – Technical University of Ostrava (VŠB-TUO, abbreviated VSB – Technical University of Ostrava)
- ▶ University of Economics and Business Prague (VŠE)
- ▶ University of Chemistry and Technology Prague (VŠCHT Praha)
- ▶ College of Polytechnics Jihlava (VŠPJ or VŠP Jihlava)
- ▶ University of Technology and Economics in České Budějovice (VŠTE)
- ▶ Academy of Arts, Architecture and Design in Prague (UMPRUM)
- ▶ Brno University of Technology (VUT)
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Project Output No. 2: Analysis of Current Situation at European and International Level

University Coordinating Project Output No. 2

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Project Output No. 2 Objective

The objective of Project Output No. 2 in Specific Project Objective C1 of the National Recovery Plan for the Higher Education 2022-2024 with the aim of improving the permeability of education at universities through micro-credentials:

The analysis of foreign experience and standards in the field of lifelong learning to identify the best practices regarding the form and the content of the certificates of completion.

Output: **Analysis of the current situation in Europe and worldwide**



Output Legislative Framework

The following regulations were considered within the work of Task Group No. 2:

Act No. 111/1998 Coll., on Higher Education Institutions and on Amendments to Other Acts, as amended.

Act No. 563/2004 Coll., on Pedagogical Staff and on the Amendment to Some Other Acts, as amended.

Decree No 317/2005 Coll., on Further Education of Pedagogical Staff, Accreditation Commissions and the Career System of Pedagogical Staff, as amended.

Act No 108/2006 Coll., on Social Services, as amended.



Glossary

The terms are defined for the purposes of the analysis.

Accredited Professional Lifelong Learning (LLL) Program – a lifelong learning program that is professionally focused and accredited by an accreditation body (e.g., by the Ministry of Education, Youth and Sports within the system of continuing education of teaching staff).

Digital badge – a verified indicator of learning achievements, knowledge, or skills. It can be an image or icon that represents the acquired knowledge, skills, or other learning outcomes. Compared to other types of certificates or university diplomas, it is usually more detailed and often contains metadata related to the learning activity the badge holder has completed.

Non-accredited Professional LLL Program – a lifelong learning program that is professionally focused but is not accredited by an accreditation body.

Microcredential (s) – an electronic record, a certificate of the completion of a small-scale learning module expressed in ECTS credits and the achievement of clearly defined and coherent learning outcomes, i.e. sets of knowledge, skills and attitudes that constitute capabilities (competencies).

These learning units are included in the European Qualifications Framework (EQF), are subject to the system of standardised quality assurance processes and are assessed against transparent and clearly defined criteria. A unit of learning may be, for example, a LLL programme within the meaning of Section 60(1) of Act No. 111/1998 Coll., the Higher Education Act, or a set of programmes (several concurrent or related LL programmes).

Initial Vocational Training – vocational training that starts after finishing compulsory schooling. Depending on the length of the training programme, it usually takes 3 or 4 years to complete. There are also a few short 1–2-year programmes.

Lifelong Learning Programme / LLL Programme – a type of education through which the participants complete, deepen, renew, or extend their knowledge, skills, and qualifications. It is a form of continuing education provided by universities as the highest level of the educational system according to Section 1 (c) of Act No. 111/1998 Coll. The term is defined by Section 60, Paragraph 1 of Act No. 111/1998 Coll., the Higher Education Act, which states, “*Within the framework of its educational activities, a higher education institution may provide, free of charge or for a fee, professionally or interest focused **lifelong learning programmes.***”

Upskilling – a process of broadening the already acquired skills.

Reskilling – a process of acquiring a new qualification.

Side-skilling – focused on the individual that has been working in the same trajectory of industry, in the same or different skilled trade roles, and desires to stay within the industry but may take on a different role at some time in the future. Side-skilling allow all of the knowledge and skills acquired so far to be passed down through mentoring, while enabling the individual to remain relevant, capable and able to transit to a new role, often within the same company, but in a leadership or management capacity. Although there is a component of upskilling, it is mainly about a sideways transition within the same trajectory of industry.

Interest-based LLL Program – a lifelong learning programme with an interest-based focus.



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1 Adult Continuing Learning in Europe

Comparing the results of European countries in the field of continuing learning constitutes the basis for identifying a group of countries the Analysis of Experience and Standards in the Field of Lifelong Learning is to focus on. The comparison of European countries was carried out using the *Eurostat* tools for monitoring continuing formal and non-formal learning and continuing vocational training.

1.1 Adult Education Survey (AES)

The most detailed information can be found in the results of the Adult Education Survey (AES)¹, which takes place every five years and provides data on the participation of people aged 25 to 64 in continuing learning for the past 12 months prior to the survey. The most recent AES was conducted in 35 EU countries in 2016 and 2017 and collected data from almost 240,000 respondents². In the Czech Republic, the most recent data collection was organized by the Czech Statistical Office (CZSO) in the second half of 2016. It was carried out within the selected sample of 7,780 households and collected data from 12,272 respondents³. The published data allow the comparison of adult participation in formal education, non-formal education and training and informal learning, the characteristics of the learning activities, time investment, reasons for participating, access to information on learning possibilities, employer financing and costs of learning, and self-reported language skills.

1.1.1 Adult Participation in Formal Education

The adult participation in formal education in 2016 fluctuates significantly between 14.2 % in Finland and 1.5 % in Slovakia. However, the assessment is not entirely objective, as each member state includes different training programmes in continuing learning, modular and long-term, distance and in-person or combined, etc.

The adult population in the Czech Republic has quite a few opportunities to participate in formal education provided by the public educational institutions, which is in some circumstances free of charge or under very comfortable conditions compared to commercial education. The universities in the Czech Republic offer study programs that, to some extent, allow the participants to combine their work obligations with distant or combined learning activities. Despite of that, the adult participation in formal education in the Czech Republic is significantly below average (2.5 %) compared to the other EU countries.

There are various reasons for low adult participation in further formal education and these may also include the educational structure of adult population. While the Czech Republic has the highest proportion of adults aged 25-64 (68 %) who have already attained at least secondary education as initial education,⁴ the participation of adults with secondary education in countries which are at the top of the rankings, such as Sweden (40.8%), Norway (35.2%) and Denmark (40.3%), and other European countries such as Switzerland (42.4%) and the Netherlands (37.5%), is below the EU average (45.9%). The Czech Republic also leads the ranking of European countries with the lowest participation of adults (5.6%) with primary education⁵. On

¹ Eurostat. (2023, March 13). [Glossary: Adult education survey \(AES\)](#).

² Eurostat. (n.d.). [Adult education survey](#).

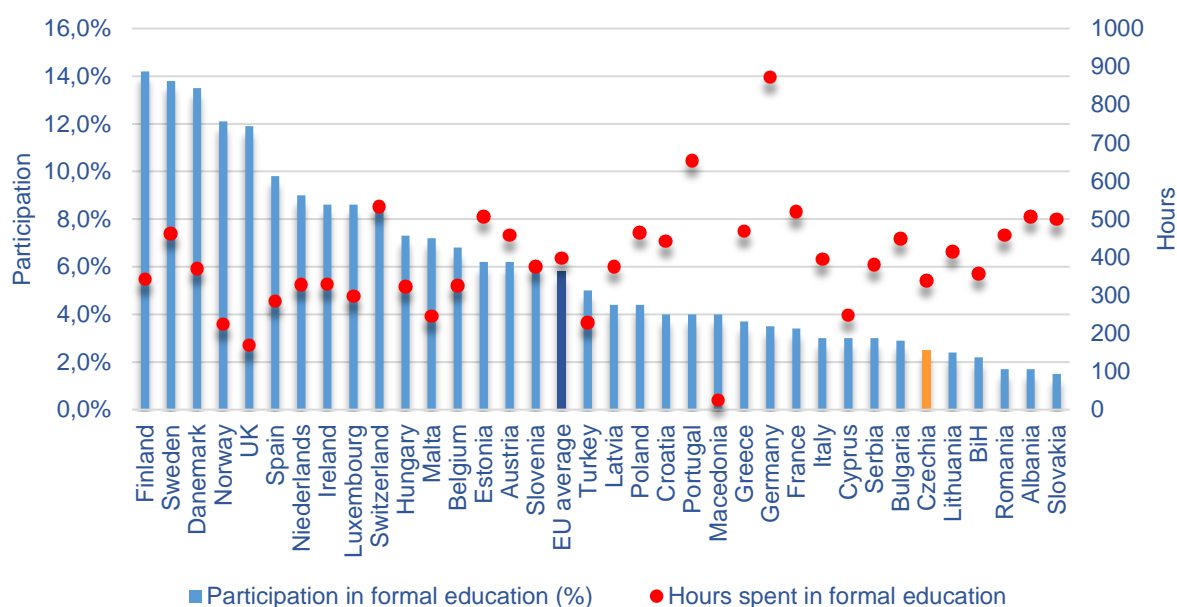
³ Czech Statistical Office. (2018, February 28). [Vzdělávání dospělých v České republice – 2016 \(šetření AES\)](#).

⁴ ISCED 2011, Levels 3 and 4 – Upper secondary and post-secondary non-tertiary education.

⁵ ISCED 2011, Levels 0 to 2 – Pre-primary, Primary and Lower secondary education.

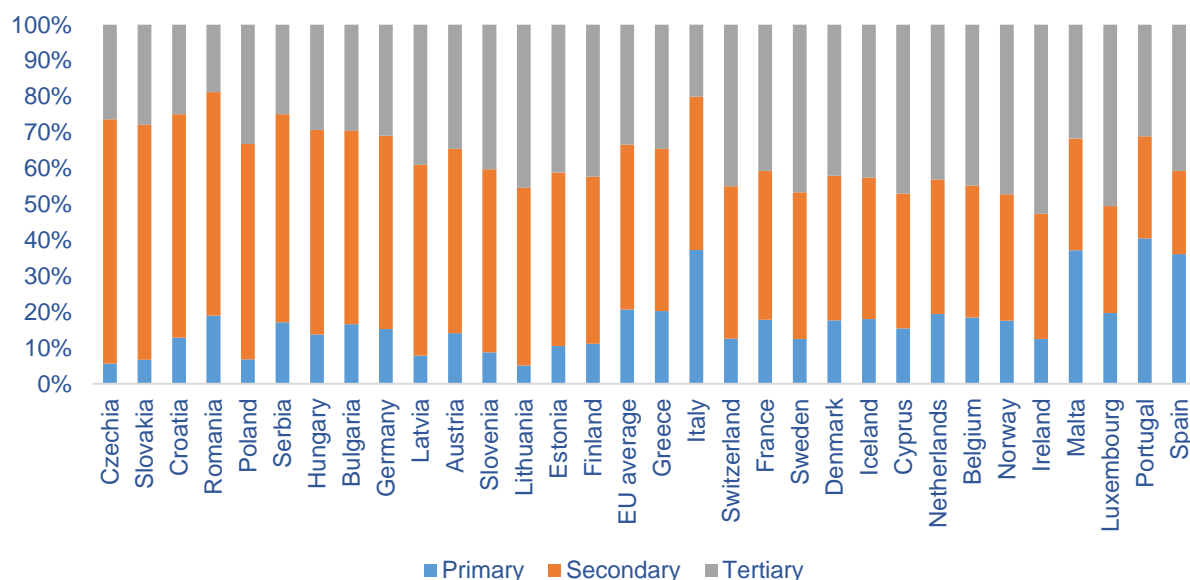
the other hand, the participation of adults with higher vocational and higher education⁶ in the Czech Republic is well below the European average. The high proportion of people with at least secondary education in the Czech Republic may also influence their willingness to engage more in further formal education.

Graph 1: Participation of Adults aged 25–64 in formal education (2016)



Source: Eurostat, AES 2016 (online data: [TRNG AES 100](#)), data [Table 1](#)

Graph 2: Adults aged 25–64 let by level of education achieved (2021)



Source: Eurostat, LFS 2021, (online data: [EDAT_LFS_9903](#)), data [Table 2](#)

⁶ ISCED 2011, Levels 5 to 8 – Short-cycle tertiary education, Bachelor's, Master's and Doctorate.

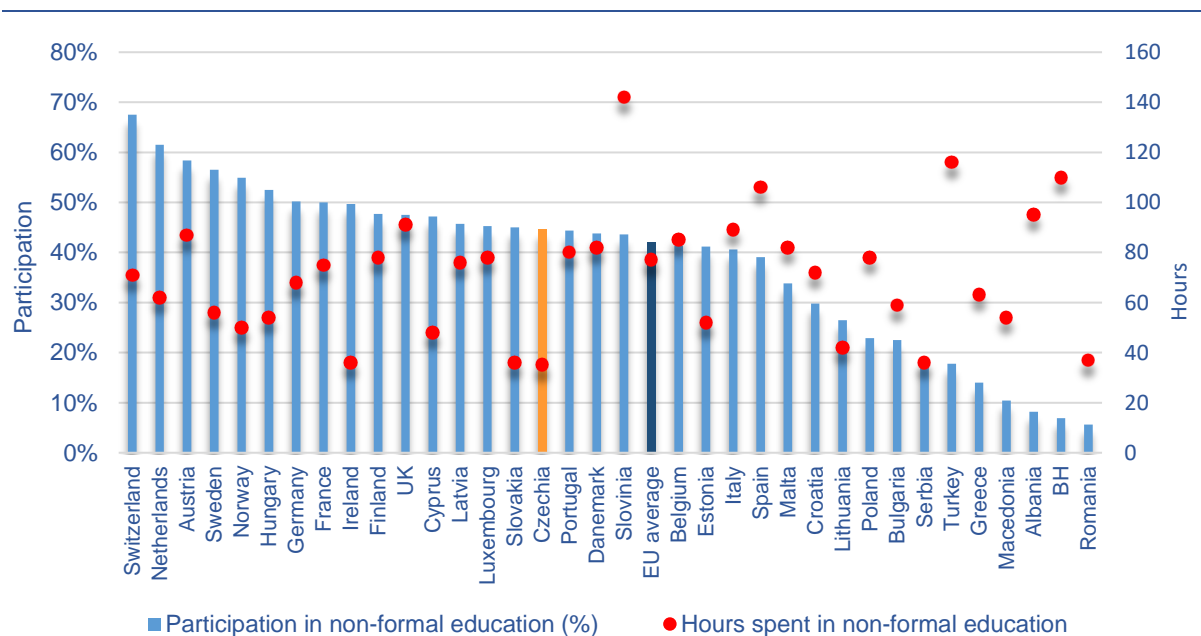
Another reason for low adult participation in formal education provided by the universities in the Czech Republic may be the current structure of the study programmes, which are primarily organised by year rather than by study modules, as is common in the European countries at the top of the ranking. The current concept of the study programme organisation requires a larger and longer-term time investment and is not flexible enough to enable the participants to adapt the educational content to their needs. The low attractiveness of further education provided by universities may also be influenced by the lack of a systemic solution for the recognition of prior learning, which currently does not allow the adult learner to pass through the study programme.⁷

1.1.2 Adult Participation in Non-formal Education

As in the case of formal education, there are significant differences in non-formal education between European countries. While in Switzerland, the Netherlands and the Nordic countries more than half of the population participates in non-formal education, in Romania, Macedonia and Greece it is only about one in ten people.

Unlike the top countries, the Czech Republic shows a large gap between the adult participation in formal and non-formal education. The adult participation rate in non-formal education is much higher than in formal education, roughly at the average level of the European Union. However, when comparing the time investment in non-formal education, the Czech Republic is at the very bottom of the ranking. One of the reasons may be the preference for short-term (one-day) trainings to long-term learning activities (e.g., reskilling courses).⁸

Graph 3: Participation of Adults aged 25–64 in non-formal education (2016)



Source: Eurostat, AES 2016 (online data: [TRNG_AES_100](#)), data [Table 3](#)

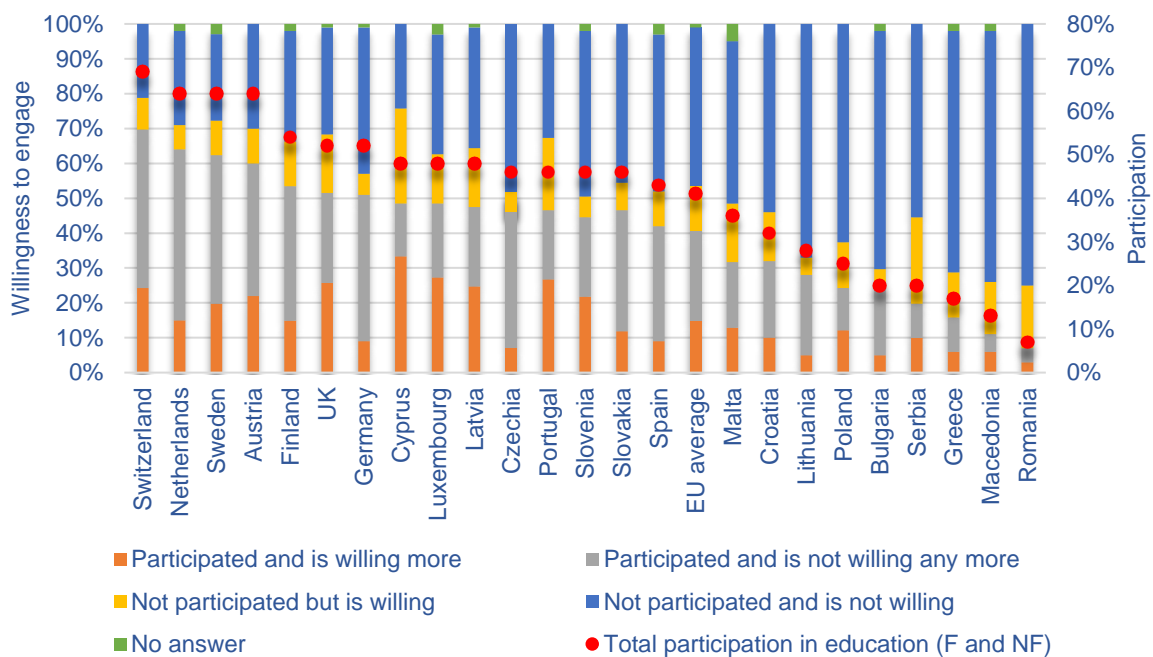
⁷ Czech Statistical Office. (2018, February 28). [Vzdělávání dospělých v České republice – 2016 \(šetření AES\)](#).

⁸ Czech Statistical Office. (2018, February 28). [Vzdělávání dospělých v České republice – 2016 \(šetření AES\)](#).

1.1.3 Willingness to Participate in Continuing Education

The AES data from 2016 shows that the highest overall adult participation in education is in Switzerland, the Netherlands, Austria, and Nordic countries such as Sweden, Norway, and Finland. In these countries, adult participation is high in both formal and non-formal education and has become part of everyday life. The Czech Republic is at an average level in terms of overall participation. However, compared to the countries with similar results, the willingness of the Czech adult population to participate more in continuing education is much lower. This may indicate a lower potential for further education in the future.

Graph 4: Participation of Adults aged 25–64 in continuing education and their willingness to participate in education (2016)

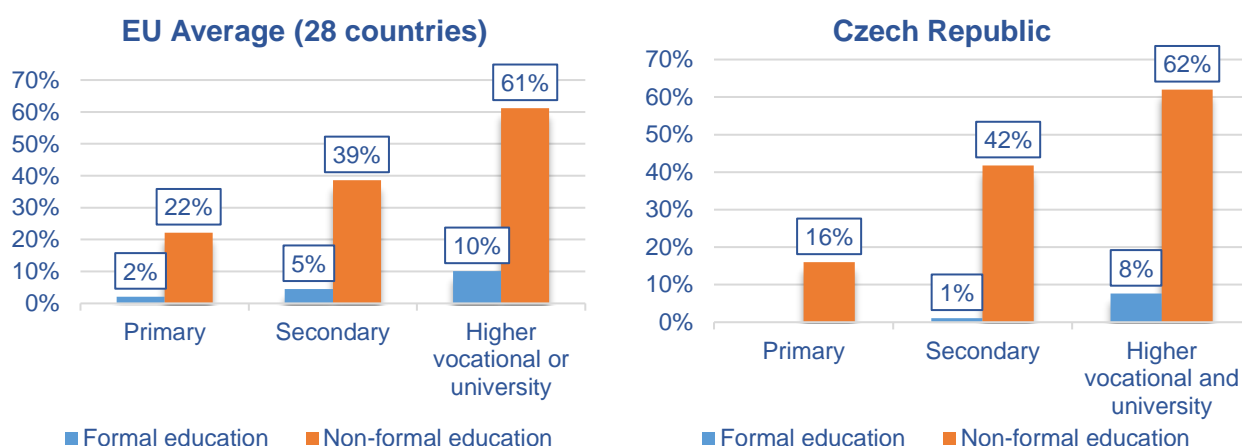


Source: Eurostat, AES 2016 (online data: [AES 2016](#)), data Table 4

1.1.4 Adult Participation in Continuing Education by Educational Attainment Level

Adult participation in continuing education by educational attainment level shows the largest percentage among the adults with higher vocational or university education. On the other hand, the lowest is among those with primary education. The Czech Republic, like most European countries, shows similar figures. The adults with higher formal education may be more engaged in continuing education because they have already acquired sufficient theoretical knowledge and they need to consolidate, deepen or verify it in practice. This would also correspond to the significant difference between formal and non-formal education. If companies provide on-the-job training to people with higher formal education, this will improve their practical and theoretical knowledge, and may thus increase their productivity and the quality of their work.

Graph 5: Participation of Adults aged 25–64 in continuing education by educational attainment level



Source: Eurostat, AES 2016 (online data: [TRNG_AES_102](#)), data [Table 5](#)

1.2 Continuing Vocational Training Survey (CVTS)

The Eurostat Continuing Vocational Training Survey monitors the employee training in enterprises with 10 or more employees every five years. The subject of the survey is vocational training funded by enterprises, e.g., through internal and external courses and other training activities. Unfortunately, this survey does not include initial vocational training.⁹

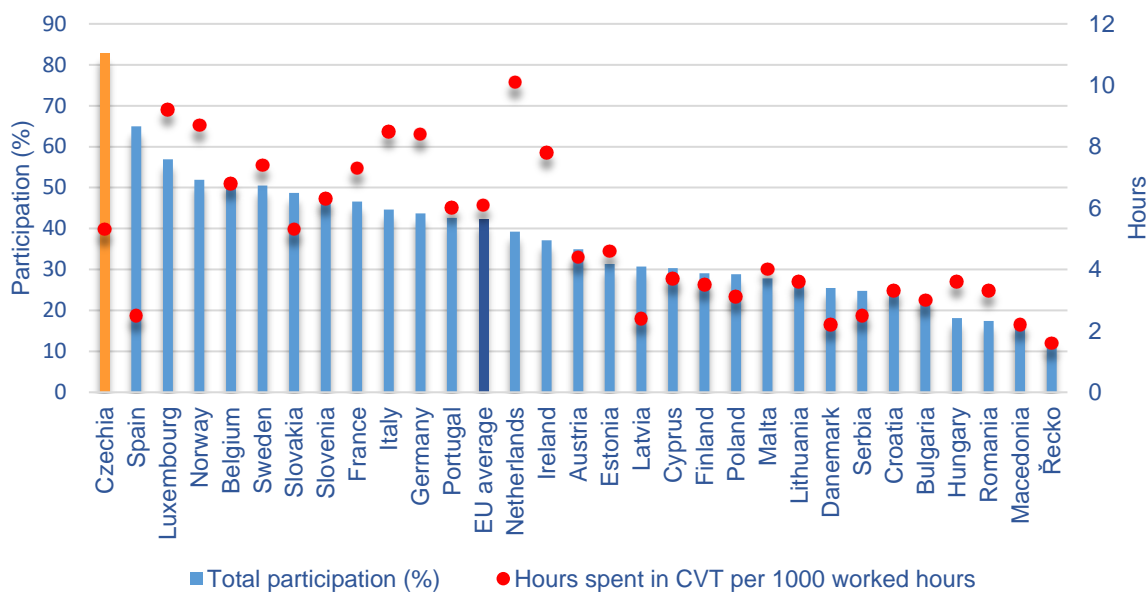
The latest survey was conducted in 2020 in 27 European countries, and it collected data from 25 countries from a total of around 113,000 businesses. However, this survey has been significantly affected by the Covid-19 pandemic and the extensive measures taken by the European Union. Many enterprises had to suspend their activities due to increased sickness (quarantines); the possibility of organising workplace training activities was limited; and many training activities were conducted online. Given the fact that different countries had been affected by the pandemic to different degrees and the different measures that countries had taken to fight with Covid-19, the international comparisons between the European countries were somewhat problematic.

Compared to other EU Member States, the Czech Republic has the highest overall participation in vocational training. But when comparing the time investment in training activities, the Czech Republic is in the middle of the ranking, but well below the EU average.

One of the reasons for high participation may be the fact that the training activities focus on the targeted consolidation or expansion of the professional skills that employees need for their professions. Another reason may be that this form of training is much more flexible, accommodates employees' workload, is online or on-the-job, and does not interfere with employees' free time.

⁹ Eurostat. (2023, February 21). [Continuing Vocational Training Survey \(CVTS\) methodology](#).

Graph 6: Participation of Adults aged 25–64 in continuing vocational training (2020)



Source: Eurostat, CVTS 2020 (online data: [CVTS 2020](#)), data Table 6

1.3 Labour Force Survey (LFS)

The Labour Force Survey¹⁰ is another internationally comparable survey available to determine the long-term development and the status of continuing education within the EU Member States. In the Czech Republic, the survey is conducted by interviewers of the Czech Statistical Office. Due to the turbulent situation on the labour market, they monitor data from the same household over a longer period (5 times in total, once every 3 months). In 2020, the CSO collected data from almost 23,000 households and received responses from 49,000 persons.¹¹ Although this survey is not primarily focused on education, it shows the adult participation rate in continuing education on a regular basis, with a period of one year. Unfortunately, it does not distinguish between formal and non-formal education, nor the time investment. However, thanks to this survey, we have up-to-date data on continuing education from the last 4 months of each calendar year, as well as an overview of trends in adult participation in continuing education.

According to data from 2012 to 2021, the Nordic countries, Sweden, Denmark, and Finland, rank regularly highest, followed by Switzerland and the Netherlands. Slovenia and Estonia have also made significant progress in adult participation in education. The Czech Republic has shown a steady decline compared to other EU countries and is moving towards Balkan countries such as Romania and Bulgaria in the European ranking. From 14th place (11.1%) in 2012, when the adult participation in education was still above the EU average (8.2%), the Czech Republic has fallen well below the EU average (11.4%) to 24th place (5.8%) in 2021.¹²

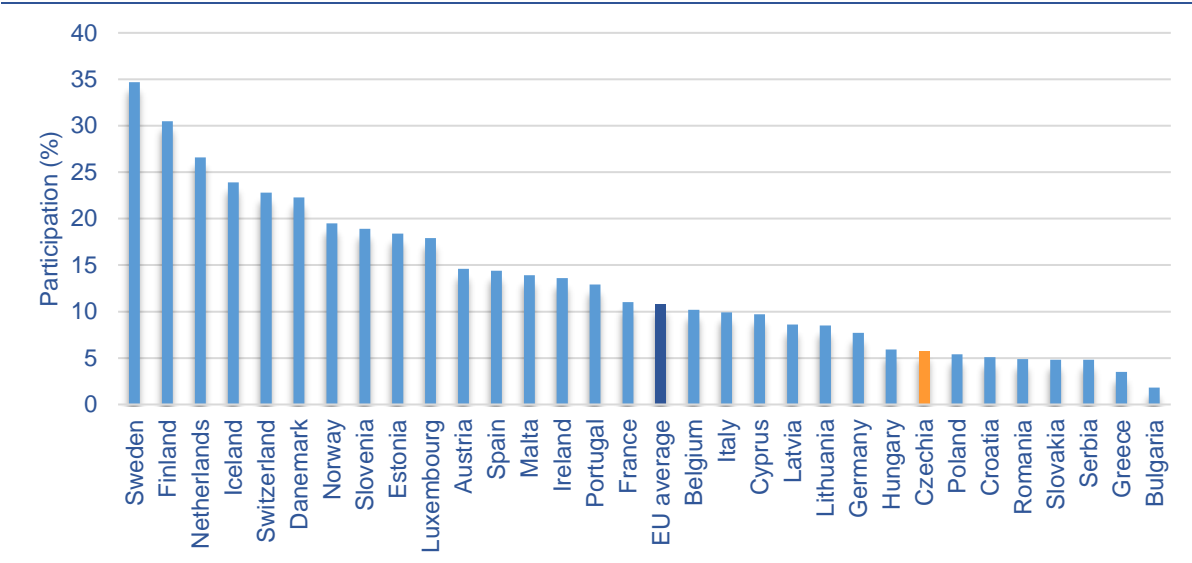
¹⁰ [Výběrové šetření pracovních sil \(LFS\)](#) is carried out by the statistical offices of EU member states.

¹¹ Czech Statistical Office. (2023, March 17). [Výběrové šetření pracovních sil \(VŠPS\)](#).

¹² Eurostat. (2023, February 15). [Participation rate in education and training \(last 4 weeks\) by sex and age](#).



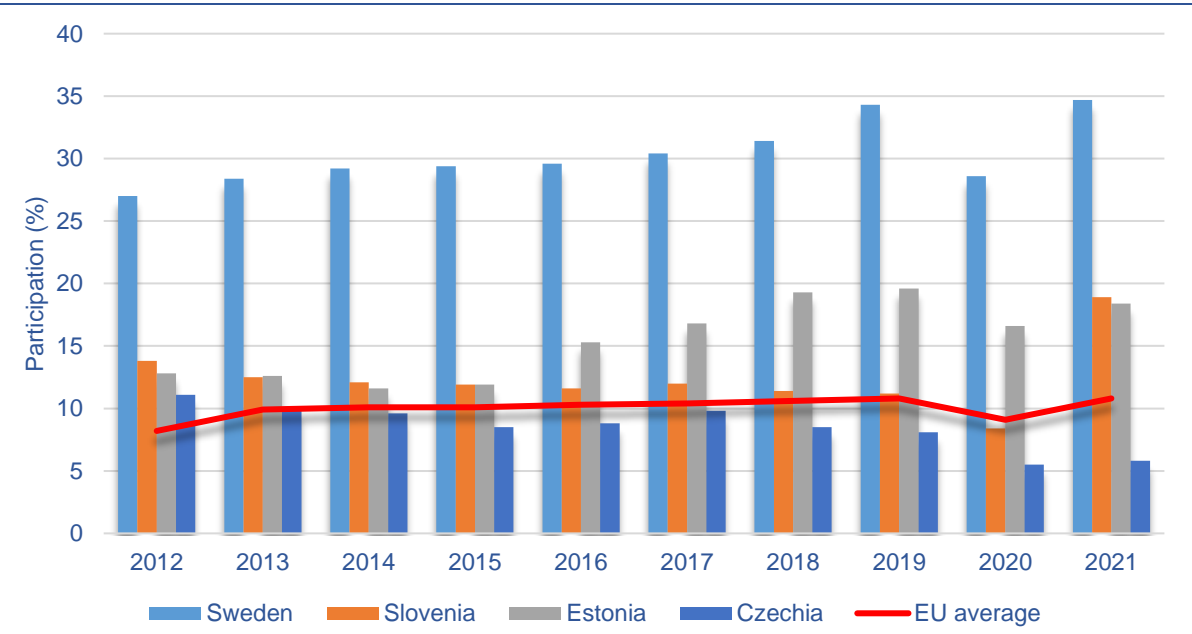
Graph 7: Participation of Adults aged 25–64 in continuing education (2021)



Source: Eurostat, LFS 2021 (online data: [LFS 2021](#)), data [Table 7](#)

Adult participation in further education varies considerably across EU countries, ranging from 34.7% in Sweden to less than 2% in Bulgaria in 2021. A range of cultural, social, economic, and other factors influence the attitudes of adult population towards further education.

Graph 8: Participation of Adults aged 25–64 in continuing education in selected countries (2012–2021)



Source: Eurostat, LFS 2012-2021 (online data: [LFS 2012-2021](#)), data [Table 7](#)



1.4 Summary

The traditionally high level of participation in continuing education in Sweden, Finland, Denmark, and Norway is undoubtedly connected with the culture and tradition of lifelong learning in the Nordic countries. The available sources show that people in these countries consider continuing education to be an essential part of their careers and personal lives, and that continuing education has become part of everyday life.

The economic development of a particular country and the related standard of living of its population also play major roles in adult participation in continuing education. High individual material standards and sufficient financial resources in both the public and private sectors enable the economically strong countries to achieve high levels of adult participation. On the other hand, in economically weaker countries with lower levels of adult participation, such as the Czech Republic, continuing education is considered rather a time and financial burden. People in these countries are also very often discouraged from continuing education by the loss of income and uncertain future benefits.

The countries with strong national or regional government involvement and well-functioning educational institutions also show higher adult participation rate. Another important role is also played by the quality and availability of educational programmes responding flexibly to the current qualification requirements of the labour market, and the modular structure of the study programmes, which enable reconciliation of study and work (or family) needs and delivering the particular knowledge that the individual considers currently necessary for his or her further professional and personal development.

2 Continuing Education in Some European Countries

Creating a competitive economy based on knowledge and the principles of sustainable development are the major goals of the European Union. In pursuit of these goals, the strategy of strengthening the flexibility and security of EU citizens in the labour market is being increasingly relevant now. The implementation of this strategy largely depends, among other things, on a well-defined concept of lifelong learning and the willingness of the citizens to participate in continuing education.

2.1 Sweden¹³

So far, Swedish state universities, state university colleges and private institutions (some subsidized by state) have provided two kinds of continuing education – higher education and higher vocational education.

- ▶ Higher education is free of charge and Swedish citizens are entitled to postsecondary student aid (studiemedel) until the age of 56. As part of a national reform, a new national eligibility test is being implemented in Swedish higher education now. Anyone who never started high school or who started and dropped out and has worked or acquired knowledge and skills in another way, can apply to university studies after passing the basic entrance examination, demonstrating his or her actual competence to study university.
- ▶ Higher vocational education is the form of Post-Secondary Non-Tertiary Education in Sweden. It offers the vocational study programmes not satisfied through higher education and focuses on developing or preserving qualified professional skills. These education programmes are developed in close cooperation with employers and industries to meet their high competence demands and correspond to a need of qualified labour force on the labour market. The range of programmes change over time as the labour market changes.

In response to the impact of the Covid-19 pandemic, Sweden has focused on a new strategy to promote lifelong learning and in July 2021 enshrined the obligation to provide lifelong learning in the Higher Education Act. Now every participant of continuing education studying full time is entitled to receive a grant up to 80% of their previous monthly salary.¹⁴

The Swedish government has allocated almost EUR 23 million to universities to develop a range of new lifelong learning programmes over two years to meet the objectives of the government's education strategy. This is based on the Government Inquiry on Governance and Resources (2019) and divides the educational concept into four categories based on the purpose of learning:¹⁵

- ▶ Continuing professional development: the employee's need for training to perform current tasks judged to have changed and requiring a higher skill level.
- ▶ Additional training: the employee's need for new training to perform new tasks for the same employer (sometimes paid for by the employer, such as with contract education).
- ▶ Career change: the individual's need for training to change career.

¹³ Eurydice. (2022, September 5). [Sweden: Adult education and training](#). European Commission.

¹⁴ The 2023 grant amount has been capped at EUR 1800 payable for up to 44 weeks. The grant amount is reduced proportionately for the participants who continue to work during their studies. Participants may also take out student loans, but the aggregate support may not exceed their prior salary. (Lindgren, J. (2022, December 19). [Sweden: New program offers government-supported study leave](#). Global news briefs.)

¹⁵ Strålsjö, L. (2022). [Livslångt lärande vid Uppsala universitet](#). Uppsala University.

- ▶ Education: the individual's need for education for personal development (e.g., current freestanding courses).

2.2 Finland¹⁶

The continuing education programs in Finland are provided by two types of higher education institutions – universities of applied science and universities.

The universities of applied sciences, more professionally than academically oriented higher education institutions, focus primarily on professional development and offer three basic study programmes:

- ▶ **Degree programmes** constitute 1/5 of the degrees awarded at the universities of applied science and are similar in content to regular degree programmes. However, unlike regular degree programmes, they respond to the individual needs of the participants and allow them to study while working. The participants complete a bachelor's degree.
- ▶ **Non-degree study programmes.**
- ▶ **Professional specialisation studies** for people with a university degree.

Finish universities offer five types of study programmes:


- ▶ **Standard degree programmes** for all participants regardless of age. As studying at Finnish universities is free of charge, there is no difference between regular studies and continuing education. The graduates of the standard study programmes receive bachelor's or master's degrees.
- ▶ **Reskilling and special master's programmes** for university graduates offer the possibility of shortening the study period by recognizing the credits from previous education.
- ▶ **Academic staff studies** to complement the knowledge and professional development of academic staff and to achieve a higher academic degree.
- ▶ **Continuing education centres** provide other forms of adult education.
- ▶ **Open University** offers university studies for everybody, regardless of the achieved level of education. The participants that meet the set conditions can apply for transfer to full-time study. The credits earned within the studies at Open University are then transferred to full-time study program and the participant can obtain a university degree.
- ▶ As part of non-formal education, Finish universities also provide **summer universities** offering multidisciplinary academic courses and programmes not only for high school graduates, but also for university students and professionals that have completed the first-cycle programmes at a higher education institution.

2.3 Netherlands¹⁷

The recognized higher education institutions in the Netherlands include universities and polytechnics or colleges and private-sector educational institutions.

¹⁶ Eurydice. (2022, June 16). *Finland: Adult education and training*. European Commission.

¹⁷ Eurydice. (2022, June 21). *Netherlands: Adult education and training*. European Commission.



Lifelong learning is provided mainly by the **Open University of the Netherlands**. Regardless of any formal qualifications, the university offers considerable study flexibility making higher education more accessible to the public. There are 12 study centres and 2 support centres in the Netherlands and 6 study centres in Flanders. Although the Open University of the Netherlands is an independent institution, it cooperates with other Dutch higher education institutions. A full university degree can be obtained after completing the entire study program.

Other providers of distance learning include the commercial **Leiden Educational Institutions (LOI)**, **Dutch Language Institute (NTI)** and **National Trade Academy (NHA)**.

Adult education in the Netherlands is also provided by the **folk universities (Volksuniversiteit)**. These are the institutes for non-formal adult education open for everyone, regardless of previous education, age, or background. They are not oriented at obtaining diplomas or degrees. The main priority is to provide adult lifelong learning. There are more than 60 folk universities in the Netherlands, of which majority are the members of the Dutch Association of Folk Universities (BNVU).

The recent growing demand for lifelong learning has brought 14 Dutch universities together to create a joint project, an **online lifelong learning platform Universities of Netherlands**.¹⁸ The online platform is currently offering over 1400 learning modules varying in content as well as in length and structure (from a one-day workshop on a specific topic and a professional 42-day course to a master's degree program of 1080 days).

To support adult continuing education, the Dutch Ministry of Education has introduced a lifelong learning credit programme called DUO¹⁹, which allows people over 30 who are no longer eligible for Dutch government funding to take out a loan to pay for continuing education at Dutch universities. To be eligible for a lifelong learning credit, you must be younger than 56 and must be taking a recognized full-time, part-time or work-study programme in higher professional education (HBO) or at university, or a full-time programme in secondary vocational education. The loan also covers modular programmes at universities, but the tuition must not be paid or reimbursed from any other sources, such as the employer.

2.4 Switzerland²⁰


Education in Switzerland is decentralized without significant state involvement. However, this approach brings autonomy and responsibility in decision-making, as well as great diversity in the range of the offer of learning opportunities. The high level of financial resources of both the individuals and enterprises and sufficient funds in the public administration allow for a high level of participation of the people interested in continuing education, even without significant state incentives.

Adult continuing education at universities follows on from the completion of regular university studies and serves to achieve the specialisations, or update and expand the skills, abilities and knowledge in a particular field. It is intended for academically trained professionals and managers working in a particular field and requires a university degree (usually a master's degree) and professional experience. Unlike other European countries, it does not lead to a bachelor's or master's degree. It differs from full-time degree programmes in terms of didactics,

¹⁸ Ibid.

¹⁹ Dienst Uitvoering Onderwijs. (n.d.). [Lifelong learning credit](#).

²⁰ Eurydice. (2022, November 14). [Switzerland: Adult education and training](#). European Commission.



form and content. It is usually organized on-the-job, combines theory with practical approach and is based on the latest research findings.

Swiss universities and universities of applied sciences offer 4 types of adult continuing learning programmes:


- ▶ **Master of Advanced Studies (MAS)** is a study program primarily directed at those with a master's degree. The study load is at least 60 ECTS credits and as a full-time study program generally last at least 1 year. When completed on a part-time basis, they usually last 2 years. To complete the studies, the participants are required to write a master's theses. The successful participants are awarded the degree Master of Advanced Studies, the highest level of continuing education and training qualification that can be achieved at university.
- ▶ **Diploma of Advanced Studies (DAS) or University Professional (UP)** is a part-time study program offering in-depth training in a specific specialist field. The study load is at least 30 ECTS credits and the studies generally last between 1 and 2 years. In addition to attending lectures and self-study, the participants are often required to write a final paper to complete the studies. The successful participants are awarded the Diploma of Advanced Studies or the degree University Professional.
- ▶ **Certificate of Advanced Studies (CAS)** is a certified part-time course that can often be combined, under particular conditions, and lead to a MAS degree. The study load is at least 10 ECTS credits and the studies generally last between a few months and 1 year. In addition to attending lectures and self-study, the participants are often required to write a short project to complete the studies. The successful participants are awarded the Certificate of Advanced Studies.
- ▶ **Continuing education and training courses** include any other non-credit courses. Upon completion, the participants are awarded a provider's certificate or a certificate of attendance.

2.5 Denmark²¹

Adult continuing education and training programs are provided by business academies, university colleges and universities.

- ▶ Business academies and university colleges offer **academy profession programmes** as open education. The applicants are required to have general or vocational upper secondary education and at least two years of relevant work experience. Academic profession programmes have a study load of 60 ECTS credits, of which at least 20 ECTS credits are compulsory, 5 ECTS credits optional and 10 ECTS credits for a final project. There is a tuition fee, and the programmes take place in day or evening classes.
- ▶ University colleges, universities and some business academies offer **diploma programmes** corresponding to the level of bachelor's degree programmes as open education. The applicants are required to have relevant education corresponding to the level of an academy profession programme and at least 2 years of relevant work experience. The diploma programmes have a study load of 60 ECTS credits, of which at least 15 ECTS credits are compulsory, 5 ECTS credits optional and 15 ECTS credits for

²¹ Eurydice. (2022, August 22). [Denmark: Adult education and training: Main Types of Provision](#). European Commission.



a final project. The programmes are organized as professionally defined modules, which the participant can complete separately or all of them to complete the diploma program. There is a tuition fee, and the programmes take place in day or evening classes.

- ▶ The universities offer **master programmes** corresponding to the level of master's degree programmes. The applicants are required to have relevant bachelor's or higher education and at least two years of relevant work experience. The programmes are organized as professionally defined modules, which the participant can complete separately or all of them to complete a master's program or an interdisciplinary master's programme. The master programmes have a study load of 60 ECTS credits, of which 30 ECTS credits are for compulsory modules and at least 12 ECTS credits and maximally 20 ECTS credits for a final project. The programme can also include optional modules and are tuition fee based.
- ▶ **University extension courses** focus on disseminating new research findings through non-formal adult education teaching and lectures. The courses enable the participants to have a full-time job while studying and are tuition fee based.

2.6 Norway²²

Norwegian higher education institutions organize adult continuing education through continuing or lifelong learning departments at universities and other higher education institutions.

Universities and colleges provide two basic types of adult continuing education programmes. Short non-credit thematically focused updating courses responding to the labour market needs and the current demand and longer credit modular courses. For flexible learning, they often combine physical meetings with ICT. Many courses are adapted or tailor-made to meet the requirements of Norwegian employers.

Most participants of continuing learning programmes at Norwegian higher education institutions are employed. In addition to distance learning, they can alternatively attend ordinary on-campus programmes. In 2017, there were 77,746 students aged 30 years or older registered at higher education level, which is one third of all higher education students in Norway.²³

Adult continuing education in Norway is mostly provided for a fee. Fees are paid by participants or their employers. However, within continuing education, there are also credit academic programs where participants do not pay fees, the same as students of full-time study programmes.

Applicants for higher education must meet the formal requirements for admission to higher education institution. However, since 2001, adults without enough formal qualification can have their prior learning assessed to gain admission to higher education. At the same time, the higher education institutions were authorized to give exemption from parts of study programmes based on an assessment of the prior learning. In 2016, there were 6075 adults who applied to higher education studies based on the validation of the prior learning.

²² Bjerkaer, S. (2016). *Adult and Continuing Education in Norway*. W. Bertelsmann Verlag GmbH & Co.

²³ Eurydice. (2022, August 22). *Norway: Adult education and training*. European Commission

2.7 United Kingdom²⁴

In the UK, there is a wide range of modes of delivering higher education. The traditional modes of universities providing continuing higher education is through part time, distance and combined, and sandwich courses, combining obtaining theoretical knowledge and gaining practical experience and skills through industrial training. Majority of higher education institutions allow choosing modules or units of study from different subject areas to build a personalised degree, which perfectly meets the needs of continuing education participants.

To meet the growing demand for a formal certificate to demonstrate qualifications and skills, UK higher education institutions offer a range of qualification programmes:

- ▶ **Foundation Degree** is a vocational qualification within vocational higher education. It is the equivalent of the first two years of degree study programme, can be studied full-time, part-time, and combines academic study with relevant work-based learning undertaken with the employer. It is primarily intended as a stand-alone qualification, but upon completion participants can progress to the final year of a bachelor's degree programme.
- ▶ **Higher National Certificate (HNC)** or **Higher National Diploma (HND)** are courses generally related to particular career areas providing both theoretical knowledge and practical skills. The study load of HNC corresponds to 48 ECTS credits and the studies usually last 1 year, HND corresponds to 120 ECTS credits and usually last 2 years.
- ▶ **Diploma of higher education (DipHE)** is a two-year full-time course offered by some universities and colleges. It is the equivalent of the first two years of a degree study programme and can often be used for entry to the third year of a related bachelor's degree. Most offered courses are linked to vocational areas such as nursing and social work.
- ▶ **Open educational resources (OER)** are principally low-cost study programmes. They do not require any prior qualifications and primarily use online self-study. The most important projects include the **Open University**²⁵, currently the largest distance learning university in the world. Except for medicine, it offers distance learning in almost any subject.
- ▶ **Continuing Professional Development (CPD)** includes a wide range of courses mainly focused on professionals who want or have to keep their professional skills and competences up to date.
- ▶ **Higher Apprenticeships** designed on the basis of employer skill requirements.
- ▶ **Correspondence courses** offered by some universities as distance education.

The main providers of continuing higher education programmes are the universities offering mainly degree-oriented programmes. Unlike full-time studies, continuing education programmes are delivered in more flexible ways. In addition to the programmes following the degree programmes, the universities also provide vocational and professional courses, which are often organized by special departments of continuing education at universities and in cooperation with the faculties, based on the subject or study field. A mix of academic and vocational education is also offered by **Further Education Colleges (FEC)**.

²⁴ De Boer, H., Epping, E., Faber, M., Kaiser, F., Weyer, E. (2013). *Continuing higher education, Part two: Five countries*. Center for Higher Education Policy Studies.

²⁵ [Open University](#)



2.8 Summary

Although there is a clear consensus across the European countries that lifelong learning, and in particular adult continuing education, plays a key role in the competitiveness not only of the Member States but of the European Union as a whole, there has not yet been a common European strategy for lifelong learning, and approaches to adult continuing education vary across European countries.

It is obvious that all the selected European countries are aware of the importance of lifelong learning and the educational institutions are gradually expanding their offers of adult continuing education, both independently on their own and with the support of national or local governments.

Lifelong learning is often provided alongside the main learning activities of the institutions and there is not yet a fully functioning coherent structure for lifelong learning that would allow lifelong learning to become an equal objective of higher education institutions.

This may also be due to two different views on the nature of lifelong learning. Broadly speaking, lifelong learning is understood as a lifelong learning process that leads to the social, cultural, and economic development of individuals or groups. In this case, the goal of lifelong learning is to obtain any knowledge and skills that will enable the individual to develop. In this case, the provision of lifelong learning programmes is not highly specialised and is driven by individual demand rather than by the economy and the labour market.

In a narrower sense, lifelong learning plays the role of continuing education, providing specific knowledge and skills that are related to the rapid increase in technological changes, and meets the pressing needs of the labour market. In this case, the offered study programmes are vocationally oriented and are based on the employer demand and the labour market demand.

One of the important structural elements of lifelong learning is certainly the institution of the Open University. However, even here there is no common approach. While in the UK the Open University is an autonomous institution that uses both full-time and distance learning and has full degree-awarding powers, other countries organize their Open University studies in different modes. In the Netherlands, the Open University provides exclusively distance learning higher education programmes, in Finland the Open University is a separate element within the university structure but has no degree-awarding power, and in Sweden, Denmark and Switzerland there is no such element of higher further education at all.

As the demand for further professional training increases, the use of more flexible modes delivering education is becoming more important. In all the countries mentioned above, universities are expanding their offer of publicly available distance learning programmes using the latest technologies. This particularly applies to continuing vocational education.

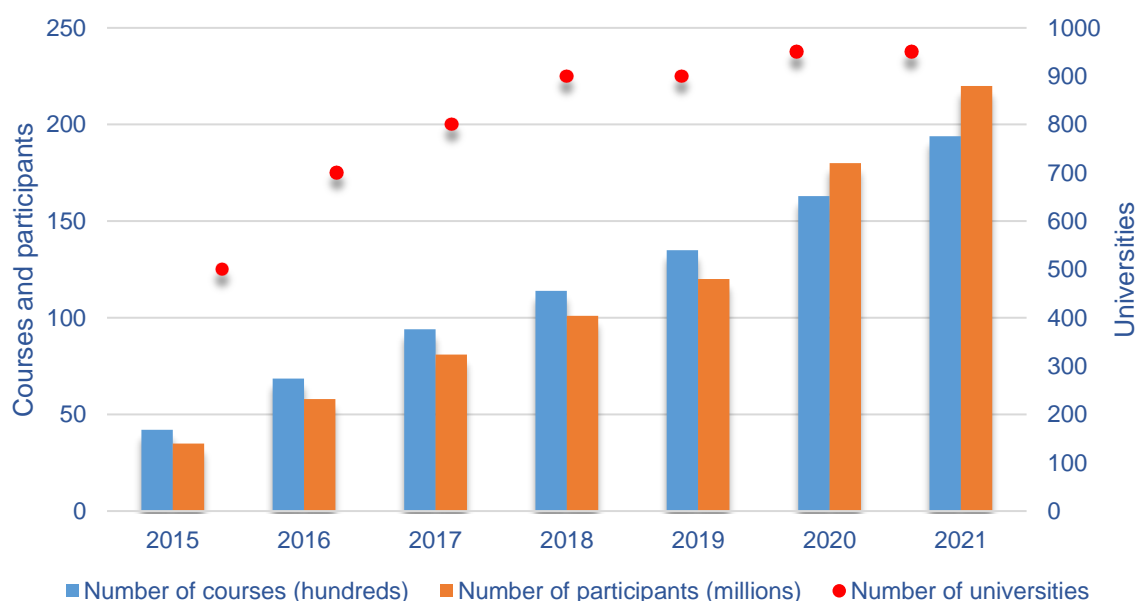
3 Online Distance Education

Compared to full-time study, adult continuing education is characterised by an increased demand for flexibility in the study programmes offered. The organisation and study load should be adapted to the capabilities of the participants, who are often learning while working or looking after their families. With the increasing availability of internet connection and higher bandwidth speed, the involvement of online learning (e-learning, e-courses, etc.) seems to be an ideal solution.

3.1 Massive Open Online Courses (MOOC)

Massive open online courses first appeared globally in 2012 and seemed to have started a revolution in post-secondary education. MOOC providers such as American Coursera and edX and British FutureLearn set out a goal of creating an online course catalogue covering the full range of university disciplines. The materials were to be freely available all over the world and the funding for further expansion was to come from tuition fees for accredited courses focused on achieving formal qualifications.²⁶

Graph 9: Number of MOOC participants, courses and universities 2015–2021



Source: Class Central, *By The Numbers: MOOCs in 2021, 2020, 2019, 2018, 2017, 2016, 2015*, data Table 8

2019 Syngene survey covering North America, Europe, Asia, Pacific, South America, the Middle East and Africa found that the global e-learning market is to reach a market value of USD 336.98 billion in 2026, growing at 9.1% between 2018 and 2026²⁷. However, with the Covid-19 pandemic, the number of MOOC course participants skyrocketed. Top MOOC providers, Coursera, edX and FutureLearn²⁸, registered the same number of new participants in April 2020 as in the whole of 2019. From February 2020 to March 2020, the largest MOOC provider, Coursera, saw a 67 % increase, edX a 52 % increase and FutureLearn a 116 %

²⁶ Reich, J., Ruiperez-Valiente, J. (2019). *The MOOC pivot*. Science.

²⁷ Marketresearch. (2019). *Global E-Learning Market Analysis 2019*.

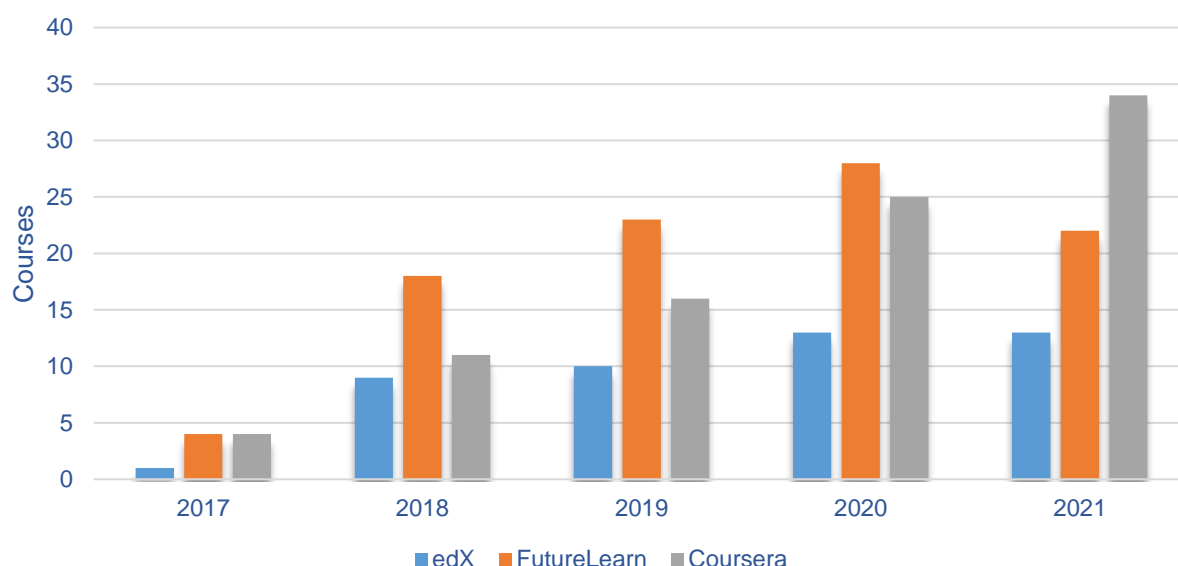
²⁸ Coursera, edX, FutureLearn

increase.²⁹ New course applicants were looking for other learning opportunities, short-term online courses at a reasonable price. In 2020, the number of participants also started to grow faster than the number of online courses offered.

Europe also responded to the trend of open online education in the United States. In 2012, the British distance learning Open University started cooperating with SEEK Ltd. and established a digital learning platform FutureLearn. In December of the same year, 11 UK universities (King's College London and the Universities of Birmingham, Bristol, Cardiff, East Anglia, Exeter, Lancaster, Leeds, Southampton, St Andrews and Warwick) joined the project and offered open online courses to the public around the world.³⁰

In the United States, MOOC providers also started to partner with universities (Udacity in 2013, followed by Coursera and edX in 2018). Instead of expanding their offer of open education all over the world, MOOC providers focused on offering online university programmes with a sort of formal qualification upon completion, and finally also university degree programmes.

Graph 10: Number of university degree MOOCs 2017–2021



Source: Class Central, *By The Numbers: MOOCs in 2021*, data Table 9

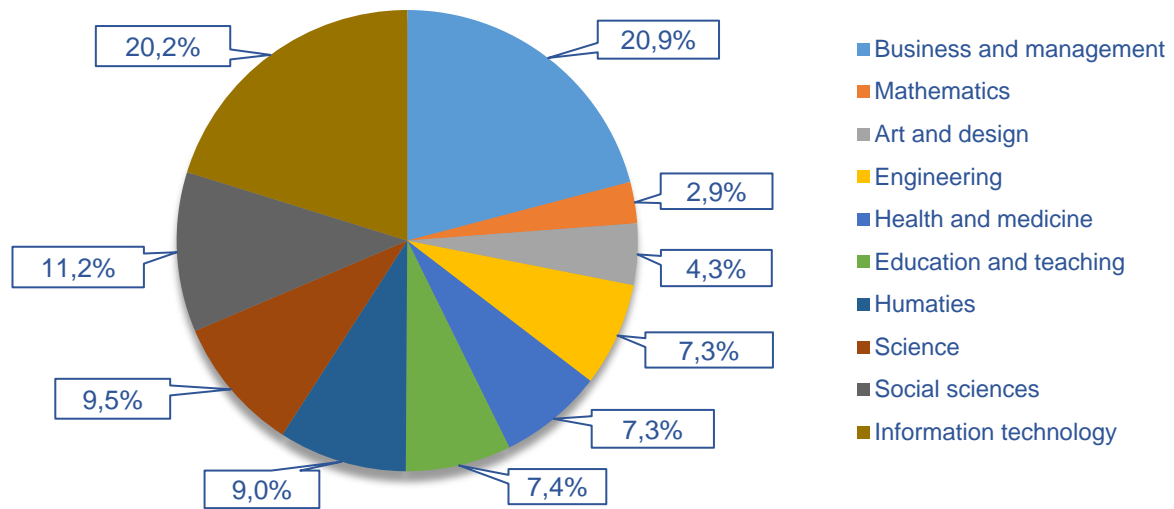
Students were able to earn their first university degrees upon completion of their online studies in 2013.³¹ Another online degree course was added in 2015 and by the beginning of 2017, the MOOC learning platforms already offered 9 master's degree programmes. In 2018, there was a rapid increase in the number of online university degree courses. For the largest MOOC course provider, Coursera, the number of courses increases every year. In contrast, the next two largest providers, edX and FutureLearn, saw a decline in 2021.

²⁹ Shah, D. (2020, November 30). *By The Numbers: MOOCs in 2020: Boosted by the pandemic, MOOCs crossed 180 million learners in their ninth year*. The Report

³⁰ Ratcliffe, R. (2012, December 14). *Top UK universities launch free online courses*. The Guardian.

³¹ Classcentral.com. (n.d.). *Online Master of Science in Computer Science (OMSCS)*. Georgia Institute of Technology via Independent.

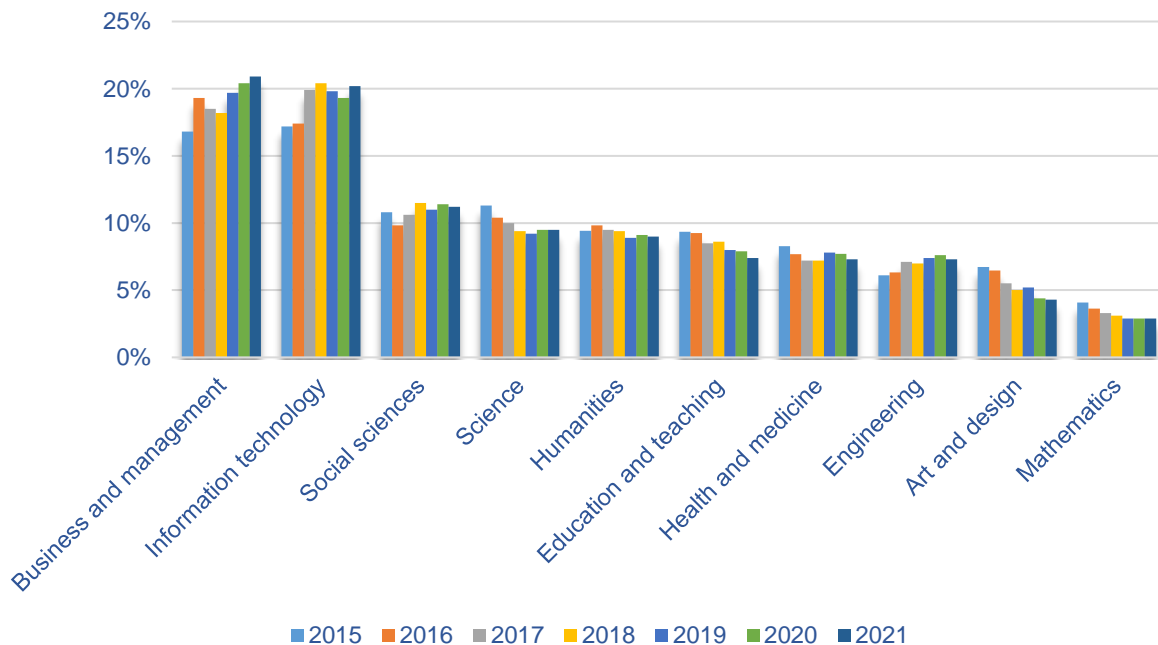
Graph 11: MOOC distribution by subject 2021



Source: Class Central, *By The Numbers: MOOCs in 2021*

The distribution of MOOCs across different subjects has been relatively stable over the years. 40 % of all MOOCs deal with business, management and information technology.

Graph 12: MOOC distribution by subject 2015–2021



Source: Class Central, *By The Numbers: MOOCs in 2021, 2020, 2019, 2018, 2017, 2016, 2015*, data Table 10

The majority share of MOOCs in business, management and information technology and their gradual increase at the expense of other fields is not only a reflection of the demand and the needs of the labour market, but also of the commercial approach of educational institutions since courses in these categories can be monetized most easily. The other disciplines are

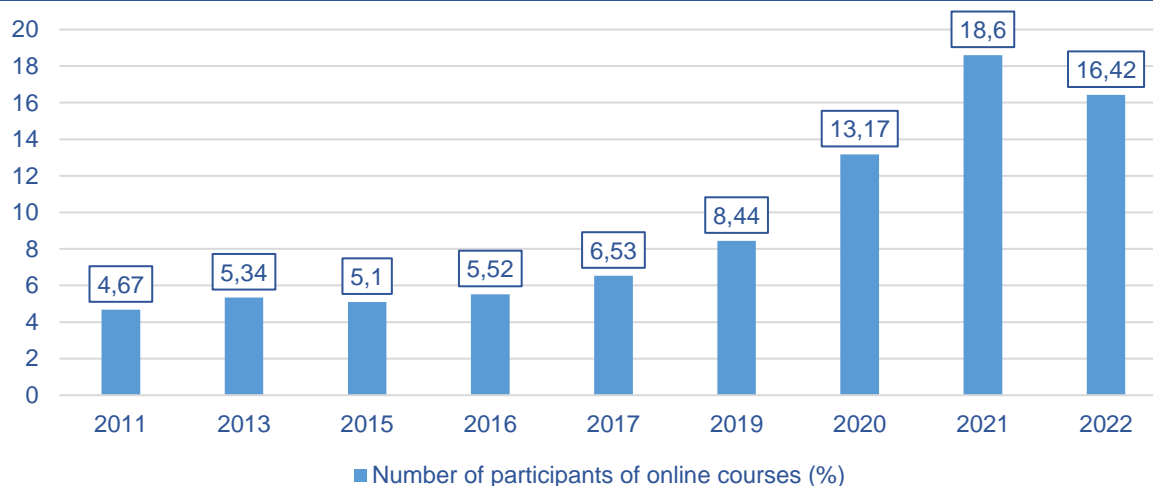
oscillating at the same level, except for art, design and mathematics, whose percentage share has been constantly decreasing since 2015.

3.2 Online Education in Europe

In Europe, unlike the United States, the main players on the online education market have decided to join forces in the European MOOC Consortium.³² The partners of the European consortium are eight most important MOOC providers and portals in Europe. In addition to the already mentioned FutureLearn (Great Britain), they are EduOpen (Italy), FUN-MOOC (France), Miríadax (Spain and Portugal), iMooX (Austria), NAU (Portugal), AI Campus (Germany) and the pan-European portal OpenupEd. The goal of the consortium is to present a comprehensive offer and promote online study programs of European universities. These educational platforms are independent, except for the Italian EduOpen project and German AI Campus platform, which are funded by the ministries of education in their countries.³³

Other interesting European projects include the academic online learning platform Nova Academy³⁴, launched by three Belgian universities (University of Antwerp, Ghent University and Vrij University in Brussels) to support the development of lifelong learning in Flanders.

Graph 13: Using the internet for doing online courses in Europe 2011–2022



Source: Eurostat (online data: [TIN00103](#)), data [Chyba! Nenalezen zdroj odkazů.](#)

Eurostat statistics show a similar trend of increasing popularity of online courses in Europe. However, after a jump during the pandemic in 2020 and 2021, contrary to the data presented by Coursera and edX, there was a noticeable decrease in the use of the Internet for doing online courses in Europe in 2022.

The European countries with the highest share of individuals aged 16 to 74 using the Internet for doing online courses include the Netherlands (35.3%) and Finland (30.7%). Turkey (6.6%) and Romania (3.3%) were on the opposite side of the ranking. The Czech Republic (16.9%) was just above the European Union average (16.4%). However, the decrease in using the Internet for doing online courses compared to 2021 was not so significant in the Czech Republic (0.6%). In contrast to the average decrease in EU countries (2.2%), when, for example, in Slovenia, the number of participants in online courses decreased by 11%. The

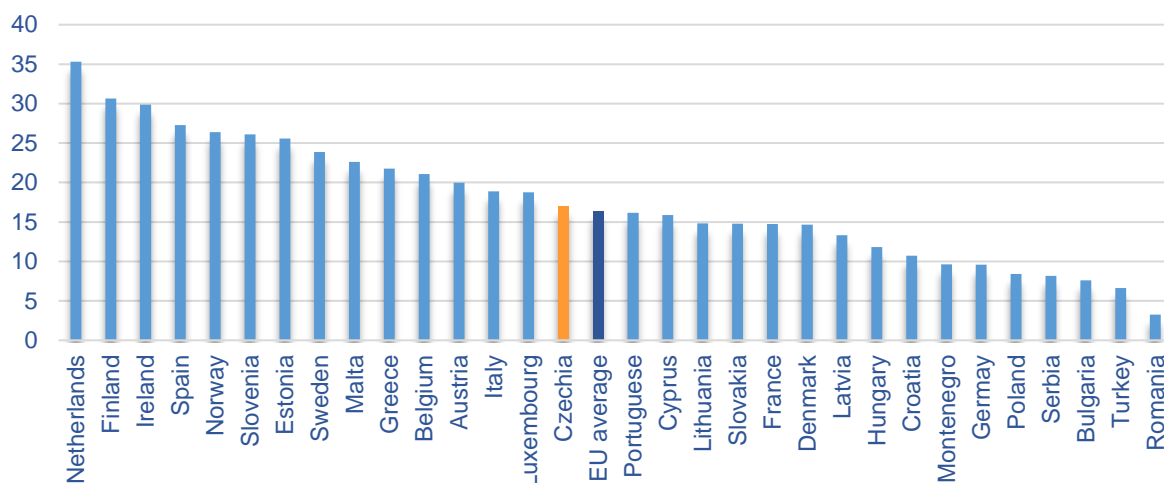
³² EMC. (n.d.). [European MOOC Consortium](#).

³³ [FutureLearn](#), [EduOpen](#), [FUN-MOOC](#), [Miríadax](#), [iMooX](#), [NAU](#), [AI Campus](#), [OpenupEd](#)

³⁴ [Nova Academy](#)

only two countries where, unlike the rest of the European Union, the number of individuals increased were Serbia (1.6%) and Bulgaria (0.7%).³⁵

Graph 14: Using the internet for doing online courses in Europe in 2022



Source: Eurostat (online data: [TIN00103](#), data [Chyba! Nenalezen zdroj odkazů.](#))

3.3 Summary

Online learning offers great flexibility in terms of time and choice of subjects. However, the number of students who complete their studies is very low. A 2019 study by the Massachusetts Institute of Technology revealed that most MOOC participants do not return to their studies after completing the first year. And this situation has not changed over the five reviewed years between 2013 and 2018.³⁶

Most studies dealing with the number of students not completing their online higher education studies see this fact as a negative aspect of online education. It seems that to sign up for a new online course is just as easy as not to join the course, to interrupt the studies or not to complete the course at all. However, all these studies only include courses leading to formal qualifications for which the completion can be recorded, excluding the courses not offering formal qualifications. That is why they do not see the possible positive aspects of short-term online learning that make students stop their studies. These include, for example, achieving the desired study goals after completing only one learning module or using the acquired credits to apply for admission to regular studies. The low number of students who complete the entire online course may also mean that students prefer to organize their learning by educational modules.

³⁵ Eurostat. (2023, March 7). *Individuals using the internet for doing an online course.*

³⁶ Reich, J., Ruiperez-Valiente. J. (2019). *The MOOC pivot.* Science.

4 Higher Education, Changes in Society and Labour Market Demand

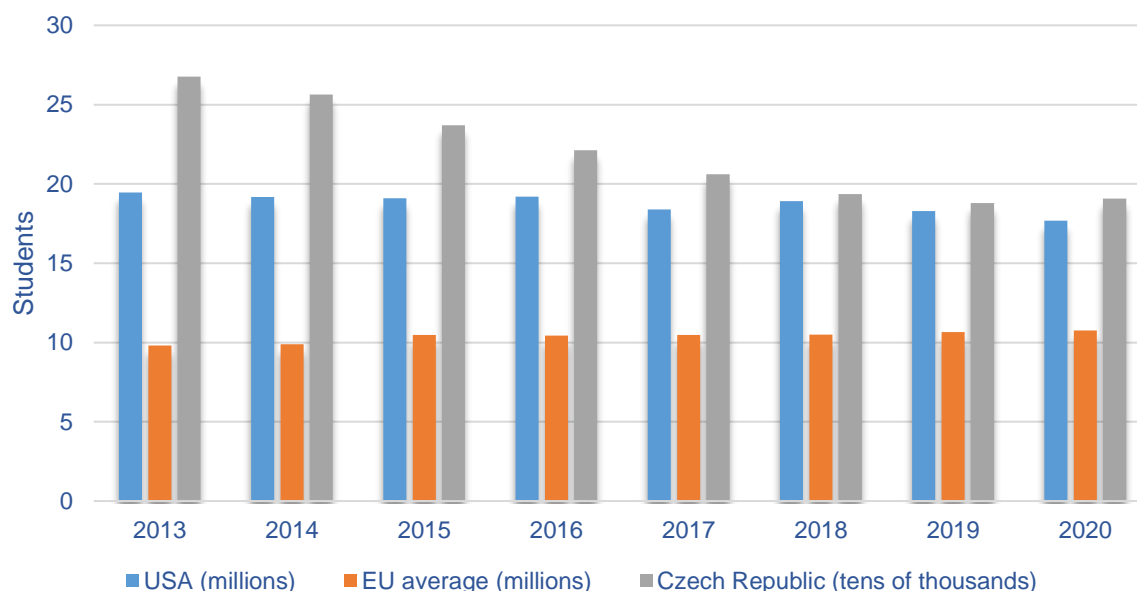
Higher education is part of tertiary education, the third highest level of formal education. In addition to academic education provided by universities, tertiary education also includes vocational and professional education. However, when comparing the Czech Republic with other European countries, we must also consider the different definition of education that higher education institutions can provide.

According to the International Standard Classification of Education (ISCED), tertiary education is divided into 4 levels (ISCED 5–8). In the Czech Republic, the short cycle of tertiary education (ISCED 5) is implemented through higher vocational education. The bachelor's (ISCED 6), master's (ISCED 7) and the doctoral level (ISCED 8) are provided by higher education institutions. Unlike the Czech Republic, European countries use the term "higher education" for all 4 ISCED levels. This means that European universities also provide higher vocational education, for example, in Finland or Great Britain.

4.1 Trend in Students' Enrolment in Higher Education

Regarding the growing number of participants in tertiary education, even the traditional education systems could be expected to be able to respond flexibly to changes in society. However, more detailed statistics show different trends in the development of the number of participants engaged in tertiary education in different countries.

Graph 15: Students enrolled in higher education 2013–2020



Source: [United States Census Bureau](#), [Eurostat](#), data [Table 12](#)

A 2022 report by Higher Education Strategy Associates (HESA)³⁷ focusing on the development of tertiary education from global perspective shows that while Western European countries report steadily increasing numbers of tertiary education participants since 2006, in the United

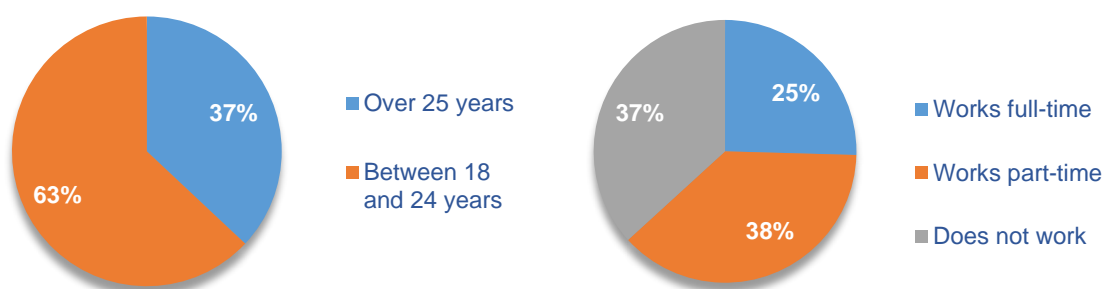
³⁷ Higher education. (2022). [World Higher Education: Institutions, Students and Funding](#).

States, Canada, Australia and in New Zealand, the number of participants in tertiary education begins to decline from 2011. After 2016, the downward trend stopped, and the number of participants started to increase slightly again. The Czech Republic also underwent the same development, where the downward trend stopped a bit later in 2018. In 2021, the number of students was 304 thousand (still far below the level of 2010, when the number of students reached 396 thousand).³⁸

4.2 Transformation of Higher Education Student

While HESA and the Czech Statistical Office justify the decline in numbers of tertiary education participants by demographic development, they have tried to find other causes of this downward trend in the United States. A recent survey by the American Lumina Foundation describes the transformation of the American college student. The survey shows that 37% of college students are over 25 years old, 64% work while studying (40% of them full-time) and 24% of college students already have children or care for others. The higher education requirements of such students differ from those of traditional college students, high school graduates aged between 18 and 21 years.

Graph 16: Today's American college student



Source: [Lumina Foundation](#)

4.3 Demand on Labour Market

In an environment influenced by sophisticated technological progress and the changing nature of work in the globalized world, knowledge and skills become obsolete much faster, which leads to a gradual increase in the demand for new competencies. The need for a massive investment in lifelong learning was highlighted by the COVID-19 pandemic and its impact on society and economy. This confirmed the fact that the only way to ensure adequate skills and knowledge for the future is continuing lifelong learning.

Ideally, knowledge and skills should be developed and extended before there is the demand from employers or society. Currently, however, the demand for upskilling or reskilling comes before we can prepare for that. Therefore, it is necessary to find a way in which higher education could quickly and flexibly respond to the needs of the labour market.

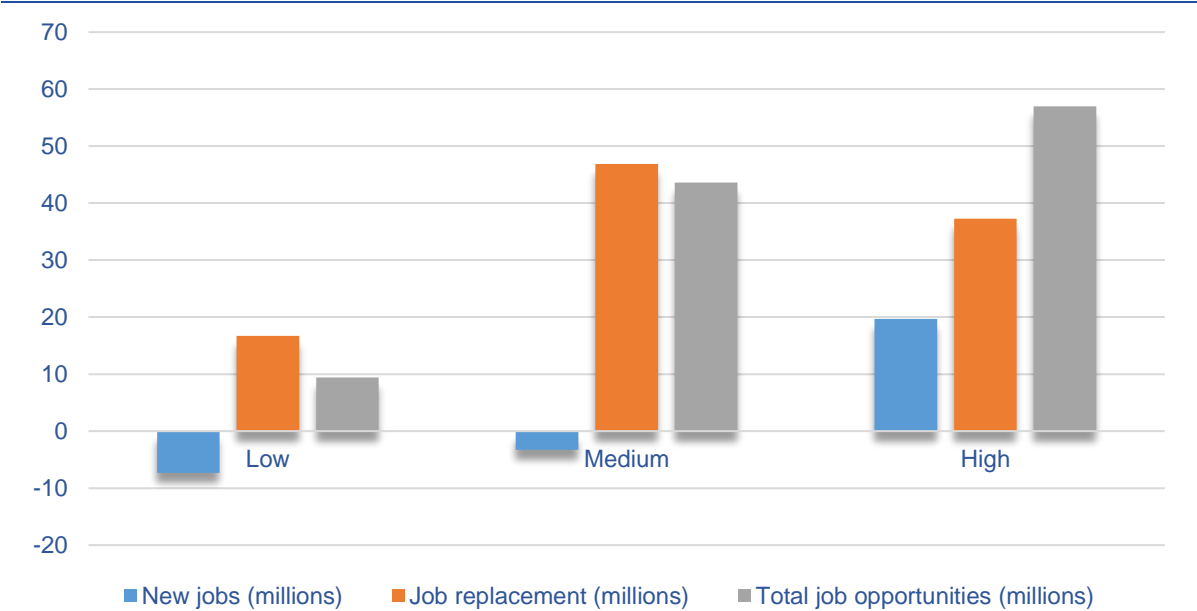
According to the forecast of the European Centre for the Development of Vocational Training (CEDEFOP) the share of jobs that require a high level of education will be 41 % in 2030.³⁹

³⁸ Czech Statistical Office. (2022). [Studenti a absolventi vysokých škol v České republice \(2001-2021\)](#).

³⁹ Cedefop. (n.d.). [Poptávané dovednosti a pracovní místa](#).

Between 2018 and 2030, the most job opportunities in Europe will be found by people with high qualifications and the most new job opportunities will be created for people with the highest qualifications.

Graph 17: Job opportunities in Europe by qualification (2018–2030)



Source: Cedefop, *2018 Skills forecasts*, data Table 13

4.4 Structured Modular Education

Regardless of whether the reason for the decreasing numbers of higher education students is the transformation of the student or the changing needs and demands of society and the labour market, higher education institutions are beginning to look for new ways to better respond to the demands of students or employers. For this reason, there has been an extraordinary increase in the new category of structured modular education, which offers independent educational units of a smaller scale leading to a formal qualification that is not a university degree. Although there is no single global definition, the term *microcredentials* (MC) has become established for these forms of education.

5 Microcredentials

According to the World Economic Forum (WEF)⁴⁰ there are several reasons for introducing a new category of educational formats – *microcredentials*. The first reason is the widening gap between the type of education offered by traditional higher education institutions and the currently required knowledge and skills. The second reason is the increasing demand for education, which will lead to the acquisition of knowledge and skills immediately applicable on the labour market. Another reason is also the fact that a large part of the world's population engages in continuing formal or informal education, but do not obtain any evidence of the newly acquired knowledge and skills. For example, in the United States, 33% of college students drop out their studies.⁴¹

Successful incorporation of *microcredentials* into higher education requires a very clear definition, a common framework and centralized standards, and close cooperation with state administration authorities.

5.1 Definitions of microcredentials⁴²

SOURCE	DEFINITION
European Commission, EU	<p>A <i>microcredential</i> is a proof of the learning outcomes that a learner has acquired following a short learning experience. These learning outcomes have been assessed against transparent standards.</p> <p>The proof is contained in a certified document that lists the name of the holder, the achieved learning outcomes, the assessment method, the awarding body and, where applicable, the qualifications framework level and the credits gained. <i>Microcredentials</i> are owned by the learner, can be shared, are portable and may be combined into larger credentials or qualifications.</p>
BloomBoard, USA	<p><i>Microcredentials</i> are a form of micro-certification earned by proving competence in one specific skill at a time, via a portfolio of evidence, created through classroom practice.</p>
European University Association, EU	<p>A <i>microcredential</i> is a small volume of learning certified by a credential.</p>
International Council for Open and Distance Education, EU	<p>A <i>microcredential</i> is a credential issued for a relatively small learning project that consists of several modules in a given subject.</p>

⁴⁰ Moritz, R., Frey, K. (2022, March 31.). [How to address the widening youth skills gap](#). World economic forum.

⁴¹ Hanson, M. (2022, July 17). [College Dropout Rates](#). Education data initiative.

⁴² OECD. (2021). [Micro-credential innovations in higher education: Who, What and Why?](#). OECD Education Policy Perspectives, 39, 1-43.

MicroHE, EU	A <i>microcredential</i> is a sub-unit of a credential or credentials that could accumulate into a larger credential or be part of a portfolio. Examples are Verified Certificates, Digital Badges, MicroMasters, and Nanodegrees.
New Zealand Qualifications Authority, NZ	A <i>microcredential</i> certifies achievement of a coherent set of skills and knowledge; and is specified by a statement of purpose, learning outcomes, and strong evidence of need by industry, employers, iwi and/or the community. They are smaller than a qualification and focus on skill development opportunities not currently catered for in the regulated tertiary education system.
Quacquarelli Symonds, UK	A <i>microcredential</i> is a sector-endorsed short course that provides the recipient with specialist skills.
State University of New York, USA	<i>Microcredentials</i> verify, validate, and attest that specific skills and/or competencies have been achieved. They differ from traditional degrees and certificates in that they are generally offered in shorter or more flexible timespans and tend to be more narrowly focused.

5.2 MOOC Microcredentials

5.2.1 Online Microcredentials from Global perspective

Independent MOOC course providers were the first to respond to the growing demand for short-term educational activities leading to a formal qualification. Their experience with online courses was also used by higher education institutions in the United State, which, in response to the situation, established cooperation with MOOC providers. This collaboration resulted in a wide range of *microcredentials*, which include various certificates, digital badges, licenses and other documents of formal qualification.

The pioneer in providing online *microcredentials* was the company edX, which launched a completely new online education program called XSeries in 2013. In this program, the participants did not receive a certificate of completion of a single course as before, but a qualification certificate after completing a series of courses, so-called credentials. The new program proved successful, so in 2014 the other two largest MOOC course providers launched similar programs. Coursera began offering its credentials as the Specializations, and Udacity offered the Nanodegree. The aim of the new certificates, credentials, was to enable the participants of online courses to prove the acquired professional experience and skills to their future employers.⁴³

⁴³ Pickard, L. (2018, July 18). [Analysis of 450 MOOC-Based Microcredentials Reveals Many Options But Little Consistency](#). The Report.

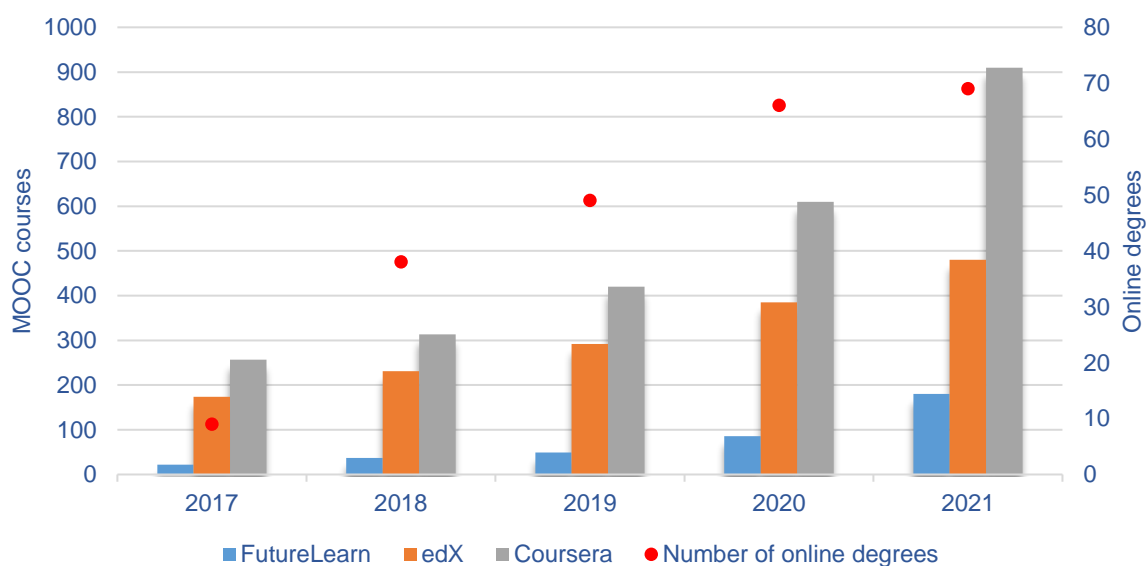
The largest MOOC providers currently offer a variety of *microcredential* programmes.

PROVIDER	COURSE	DESCRIPTION	CREDITS*
Coursera	Specialization	Online specialized courses offered by universities worldwide and large companies like Google or Intel.	Some (e.g. iMBA from University of Illinois).
	Professional Certificate	Online professional courses offered by large companies like Google, Meta, IBM or Intuit.	Some
	MasterTrack	Online professional courses offered by universities worldwide.	All
	University Certificate	Online professional courses offered by universities worldwide.	All
edX	Professional Certificate	Online professional courses offered by universities worldwide and large companies like Google, Meta, IBM or Intuit.	Some
	MicroMasters	Online professional courses offered by universities worldwide. Almost all offer options to earn credits toward a degree programme.	Almost all
	XSeries	A cycle of online courses offered by universities worldwide and large companies like Google or Amazon.	No
	Professional Education	Reskilling and upskilling professional online courses for working professionals.	No
	MicroBachelor	Online professional courses offered by universities worldwide and large companies like IBM.	Bachelor's degree
	FutureLearn	Short Course	Online reskilling courses offered by universities worldwide.
	Microcredentials	Online professional courses offered by universities worldwide.	Some
	Online Degree	Online professional courses offered by universities worldwide.	All
	ExpertTrack	Online upskilling courses offered by universities worldwide and large companies like Microsoft.	No

* The courses that offer the opportunity to earn university credits towards a degree programme.

The largest increase in MOOC *microcredentials* was recorded by the company Coursera. Of the 500 new courses in 2021, 250 were new Specialization courses. The increased demand for this type of courses is also confirmed by the data of FutureLearn, which started offering similar courses under the name ExpertTrack in 2021, and within one year their total number reached almost 100 courses. In 2021, large technology companies (e.g. Google, IBM) started being increasingly involved in the course offer. For example, two-thirds of FutureLearn's ExpertTrack courses are now offered by large technology companies.

Graph 18: MOOC microcredentials 2017–2021



Source: Class Central, *By The Numbers: MOOCs in 2021*, data Table 14

The MOOC *microcredentials* are in many ways similar. They are usually series of courses focused on economics, business, computer science and data analysis that take less than one year to complete. However, there are noticeable differences between *microcredentials* from different providers, as well as between *microcredentials* offered by the same provider. The lack of a common framework and established standards make it impossible for the participants and employers to compare the *microcredentials* on the market. While for traditional college degrees a master's degree indicates a higher level of knowledge and skills achieved than a bachelor's degree, for MOOC *microcredentials* it is currently not clear whether Coursera's Specialization certificate demonstrates a higher level of knowledge than, for example, the XSeries certificate from edX or ExpertTrack from FutureLearn.

5.2.2 Online Microcredentials in Europe

European providers of MOOC courses, led by the British platform FutureLearn, also offer various types of *microcredentials*. Thanks to the experience from the United States and based on analyses of MOOCs of competing providers, the European MOOC Consortium (EMC) decided to create a Common Microcredential Framework (CMF) for all courses from the offer of the EMC educational platforms.

COMMON EMC FRAMEWORK⁴⁴

Mandatory Requirements

- ▶ Total study load of no less than 100 and no more than 150 hours (4–6 ECTS credits).
- ▶ Level 6–8 in the European Qualification Framework (EQF) or equivalent levels in the university's national qualification framework, bachelor's, master's, or doctoral level. Optionally 4/5 level (in combination with ECTS credits).
- ▶ General and summative assessment that enables to award academic credits, either directly following successful completion of the course or via recognition of prior learning.
- ▶ Reliable method of ID verification at the point of assessment that complies with the recognised university's policies and/or is widely adopted across the platforms.
- ▶ A transcript (a sort of a diploma supplement) that sets out the learning outcomes for a course, total study hours required, EQF level and number of credits earned (ECTS).

Additional Recommendations

- ▶ The number of hours of study per week should be suited to learners who will need to fit their study around existing commitments in their lives.
- ▶ Courses aimed at employees should combine a mix of theory and practice to ensure direct relevance to the workplace.
- ▶ A credible industry backer for a *microcredential*.
- ▶ If the university's brand/reputation or course subject itself would not benefit from a non-university endorsement, the above recommendation is not needed.

Quality Assurance

- ▶ The European Association for Quality Assurance (ENQA) Standards and guidelines for quality assurance in the European Higher Education Area (ESG) should be the reference framework.⁴⁵
- ▶ Universities are responsible for the internal quality assurance mechanisms.
- ▶ If external quality assurance for MOOCs is required, the preferable solution is ex post accreditation, as ex ante accreditation would drastically slow down the responsiveness of such programs to needs in the economy and society.
- ▶ The academic recognition of MOOCs is governed by the New Paradigms in Recognition project (PARADIGMS) of ENIC-NARIC centres⁴⁶, which developed minimum quality indicators that MOOCs and in-company training programmes should meet.

5.3 Digital Certificates Issued by Large Technology Companies

In addition to MOOC providers and online learning platforms, digital certification methods have also been used by large international technology companies. They have included digital

⁴⁴ European MOOC Consortium. (2019). [EMC Common Microcredential Framework](#).

⁴⁵ ESG. (2015). [Standards and Guidelines for Quality Assurance in the European Higher Education Area \(ESG\)](#). The European Association for Quality Assurance in Higher Education.

⁴⁶ Nuffic. (2018). [Oops a MOOC! Dealing with eclectic learning in credential evaluation](#).

certificates or badges in their training programmes as a proof of internal professional development of their employees.



IBM offers digital badges to their staff as well as to the public through Coursera. They have also established a partnership with some American universities and colleges and offers their training programs through the IBM Power Skills Academy.⁴⁷



Google launched an online digital certificate programme in 2018 through Coursera and created a consortium of employers who are interested in hiring employees from the completers of their professional courses.⁴⁸



Amazon approved a grant of 700 million dollars in 2019 for reskilling of their employees through their own training and credential programmes. The badges are offered by their own platform AWS Certification.⁴⁹



In Ernst & Young launched own badging system in 2017 offering their employees the opportunity to upskill by earning a digital badge. The badges are offered through a third-party platform, Acclaim by Credly.⁵⁰



Cisco, one of today's largest computer companies, particularly in networking, also uses the Acclaim platform to provide digital badges to their employees.



Siemens launched their own skills programme, STEM⁵¹ with digital badges for children and teenagers.



Microsoft awards both certificates and digital badges after successful completion of the learning programme saved in the Microsoft Learn online register.⁵²

A common framework for providing short courses leading to a formal certificate and a comprehensive online catalogue of courses and a register of issued certificates are also used by some professional associations and organizations, such as the Law Society of Ireland, the educational, representative and regulatory body of the solicitor's profession in Ireland.



The Law Society of Ireland has developed own learning management system, Diploma Hub⁵³, to offer both online and blended learning certificate courses in the solicitor profession. They have also developed a suite of MOOCs opened to anyone free of charge which can also be used by solicitors to meet the CPD requirements.⁵⁴

⁴⁷ [IBM Power Skills Academy](#)

⁴⁸ [Google Career Certificates Program](#)

⁴⁹ Digital badges [AWS Certification](#)

⁵⁰ Platform [Acclaim](#), Credly

⁵¹ Carina. (2021, July 29). [STEM-Education für Innovation](#). Siemens Stiftung.

⁵² [Microsoft Learn](#)

⁵³ [Diploma Hub](#), The Law Society of Ireland

⁵⁴ Irish solicitors are required to complete a minimum of 25 Continuing Professional Development (CPD) hours, of which 20 hours can be online and 5 hours have to be on site.

5.4 European Approach to Microcredentials

European *microcredentials* initiatives are based on the Recommendation on a European approach to micro-credentials for lifelong learning and employability adopted by the Council of the European Union (EU) on June 16, 2022.

5.4.1 Recommendation on a European approach to microcredentials

RECOMMENDATION TO MICROCREDENTIALS ⁵⁵	
Definition	
<ul style="list-style-type: none"> ▶ <i>“Microcredential means the record of the learning outcomes that a learner has acquired following a small volume of learning. These learning outcomes will have been assessed against transparent and clearly defined criteria.</i> ▶ <i>The learning experience leading to microcredentials are designed to provide the learner with specific knowledge, skills and competences that respond to societal, personal, cultural or labour market needs.</i> ▶ <i>Microcredentials are owned by the learner, can be shared and are portable. They may be stand-alone or combined into larger credentials. They are underpinned by quality assurance following agreed standards in the relevant sector or area of activity. “</i> 	
Standard elements of microcredentials	
Mandatory	Optional
<ul style="list-style-type: none"> ▶ Identification of the learner ▶ Title of the <i>microcredential</i> ▶ Country(ies)/region(s) of the issuer ▶ Awarding body(ies) ▶ Date of issuing ▶ Learning outcomes ▶ Notional workload needed to achieve the learning outcomes (ECTS credits wherever possible) ▶ Level (and cycle, if applicable) of the learning experience leading to the <i>microcredential</i> (EQF, QF-EHEA), if applicable ▶ Type of assessment ▶ Form of participation in the learning activity ▶ Type of quality assurance used to underpin the <i>microcredential</i> 	<ul style="list-style-type: none"> ▶ Prerequisites needed to enrol in the learning activity ▶ Supervision and identity verification during assessment (unsupervised with no identity verification, supervised with no identity verification, supervised online, or onsite with identity verification) ▶ Grade achieved ▶ Integration/stackability options (stand-alone, independent <i>microcredential</i>/integrated, stackable towards another certificate) ▶ Further information

⁵⁵ Council of the European Union. (2022, May 25). [Recommendation on a European approach to micro-credentials for lifelong learning and employability.](#)

Quality assurance

- ▶ Quality assurance is primarily based on the assessment of providers using both internal and external quality assurance procedures.
- ▶ External quality assurance is to be conducted in line with the European Qualifications Framework Recommendation, the Standards and Guidelines for Quality Assurance in the European Higher Education Area, and the European Quality Assurance Reference Framework in the field of vocational education and training, or other quality assurance instruments, including registries and labels, where applicable.

Transparency

- ▶ Workload proved by the European Credit Transfer and Accumulation System (ECTS).
- ▶ Workload proved by another credit transfer and accumulation system.
- ▶ Including *microcredentials* in national qualification frameworks/systems referenced to the European Qualification Framework and for higher education qualifications self-certified to the qualification framework of the European Higher Education Area.
- ▶ Transparent and clear information on learning opportunities leading to *microcredentials* and providers in relevant registers. The relevant providers should be included (where possible) in the Database of External Quality Assurance Results (DEQAR).
- ▶ Accessible and easily exchanged information on *microcredentials* through relevant platforms, such as Europass.

Relevance

- ▶ Distinct, targeted learning achievements updated as necessary to meet the labour market needs.
- ▶ Updated learning opportunities to meet identified learning needs.
- ▶ Collaboration between education and training organisations, employers, social partners, other providers and users of *microcredentials*.

Valid assessment

- ▶ *Microcredentials* learning outcomes are assessed against transparent criteria.

Learning pathways

- ▶ Support of flexible learning pathways, including the possibility to validate, recognise and stack *microcredentials* from across different systems.
- ▶ Modular design allowing other *microcredentials* to be added to create larger credentials. Decisions to stack or combine credentials lie with the receiving organisation. Stacking does not create an automatic entitlement to a qualification or a degree.
- ▶ *Microcredentials* can be obtained following assessment of learning outcomes, obtained either through a specific course leading to a *microcredential*, or on the basis of assessment of learning outcomes resulting from non-formal and informal learning.



Recognition

- ▶ Recognised, where possible, by competent authorities, for academic, training or employment purposes, based on the information provided according to the European standard elements and the principles for the design and issuance of *microcredentials*.
- ▶ When issued by formal education providers, recognition, where possible, is based on standard recognition procedures used in recognising foreign qualifications and learning periods abroad.
- ▶ Competent authorities have the right to define recognition procedures or to verify the authenticity of documents.

Portable

- ▶ *Microcredentials* are owned by the learner and may be stored and shared easily, including through secure digital wallets (e.g., Europass).
- ▶ Data storing infrastructure is based on open standards and data models.

Learner-centered

- ▶ Meet the needs of the target group of learners. Learners are involved in internal and external quality assurance processes.

Authentic

- ▶ Contain sufficient information to check the identity of the learner, the legal identity of the issuer, and the date and place of the *microcredentials*.

Information and guidance

- ▶ Information and advice on *microcredentials* should be incorporated in lifelong learning guidance services and should reach the broadest possible learner groups.

5.4.2 MICROBOL

MICROBOL, a two-year project (2020–2022) co-funded by Erasmus+ KA3 Support to Policy reform and more specifically “Support to the implementation of EHEA reforms.

The aim of the project was to raise awareness among national governments, encourage and guide national governments to include *microcredentials* in their policy agendas, check whether existing Bologna tools are fit for *microcredentials* and propose changes for adaptation on European level, formulate recommendations and create a common European framework for *microcredentials* in EHEA.

COMMON FRAMEWORK FOR MICROCREDENTIALS IN EHEA⁵⁶

Definition

- ▶ A *microcredential* is a certified volume of learning.

Purpose

- ▶ *Microcredentials* are designed to provide the learner with specific knowledge, skills, and competences that respond to societal, personal, cultural or labour market needs.

Use

- ▶ *Microcredentials* are owned by the learner, are portable and may be combined into larger credentials or qualifications.
- ▶ *Microcredentials* can be earned before, during and after higher education degree programmes and as a new way to certify competences acquired earlier in life.

Quality Assurance

- ▶ The primary responsibility for the quality of provision lies with the higher education institutions.
- ▶ For *microcredential* courses that are not part of the existing programmes, quality assurance should be based on the regular quality assurance practice of institutions.
- ▶ A register of trustworthy providers could be a useful tool for supporting acceptance and recognition of *microcredentials*.

Recognition

- ▶ *Microcredentials* can be recognized using recognition procedures in line with the Lisbon Recognition Convention (LRC) or recognition of prior learning, where applicable.

Transparency

- ▶ *Microcredentials* should be included in the National Qualification Framework (NQF), whenever possible.
- ▶ The learning outcomes can be assessed by using ECTS. This globally recognised credit system can support the development and interpretation of *microcredentials*.

⁵⁶ Microbol. (2022). *European project MICROBOL: Micro-credentials linked to the Bologna Key Commitments: Common Framework for Micro-credentials in the EHEA*.

Constitutive elements

- ▶ **Information on the learner** (identification of the learner)
- ▶ **Information on the provider** (information on the provider, including country; information on the awarding body or institution, including country (if different), including a signature or seal of the provider and/or awarding body or institution)
- ▶ **Information on the micro-credential** (title, date of issuance or date of assessment, verification of authenticity²)
- ▶ **Information on the learning experience** (learning outcomes, workload (in ECTS credits, when possible), assessment and form of quality assurance)
- ▶ **Information on the QF level** (NQF level (when possible), QF-EHEA and EQF level (if self-certified/referenced), ISCED level & subject area code, SQF level (if needed))
- ▶ **Form of participation in the learning activity**
- ▶ **Access requirements**

MICROBOL defines a *microcredential* as “a record of focused learning achievement, assessed according to transparent standards and awarded by a recognized body. Microcredentials are owned by the learned and are sharable and portable in the format of a stand-alone certificate or as part of a portfolio. A microcredential meets given standards in compliance with agreed quality assurance principles in the relevant industry or field of activity.”

The above definition implies that the term *microcredentials* refers not only to the learning activity itself, but also to the certificate of completion. It is not defined as a 'short-term' activity, but as a 'small-scale' activity, which reflects learning outcomes rather than the length of study. However, the primary aim of participating in education should not be the acquisition of *microcredentials* as a formal qualification, but the acquisition of the necessary knowledge and skills. *Microcredentials* are not proof of completion of a learning cycle and should therefore be distinguished from regular study programmes.

Upon completion of a *microcredentials* course, a participant can be issued with a certificate, primarily in digital form, and using established standard elements to ensure portability and transparency, will enable a faster process of qualification recognition and the possibility of accumulating the *microcredentials* into larger units. Given the fact that *microcredentials* courses can vary in scope, a unified number of ECTS credits awarded cannot be recommended. It is therefore important that *microcredentials* are included in the national qualifications frameworks. However, how *microcredentials* should be taken up in national legislation is the responsibility of individual member states.

5.5 Microcredentials Frameworks of European University Alliances

In response to the global growth of MOOCs provided in collaboration with universities, other projects have emerged within the European Union bringing together higher education institutions from different countries to provide *microcredentials* courses, such as the EuroTeQ or the European Consortium of Innovative Universities (ECIU).

5.5.1 European Consortium of Innovative Universities

The European Consortium of Innovative Universities (ECIU) is a consortium of 13 European universities.⁵⁷

The ECIU adopts the European Commission's definition of *microcredentials* as a proof of learning outcomes achieved in a small-scale learning programme, such as a short course or other learning activity. They offer a flexible and targeted way of developing the knowledge, skills and competences that learners need for their personal and professional development.

As part *microcredentials* quality assurance, the ECIU supports the development of a common educational framework. The member universities have already agreed on mutual recognition of education and qualifications, and on ensuring quality assurance through the European Higher Education Area (EHEA) tools and the quality assurance mechanisms of the institutions.

The ECIU supports the awarding of credits upon completion of *microcredentials* courses and issues digital certificates for the educational programmes offered by the ECIU member universities. Regarding the use of a unified European digital educational certificate, the ECIU participates in the Early Adopter Programme of European Blockchain Services Infrastructure (EBSI).

The ECIU has not yet developed its own *microcredentials* framework. It aims to support the development of joint learning activities across member institutions in the form of learning 'micromodules' and is piloting the introduction of digital *microcredentials*. The ECIU stresses the need for a common *microcredentials* framework and uses ECTS to ensure international recognition and use. It proposes the creation of a European Competence Passport which will be the basis for the future European Higher Education Degree.⁵⁸

5.5.2 EuroTeQ Engineering University

EuroTeQ Engineering University brings together six European technical universities.⁵⁹ It aims to create a common educational platform, the EuroTeQ Campus, and to introduce a change in the model of engineering education for the future.

Through *microcredentials* courses, the EuroTeQ Campus offers the "Honorary Degree", an alternative to the traditional degree path for students and deepening of knowledge and skills or new qualifications for professionals

⁵⁷ University of Aalborg (Denmark), Dublin City University (Ireland), Technische Universität Hamburg (Germany), Kaunas University of Technology (Lithuania), Linköping University (Sweden), Tampere University (Finland), Autonomous University of Barcelona (Spain), Aveiro University (Portugal), University of Stavanger (Norway), University of Trento (Italy), University of Twente (Netherlands), Groupe INSA (France) a Łódź University of Technology (Poland).

⁵⁸ Mac Lochlainn, C., Nic Giolla Mhichíl, M., Wessels, O., Kiiskila, S., Pirkkalainen, H., Palvalin, M. (2022). [*ECIU University Micro-Credentials: A vision for European learners, values, and priorities. ECIU White Paper on Micro-credentials.*](#) ECIU University.

⁵⁹ Technical University of Munich (Germany), Technical University of Denmark, Eindhoven University of Technology (Netherlands), École Polytechnique Fédérale de Lausanne (France), Czech Technical University (Czech Republic) and Tallinn University of technology (Estonia).



EuroTeQ MICROCREDENTIALS ⁶⁰	
Students	Professionals
<ul style="list-style-type: none">▶ <i>Microcredentials</i> courses for students seeking an alternative to the traditional degree path.▶ Upon successful completion of each course, the participant receives ECTS credits and a digital <i>microcredentials</i> certificate.▶ The digital certificate can be shared via the Europass or the professional social network LinkedIn.▶ Individual <i>microcredentials</i> can be stacked with other <i>microcredentials</i> to form larger learning units.▶ The highest level of education achieved through <i>microcredentials</i> is the EuroTeQ Honours Degree.▶ Unlike regular university studies, the <i>microcredentials</i> obtained are not listed in the Transcript of Records and therefore cannot be used in regular Bachelor and Master programmes.	<ul style="list-style-type: none">▶ <i>Microcredentials</i> courses for professionals offered as part of lifelong learning for employees.▶ Upon successful completion of each course, participants receive ECTS credits and a digital <i>microcredentials</i> certificate.▶ Individual <i>microcredentials</i> can be stacked with other <i>microcredentials</i> to form larger learning units.▶ In the future, <i>microcredentials</i> certificates of completion could become part of a "digital wallet".

So far, EuroTeQ only offers an overview of the available *microcredentials* courses. You can register for courses by contacting the institutions offering the courses. Due to the international nature of the alliance, all courses are offered in English and mostly online. However, the courses can also take a hybrid form, where student has the option of choosing to complete the course in person or online, or in a blended form, which is predominantly distance learning but may also include elements of in person learning. Distance online learning can be either time-specific (synchronous) or not time-specific (asynchronously) according to the needs of the students.

Apart from the form of teaching, EuroTeQ *microcredentials* courses can also vary in terms of the study load and the number of ECTS credits awarded. These parameters can be adapted to the needs and capacity of the participants, but in general the study load ranges from 2 to 10 ECTS credits.

5.6 National Microcredentials Frameworks

The legislative inclusion of *microcredentials* in the National Qualifications Framework is recommended by the MICROBOL project and is supported by the experience of adult participation in lifelong learning, where higher levels are found in countries with significant state involvement. The best way to successfully introduce the new category of *microcredentials*

⁶⁰ EuroTeQ. (2022, November 16). [EuroTeQ micro-credentials](#).

learning opportunities is to create at least a national *microcredentials* framework in cooperation with state authorities.

5.6.1 Acceleration plan, Microcredentials Pilot⁶¹

A pilot project of Dutch higher education institutions is focusing on *microcredentials* in the context of lifelong, career-oriented learning. The project involves 22 Dutch universities of applied sciences and 10 Dutch universities.⁶²

In the course of the project, the possibility of issuing *microcredentials* by other providers and to other target groups is being assessed. The project is supported by the Dutch Ministry of Education⁶³ and the Dutch accreditation organisation NVAO.⁶⁴ The project will also be based on the outcomes of similar projects within Europe such as MICROBOL. In the first phase, the introduction of *microcredentials* will not apply to all continuing professional development courses, but only to courses that meet the *microcredentials* quality criteria.

MICROCREDENTIALS CRITERIA

Definition

- ▶ A digital certificate certifying the completion of a learning unit of 3-30 ECTS credits in an accredited course with quality assurance and recognizable value for the target group of participants in vocational training.

Mandatory criteria

- ▶ The content of the *microcredentials* course must be relevant to the education and research portfolio of the institution, which may include both existing and newly created courses.
- ▶ The acquisition of the required knowledge and skills will be guaranteed by a recognized study program, an appropriate learning environment and qualified lecturers.
- ▶ The institution will recognize learning outcomes from the educational programs of other institutions. The admission of a student or the granting of an exemption from admission is at the discretion of the examination board or other body of the institution.

Study load

- ▶ A minimum study load of 3 ECTS credits (1 credit/28 hours) will ensure sufficient learning outcomes. The study can still be combined with full-time or part-time work.
- ▶ A maximum study load of 30 ECTS credits is almost equivalent to a one-year study programme.

⁶¹ Source: <https://www.versnellingsplan.nl/en/>

⁶² Aeres Hogeschool, Avans Hogeschool Breda University of Applied Sciences, Fontys Hogeschool, Haagse Hogeschool, HAN University of Applied Sciences, Hanzehogeschool Groningen, HAS-hogeschool, Hogeschool Inholland, Hogeschool iPabo, Hogeschool Leiden, Hogeschool Rotterdam, Hogeschool Saxion, Hogeschool Utrecht, Hogeschool van Amsterdam, Hogeschool van Hall Larenstein, Hogeschool Windesheim, Hotelschool The Hague, Marnix Academie, NHL Stenden, Thomas More Hogeschool, Zuyd Hogeschool) a 10 univerzit (Maastricht University, Open Universiteit, Rijksuniversiteit Groningen, Technische Universiteit Delft, Technische Universiteit Eindhoven, Tilburg University, Universiteit Twente, Universiteit Utrecht, Vrije Universiteit Amsterdam, Wageningen University & Research

⁶³ Government.nl. (n.d.). [The Ministry of Education, Culture and Science.](#)

⁶⁴ The Accreditation Organisation of the Netherlands and Flanders. (n.d.). [Confidence in Quality.](#)

- ▶ With smaller study loads (0.5-1 ECTS credits) there is the risk of not meeting the criterion of a 'stand-alone course'. Courses cannot be cumulated into larger degree programmes. At the same time, such courses would impose a heavy administrative burden on universities. *Microcredentials* cannot be awarded for the completion of such courses, but they can be listed on digital learning certificates, the Edubadge.

Recognition of microcredentials qualifications

- ▶ The *microcredentials* issued under the pilot programme are not yet included in the Higher Education and Research Act (WHW) and therefore have no legal status.
- ▶ All universities in the Netherlands are involved in the pilot project and therefore *microcredentials* will be recognised not only within one institution but also by other institutions throughout the Netherlands.

Central microcredentials register

- ▶ In the meantime, data on completed *microcredentials* courses will be held in a separate national *microcredentials* register, independent of the existing higher education degree register at the Department of Education DUO.⁶⁵
- ▶ Until the new register is established, certificates will be issued in the form of digital educational certificates, the Edubadges, which are registered by the Dutch organisation for cooperation between educational and research institutions in the field of information technology, SURF.⁶⁶
- ▶ Later on, the data will be stored in the national register of educational institutions and programmes RIO⁶⁷, where Dutch educational institutions enter the offers of their educational programmes and information on the form of study, accreditations and licences.

SURF Edubadge

- ▶ The digital learning certificate, the digital badge, registered on an interdisciplinary platform in the Dutch education system.
- ▶ It ensures the recognition and portability of the certificates and allows individual certificates to be stacked into larger units.
- ▶ It contains information on the content of the learning activity, the scope and the level of the learning outcomes.
- ▶ It is linked via the inter-institutional educational identity eduID⁶⁸, which is a lifetime record of the learning outcomes of a Dutch citizen.
- ▶ The registered eduID user has an account of digital educational certificates/badges that can be presented to an employer or other educational institution.

⁶⁵ Dienst Uitvoering Onderwijs, [DUO](#)

⁶⁶ Samenwerkende Universitaire RekenFaciliteiten, [SURF](#)

⁶⁷ Register Instellingen en Opleidingen, [RIO](#)

⁶⁸ Digital student identity for Dutch education - [eduID](#)

5.6.2 MicroCreds⁶⁹

An Irish project led by the Irish Universities Association IUA (2020-2025) with the aim of creating the first European national framework for providing microcredentials courses. The project involves seven Irish universities.⁷⁰

The project has four main objectives:

1. **National Framework** – creating a national *microcredentials* framework.
2. **MicroCreds Innovative** – creating a model for sharing information between universities and employers.
3. **Discovery Platform** – linking with the European digital certification system (Europass).
4. **Micro-credentials Suite** – creating a flexible range of *microcredentials* courses across partner colleges.

The MicroCreds project uses the European Commission's definitions and refers to *microcredentials* as the certificates of accredited educational courses at universities. Applicants can choose any "micro" reskilling or upskilling course according to their needs, individual topic and time availability. The awarded certificates can be stacked into larger educational units. The *microcredentials* courses offered by higher education institutions will be listed in the national register

The participating universities are currently working on the development of their *microcredentials* courses and the Discovery Platform for linking to the European certification system should be introduced in early 2023. All these *microcredentials* courses must meet the basic criteria set by the MicroCreds project.

MICROCREDENTIALS CRITERIA

- ▶ Educational level 6, 7, 8 and 9 on the National Framework of Qualifications (NFQ).
- ▶ Study load between 1 and 30 ECTS credits.
- ▶ Quality assurance of teaching, learning and assessment using the internal quality assurance systems of each institution.
- ▶ Some *microcredentials* may be stacked into larger educational units.

5.6.3 USA

There is no single national *microcredentials* framework in the USA yet, although the introduction of this type of training certification is a hot topic there. The current US system only recognises degrees obtained by completing a full study programme (the equivalent of an associate, bachelor's and master's degree and doctorate). However, according to surveys, 50% of students in the USA do not complete their higher education and thus do not obtain any certification of acquired competences, knowledge or skills, and approximately American adults

⁶⁹ Irish universities association. (n.d.). [MicroCreds Project Overview](#).

⁷⁰ University College Dublin, University College Cork, University of Limerick, Trinity College Dublin, Dublin City University, University of Galway, Maynooth University

have already acquired some qualifications beyond formal education that could be recognised by a separate certificate, credential or licence.⁷¹

The vast majority of *microcredentials* courses are offered through online learning platforms and MOOCs. *Microcredentials* courses are also offered by universities across the United States and there are independent initiatives collaborating with government institutions at the state level.

5.6.3.1 Credentials As You Go

The most significant of these initiatives is the project Credential As You Go.⁷² Its goal is to create a single certification system that would allow for the recognition of existing credentials (academic degrees, certificates, certificates of proficiency, licenses, digital certificates/badges, *microcredentials*, etc.), evidence of continuing education, and credentials from a variety of providers (community organizations, technical colleges, four-year colleges and universities, independent educational organizations, employers, the military, and state licensing boards that are responsible for accrediting health care professions, providers, and suppliers).40% of

TERMINOLOGY ⁷³	
Credential	Documented award by a responsible and authorized body that attests that an individual has achieved specific learning outcomes or attained a defined level of knowledge or skill relative to a given standard. Credential, in this context, is an umbrella term that includes degrees, diplomas, licenses, certificates, badges, and professional and industry certifications.
Incremental Credentialing	Capture learning as it is acquired along the learning pathway and formally recognizes and connects that learning to a larger context. Incremental credentials can be non-credit or credit-bearing; undergraduate or graduate level; of any size, from small units of learning up through degrees. The purpose of incremental credentials is to ensure learners are recognized for what they know and can do as they acquire the learning and not leave learners without formal documentation of that learning.
Alternative Credential	Competencies, skills, and learning outcomes derived from assessment-based, non-degree activities that align to specific, timely needs in the workforce.
Microcredential	(1) a record of focused learning achievement verifying what the learner knows, understands, or can do; (2) includes an assessment based on clearly defined standards and is awarded by a trusted provider; (3) has stand-alone value and may also contribute to or complement other micro-credentials or macro-credentials, including through recognition of prior learning; and (4) meets the standards required by relevant quality assurance.

⁷¹ Caballero, A., Gallagher, S., Shapiro, H., Zanville, H. (2022, July 5). [Microcredentials: A new category of education is rising](#). University World News.

⁷² Credentialasyougo.org. (n.d.). [The Current State of Credentialing](#).

⁷³ Credentialasyougo.org. (n.d.). [Incremental Credentialing Key Terms](#)

Non-degree Certificates	Non-degree credentials include certificates, industry certifications, apprenticeship educational certificates, occupational licenses, and digital badges.
Stackable Certificates	<p>Part of a sequence of credentials that can be accumulated over time to build up an individual’s qualifications and help them to move along a career pathway or up a career ladder to different and potentially higher-paying jobs. Stackable credentials can be viewed as building blocks where each short-term credential that a person earns builds into a higher-level credential. There are 4 types of stackable credentials:</p> <ul style="list-style-type: none"> ▶ Traditional or progressive stackable credentials follow a linear path where a student earns a short-term credential (e.g., certificate) and continues their education by pursuing a higher-level credential (e.g., associate’s and/or bachelor’s degree). ▶ Supplemental or value-add stackable credentials do not follow a linear path, but still allow a student to enter and exit the higher education system as needed. A ‘supplemental’ stackable credential is when an individual may have already earned a bachelor’s degree, then attends a bootcamp to learn additional skills to supplement their degree. ▶ Independent stackable credential is when an individual accumulates multiple credentials but does not pursue a degree. In this case, an individual’s certifications build on one another and the individual acquires skills that craft a path forward in their career, but they do not ‘ladder’ into a singular degree pathway. ▶ Work-based learning, apprenticeships, and employer-sponsored training combine on-the-job training with formal educational instruction. For example, stacked apprenticeships are shorter-term programs where individuals pursue a series of related apprenticeships to build on their skill set. An individual participating in an industrial manufacturing technician apprenticeship program could learn how to operate production equipment, and then pursue additional manufacturing opportunities to learn more related skills.

The project is divided into three phases:

1. **Planning Project (2018–2020)** led by State University System of New York faculty. The feasibility study of a nationally recognized transferable incremental credentialing system (90 initiatives across 41 states) indicated that some states, higher education systems, and institutions were already moving toward incremental credentialing, but in different ways.
2. **Testing for Usefulness (2021–2024)** at the undergraduate and graduate level in three states (Colorado, New York, and North Carolina).
3. **Focusing on System Change (2022–2023)** for expansion and sustainability of incremental credentials.

5.6.3.2 SUNY (The State University of New York)⁷⁴

SUNY is the largest university and college system in the world, encompassing all the higher education institutions in New York State today. Within this educational system, *microcredentials* are understood as evidence of completion of a short-term, specifically focused educational activity that provides participants with the required skills, know-how and experience.

- ▶ SUNY *microcredentials* can be stand-alone certificates or stackable and can provide a pathway to a certificate or full degree according to the participant's time requirements.
- ▶ SUNY *microcredentials* can be visited by current students, alumni, anyone seeking to advance their career or increase their earning potential, those needing to upskill or make a career change, those looking to come back to the job market, and those looking for fun, engaging, learning to support a hobby or interest.
- ▶ SUNY *microcredentials* are taught by SUNY faculty. Students have access to academic supports and campus resources. SUNY *microcredentials* can be taught online or in the classroom, or even at work or at the job site with support from the employer.
- ▶ SUNY *microcredentials* often combine courses from the registered degree programs, innovative applied learning experiences, preparation for industry certifications, and/or non-credit coursework.
- ▶ A *microcredential* could be coursework alone (the most common *microcredential* length is three courses), a series of workshops, or a combination of coursework and an applied learning experience or certification preparation.

5.6.4 Canada

Unlike the United States, Canada does not have a federal Department of Education. Therefore, there are various, independent programs offering *microcredentials*. The most significant step towards a common *microcredentials* framework is the project Colleges & Institutes Canada Colleges & Institutes Canada⁷⁵, the largest post-secondary education network in Canada, which includes publicly funded colleges and universities (CEGEPs) and technical colleges.

5.6.4.1 Colleges & Institutes Canada

The project is cooperating with several higher education institutions to develop a national *microcredentials* framework.⁷⁶

MICROCREDENTIALS CRITERIA

Definition

- ▶ A *microcredential* is a certification of assessed competencies that is additional, alternate, complementary to, or a component of a formal qualification.

⁷⁴ Suny.edu. (n.d.). [Gain New Skills, Knowledge, and Experience with Microcredentials at SUNY.](#)

⁷⁵ Collegesinstitutes.ca. (n.d.). [National framework for microcredentials.](#)

⁷⁶ Ibidem.



Criteria

- ▶ *Microcredentials* can be a complement to traditional credentials (certificate, diploma, degree or post-graduate certificate) or stand alone.
- ▶ are subject to a robust and rigorous quality assurance process.
- ▶ should represent competencies identified by employers/industry sectors to meet their needs.
- ▶ may provide clear and seamless pathways across different credentials (both non-credit and credit) and may be stackable.
- ▶ are based on assessed proficiency of a competency, not on time spent learning.
- ▶ are secure, trackable, portable and competency is documented in students' academic records.
- ▶ are to follow institutional approval processes.

5.6.4.2 Ontario⁷⁷

Of ten provinces, Ontario, as the most populous and second largest province, led by the University of Toronto, has paid the most attention to *microcredentials*. To support the development of *microcredentials* and to expand the range of continuing education degree programs, the Ontario government has allocated CAD 15 million through the Ontario Micro-credentials Challenge Fund.

In 2020, the Ontario government announced an investment of CAD 59.5 million to support the development of *microcredentials* in the province over the next three years. As part of this support plan, the online Micro-credentials Portal, has been launched.⁷⁸

MICROCREDENTIALS CRITERIA⁷⁹

Definition

- ▶ *Microcredentials* are rapid training programs offered by postsecondary education institutions across the province that can help you get the skills that employers need.

Criteria

- ▶ Most *microcredentials* are stand-alone. Some micro-credentials are stackable and may be combined towards a larger credential.
- ▶ *Microcredentials* can be approved for financial assistance through the Ontario Student Assistance Program (OSAP).
- ▶ *Microcredentials* that are approved for OSAP are under 12 weeks in length.
- ▶ Most *microcredentials* are open to anyone – a current postsecondary student, a recent graduate exploring career options, or a mid-career professional.

⁷⁷ Ontario.ca. (2020, December 9). [Micro-credentials from Ontario's postsecondary school.](#)

⁷⁸ [Micro-credentials Portal](#)

⁷⁹ Ontario.ca. (2020, December 9). [Micro-credentials from Ontario's postsecondary school.](#)

- ▶ *Microcredentials* are flexible, may be completed online and may include on-the-job training.
- ▶ *Microcredentials* are often created with input from business sectors, so the skills being taught match employer needs.
- ▶ Upon completing the program, you receive a *microcredential*. Some *microcredentials* may be issued digitally. They are a verifiable credential that you own and can share on your resume, LinkedIn profile, and more.

5.6.4.3 University of Toronto (UofT)

Canada's largest university educates adult participants through its own School of Continuing Studies.⁸⁰ The university offers *microcredentials* courses referred to as micro courses.⁸¹

MICROCREDENTIALS

Micro courses

- ▶ Respond to changes in the labour market and the demands for personal development of people of working age.
- ▶ Micro courses are short, compact learning experiences that help you develop in-demand competencies and skills, fast.
- ▶ Micro courses are a shorter adaptation of a proven full-length course offered at System Certification Services (SCS).⁸²
- ▶ Many of the offered micro courses are approved for OSAP.

Microcredentials

- ▶ *Microcredentials* are digital representations of the competencies or skills that you have achieved by completing a micro course.
- ▶ They are transferable, verifiable and tamper-proof.
- ▶ They are issued in the form of digital badges, easily authenticated and can be shared across various social media platforms.
- ▶ They are issued only for micro courses provided by the University of Toronto.

5.6.5 New Zealand

New Zealand is one of the pioneers, along with Australia, in providing *microcredentials*. New Zealand has established a common *microcredentials* framework under the Ministry of Education as well as a register of *microcredentials* courses.⁸³ Since the adoption of the changes to the Education and Training Act in 2020, the former training schemes have been treated as *microcredentials*.

⁸⁰ Learn.utoronto.ca. (n.d.). [Micro Courses and Micro-Credentials](#).

⁸¹ Ibidem.

⁸² [System Certification Services](#)

⁸³ Nzqa.govt.nz. (n.d.). [Micro-credentials](#).

MICROCREDENTIALS CRITERIA

Basic criteria for microcredential courses

- ▶ *Microcredential* courses are listed on the New Zealand Qualifications and Credentials Framework (NZQCF).⁸⁴
- ▶ They are delivered by accredited education providers
- ▶ They are of 1 to 40 credits in size and taught at all levels of the NZQCF.
- ▶ They include assessed learning outcomes.
- ▶ They are developed because there is evidence they are needed by employers, economy, Workforce Development Councils (WDC)⁸⁵, IWI or community.

Microcredential guidelines for providers

- ▶ The provider completes the *microcredential* application form and requests registration for the *microcredentials* course, see [Annex 6](#):
- ▶ If approved by NZQA, the course will be included in the qualifications and certifications framework and published in the NZQA Register of approved microcredential courses.⁸⁶
- ▶ The provider receives the approval/rejection within 20 days from the application.
- ▶ There is a fee for assessing the suitability of the course.⁸⁷

Listing

In order for a *microcredential* course to be published in the register, the applicant must provide the following information:

- ▶ A suitable title - it must not include any of the words New Zealand, national, diploma, degree, bachelor, master, doctor, under-graduate or post-graduate, name of a person, organisation or a product.
- ▶ A credit value – no more than 40 credits.
- ▶ The assigned code from the New Zealand Standard of Classification of Education (NZSCED).⁸⁸
- ▶ A purpose and outcome statement.
- ▶ Any standards used (suitable skill standards on the Directory of Assessment and Skill Standards).⁸⁹
- ▶ The period for ongoing review (usually 1–3 years).

⁸⁴ [New Zealand Qualification Authority, NZQA](#)

⁸⁵ [Tec.govt.nz. \(2023, January 25\). *Workforce Development Councils \(WDCs\)*.](#)

⁸⁶ [Register of NZQA-approved Micro-credentials, NZQA](#)

⁸⁷ The fee in 2023 was NZD 190 per hour of the assessment process.

⁸⁸ [Educationcounts.govt.nz. \(2014\). *New Zealand Standard Classification of Education \(NZSCED\)*.](#)

⁸⁹ [Nzqa.govt.nz. \(2023, April 18\). *Directory of Assessment and Skill Standards Listing and Operational Rules 2022*.](#)

Approval

In order for a microcredentials course to be approved by the NZQA, the applicant must provide the following information:

- ▶ Title
- ▶ Learning outcomes
- ▶ Standards
- ▶ The evidence of the need for *microcredentials* and the support by stakeholders and, where appropriate, the relevant WDC.
- ▶ Requirements for admission, credit recognition and transfer, recognition of prior learning, length and structure, assessment methods, and completion.
- ▶ Review process

Accreditation

In order for a *microcredentials* course to be accredited, the applicant must prove that:

- ▶ The delivery approach is adequate and appropriate given the stated learning outcomes for the *microcredential* and the needs of intended learners.
- ▶ The institution has the capability and capacity to ensure assessment materials and decisions are fair, valid, consistent, and appropriate for the level, given the stated learning outcomes.
- ▶ The institution has the capability and capacity to deliver the *microcredential*, including suitably qualified or experienced staff, facilities, educational and physical resources, and student support services.
- ▶ There is adequate and effective review of the delivery of the *microcredential* (including outcomes for students) and the institution's capability to provide the micro-credential.

Microcredential review

- ▶ *Microcredentials* must be regularly updated to meet current requirements.
- ▶ In the application for the approval of the *microcredentials*, the applicant states a deadline for updating the course of 1, 2 or 3 years.⁹⁰
- ▶ The course provider carries out the update in cooperation with the relevant stakeholder.
- ▶ The update assesses the relevance and content of the course and whether the relevant economic sector, employers or community still needs the course.
- ▶ The course is updated based on input from stakeholders.
- ▶ The course provider also updates the teaching method, during which it assesses the corresponding learning outcomes and the institution's ability to provide the given course.

Record of Achievement

- ▶ Upon completion of the course, the registered tertiary education provider TEO⁹¹ may send information about the completion and the learning outcomes achieved to the

⁹⁰ The update period for the microcredential courses approved before 2023 is 1 year.

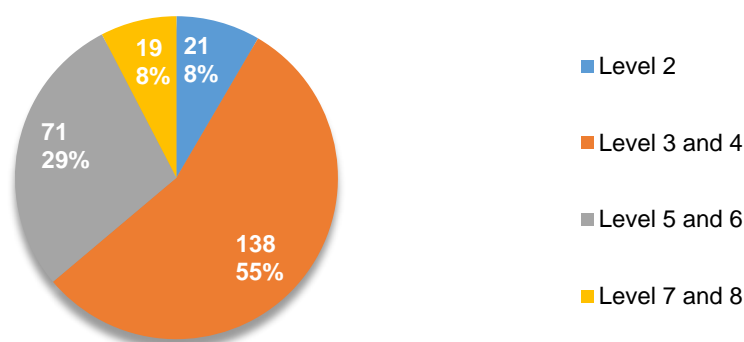
⁹¹ Tec.govt.nz. (2021, November 9). [About tertiary education organisations.](#)

NZQA and the learner's details will be published on the New Zealand Record of Achievement (NZRoA).⁹²

Recognition of prior learning

- ▶ Educational institutions in New Zealand allow recognition of prior learning for international students.
- ▶ International education providers or unregistered tertiary education providers from New Zealand can apply to the NZQA for recognition of their microcredentials courses.
- ▶ The NZQA will issue a statement indicating the appropriate number of credits and qualification level according to the NZQCF.

Graph 19: Number of microcredentials by level of education (2022)



Source: [Aotearoa New Zealand's early microcredentials journey, NZQA](#)

Due to the strict criterion of proving the demand for a course from employers, economic sectors and other stakeholders, as well as the obligation to update *microcredentials*, so that they are still able to respond to labour market demand, as of June 2022, the majority of *microcredentials* approved by the NZQA (249 courses in total) provide education at the lower levels of the NZQF - 29% of courses at EQF⁹³ levels 2 and 3 and 55% of courses at EQF level 4. Only 8 % of courses were at EQF level 5 and the fewest courses were at EQF level 6. None of the *microcredentials* approved by the NZQA offered EQF levels 7 and 8. A third of all *microcredentials* were offered as on-the-job training under the supervision of existing vocational training institutions or newly established industrial training organisations (ITOs). *Microcredential* providers also included private training establishments (PTEs). Most *microcredentials* were offered by the New Zealand Food and Wine School (13 *microcredentials* in the hospitality space) and Future Skills Academy Limited (11 *microcredentials* covering diverse skills such as welding and introductory software development).⁹⁴

⁹² Nzqa.govt.nz. (n.d.). [New Zealand Record of Achievement](#).

⁹³ Nzqa.govt.nz. (2022, August 1). [How European Union and NZ qualifications compare](#).

⁹⁴ Neal, T., Klinkum, G., Reid, L., Miller, N. (2022). [Improving relevance and responsiveness: Aotearoa New Zealand's early micro-credentials journey](#). Insights Paper.

5.6.6 Australia

The National Skills Commission survey shows that Australia has been facing a skills shortage for some time. The Covid-19 pandemic has exacerbated this situation and changed the skills demanded by the labour market. According to the 2022 Priority Skills List⁹⁵, 31 % (or 286 out of 914) of occupations assessed were in shortage. The highest share of occupations in shortage was recorded by Skill Level 3 occupations (according to Australian and New Zealand Standard Classification of Occupations - ANZSCO⁹⁶), which includes traditional trade occupations, and the highest increase in the share of occupations in shortage was for Skill Level 1 occupations, which are occupations generally needing a bachelor or higher degree.

The Australian Government recognises that it can be challenging for working people to upgrade their qualifications through the traditional education process. Not only financially, but also in terms of time, regardless of whether the cost is borne by the employee or the employer. Therefore, they have focused on delivering 'super-short' targeted *microcredentials* in search of a solution to this situation and in March 2022 released the National Microcredentials Framework⁹⁷, establishing a common methodology for providing *microcredentials*. As part of the project on preparing university graduates for future careers (2020-2021), a single online platform, MicroCred Seeker.⁹⁸, for searching for *microcredentials* provided by registered higher education institutions and selected vocational education and training (VET) institutions has been developed.

MICROCREDENTIALS CRITERIA

Definition

- ▶ A *microcredential* is a certification of assessed learning or competency, with a minimum volume of learning of one hour and less than an Australian Qualification Framework (AQF)⁹⁹ award qualification, that is additional, alternate, complementary to or a component part of an AQF award qualification.

A microcredential

- ▶ VET skill sets or competency units.
- ▶ Modularised, assessed components of existing higher education curriculum or subjects.
- ▶ Industry learning that is assessed.
- ▶ Other forms of assessed learning or competencies (e.g. Vocational Education/ Higher Education /Industry courses not currently accredited by a regulatory authority, and those by other providers).

Not a microcredential

- ▶ Unassessed learning or courses.
- ▶ Badges which are obtained through participation only (i.e. without an assessment).
- ▶ Formal qualifications within the AQF and macro-credentials, including diplomas, certificates and master's degrees.

⁹⁵ Nationalskillscommission.gov.au. (2022, October 6.. [2022 Skills: Priority List: Key Findings Report](#).

⁹⁶ Abs.gov.au. (2009, June 25). [Australian and New Zealand Standard Classification of Occupations, First Edition, Revision 1](#).

⁹⁷ Education.gov.au. (2022, September 21). [National Microcredentials Framework](#).

⁹⁸ [MicroCred Seeker](#)

⁹⁹ Aqf.edu.au. (2013). [The Australian Qualifications Framework](#).

Unifying principles

- ▶ **Outcome based.** Learners will demonstrate that they have achieved these outcomes through a form of assessment. Assessment completed to a sufficient level identified by the provider results in the awarding of the *microcredential*.
- ▶ **Driven by industry needs.** *Microcredentials* are designed and implemented with the intent of both being learner-centred and meeting industry standards and needs. They can also address a more general industry need or skill, e.g. communication, leadership.
- ▶ **Support lifelong learning.** *Microcredentials* allow learners to choose courses that are targeted to their needs and future ambitions.
- ▶ **Transparent and accessible.** Providers supply a set amount of information when publishing *microcredentials*.

Critical Information Requirements

- ▶ **Title** – described in plain English.
- ▶ **Provider** – the institution delivering the *microcredential*, and, if relevant, a company that developed the *microcredential*.
- ▶ **Content/description** – a description of the structure of the *microcredential* and a summary of the content (i.e. key topics).
- ▶ **Learning outcomes** – the knowledge, skills or competencies a student will acquire upon completion.
- ▶ **Language** – The language/s of instructions in which the *microcredential* will be taught (due to globalisation *microcredentials* may be offered in multiple languages).
- ▶ **Delivery mode** – The method of delivery of a *microcredential*, e.g. onsite, online or a combination of both, and whether the *microcredential* requires synchronous engagement or is asynchronous. Where delivery is onsite, the location(s) will be stated.
- ▶ **Date of delivery** – The set relevant delivery dates (start/ end) and an outline of the schedule within these dates, or whether a *microcredential* can be completed at a learner's own pace and commenced on any given date.
- ▶ **Learner effort** – The commitment/ effort (volume of learning) required of learners. This estimate of hours should include:
 - Number of hours of in-person face-to-face contact with teaching staff.
 - Number of hours of synchronous online contact with teaching staff.
 - Number of hours of peer-to-peer engagement and its mode.
 - Estimated number of hours of asynchronous online content and reading/viewing of audiovisual material, etc.
 - Estimated number of hours spent on assessment.
- ▶ **Inherent requirements** – The resource/s (if any) needed to undertake a specific *microcredential*, i.e. a laptop, specific software, textbooks etc.
- ▶ **Price and financial assistance** – The cost of a *microcredential* to learners, including any GST, discounts stipulated by providers, government funding and accepted payment mechanisms. The financial assistance for which a *microcredential* may qualify for.
- ▶ **Assessment** – The assessment element: the method and type of assessment (competency vs proficiency). Where assessment is onsite, the location/s will be stated.

- ▶ **Certification** – The proof of learning outcomes being met, i.e. certificate of completion. This proof of learning is issued upon completion of the *microcredential*.
- ▶ **Credits** – The type of recognition that can be given upon completion of a *microcredential*.
- ▶ **Quality assurance** – The assurance that *microcredentials* are developed and delivered in an educationally sound manner for learners. This may be a statement of quality assurance processes applied to the *microcredential* such as provider or CRICOS¹⁰⁰, etc.
- ▶ **Prerequisite/s** – The *microcredential* or level of experience that must be successfully completed prior to attempting to earn or complete the referenced *microcredential*.

Recommended elements

- ▶ **Expiration of the Microcredential** – The date when a *microcredential* is due for review and resubmission.
- ▶ **Depth of Learning** – The mastery level of a learner upon achievement of learning outcomes and completion of a *microcredential*.
- ▶ **Jurisdiction** – The institutions or jurisdictions where the *microcredential* is applicable or recognised.
- ▶ **Industry Support** – The assurance that *microcredentials* meet an industry need and reflect skills sought by employers.
- ▶ **Recommended Prior** – The *microcredential*/ course/ professional experience a learner is recommended to complete before attempting to undertake the referenced *microcredential*.
- ▶ **Stackability** – Any other *microcredentials* that a *microcredential* combines with (stacking) that lead to an overall certification being awarded upon completion, or entry into a further course.
- ▶ **Industry/Occupation** – The industry/s that a *microcredential* sits within, and the occupations/ career pathways a *microcredential* may lead to.
- ▶ **Industry Alignment** – Industry competency framework/s that a *microcredential* may be aligned to.

5.7 Summary

With regard to the transformation of the labour market in the Fourth Industrial Revolution, the World Economic Forum (WEF) predicts that more than 1 billion people will need to be retrained by 2022.¹⁰¹ Along with the transformation of key skills for existing occupations, there is a growing demand for specialised IT skills as well as interdisciplinary skills. *Microcredentials* can be a lifelong learning tool to help address these demands for continuing professional education.

From a lifelong learning perspective, bachelor's, master's and doctoral degree programmes, which most participants obtain before entering the labour market for the first time, are still the priority for higher education institutions. Below these programmes on the priority ladder, there

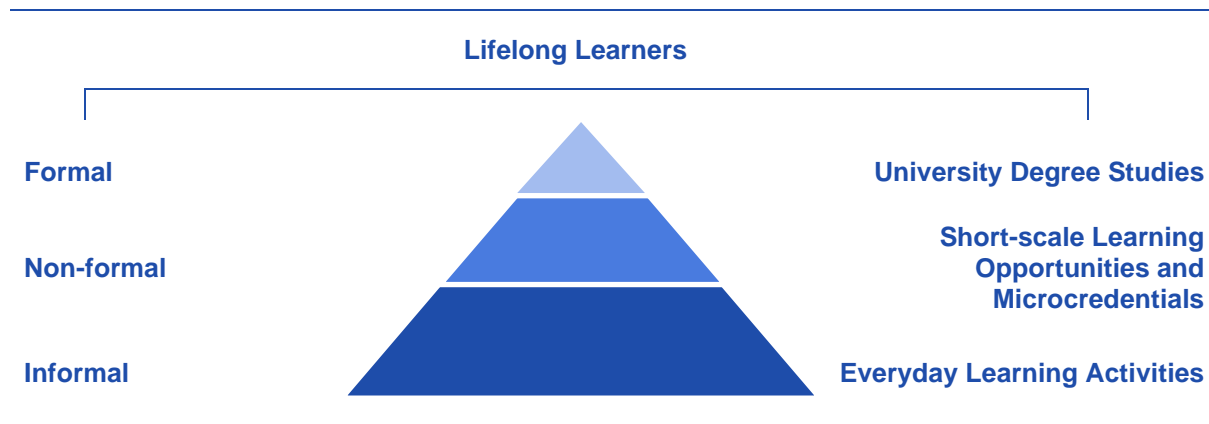
¹⁰⁰ Commonwealth Register of Institutions and Courses for Overseas Students, CRICOS

¹⁰¹ Zahidi, S. (2020, January 22). [We need a global reskilling revolution – here's why](#). World economic forum

are courses leading to *microcredentials*, short courses and non-formal education. However, informal learning is still the largest part of lifelong learning.

With rapidly changing requirements for lifelong and continuing professional learning, the role of higher education institutions is also changing. Short-term non-degree vocational courses are no longer the domain of non-formal education. A growing number of universities are offering short training activities and *microcredentials*.

Image 1: Lifelong learning and microcredentials



Source: [Micro-credentials in 2022: How Can They Benefit You as a Lifelong Learner?](#), Openlearning

Although the implementation of *microcredentials* is an important topic in higher education strategy planning in many countries around the world, and despite their growing use, there is not yet a single comprehensive definition or common standards for *microcredentials*. This has largely limited the understanding of *microcredentials* as a tool for evidencing tailored learning experiences based on emerging social and labour market needs.

Microcredentials can be found in the offers of educational institutions around the world. Universities offer *microcredentials* themselves or through MOOCs. However, we are still in the preparatory phase when it comes to international or national *microcredentials* frameworks.

In Europe, the European consortium of MOOC providers is working towards a single framework, and in terms of national frameworks, the Netherlands and Ireland are furthest advanced with their pilot programmes for a common framework for *microcredentials*, Acceleration Plan in the Netherlands and MicroCreds in Ireland.

Even in North America there is no single framework for *microcredentials*. Canada does not have a federal ministry for education, and in the United States, lifelong learning is also provided primarily at state or local level.

The only two countries that have so far introduced a common *microcredentials* framework are New Zealand and Australia. However, the *microcredentials* in New Zealand are primarily aimed at lower qualification levels.

6 Questionnaire Survey

A quantitative research strategy, a questionnaire survey, was used to obtain further materials for the analysis of foreign experiences and standards in the field of lifelong learning by foreign universities.

6.1 Questionnaire Preparation

- ▶ Preparation of the draft questionnaire by the task group.
- ▶ Expert review of the questionnaire: Mgr. Svatava Kalná (Head of the Department of Lifelong Learning, MU) and Mgr. Tomáš Chaloupka (Lifelong Learning Specialist, MU)
- ▶ Sociological assessment of the questionnaire and implementation of the comments.
- ▶ Commenting on the questionnaire by the members of the task group and implementing the comments.
- ▶ Preparation of the cover letter by Prof. Ing. Martin Kvizda, Ph.D. (Vice-Rector for External Relations and Lifelong Learning, MU).
- ▶ Translation of the questionnaire and the cover letter into English.
- ▶ Programming of the online questionnaire according to the requirements.
- ▶ Testing of the programmed questionnaire.

6.2 Objectives and Methodology

The survey was addressed to the competent representatives of 83 universities providing lifelong learning programmes (see [Annex 2](#)). The respondents were selected by purposive sampling. The main criterion for selecting respondents was whether the school had a lifelong, continuing or continuous education department, whether it offers lifelong learning programmes, courses or courses and whether it offers is preparing to offer online learning courses and *microcredentials*

The data collection was conducted during March and April 2023 using the CAWI (Computer Assisted Web Interviewing) data collection technique. The survey instrument, the questionnaire, was programmed in English in a web-based environment. The respondents were sent an email with information about the project, a cover letter and a specific code that allowed them to complete the online questionnaire and to save it on an ongoing basis or share it with other competent persons.

The aim of the analysis was to identify the current practice regarding the form and the content of the documents issued upon completion. The questionnaire was responded by 21 universities:

- ▶ Delft University of Technology (Netherlands)
- ▶ Eindhoven University of Technology (Netherlands)
- ▶ University of Groningen (Netherlands)
- ▶ Wageningen University & Research (Netherlands)
- ▶ Ghent University (Belgium)
- ▶ Universitat Jaume (Spain)
- ▶ Université de Rennes (France)
- ▶ University at Buffalo (USA)
- ▶ Northeastern University (USA)
- ▶ University of Edinburgh (UK)
- ▶ University of Bern (Switzerland)
- ▶ University of Potsdam (Germany)
- ▶ University of Tallin (Estonia)
- ▶ University of Tartu (Estonia)
- ▶ York University (Canada)
- ▶ University of Sydney (Australia)
- ▶ Universitetet i Sørøst-Norge (Norway)
- ▶ Copenhagen Business School (Denmark)
- ▶ University of Helsinki (Finland)
- ▶ University of Antwerpen (Belgium)
- ▶ Kaunas University of technology (Lithuania)

Research of Available Secondary Data – Desk Research

Target Group:	competent university representatives
Data Collection:	March–April 2023
Data Collection Method:	questionnaire survey
Data Collection Technique:	CAWI (Computer Assisted Web Interviewing)
Number of Respondents:	21
Sample Selection Method:	purposive sampling

Analysis and Synthesis of Findings – Interpretation and Presentation

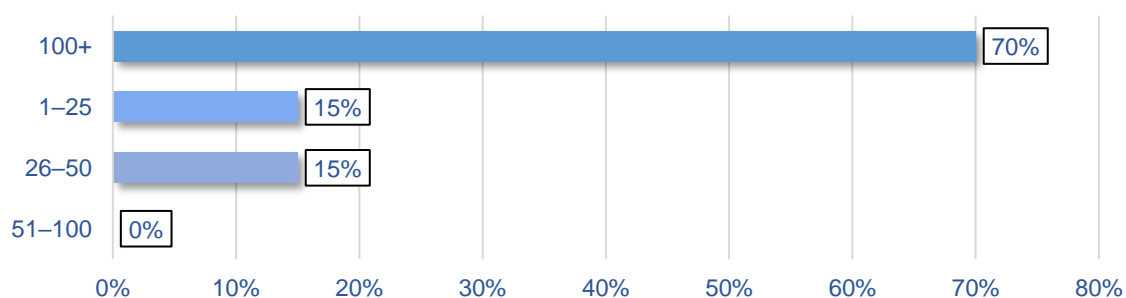
6.3 Empirical – Analytical Part

The questionnaire was divided into two parts, lifelong learning and *microcredentials*. It also included questions regarding the issued documents (certificates, certificates, confirmations, etc.) about the completion of the courses aimed at upskilling and reskilling, including questions about *microcredentials* (the current situation, meeting the required EU criteria, such as EQF, ECTS, ESG, etc.).

6.4 Lifelong Learning Courses/Programmes

The first part of the questionnaire deals with lifelong learning in general. The universities were asked about the types of lifelong learning programmes they offer, course/programme delivery modes, credit systems used and the certificates issued upon completion of the course/programme.

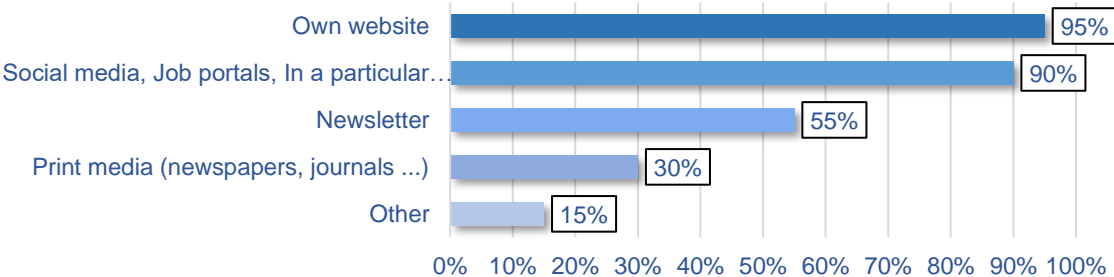
Question 1: How many lifelong learning courses/programmes do you provide per year?



N = 20, graph: AUGUR Consulting

Most of the universities provide 100 or more courses per year (70% of respondents), with 15% of the respondents providing 1-25 courses per year and 26-50 courses per year.

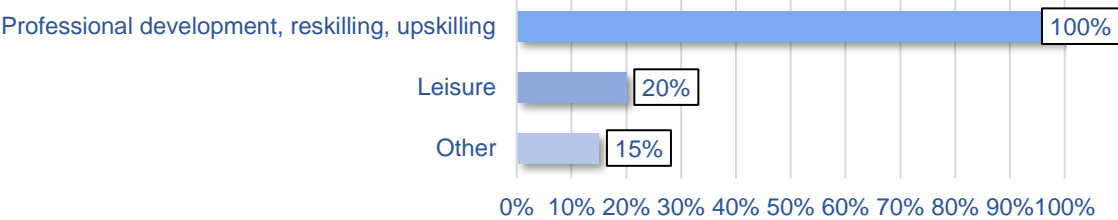
Question 2: How do you promote your lifelong learning courses/programmes?



N =20 (one1 or more answers), graph: AUGUR Consulting

Most often, the universities promote their lifelong learning courses/programmes through their own websites (95% of respondents). 90% of the respondents promote their courses/programmes through social media, advertising portals or directly in the companies. More than half of the universities promote their lifelong learning courses/programmes through their own newsletters. A smaller proportion (30%) promote their courses/programmes through print media. The "other promotion" option included responses such as "through the media channels of MOOC providers like edX, transit advertisements and prospection to local companies".

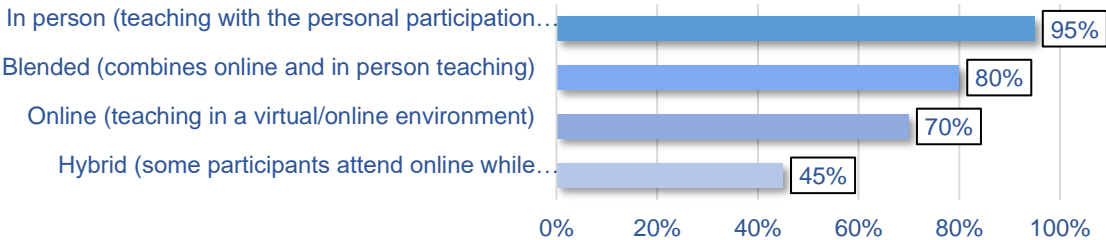
Question 3: What is the focus of your lifelong learning courses/programmes?



N =20 (one1 or more answers), graph: AUGUR Consulting

The courses and lifelong learning programmes focus primarily on professional development, retraining and up-skilling. All respondents indicated this option. At the same time, a fifth of them indicated that they also provide leisure courses. The 'other' option included responses for "personal development, side-skilling¹⁰² and entry to university study".

Question 4: What format are your lifelong learning courses/programmes?

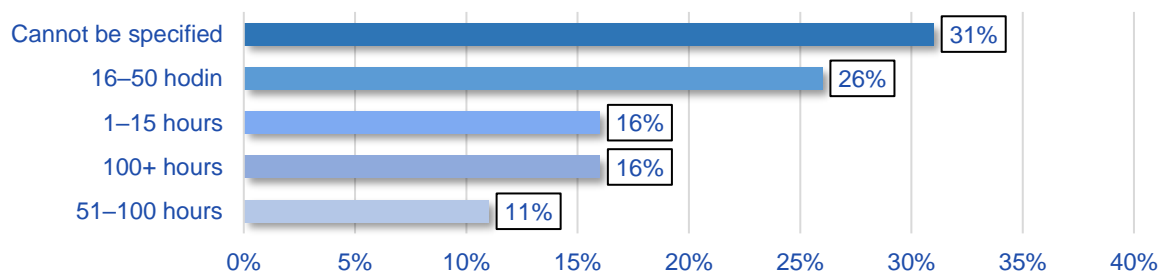


N =20 (one or more answers), graph: AUGUR Consulting

¹⁰² [Side-Skilling – Transitioning from the Tools to the Boardroom](#), Ottawa Construction Association.

The courses and lifelong learning programmes are mainly delivered in person, with 95% of respondents indicating this option. Four-fifths of the universities offer blended form, a combination of face-to-face and online learning. Online courses and programmes are offered by 70% of the universities. The least offered form (45%) includes hybrid courses, where some participants can attend a course in person while others can learn online (at a given time).

Question 5: How long does a lifelong learning course/programme last on average?



N=19, Graph: AUGUR Consulting

Almost a third of the respondents said that the average duration of their lifelong learning courses/programmes could not be specified due to their diversity. A quarter of the respondents said that lifelong learning courses/programmes at their universities last on average 16-50 hours. A total of 16% of the respondents reported that their courses/programmes last around 1-15 hours, an equal number reported an average of 100 hours or more, and 11% reported that their courses/programmes last 51-100 hours.

Question 6: How do you guarantee the quality assurance of your lifelong learning courses/programmes?

The information on quality assurance of lifelong learning courses/programmes was provided by 19 respondents. It was impossible to categorise the specific responses. For completeness of the provided information, all the comments can be found in the table below.

University	Information on quality assurance
Ghent University	Quality assurance of lifelong learning is part of the institution's quality assurance policy for education, based on the four steps of the PDCA methodology. ¹⁰³
Delft University of Technology	Quality Assurance policy in place: course and assessment regulation, standards on institutional, portfolio and course level, quality assurance handbook, diversity and inclusion policy, installation of Quality assurance board for online continuing education.
University of Antwerpen	Depends on the type of project; classic QA-procedures of ba & master programmes, surveys participants, task group exchanges QA-practices from programmes.
Copenhagen Business School	We use the same quality system as used on all other programmes offered.
Kaunas University of technology	Quality assurance of non-formal education is carried out through programme, learner feedback and monitoring. The quality of the content of the programme is assessed by the special commission according to the quality criteria. The provider of the programme has to ensure the

¹⁰³ [Quality Assurance for Lifelong Learning](#), Ghent

	quality of the content, organisation and execution of the programme and the improvement of the programme. The provider has to collect feedback from learners, ensuring privacy and complying with the laws of the Republic of Lithuania, acceptable ethical standards and principles.
University of Edinburgh	We have a quality assurance and governance process - mid-course feedback between learners and teachers, end of course survey, course reports by subject area and discipline and an annual QAE report which we submit to the University. We have Boards of Studies, Boards of Examiners and Progression Boards, all of which feature external examiners and are central to QA and EDI commitments.
Wageningen University & Research	We have a 'Board of Continuous Professional Development' who is responsible for our quality assurance in line with our Microcredential approach, we evaluate the courses.
University of Tartu	The following legal acts have been enacted at the university for arranging continuing education and its quality assurance.
University of Potsdam	We mainly offer accredited postgraduate master programs.
York University	Quality Matters and CBIE ¹⁰⁴ , Rubrics, Industry and Faculty advisory panels, student surveys.
University of Groningen	Our QA system and advisors
University of Tallin	With learning objectives and certified teachers.
University of Bern	The quality standards of the continuing education sector are listed in the Quality Strategy of the University of Bern ¹⁰⁵ and further detailed in the "Guidelines and Standards" for the continuing education sector ¹⁰⁶ . In addition to that, there are several other regulations for the continuing education sector (e.g. communication and marketing, evaluation, ECTS etc.). The centre for continuing education at the University together with the commission for continuing education verifies compliance with the guidelines and standards. ¹⁰⁷
Eindhoven University of Technology	Differs per course. Sometimes via regular QA cycle, sometimes no specific QA in place yet.
Université de Rennes	Courses are certified based on national professional quality frameworks; cross-referenced with university standards.
University of Helsinki	Our open courses (life-long learning courses) are the same as our degree programme courses, so the quality assurance comes from the degree programmes.
University of Sydney	Review of content by academic subject matter expert; participant surveys.
Northeastern University	Internal QA processes and external accreditation.
Universitetet i Sørøst-Norge	All programmes are validated by our internal committee for quality in education - represented by vice rectors of education and research, all 4 vice-deans of education from the faculties, the director of academic affairs as well as minimum 1 professor from each faculty.

Table AUGUR Consulting

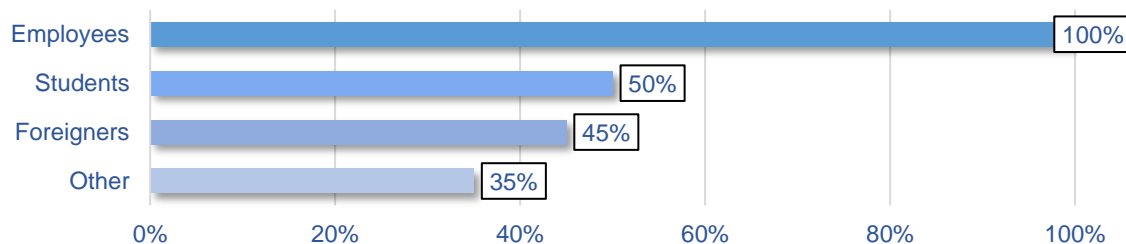
¹⁰⁴ [Canadian Bureau for International Education](#)

¹⁰⁵ [Quality Strategy 2022](#), University of Bern, 2022

¹⁰⁶ [Guidelines and Standards for Degree Programs in Continuing Education at University](#), University of Bern, 2013

¹⁰⁷ [Centre for University Continuing Education ZUW a Continuing Education Commission WBK](#)

Question 7: Who are the participants of your lifelong learning courses/programmes?

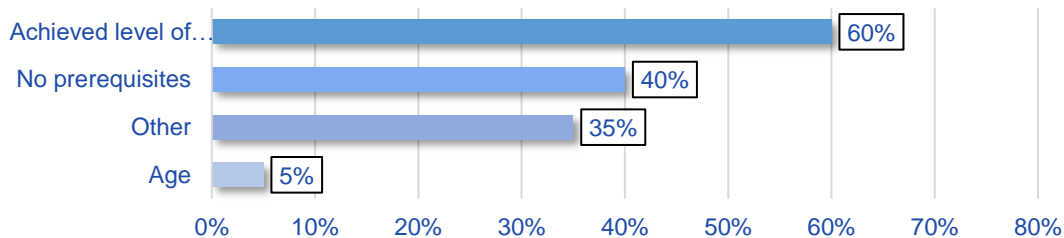


N = 20 (one or more answers), graph: AUGUR Consulting

The most frequent participants in lifelong learning courses/programmes are employees, with all the respondents indicating this option. Half of the respondents (50%) mentioned students as participants in their courses and almost half of the respondents (45%) stated that foreigners also participated in their lifelong learning courses.

More than a third of the respondents (35%) reported that other people also attend their lifelong learning courses/programmes. These were mainly managers, executives and other professionals who are interested in the courses offered.

Question 8: Which prerequisites do the participants need to enrol in your lifelong learning courses/programmes?



N = 20 (one or more answers), graph: AUGUR Consulting

The most common prerequisites the participants must meet to register for lifelong learning courses/programmes is the achieved level of education. This option was selected by 60% of the respondents. A total of 40% of the respondents specified that the participants do not need to meet any prerequisites at all to enrol in a course. More than a third of the respondents gave a different answer. These were mainly previous learning and experience according to the type of course and the variety of prerequisites according to the requirements of the specific study programme.

Question 9: Do you award credits for your lifelong learning courses/programmes?

University	Credit system
University of Tartu	ECTS, 26 hours 1 ECTS
University of Potsdam	ECTS
University of Tallin	ECTS
University of Bern	ECTS
University of Helsinki	ECTS

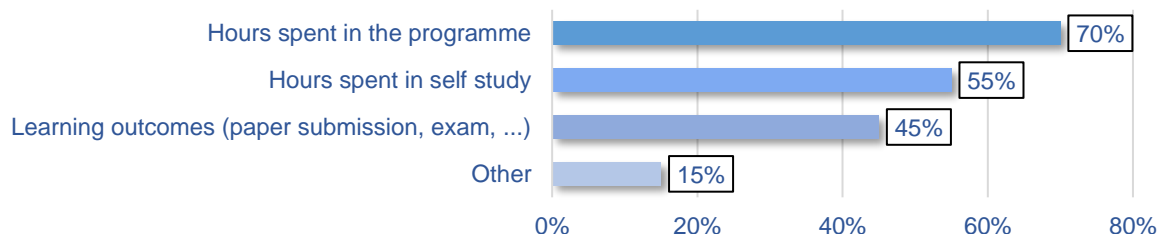


Universitat Jaume	ECTS
Copenhagen Business School	ECTS
Universitetet i Sørøst-Norge	ECTS
Ghent University	ECTS, but depends on the programme, we also have programmes without credits.
Delft University of Technology	Credits are awarded for a limited number of courses. We still exploring/experimenting with credits. Examples are microcredentials and linking MicroMasters with on-campus MSc programs like electrical engineering and sustainable energy technologies. When learners join one of those two on-campus programs the MicroMasters certificate can be transferred into ECTS. (This is the only route, for other programs the answer on Q13 is no.).
University of Antwerpen	certificates, proof of participation
University of Edinburgh	SCQF, Scotland ¹⁰⁸
Wageningen University & Research	Actually, that depends, some courses are for Microcredentials and we use ECTS, but some of our courses are accredited by certain professional fields, and some are just a certificate, not assessed.
Eindhoven University of Technology	Sometimes if course is part of micro credential.
Northeastern University	-

Table AUGUR Consulting

Three quarters of the respondents award credits for their courses and lifelong learning programmes. These universities also specified which credit system they use. The most common is ECTS. The credits for lifelong learning courses/programmes are not awarded by Kaunas University of Technology, York University, University of Groningen, Université de Rennes or University of Sydney.

Question 10: How do you determine the number of credits to be awarded for your lifelong learning courses/programmes?



N = 20 (one or more answers), graph: AUGUR Consulting

The number of credits awarded for lifelong learning courses/programmes is determined primarily by the time spent in the course. This option was selected by 70% of the respondents. It is also the time spent on self-study, with 55% of the respondents choosing this option. A total

¹⁰⁸ [Scottish Credit and Qualification Framework](#)



of 45% of the respondents specified that the number of credits is determined by the learning outcomes.

The other options included “study load/workload (1 ECTS = 25-30 hr), 100 hours 10 contact hours minimum and 90 Independent Learning hours) per 10 credits issued at SCQF level 7 and 8 (the norm for us) and 1 ECTS = 27 hrs of work”.

Question 11: Are the credits awarded for your lifelong learning courses/programmes transferable to ECTS (European Credit Transfer System)?

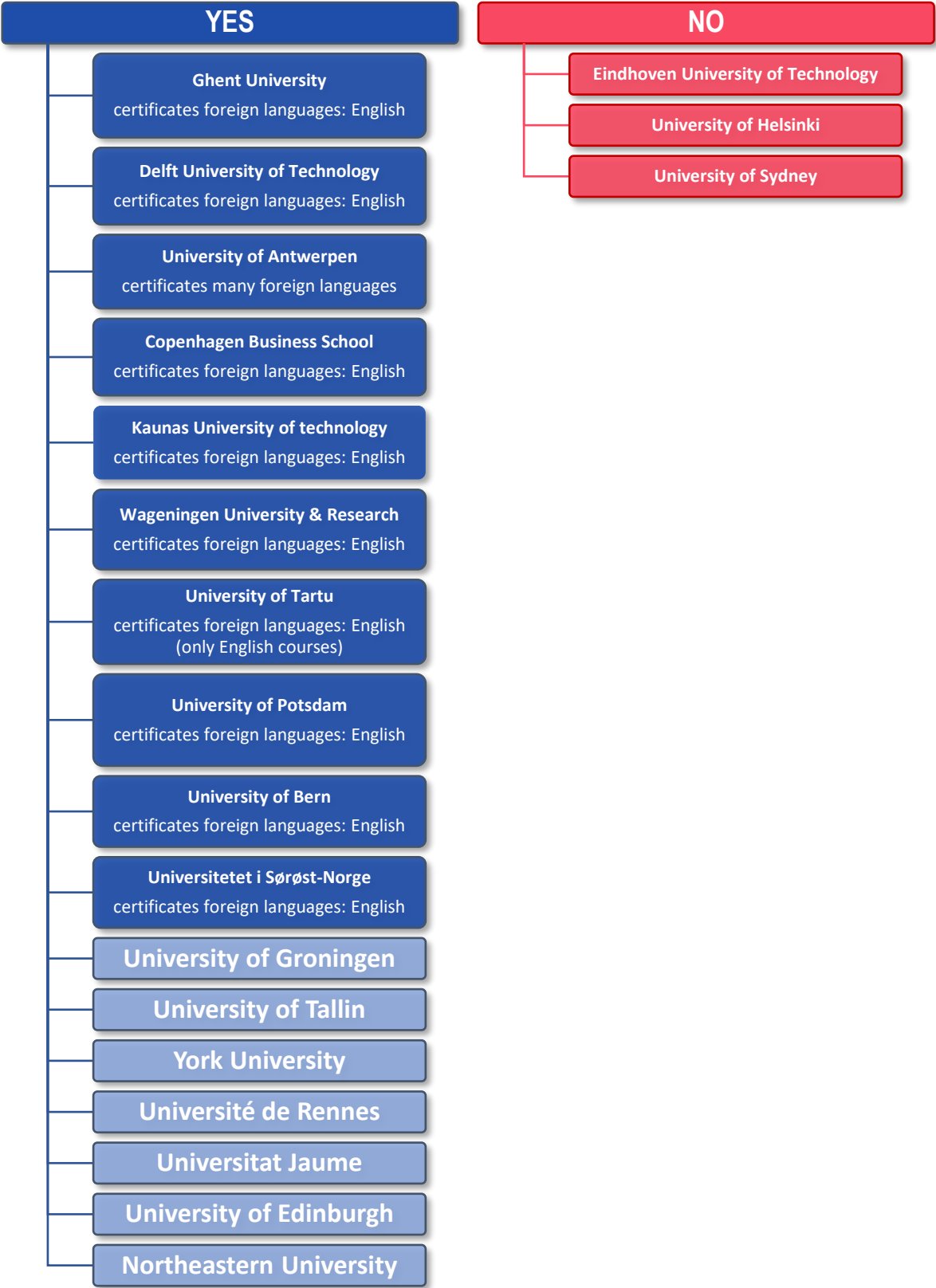
University	Conversion Rate to ECTS
Ghent University	Study load /workload (1 ECTS = 25-30 h)
University of Antwerpen	If they can be converted the ECTS is mentioned from the start.
Copenhagen Business School	We use ECTS standards.
University of Edinburgh	We don't do this very often but it's usually half the value of SCQF so 5 ECTS to 10 SCQF credits.
Wageningen University & Research	I think 28 hours
University of Tartu	26 academic hours
University of Tallin	As defined by national agency.
University of Bern	It's ECTS (Switzerland has developed the Bologna system further into the university continuing education sector - see 42. We are currently developing the scheme further in order to integrate Microcredentials into this system (and thus making the system more open). The association for university continuing education is developing a position paper.
Eindhoven University of Technology	If course is part of micro credential.
University of Helsinki	They are already in ECTS, so no transfer is required.
Universitat Jaume	Equal
University of Potsdam	Depends on home university.
Universitetet i Sørøst-Norge	-

Table AUGUR Consulting

65% of the respondents answered that the credits awarded for lifelong learning courses/programmes are transferable to the ECTS. These respondents further specified the conversion rate to ECTS. Credits awarded for lifelong learning courses/programmes are not transferable to the ECTS at Northeastern University and Delft University of Technology. Other universities left the question unanswered.



Question 12: Do you issue certificates for your lifelong learning courses/programmes?



A total of 85% of the university representatives answered that they issue a certificate of completion for their courses and lifelong learning programmes. Of these, 59% also issue the certificates in foreign languages, mainly English. Eindhoven University of Technology, University of Helsinki and University of Sydney do not issue evidence of completion for lifelong learning courses/programmes.

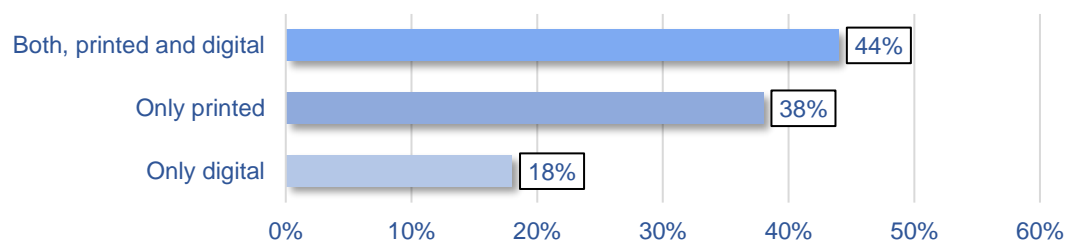
Question 13: What type of certificates do you issue for your lifelong learning courses/programmes?

The information on the type of documents for lifelong learning courses and programmes was provided by 14 respondents. It was impossible to categorize the specific responses. For completeness of the provided information, all the comments can be found in the table below.

University	Type of Certificates
Ghent University	Postgraduate certificate, certificates for micro-credentials, certificates of attendance.
Delft University of Technology	Professional Certificate Programs, ProfEds. ¹⁰⁹
Copenhagen Business School	Course certificates and for full programmes.
Kaunas University of technology	Certificates.
University of Edinburgh	Cert HE, Certificates of Participation, Access Programme for Adult Returners. ¹¹⁰
Wageningen University & Research	Paper (courses not for credit) edubadges (Microcredentials)
University of Tartu	Certificate of completion and Certificate of attendance.
York University	Certificates and Post-Graduate Certificates.
University of Groningen	-
University of Tallin	Participation certificate, and the certificate with credit points.
University of Bern	CAS, DAS, MAS (see 42) Planned: Microcredentials < 10 ECTS.
Université de Rennes	University standards or national standards depending on the course and the approval process.
Universitat Jaume	standard formats.
Universitetet i Sørøst-Norge	Transcripts + Diplomas (if the total amount of credits and requirements qualify for a degree)

Table AUGUR Consulting

Question 14: What form do your certificates take?



N = 16, AUGUR Consulting

¹⁰⁹ ProfEd Courses, Delft University of Technology

¹¹⁰ Access Programme for Adult Returners, University of Edinburgh

The certificates of completion of lifelong learning courses/programmes are mainly issued in both printed and digital formats. More than two-fifths of the respondents (44%) indicated this option. 38% of the universities issue only printed documents, 18% only digital documents.

Question 15: Do you keep evidence of the issued certificates?

University	Evidence Method
Ghent University	Database of our student information system.
Delft University of Technology	Through our online platform.
University of Antwerpen	internal database and for some national database
Copenhagen Business School	Digital in our student administration system.
Kaunas University of technology	In the University database.
University of Edinburgh	our Teaching Office and Student Records
Wageningen University & Research	The edubadges are stored by SURF, we keep records our student administration
University of Tartu	Copies in our system
York University	Forever
University of Groningen	-
University of Tallin	National digital systems
University of Bern	System
Université de Rennes	Database
Universitat Jaume	Data base of the university
Northeastern University	Not sure, the registrar handles this in a routine way
Universitetet i Sørøst-Norge	It is all in our national database system.

Table: AUGUR Consulting

Question 16: Do you issue, if necessary, a diploma supplement with a lifelong learning certificate?

When asked whether the universities keep records of the certificates issued for lifelong learning courses/programmes, all the respondents from the universities that issue certificates answered they do and specified how. Only the University of Potsdam left the question unanswered.

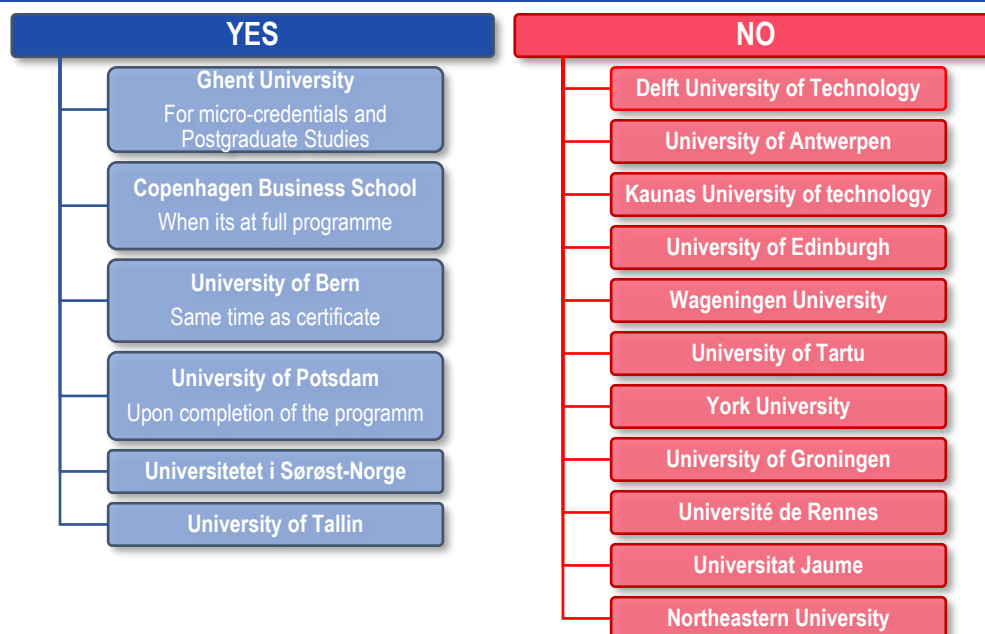


Image: AUGUR Consulting

When asked whether the universities issue a diploma supplement to the certificate of completion, 35% of the universities that issue certificates answered they do and some of them specified the conditions for issuing. More than two thirds of the universities that issue documents do not issue a diploma supplement.

Question 17: Are there any mandatory elements prescribed for issuing the certificates?

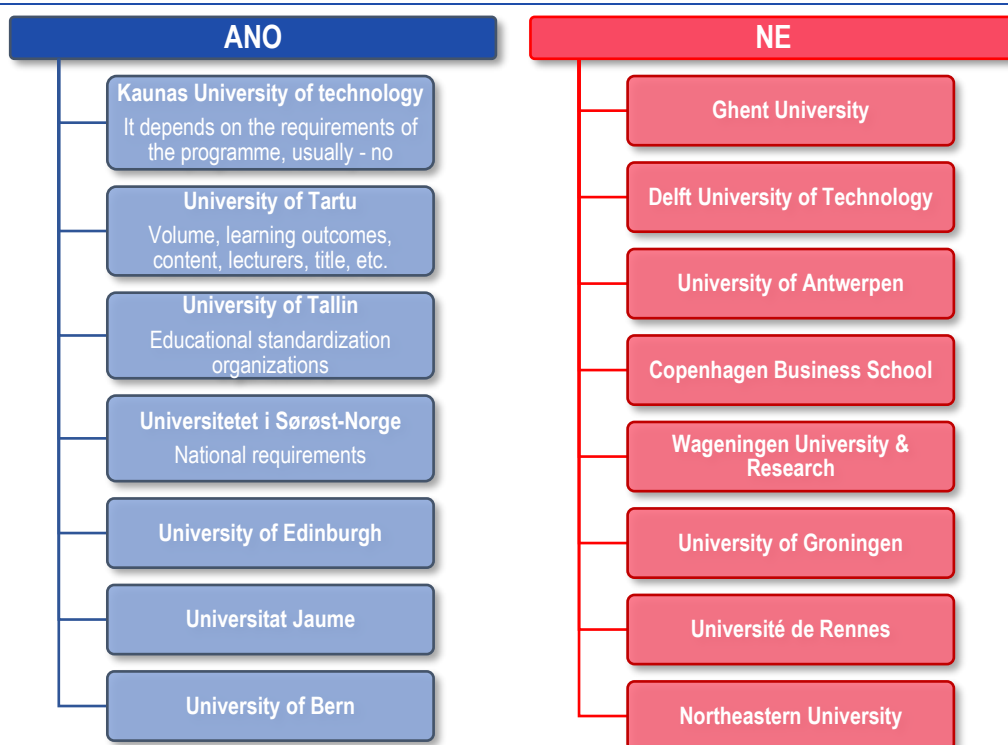


Image: AUGUR Consulting

When asked whether there are any mandatory elements prescribed for issuing the certificates, 41% of the universities that issue certificates answered there are and some of them further specified which authorities prescribe the mandatory elements. The University of Potsdam and York University left the question unanswered.

Question 18: Please select which elements do your certificates contain?

The respondents who issue certificates of completion selected specific information contained in their certificates. They also specified whether the information was mandatory. Most often, the certificates contain the name of the institution, the name of the study programme, the certificate issue date, the signature of the authorised person, the name of the student (100% of respondents). Of these, 21% specified that this is a mandatory item. The certificates least often include the name of the lecturer and the location of the course/programme.

The other option included “academic year, learning outcomes, quality assurance, date of issue of diploma/transcript, number of ECTS credits, student/candidate number and in some cases, learning outcomes or key skills developer “.

Item	Contained	Mandatory
Name of the institution	100 %	21 %
Name of the study program	100 %	21 %
Certificate issue date	100 %	21 %
Signature of the authorized person	100 %	21 %
Name and surname of the learner	100 %	21 %
Stamp of the institution	79 %	14 %
Programme workload (hours)	64 %	14 %
Date of birth of the learner	64 %	21 %
Programme start date and end date	57 %	7 %
Address of the institution	43 %	7 %
Institution identification number	43 %	14 %
Certificate serial number	29 %	7 %
Place of birth of the learner	29 %	0 %
Type of assessment	21 %	0 %
Other, please specify	21 %	-
Programme venue	14 %	7 %
Name of the lecturer	14 %	7 %

N = 14, Table: AUGUR Consulting

Question 19: Who signs the certificates on behalf of your institution?

The information related to the signing of the certificates on the completion was provided by 13 respondents. It was impossible to categorize the specific responses. For completeness of the provided information, all the comments can be found in the table below.

University	Person
Ghent University	Rector.
Delft University of Technology	Director of Extension School Education.
Copenhagen Business School	President.
Kaunas University of technology	The manager of the provider's unit.
University of Edinburgh	Head of Centre (Senior Academic Leader)
Wageningen University & Research	Dean of Education (assessed MOOCs), lecturer
University of Tartu	head of department/institute and program manager
York University	Dean.
University of Groningen	Executive Board
University of Tallin	Dedicated person
Université de Rennes	Head of Life-Long Learning.
Universitat Jaume	Vice-rector
Universitetet i Sørøst-Norge	Diplomas are signed by the deans. Transcripts can be signed by administrative officers and academic staff

Table: AUGUR Consulting

6.5 Microcredentials

The second part of the questionnaire focused on *microcredentials*. The respondents were asked whether they offer *microcredentials*, how they are delivered, what credit systems are used and what certificates are issued, including the specification of standard elements that the certificate must or may contain.

Question 20: Do you provide any microcredentials?

Fourteen universities answered that they offer at least one *microcredential* or are starting to do so. A total of seven universities do not offer *microcredentials*. However, Kaunas University of technology and Universitetet i Sørøst-Norge said in the additional comments that they are preparing to launch *microcredentials*.¹¹¹

The universities offering *microcredentials* also responded to several follow-up questions.

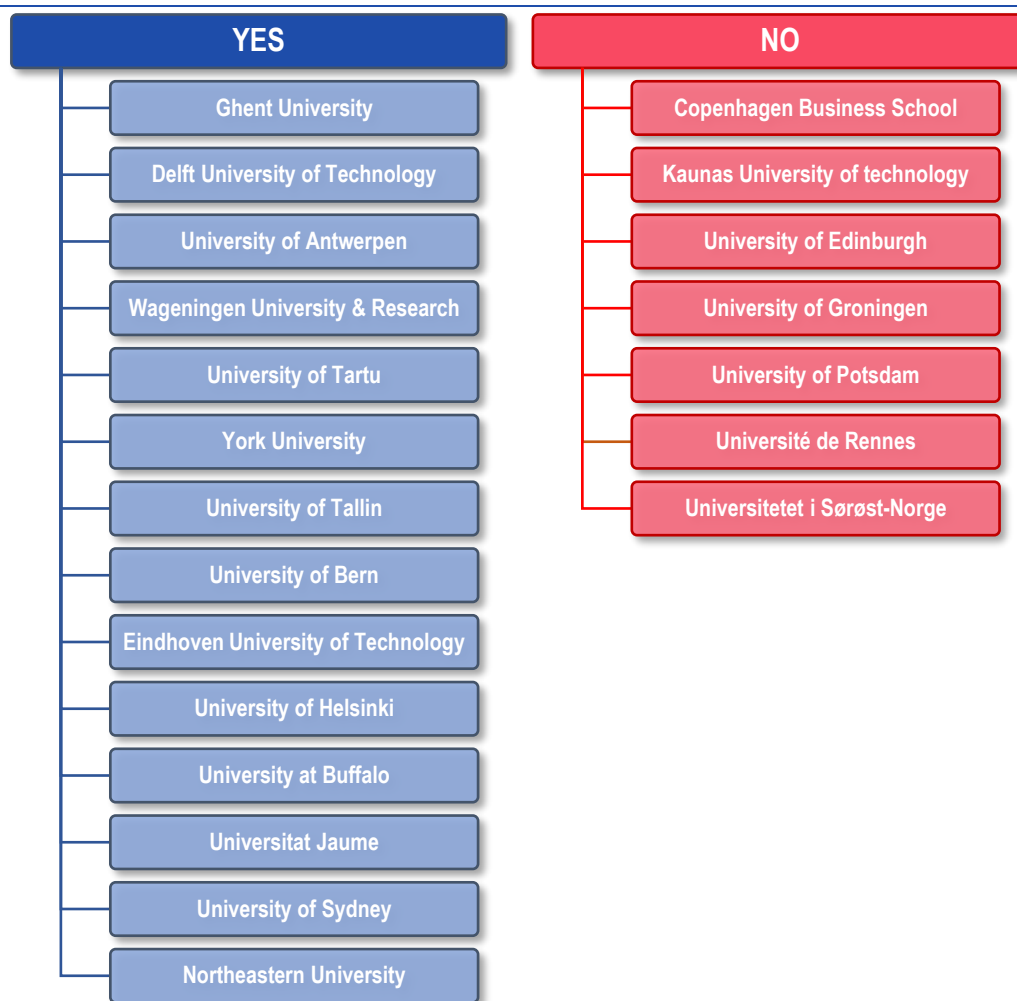


image: AUGUR Consulting

Question 21: How many microcredentials do you currently offer?

Eleven respondents answered the question of how many *microcredentials* they currently offer. The University at Buffalo listed the most *microcredentials* programs offered¹¹² (in total 70), Ghent University offers 44 and Wageningen University & Research offers 35 *microcredentials*. Two of the universities answered they are still developing *microcredentials*.

¹¹¹ For a full commentary, see the table below question 32.

¹¹² The University at Buffalo answered only two questions, that they offer *microcredentials* courses/programmes and that their offer includes 70 such courses. However, at the end of the questionnaire, they specified that these courses are not specifically lifelong learning. The university offers a variety of *microcredentials*, therefore they were unable to answer further questions. For a specific and concrete answer, see the table below question 32.

70 microcredentials	• University at Buffalo
44 microcredentials	• Ghent University
35 microcredentials	• Wageningen University & Research
25 microcredentials	• University of Antwerpen
20 microcredentials	• University of Tartu
5 microcredentials	• York University
5 microcredentials	• Universitat Jaume
5 microcredentials	• University of Sydney
3 microcredentials	• University of Tallin
3 microcredentials	• University of Bern
1 microcredentials	• University of Helsinki
Only starting	• Eindhoven University of Technology
Not specified	• Delft University of Technology
Not specified	• Northeastern University

Image: AUGUR Consulting

Question 22: Can you describe any challenges you have encountered or are encountering while implementing microcredentials and the solutions you have already tried?

The respondents mentioned potential challenges associated with the introduction of *microcredentials*. Nine universities specified the challenges they faced in the early days or are still facing. Several universities had problems with administration, some described problems with lack of learners or reluctance to pay course fees, or problems with matching market demands with learner expectations, or problems with the unclear definition of *microcredentials* in jurisdiction.

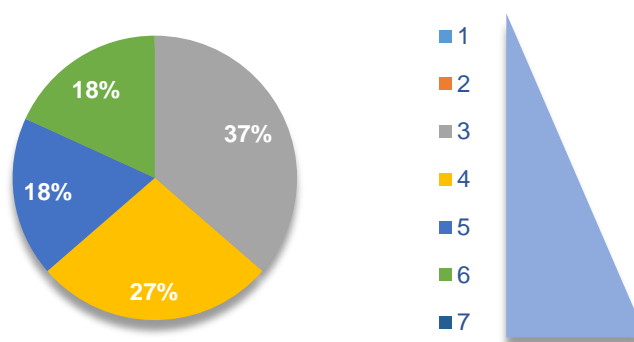
University	Challenges
Ghent University	Content related: how to meet the needs of the professional field / society / expectations of learners. Practical: important to keep in mind the target group of lifelong learners and to facilitate the combination of learning with their professional and personal life.
University of Antwerpen	Participants require much more support because they are not used to be in an academic environment. They find it difficult to access IT.
Wageningen University & Research	Administrative challenges, we are building a proper administration and organization for LLL. Further the core of a typical university is bachelor and master, our culture has to broaden to LLL (there is much more to tell, you can phone me if you want).
University of Tartu	Not all programs are filled.
York University	The definition of micro-credential is unclear in our jurisdiction
University of Tallin	Difficult to sell to teachers, participants do not want to pay themselves
Eindhoven University of Technology	Too early as we are just starting this.



University of Helsinki	Lack of concrete framework for MCs. Administrative hurdles when offering MCs jointly with several universities (student enrolment, registering of credits etc).
University of Sydney	Underestimation of work involved in development and delivery, underestimation of challenges in attracting participants (marketing etc). Academic workloads

Table: AUGUR Consulting

Question 23: Do you think the microcredentials participants have a better chance of employment?



Graph: Augur Consulting

The universities that provide *microcredentials* voted on a scale of 1 to 7. Option 1 on the scale corresponded to the answer "definitely not" and option 7 corresponded to the answer "definitely yes".

Eleven universities responded to the question. Two universities chose option 6, two universities chose option 5, three universities chose option 4 and four universities chose option 3.

Question 24: Does your institution recognize the microcredentials learning outcomes in full degree programmes?

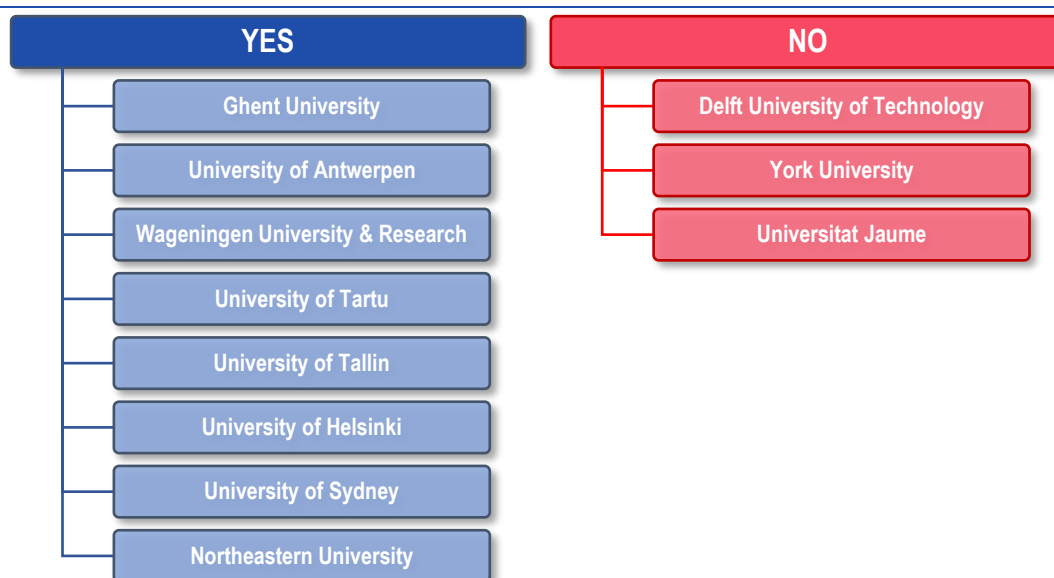


Image: AUGUR Consulting



When asked whether the universities recognize the learning outcomes of *microcredential* courses in full degree programs, eleven universities responded, of which eight recognize the learning outcomes in full programs and only three do not.

Question 25: Do you award credits for your micro-credential?

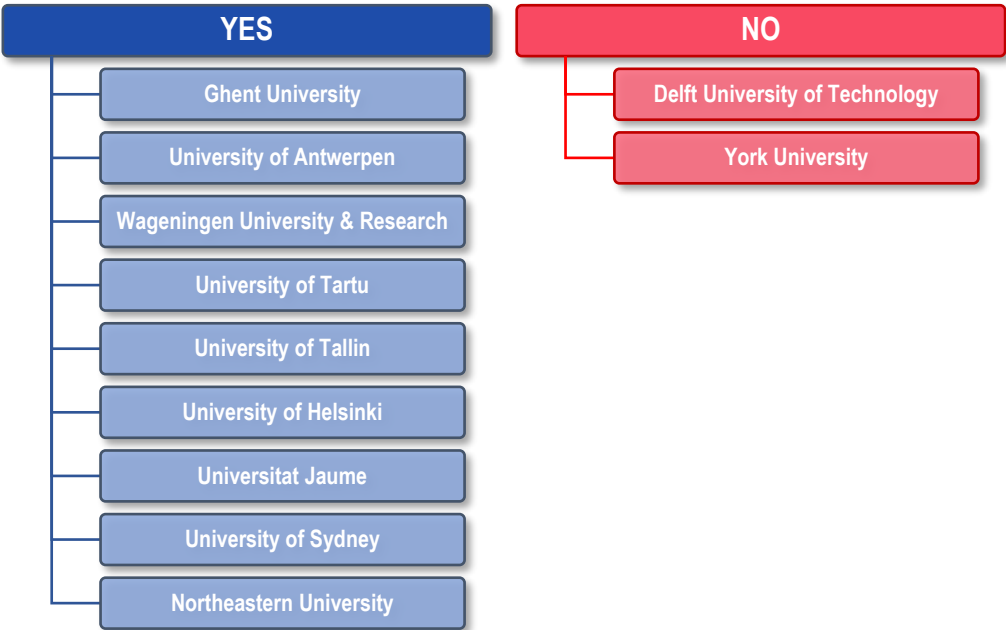


Image: AUGUR Consulting

Nine colleges award credits for *microcredentials*, two of them do not.

Question 26: How do you determine the number of credits to be awarded for your microcredentials?

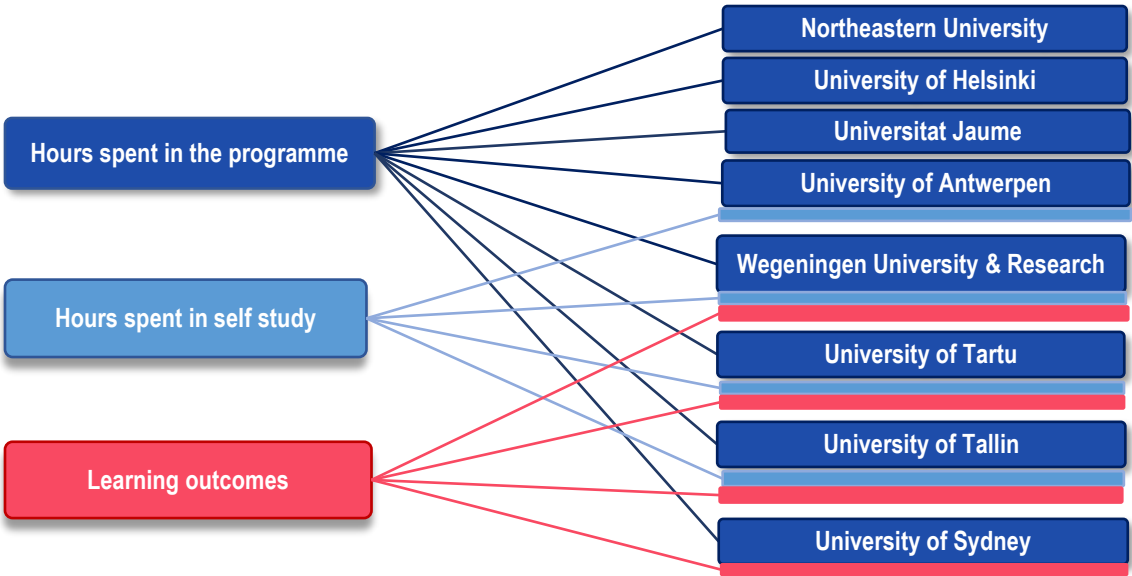


Image: AUGUR Consulting

The first question was how universities determine the number of credits that are awarded for these courses/programmes. The university representatives were given the option to select one or more of the following - hours spent in the programme, hours spent in self-study, learning outcomes (submitted papers, exams, etc.), other. Most often, universities chose a combination of the first three options - hours spent in the programme, hours spent on self-study and learning outcomes (three of eight that answered the question).

Three universities determine the credits based only on hours spent in the programme, one chose a combination of hours spent in the programme and self-study hours, and one determines the credits based on hours spent in the programme and learning outcomes.

Question 27: Are the credits awarded for your micro-credentials transferable to ECTS?

University	Conversion Rate to ECTS
Ghent University	1 ECTS = 25–30 hours
University of Tartu	1 ECTS = 26 hours
Wageningen University & Research	1 ECTS = 28 hours

Table: AUGUR Consulting

Six universities reported that the credits awarded for their *microcredentials* are transferable to ECTS. Three of them indicated their conversion rate, as shown in the table above. Only two (Northeastern University and the University of Sydney) do not have a credit transfer system adapted to ECTS.

Question 28: Do you allow the micro-credentials to be stacked to a "bigger credential"?

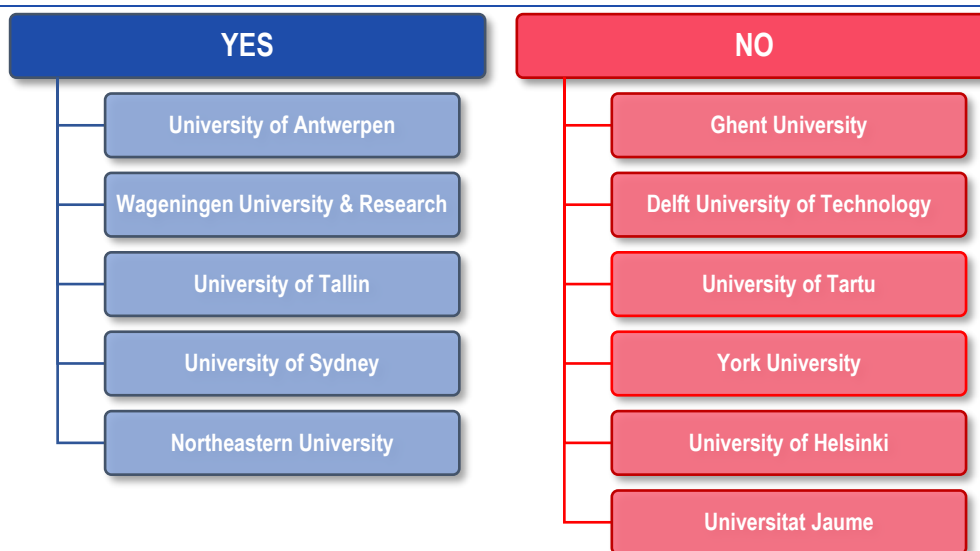


Image: AUGUR Consulting

Five universities allow their *microcredentials* to be stacked into "larger units", namely the University of Antwerp, Wageningen University & Research, University of Tallinn, University of Sydney and Northeastern University.

Question 29: Do you issue certificates for your micro-credential courses/programmes?

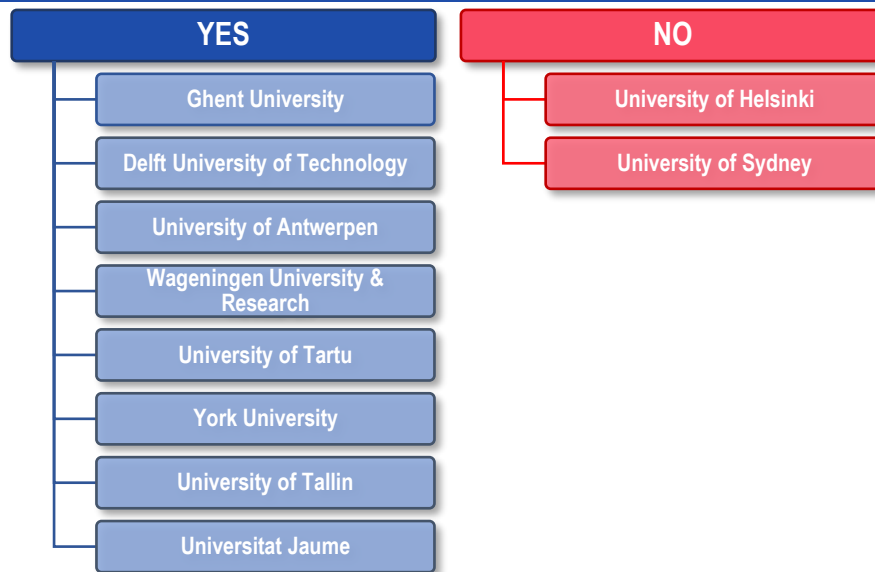


image: AUGUR Consulting

The eight colleges offering *microcredentials* issue certificates of completion. Only the University of Helsinki and the University of Sydney answered they do not issue certificates. In a follow-up comment, a representative of the University of Sydney said that they issue digital badges instead of certificates. However, their *microcredentials* are still developing.¹¹³ The universities in Bern, Eindhoven, Buffalo and Northeastern University did not answer the question.

Question 30: What form do your micro-credential certificates take?

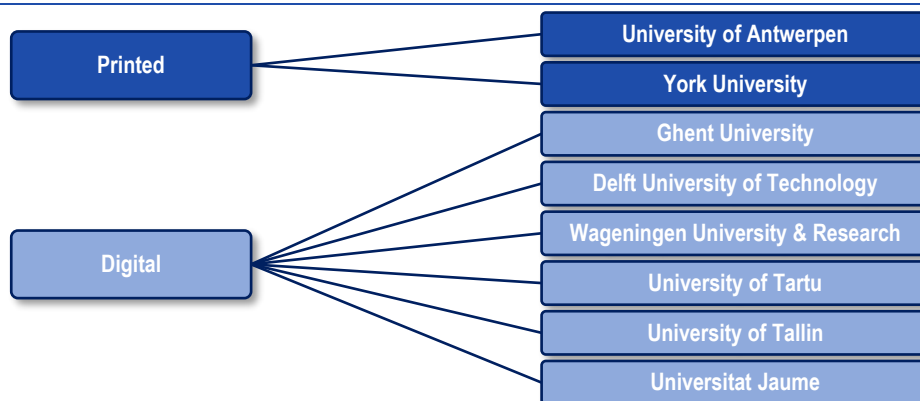


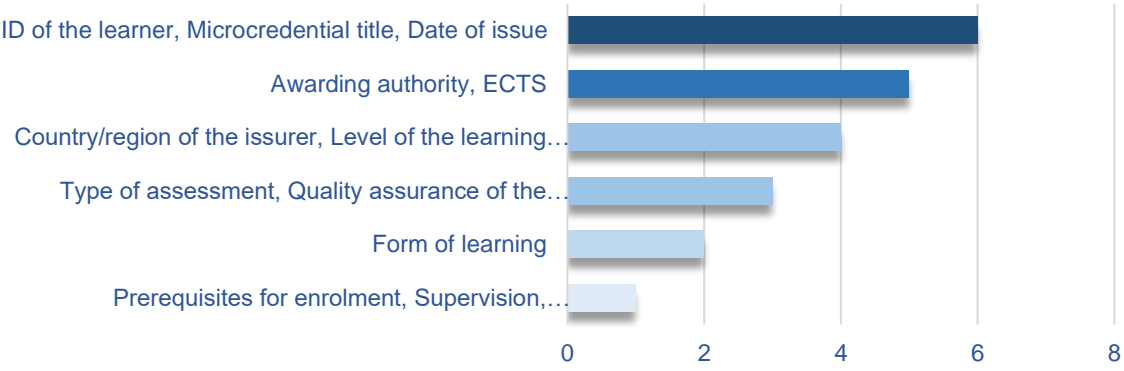
Image: AUGUR Consulting

Most universities that issue certificates for their *microcredentials* issue only digital certificates (6). Two universities answered that they issue only printed certificates.

¹¹³ For a full commentary, see the table below question 32.



Question 31: What information do your micro-credential certificates contain?



Graph: AUGUR Consulting

The respondents were asked about the information contained in the *microcredentials* certificates they issue, and they could choose from 14 items. Six universities responded to the question, all of which indicated that their documents contain learner identification information, the *microcredential* title and the date of issue. Five of them also added the awarding authority and ECTS earned, four chose the country/region of the issuer, the level of the learning experience and the learning outcomes. The types of information provided on the certificates of the universities that answered the question is shown in the graph above

Question 32: . Do you have further information or comments to share with us?

At the end of the questionnaire, the respondents had the opportunity to comment on lifelong learning or on the questions on which the survey focused. Seven of them took this opportunity and their comments are shown in the table below.

University	Comment
University of Sydney	We issue digital badges rather than certificates for Microcredentials. We're still in the early stages of rolling out Microcredentials, so it's a work in progress
Kaunas University of technology	We are working on micro-credential courses.
Wageningen University & Research	Please note that we do recognize Microcredentials if enrolling in a degree programme if the learning outcome and level of the MC corresponds with learning outcomes of the desired program.
Universitetet i Sørøst-Norge	Micro-credentials are currently being developed for life-long learning programmes in management.
York University	In Ontario, Canada, the government defines a micro-credential as any learning that can be completed in 11 weeks or less and is job-related.
University of Bern	All answers with respect to the University Continuing Education Sector of the University of Bern with the following study programmes: Certificate of Advanced Studies (10 ECTS), Diploma of Advanced Studies (30 ECTS), Master of Advanced Studies (60 ECTS) for adult learners with a university degree (note: these are not open programmes).
University at Buffalo	We do not offer any programs that are specifically considered "lifelong learning." We do not provide certificates upon completion of micro-credentials, but instead award digital badges. Some micro-credentials are credit-bearing and some are not. The "yes" or "no" options for 32-28 do not suffice.

Table: AUGUR Consulting



6.6 Summary

Most of the universities participating in the survey provide 100 or more courses per year (70% of the respondents). Most often they promote lifelong learning courses/programmes through their own websites (95% of the respondents). Nine out of ten universities (90%) promote these learning activities through social media, advertising portals or directly with specific companies.

Lifelong learning courses/programmes provided by the universities focus primarily on professional development, retraining and qualification improvement and they are mainly delivered in person (95% of the respondents). In addition, four-fifths offer blended learning, a combination of face-to-face and online learning. Online courses and programmes are offered by 70% of them. The fewest universities (45%) offer hybrid courses, where some students can attend a course in person and some can study the course online (at a given time).

Almost a third of the respondents said that the average duration of lifelong learning courses/programmes could not be specified. A quarter of the respondents said that lifelong learning courses/programmes last on average 16-50 hours.

The most frequent participants in lifelong learning courses/programmes are employees and the most common prerequisites that the participants must meet to register for a lifelong learning course/programme is the level of education attained (60% of the respondents).

Three quarters of the universities that responded to the survey award credits for their lifelong learning courses/programmes and also specified which credit system they use. The most common is ECTS. The number of credits awarded for lifelong learning courses/programmes is mainly determined by the time spent directly on the course (70% of the respondents). 55% of the respondents also selected the time spent on self-study.


When asked whether credits awarded for lifelong learning courses/programmes are transferable to the ECTS, 65% of the respondents answered they are and further specified the conversion rate to ECTS.

A total of 85% of the university representatives said that they issue certificates for their lifelong learning courses/programmes. Of these universities, 59% also issue certificates in foreign languages, mainly English. The certificates for lifelong learning courses/programmes are mainly issued in both printed and digital formats, more than two-fifths of respondents (44%) selected this option. 38% of the universities issue only printed documents, while 18% issue only digital documents. All the respondents from the universities that issue certificates for their lifelong learning courses/programmes answered that they keep records of the certificates issued. 35% of them answered that they issue a diploma supplement when necessary.

41% of the respondents from the universities that issue certificates replied that there are mandatory requirements for issuing certificates. The certificates most often include the name of the institution, the name of the study programme, the certificate issue date, the signature of the authorised person and the name and surname of the learner (100% of the respondents). The least frequently included is the name of the lecturer and the programme venue.

A total of 67% of the respondents offer or are preparing to offer at least one *microcredential* course. Most *microcredentials* are offered by the University at Buffalo (70 courses), Ghent University (44 courses) and Wageningen University & Research (35 courses).

The challenges associated with the introduction of *microcredentials* mainly include problems with administration, lack of learners or reluctance to pay course fees, or problems with



matching market demands with learner expectations or problems with the unclear definition of *microcredentials* in the jurisdiction. On a scale of 1 to 7, the extent to which respondents thought that participants would improve their employment prospects after completing the *microcredential* course (option 1 'definitely not' and 7 'definitely yes'), the average response was 4, so this is more of a mid-point.

A total of 72% of the universities offering *microcredentials* recognise the outcomes from *microcredentials* in their degree programmes.

82% of them award credits for the *microcredentials* they offer. The universities that award credits for their *microcredentials* determine the number of credits awarded most often by a combination of three options - number of hours spent in class, number of hours of self-study and learning outcomes. A total of 67% of the universities that award credits for their *microcredentials* specified that the credits awarded for their *microcredentials* can be converted into ECTS.

Stacking individual *microcredentials* into larger units is allowed by the University of Antwerp, Wageningen University & Research, University of Tallinn and University of Sydney and Northeastern University.

Three-quarters of the universities that offer *microcredentials* issue some certificates of completion. Most of them (75%) issue certificates in digital form only. The certificates issued most often include the learner's identification details, the title of the *microcredential* and the date of issue, as well as the awarding authority and the ECTS credits earned.

7 Conclusions

Regardless the diversity of lifelong or continuing education systems in different countries, *microcredentials* are seen in a global framework as an opportunity for educational institutions to respond flexibly to the rapidly changing demand of the labour market and the society.

Foreign educational institutions specify the basic factors necessary to create a common *microcredentials* framework.


- ▶ From the perspective of the employer or the educational institution, it is important that the learning opportunities are relevant and up-to-date and that the records of learning outcomes are clear, credible and verifiable, so that the employer or the educational institution can easily assess their relevance.
- ▶ From the perspective of the employee or the student, it is important that the learning opportunities are flexible, modular, small-scale, targeted at in-demand skills and applicable in the labour market, and that learning outcomes are recognised by employers and other educational institutions.
- ▶ From the perspective of the educational institution, it is important that the learning opportunities follow clearly defined criteria, so that they can easily assess the learning outcomes and decide on their recognition.
- ▶ From the perspective of the society, it is important that the learning opportunities open the way to further education for not yet engaged adult population, promote mobility on the labour market and enable those with newly acquired qualifications to apply the skills currently in demand in the still changing labour market.

7.1 The Role of Universities

Based on the results of the labour market surveys and the predictions about the skills in demand in the future, it may seem that the division of tertiary education in the Czech Republic into higher vocational education and higher education will make the provision of further vocational education primarily the domain of higher vocational schools. However, a comparison of the business models of online learning platforms and MOOC providers shows that it is universities that should be involved in the provision of these educational programmes. Whereas in 2012 the MOOC business model was based on free, openly available online courses, nowadays the majority of *microcredentials* are paid, are offered by universities from all over the world, and allow the awarded credits to be recognized for further higher education studies or even the acquisition of an online university degree. Although this is a relatively new model of education, it is already clear that *microcredentials* can be an alternative to university degrees and, by their very nature, create flexible pathways to further education and offer an attractive solution for upskilling to meet the needs of the labour market.

7.2 Definition of Microcredentials

The term "*micro-credential*" first appeared in Google search results back in 2013 and with the Covid-19 pandemic, the search result numbers for this term increased rapidly. However, this does not mean that interest in short, targeted online courses has only emerged in the last decade. Even before 2004, search results for terms such as 'Digital Badge', 'Short Online Course', 'Alternative Credential', 'Digital Credential' or 'Micromasters' (edX online courses) and



'Nanodegree' (Udacity online courses) appeared in search results.¹¹⁴ The term "*micro-credential*" or "*microcredential*" has become widespread with the rapid growth of online education courses. Its popularity has led several public and private entities to use it as a "brand" for their own concepts of short learning activities with some kind of a digital certificate awarded upon completion of the activity.

Due to the variety of uses of the term *microcredentials*, it is therefore not important how this new educational model is referred to, but what we imagine by this term.

For the purposes of the project, mainly due to the need for clear terminology, a common definition was adopted by the participating universities based on the Recommendation on a European approach to micro-credentials for lifelong learning and employment adopted by the Council of the European Union on 16 June 2022: *A micro-credential (~s pl.) or micro-certificate is an electronic record, a certificate, of the completion of a small-scale learning unit expressed in ECTS credits and the achievement of clearly defined and coherent learning outcomes, i.e. a set of knowledge, skills and attitudes that constitute competences.*

These learning units are included in the European Qualifications Framework (EQF), are subject to a system of standardised quality assurance processes and are assessed against transparent and clearly defined criteria. A unit of learning may be, for example, a LLL programme within the meaning of Section 60(1) of Act No 111/1998 Coll., the Higher Education Act, or a set of programmes (several concurrent or related CVT programmes).

7.3 Microcredentials Criteria

Definition

- ▶ All approaches basically agree on the definition describing *microcredentials* as short learning opportunities. The word "short" is best captured by the MICROBOL project definition, which describes *microcredentials* as small-scale learning opportunities instead of "short-term" learning opportunities.
- ▶ However, *microcredentials* refers not only to the learning opportunity itself, but also to the credential that the learner receives upon completion.

For consideration

There are several different ways of translating the English term *microcredentials* into Czech:

- ▶ **Micro credit** – not recommended, because the term "credit" also refers to loans and, for example, in Germany or Poland, banks offer small microloans called microcredits.
- ▶ **Micro-certificate** – not recommended as the term 'certificate' only refers to a certificate awarded upon completion of the learning opportunity, not the learning opportunity itself.
- ▶ **Micro-qualification** – recommended as the term 'qualification' can refer not only to the certificate but also to the learning opportunity itself.

¹¹⁴ Beirne, E., Nic Giolla Mhichíl, M., Brown, M. (2020). *Micro-credentials: An Evolving Ecosystem*. Dublin City University.



Relevance

- ▶ All frameworks define *microcredentials* as targeted learning opportunities that respond flexibly to current demand from employers and the labour market.
- ▶ According to the EU Council Recommendation on a European approach to *microcredentials*, the best way to ensure the relevance of the offered learning opportunities is to collaborate with employers or other partners from relevant industries or social sectors. In the case of the New Zealand framework, demonstrating the relevance a course is even a mandatory part of the *microcredentials* approval process. The relevance of the course is then addressed by limiting the validity of the 'accreditation' of the course and *microcredential* review after a set period (1, 2 or 3 years)

For consideration

- ▶ The cooperation can be established, for example, with the relevant professional chambers

Study load

- ▶ Determining the study load is one of the key criteria for transparency and recognition of *microcredentials* across educational institutions.
- ▶ The use of the internationally recognised European Credit Transfer System (ECTS) seems to be the most appropriate for determining the study load.
- ▶ There is no common approach to the range of credits awarded. In general, however, the minimum number of credits is more than 1 ECTS credit (EuroTeQ - 2 ECTS credits, Acceleration Plan - 3 ECTS credits) and the maximum 30 ECTS credits (Acceleration Plan) to 40 ECTS credits (NZQA)

For consideration

- ▶ Due to the different content and scope of *microcredentials*, it is not possible to recommend a common range of ECTS credits awarded. However, it should not fall below 1 ECTS credit, as there is a risk that the learning opportunity would not meet the criteria for a 'stand-alone' course leading to a certificate.

Quality assurance

- ▶ All approaches agree on the use of qualifications frameworks - national qualifications frameworks (NQF) or internationally recognised frameworks such as the European Qualifications Framework (EQF).
- ▶ The quality of the courses is ensured primarily by the internal quality assurance processes of the institutions (accreditation, curriculum guarantors, etc.)

For consideration

- ▶ The universities in the Czech Republic by their nature ensure the quality of the educational opportunities they provide.
- ▶ There is the possibility of organising courses in the form of "imprints" of degree study programmes that are accredited or have an assigned guarantor, but there is also the possibility of using external accreditors such as the ministries.

Portability and recognition

- ▶ Neither the common and transparent criteria for providing *microcredentials* nor the assessment of learning outcomes will ensure the recognition of learning outcomes from courses provided by other providers.
- ▶ An important role is also played by the trust between the institutions and the agreement between the stakeholders on mutual recognition of *microcredentials* (Acceleration Plan, Alliance of European Universities or European Consortium of MOOC providers).

For consideration

- ▶ Establishing a common national framework and methodology and setting clear criteria is the minimum that needs to be done to ensure portability and recognition of *microcredentials*.

Online offer

- ▶ All the projects concerning the national frameworks for *microcredentials* foresee the introduction of a single online platform offering *microcredentials* (Micro-credentials Suite, Micro-credentials Portal, MicroCred Seeker).
- ▶ A unified online offer of *microcredentials* is another way of guaranteeing the quality of the course provided, as only courses that meet the criteria of the relevant national framework are listed.

For consideration

- ▶ When creating a unified online platform, we can take inspiration from similar educational online platforms of MOOC providers who have many years of experience.

Certificate

- ▶ All *microcredentials* have assessed learning outcomes leading to a certificate awarded upon completion.
- ▶ All *microcredentials* providers issue the certificate in the form of a digital record. Most providers allow the participants to print the certificate themselves. The certificate has the provider's logo (or the logo of the awarding institution) and contains standard elements defined by a common framework.
- ▶ Defining standard elements of the certificate is another way to guarantee the portability and recognition of the certificate by employers or other educational institutions.

For consideration

- ▶ Most of the common *microcredentials* frameworks contain similar mandatory standard elements.
- ▶ Within Europe, it is appropriate to base the definition of the mandatory standard elements on the EU Council Recommendation on a European approach to *microcredentials* for lifelong learning and employability.
- ▶ The option of downloading and printing the certificate appears to be the preferred form of storing the certificate by participants.

Microcredentials Register

- ▶ A consistent way of storing digital records of *microcredentials* ensures their credibility with employers and other educational institutions. It also provides an easy way to share the learning outcomes and to assess whether they are sufficiently relevant for a given profession or study programme.
- ▶ Different *microcredentials* providers use different ways of storing and sharing digital records.
- ▶ Keeping records in a single registry is another way of guaranteeing the transferability and recognition of certificates.
- ▶ Digital records can be shared via the Europass digital ID platform, digital wallets, digital badges or professional social networks such as LinkedIn.

For consideration

- ▶ A single national registry will strengthen the credibility of the certificate awarded.
- ▶ The Europass platform appears to be an adequate way to share digital learning records.

Degree study programmes

- ▶ Some universities allow online learners to participate in full-time degree study programmes at the European Qualifications Framework (EQF) level 6 (bachelor's degree) and EQF level 7 (master's degree).
- ▶ Other universities allow the recognition of prior learning through *microcredentials* and the transition to full-time study leading to a university degree.
- ▶ The use of structured modular learning seems to be the best way to make lifelong learning more attractive and accessible to a wider public.

For consideration

- ▶ The implementation of modular study programmes does not automatically mean replacing traditional study programmes with *microcredentials*.
- ▶ The best option seems to be to differentiate between *microcredentials* within degree study programmes and as part of lifelong or continuing education.
- ▶ *Microcredential* courses can be offered as a practical 'bonus' within a degree study programme - the acquisition of a recognised formal qualification during university studies that is not conditional on completion of the full study programme and the award of a university degree.

Annex 1: Data Tables

Table 1 Participation of Adults aged 25–64 in formal education (2016)

Percentage of the adult population aged 25-64 who participated in further formal education in the last 12 months at the time of the 2016 survey and the average number of hours spent in education.

Country	Participation in formal education (%)	Hours spent (12 months)
Finland	14.2 %	342
Sweden	13.8 %	462
Denmark	13.5 %	370
Norway	12.1 %	224
UK	11.9 %	169
Spain	9.8 %	284
Netherlands	9.0 %	328
Ireland	8.6 %	329
Luxembourg	8.6 %	298
Switzerland	8.5 %	532
Hungary	7.3 %	322
Malta	7.2 %	245
Belgium	6.8 %	325
Estonia	6.2 %	507
Austria	6.2 %	457
Slovenia	6.0 %	375
EU average	5.8 %	398
Turkey	5.0 %	229
Latvia	4.4 %	375
Poland	4.4 %	464
Croatia	4.0 %	442
Portugal	4.0 %	653
Macedonia	4.0 %	25
Greece	3.7 %	468
Germany	3.5 %	872
France	3.4 %	519
Italy	3.0 %	394
Cyprus	3.0 %	247
Serbia	3.0 %	381
Bulgaria	2.9 %	449
Czechia	2.5 %	338
Lithuania	2.4 %	414

Bosna and Hercegovina	2.2 %	357
Romania	1.7 %	457
Albania	1.7 %	507
Slovakia	1.5 %	499

Table 2 Adults aged 25–64 let by level of education achieved (2021)

Percentage of the adult population aged 25-64 divided by level of education achieved in 2021.

County	Primary	Secondary	Tertiary
Czechia	5.6	68	26.4
Slovakia	6.7	65.4	27.9
Croatia	12.8	62.3	24.9
Romania	19	62.2	18.8
Poland	6.8	60	33.2
Serbia	17.1	58	24.9
Hungary	13.7	57	29.3
Bulgaria	16.6	53.8	29.6
Germany	15.2	53.8	30.9
Latvia	7.8	53.2	39
Austria	14.1	51.3	34.6
Slovenia	8.7	51	40.3
Lithuania	5.1	49.5	45.4
Estonia	10.5	48.3	41.2
Finland	11.1	46.6	42.3
EU average	20.7	45.9	33.4
Greece	20.2	45.2	34.6
Italy	37.3	42.7	20
Switzerland	12.6	42.4	45
France	17.8	41.5	40.7
Sweden	12.5	40.9	46.7
Denmark	17.6	40.3	42
Iceland	18	39.4	42.6
Cyprus	15.4	37.6	47
Netherlands	19.4	37.5	43.1
Belgium	18.5	36.7	44.9
Norway	17.6	35.2	47.2
Ireland	12.5	34.8	52.7
Malta	37.1	31.1	31.7
Luxembourg	19.7	29.8	50.5
Portugal	40.5	28.4	31.1
Spain	36.1	23.2	40.7

Table 3 Participation of Adults aged 25–64 in non-formal education (2016)

Percentage of the adult population aged 25-64 who participated in further non-formal education in the last 12 months at the time of the 2016 survey and the average number of hours spent in education.

Country	Participation in non-formal education (%)	Hours spent (12 months)
Switzerland	67.5 %	71
Netherlands	61.5 %	62
Austria	58.4 %	87
Sweden	56.5 %	56
Norway	54.9 %	50
Hungary	52.5 %	54
Germany	50.2 %	68
France	50.0 %	75
Ireland	49.7 %	36
Finland	47.7 %	78
UK	47.5 %	91
Cyprus	47.2 %	48
Latvia	45.7 %	76
Luxembourg	45.3 %	78
Slovakia	45.0 %	36
Czechia	44.6 %	35
Portugal	44.4 %	80
Denmark	43.8 %	82
Slovenia	43.6 %	142
EU average	42.0 %	77
Belgium	41.4 %	85
Estonia	41.2 %	52
Italy	40.6 %	89
Spain	39.1 %	106
Malta	33.8 %	82
Croatia	29.8 %	72
Lithuania	26.5 %	42
Poland	22.9 %	78
Bulgaria	22.5 %	59
Serbia	18.2 %	36
Turkey	17.8 %	116
Greece	14.0 %	63
Macedonia	10.4 %	54
Albania	8.2 %	95
Bosna and Hercegovina	6.9 %	110

Romania	5.6 %	37
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Table 4 Participation of Adults aged 25–64 in continuing education and their willingness to participate in education (2016)

Percentage of the adult population aged 25-64 who participated in further education in the last 12 months at the time of the 2016 survey and the willingness of these participants to further participate in education.

Country	Total participation (%)	Participated and is willing more (%)	Participated and is not willing any more (%)	Not participated but is willing to (%)	Not participated and is not willing to (%)	No answer (%)
Switzerland	69	24	45	9	21	0
Netherlands	64	15	49	7	27	2
Sweden	64	20	43	10	25	3
Austria	64	22	38	10	30	0
Finland	54	15	39	13	32	2
UK	52	26	26	17	31	1
Germany	52	9	42	6	42	1
Cyprus	48	33	15	27	24	0
Luxembourg	48	27	21	14	34	3
Latvia	48	25	23	17	35	1
Czechia	46	7	39	6	48	0
Portugal	46	27	20	21	33	0
Slovenia	46	22	23	6	48	2
Slovakia	46	12	35	8	46	0
Spain	43	9	33	10	45	3
EU average	41	15	26	13	46	1
Malta	36	13	19	17	47	5
Croatia	32	10	22	14	54	0
Lithuania	28	5	23	5	67	0
Poland	25	12	12	13	62	0
Bulgaria	20	5	20	5	69	2
Serbia	20	10	10	25	56	0
Greece	17	6	10	13	70	2
Macedonia	13	6	5	15	72	2
Romania	7	3	4	18	75	0

Table 5 Participation of Adults aged 25–64 in continuing education by educational attainment

Percentage of the adult population aged 25-64 who participated in further education in the last 12 months at the time of 2016 survey by educational attainment.

Country	Total participation (%)	Primary (%)	Secondary (%)	Tertiary (%)
Switzerland	69.1	34.7	64.1	85.9
Netherlands	64.1	38.3	63.3	81.2
Sweden	63.8	45.1	59.4	79.5
Norway	60.0	42.7	58.1	74.1
Austria	59.9	31.3	57.1	77.6
Hungary	55.7	41.6	53.9	67.3
Finland	54.1	36.3	50.3	66.0
Ireland	53.9	28.0	46.4	69.6
UK	52.1	28.1	46.5	68.1
Germany	52.0	27.4	48.7	68.6
France	51.3	25.1	47.4	72.1
Denmark	50.4	31.6	43.8	66.9
Cyprus	48.1	24.4	41.9	64.2
Luxembourg	48.1	21.1	41.2	69.8
Latvia	47.5	26.7	39.2	65.9
Czechia	46.1	16.2	42.5	66.5
Portugal	46.1	31.5	56.7	71.0
Slovenia	46.1	14.7	40.6	71.0
Slovakia	46.1	-	43.4	61.7
Belgium	45.2	20.3	40.2	65.2
EU average	44.6	23.4	40.8	65.1
Estonia	44.0	23.5	35.4	60.6
Spain	43.4	23.8	42.7	63.8
Italy	41.5	21.2	46.6	72.0
Malta	36.3	24.3	40.3	65.6
Croatia	31.8	7.4	25.7	61.3
Lithuania	27.9	-	15.8	46.4
Poland	25.5	5.4	16.9	48.1
Bulgaria	24.6	7.6	22.3	38.2
Turkey	20.9	11.4	28.7	48.9
Serbia	19.8	-	14.2	39.9
Greece	16.7	3.0	16.0	30.8
Macedonia	12.7	1.0	10.3	36.3
Albania	9.2	2.0	7.0	32.3
Bosna and Hercegovina	8.7	0.9	7.2	31.2
Romania	7.0	1.0	6.3	15.8

Table 6 Participation of Adults aged 25–64 in continuing vocational training (2020)

Percentage of the adult population aged 25-64 who participated in continuing vocational training in companies in 2020 and the average number of hours spent in training.

Country	Total participation (%)	Hours spent in CVT per 1000 worked hours
Czechia	82.8	5.3
Spain	65.0	2.5
Luxembourg	56.9	9.2
Norway	51.9	8.7
Belgium	50.7	6.8
Sweden	50.5	7,4
Slovakia	48.7	5.3
Slovenia	47.2	6.3
France	46.6	7.3
Italy	44.6	8.5
Germany	43.7	8.4
Portugal	42.6	6.0
EU average	42.4	6.1
Netherlands	39.2	10.1
Ireland	37.1	7.8
Austria	34.9	4.4
Estonia	31.3	4.6
Latvia	30.7	2.4
Cyprus	30.3	3.7
Finland	29.1	3.5
Poland	28.8	3.1
Malta	27.8	4.0
Lithuania	26.4	3.6
Denmark	25.5	2.2
Serbia	24.8	2.5
Croatia	24.2	3.3
Bulgaria	23.0	3.0
Hungary	18.1	3.6
Romania	17.4	3.3
North Macedonia	17.0	2.2
Greece	11.8	1.6

Table 7 Participation of Adults aged 25–64 in continuing education in the last 4 months of the survey year (2012–2021)

Percentage of the adult population aged 25-64 who participated in further education in the last 4 months of the survey year.

(%)

Country	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Sweden	27.0	28.4	29.2	29.4	29.6	30.4	31.4	34.3	28.6	34.7
Finland	25.5	24.9	25.1	25.4	26.4	27.4	28.5	29.0	27.3	30.5
Netherlands	16.9	17.9	18.3	18.9	18.8	19.1	19.1	19.5	18.8	26.6
Iceland	28.1	26.3	26.3	28.1	24.7	23.6	21.5	22.2	20.3	23.9
Switzerland	29.1	29.3	30.5	30.8	31.4	31.2	31.6	32.3	27.6	22.8
Denmark	31.6	31.5	31.9	31.5	28.0	26.9	23.5	25.3	20.0	22.3
Norway	20.4	20.8	20.1	20.1	19.6	19.9	19.7	19.3	16.4	19.5
Slovenia	13.8	12.5	12.1	11.9	11.6	12.0	11.4	11.2	8.4	18.9
Estonia	12.8	12.6	11.6	11.9	15.3	16.8	19.3	19.6	16.6	18.4
Luxembourg	14.2	14.6	14.5	18.0	16.8	17.2	18.0	19.1	16.3	17.9
UK	16.3	16.6	16.3	15.7	14.4	14.3	14.6	14.8	-	-
Austria	14.2	14.1	14.3	14.4	14.9	15.8	15.1	14.7	11.7	14.6
Spain	11.2	11.4	10.1	9.9	9.4	9.9	10.5	10.6	11.0	14.4
Malta	7.2	7.7	7.7	7.4	7.8	10.6	10.9	11.9	11.0	13.9
Ireland	7.5	7.6	7.0	6.5	6.5	9.0	12.5	12.6	11.0	13.6
Portugal	10.5	9.7	9.6	9.7	9.6	9.8	10.3	10.5	10.0	12.9
France	5.7	17.8	18.4	18.6	18.8	18.7	18.6	19.5	13.0	11.0
EU average	8.2	9.9	10.1	10.1	10.3	10.4	10.6	10.8	9.1	10.8
Belgium	6.9	6.9	7.4	6.9	7.0	8.5	8.5	8.2	7.4	10.2
Italy	6.6	6.2	8.1	7.3	8.3	7.9	8.1	8.1	7.2	9.9
Cyprus	7.7	7.2	7.1	7.5	6.9	6.9	6.7	5.9	4.7	9.7
Latvia	7.2	6.8	5.6	5.7	7.3	7.5	6.7	7.4	6.6	8.6
Lithuania	5.4	5.9	5.1	5.8	6.0	5.9	6.6	7.0	7.2	8.5
Germany	7.9	7.9	8.0	8.1	8.5	8.4	8.2	8.2	7.7	7.7
Hungary	2.9	3.2	3.3	7.1	6.3	6.2	6.0	5.8	5.1	5.9
Czechia	11.1	10.0	9.6	8.5	8.8	9.8	8.5	8.1	5.5	5.8
Poland	4.5	4.3	4.0	3.5	3.7	4.0	5.7	4.8	3.7	5.4
Croatia	3.3	3.1	2.8	3.1	3.0	2.3	2.9	3.5	3.2	5.1
Romania	1.4	2.0	1.5	1.3	1.2	1.1	0.9	1.3	1.0	4.9
Slovakia	3.2	3.1	3.1	3.1	2.9	3.4	4.0	3.6	2.8	4.8
Serbia	3.6	3.9	4.4	4.8	5.1	4.4	4.1	4.3	3.7	4.8
Greece	3.3	3.2	3.2	3.3	4.0	4.5	4.5	3.9	4.1	3.5
Bulgaria	1.7	2.0	2.1	2.0	2.2	2.3	2.5	2.0	1.6	1.8

Table 8 Number of MOOC participants, courses and universities 2015—2021

The number of MOOCs in hundreds, the number of MOOC participants in millions and the number of universities involved in delivering online courses through the largest MOOC providers. The data was collected by education platform Class Central based on the offers of MOOC providers (Coursera, edX, FutureLearn, Swayam, Udacity, XuetangX, Canvas Network and others).

Year	Courses (hundreds)	Participants (millions)	Universities
2015	42	35	500
2016	68,5	58	700
2017	94	81	800
2018	114	101	900
2019	135	120	900
2020	163	180	950
2021	194	220	950

Table 9 Number of university degree MOOCs 2017–2021

Number of MOOCs leading to bachelor's or master's degrees offered by universities through the three largest providers Coursera, edX and FutureLearn.

Year	edX	FutureLearn	Coursera
2017	1	4	4
2018	9	18	11
2019	10	23	16
2020	13	28	25
2021	13	22	34

Table 10 MOOC distribution by subject 2015–2021

Percentage of MOOC courses by subject offered by the largest MOOC providers in 2015-2021.

Subject	2015	2016	2017	2018	2019	2020	2021
Business and management	16.80 %	19.30 %	18.50 %	18.20 %	19.70 %	20.40 %	20.90 %
Information technology	17.18 %	17.40 %	19.90 %	20.40 %	19.80 %	19.30 %	20.20 %
Social sciences	10.80 %	9.82 %	10.60 %	11.50 %	11.00 %	11.40 %	11.20 %
Science	11.30 %	10.40 %	10.00 %	9.40 %	9.20 %	9.50 %	9.50 %
Humanities	9.41 %	9.82 %	9.50 %	9.40 %	8.90 %	9.10 %	9.00 %
Education and teaching	9.36 %	9.26 %	8.50 %	8.60 %	8.00 %	7.90 %	7.40 %
Health and medicine	8.27 %	7.68 %	7.20 %	7.20 %	7.80 %	7.70 %	7.30 %
Engineering	6.11 %	6.32 %	7.10 %	7.00 %	7.40 %	7.60 %	7.30 %
Art and design	6.73 %	6.47 %	5.50 %	5.00 %	5.20 %	4.40 %	4.30 %
Mathematics	4.09 %	3.64 %	3.30 %	3.10 %	2.90 %	2.90 %	2.90 %

Table 11 Using the internet for doing online courses in Europe 2011

Percentage of learners who used the internet to complete an online course between 2011 and 2022.

Year	Online courses (%)
2011	4.67
2013	5.34
2015	5.1
2016	5.52
2017	6.53
2019	8.44
2020	13.17
2021	18.6
2022	16.42

Comparison of European countries by percentage of learners who used the internet to complete an online course in 2022.

Country	Participants in online courses (%)
Netherlands	35.33
Finland	30.66
Ireland	29.86
Spain	27.26
Norway	26.39
Slovenia	26.08
Estonia	25.58
Sweden	23.86
Malta	22.62
Greece	21.74
Belgium	21.07
Austria	19.98
Italy	18.89
Luxembourg	18.77
Czechia	16.94
EU average	16.42
Portugal	16.16
Cyprus	15.88
Lithuania	14.83
Slovakia	14.79
France	14.75
Denmark	14.67
Latvia	13.32
Hungary	11.83
Croatia	10.71
Černá Hora	9.64
Germany	9.6
Poland	8.39
Serbia	8.16
Bulgaria	7.61
Turkey	6.61
Romania	3.27

Table 12 Students enrolled in higher education 2013-2021

Number of students enrolled in tertiary education 2011-2021 in the USA in millions, in the European Union in millions and in the Czech Republic in tens of thousands.

Year	USA (millions)	EU average 27 countries (millions)	Czechia (ten thousands)
2013	19.467	9.818	26.773
2014	19.175	9.88	25.633
2015	19.101	10.466	23.689
2016	19.196	10.441	22.12
2017	18.398	10.474	20.607
2018	18.908	10.488	19.361
2019	18.289	10.658	18.783
2020	17.674	10.75	19.067

Table 13 Job opportunities in Europe by qualification (2018–2030)

Job opportunities are the sum of new jobs created and jobs that are created because of people leaving a job for various reasons (retirement, migration, etc.). In practice, the replacement of a leaving employee is much more frequent than the number of new jobs created. As it is difficult to estimate the number of people leaving jobs on an annual basis, the replacement of departing employees is shown for the period 2018-2030.

Qualification	New jobs (millions)	Job replacement (millions)	Total job opportunities (millions)
Low	-7.325	16.723	9.398
Medium	-3.29	46.876	43.586
High	19.684	37.276	56.96

Table 14 MOOC Microcredentials 2017–2021

The number of courses leading to *microcredentials* offered by the three largest MOOC providers - Coursera, edX and FutureLearn - and the number of online MOOCs leading to a university degree.

Year	FutureLearn	edX	Coursera	Online degrees
2017	22	174	257	9
2018	37	231	313	38
2019	49	292	420	49
2020	86	385	610	66
2021	180	480	910	69

Annex 2: List of Contacted Universities

	County	University	Department
1	Great Britain	University of Glasgow	SFC Upskilling Project
2		University of Kent	Global and Lifelong Learning
3		University of Birmingham	University Executive Board
4		University of Edinburgh	Centre for Open Learning
5		University of Manchester	Flexible Learning
6	Ireland	University College Cork	Adult Continuing Education
7		University of Dublin	Access & Lifelong Learning
8		University of Galway	Centre for Adult Learning and Professional Development
9		Maynooth University	Postgraduate Academic Programmes
10		Trinity College Dublin	Trinity Teaching and Learning
11	Netherlands	Utrecht University	Lifelong Learning UU
12		Delft University of Technology	Extension School
13		Wageningen University & Research	Education for professionals
14		University of Groningen	Strategy Department of Education & Research
15		Eindhoven University of Technology	Professional Education
16	Germany	Technical University of Munich	TUM Institute for Lifelong Learning
17		Technical University of Hamburg	Department of Professional Education and Life-Long Learning
18		University Leipzig	Department of Distance Learning
19		University of Potsdam	Continuing Education
20		University of Heidelberg	Lifelong Learning
21	Denmark	Technical University of Denmark	DTU Learn for Life
22		Aalborg University	Continuing Education
23		University of Copenhagen	Continuing and Professional Education
24		University of Southern Denmark	Lifelong Learning
25		Copenhagen Business School	Lifelong Learning
26	Finland	University of Helsinki	Continuous Learning
27		Tampere University	Continuing Education
28		University of Turku	Open University
29		University of Jyväskylä	Open University
30		Lappeenranta University of Technology	Open University
31	Sweden	Linköping University	ECIU Collaboration
32		Karolinska Institute	Executive and Professional Education
33	Norway	University of Stavange	ECIU Project
34		Universitetet i Sørøst-Norge	Educ Project
35	Belgium	University of Antwerpen	Nova Academy
36		Ghent University	Academies for Lifelong Learning
37		Vrije Universiteit Brussel	Lifelong Learning

38	Switzerland	École Polytechnique Fédérale de Lausanne	Digital Vocation, Education and Training
39		University of Zurich	Continuing education
40		University of Bern	Continuing Education
41		ETH Zurich	School for Continuing Education
42	Estonia	University of Tallin	School of Educational Sciences
43		University of Tartu	Lifelong Learning Centre
44		Tallinn University of Technology	EuroTeQ Project
45	Lithuania	Kaunas University of technology	ECIU
46	Latvia	University of Latvia	Department of Lifelong Education of the Academic Department of LU
47	France	PSL Université Paris	Lifelong Learning
48		Université Grenoble Alpes	Direction de la formation continue et de l'apprentissage
49		University of Orléans	Continuing Education Service SEFCO
50		École Polytechnique (I'X)	EuroTeQ
51		Groupe INSA	ECIU
52		University Paris Nanterre	Educ Project
53		Université de Rennes 1	Educ Project
54	Italy	University of Trento	ECIU
55		University of Milano-Bicocca	Lifelong learning
56		University of Cagliari	Educ Project
57	Spain	Autonomous University of Barcelona	ECIU
58		Universitat Oberta de Catalunya	eLearning Innovation Center
59		Universitat Jaume	Educ Project
60	Portugal	University of Lisbon	Lifelong learning
61		University of Porto	Multidisciplinary Training Programme
62	Poland	Lodz University of Technology	ECIU
63	New Zealand	University of Otago	Distance learning
64		University of Auckland	Lifelong learning
65		University of Canterbury	Lifelong learning
66		Victoria University of Wellington	Lifelong learning
67		The University of Waikato	Adult Learning
68	Australia	University of Melbourne	Professional Development
69		University of Queensland	Lifelong learning
70		University of Sydney	Lifelong learning
71		University of Adelaide	Professional and Continuing Education
72		Curtin University	School of Pre-U and Continuing Education
73	USA	University at Buffalo	Office of Microcredentials
74		Harvard University	Professional and Lifelong Learning
75		University of California, Irvine	Division of Continuing Education
76		Northeastern University	Center for the Future of Higher Education and Talent Strategy
77		Georgia Institute of Technology	Georgia Tech Online



78	Canada	University of Toronto	School of Continuing Studies
79		University of Waterloo	Centre of Extended Learning
80		York University	School of Continuing Studies
81		Athabasca University	PowerED
82		McGill University	School of Continuing Studies
83	Hungary	University of Pécs	Educ Project

Annex 3: Questionnaire

Part 1: Lifelong Learning Courses/Programmes	
1. How many LLL courses/programmes do you provide per year?	<ul style="list-style-type: none"> ▶ 1–25 ▶ 26–50 ▶ 51–100 ▶ 100 +
2. How do you promote your LLL courses/programmes?	<ul style="list-style-type: none"> ▶ Own website ▶ Newsletter ▶ Social media, Job portals, In a particular company ▶ Print media (newspapers, journals...) ▶ Other, please specify:
3. What is the focus of your LLL courses/programmes?	<ul style="list-style-type: none"> ▶ Professional development, reskilling, upskilling ▶ Leisure ▶ Other, please specify.
4. What format are your LLL courses/programmes?	<ul style="list-style-type: none"> ▶ In person (teaching with the personal participation of the learner) ▶ Online (teaching in a virtual/online environment) ▶ Hybrid (some participants attend online while others in person) ▶ Blended (combines online and in person teaching)
5. How long does a LLL course/programme last on average?	<ul style="list-style-type: none"> ▶ 1–15 hours ▶ 16–50 hours ▶ 51–100 hours ▶ 100 + hours ▶ Cannot be specified.
6. How do you guarantee the quality assurance?	<ul style="list-style-type: none"> ▶ Open answer:
7. Who are the participants of your LLL courses/programmes?	<ul style="list-style-type: none"> ▶ Students ▶ Employees ▶ Foreigners ▶ Other, please specify
8. Which prerequisites do the participants need to enrol in your LLL courses/programmes?	<ul style="list-style-type: none"> ▶ Achieved level of education ▶ Age ▶ No prerequisites ▶ Other, please specify
9. Do you award credits for your LLL courses/programmes?	<ul style="list-style-type: none"> ▶ Yes ▶ No
10. Which credit system do you use?	<ul style="list-style-type: none"> ▶ Open answer
11. How do you determine the of credits to be awarded for your LLL courses/programmes?	<ul style="list-style-type: none"> ▶ Hours spent in the programme ▶ Hours spent in self-study ▶ Learning outcomes (paper submission, exam, ...) ▶ Other, please specify
12. Are the credits awarded for your LLL courses/programmes transferable to ECTS?	<ul style="list-style-type: none"> ▶ Yes ▶ No
13. What is the conversion rate to ECTS?	<ul style="list-style-type: none"> ▶ Open answer




14. Do you issue certificates for your LLL courses/programmes? <ul style="list-style-type: none">▶ Yes▶ No
15. Do you issue certificates in foreign languages?? <ul style="list-style-type: none">▶ Yes▶ No
16. What language/s do you issue your certificates in?? <ul style="list-style-type: none">▶ Open answer
17. What type of certificates do you issue for your LLL courses/programmes? <ul style="list-style-type: none">▶ Open answer
18. What form do your certificates take? <ul style="list-style-type: none">▶ Only printed▶ Only digital▶ Both, printed and digital
19. Do you keep evidence of the issued certificates? <ul style="list-style-type: none">▶ Yes▶ No
20. How do you keep evidence of the issued certificates?? <ul style="list-style-type: none">▶ Open answer
21. Do you issue, if necessary, a diploma supplement with a LLL certificate?) <ul style="list-style-type: none">▶ Yes▶ No
22. When do you issue diploma supplements? <ul style="list-style-type: none">▶ Open answer
23. Are there any mandatory elements prescribed for issuing the certificates?? <ul style="list-style-type: none">▶ Yes▶ No
24. Which authority prescribes the mandatory elements? <ul style="list-style-type: none">▶ Open answer
25. Please select which elements do your certificates contain. (indicate whether they are mandatory elements) <ul style="list-style-type: none">▶ Name of the institution▶ Address of the institution▶ Institution identification number▶ Certificate serial number▶ Name and surname of the learner▶ Date of birth of the learner▶ Place of birth of the learner▶ Name of the study program▶ Certificate issue date▶ Stamp of the institution▶ Signature of the authorized person▶ Programme start date and end date▶ Programme workload (hours)▶ Programme venue▶ Name of the lecturer▶ Type of assessment▶ Other, please specify
26. Who signs the certificates on behalf of your institution? <ul style="list-style-type: none">▶ Open answer
Part 2: Micro-credencial Courses/Programmes
27. Do you provide any micro-credencial courses/programmes? <ul style="list-style-type: none">▶ Yes▶ No
28. How many micro-credencial courses/programmes do you currently offer? <ul style="list-style-type: none">▶ Open answer

<p>29. Can you describe any challenges you have encountered or are encountering while implementing micro-credential courses/programmes and the solutions you have already tried?</p> <ul style="list-style-type: none"> ▶ Open answer
<p>30. Do you think the participants of your micro-credential courses/programmes have a better chance of employment? (1 = Do not have, 7 = Have a very big chance)</p> <ul style="list-style-type: none"> ▶ 1 – 2 – 3 – 4 – 5 – 6 - 7
<p>31. Does your institution recognize the learning outcomes of micro-credential courses/programmes in full degree programmes?</p> <ul style="list-style-type: none"> ▶ Yes ▶ No
<p>32. Do you award credits for your micro-credential courses/programmes?</p> <ul style="list-style-type: none"> ▶ Yes ▶ No
<p>33. How do you determine the number of credits to be awarded for your micro-credential courses/programmes?</p> <ul style="list-style-type: none"> ▶ Hours spent in the programme ▶ Hours spent in self-study ▶ Learning outcomes (paper submission, exam, ...) ▶ Other, please specify
<p>34. Are the credits awarded for your micro-credential courses/programmes transferable to ECTS (European Credit Transfer System)?</p> <ul style="list-style-type: none"> ▶ Yes ▶ No
<p>35. What is the conversion rate to ECTS??</p> <ul style="list-style-type: none"> ▶ Open answer
<p>36. Do you allow the micro-credentials to be stacked to a "bigger credential"?</p> <ul style="list-style-type: none"> ▶ Yes ▶ No
<p>37. Do you issue certificates for your micro-credential courses/programmes?</p> <ul style="list-style-type: none"> ▶ Yes ▶ No
<p>38. What form do your micro-credential certificates take?</p> <ul style="list-style-type: none"> ▶ Only printed ▶ Only digital ▶ Both, printed and digital
<p>39. What information do your micro-credential certificates contain?</p> <ul style="list-style-type: none"> ▶ Identification of the learner ▶ Title of the micro-credential ▶ Country/region of the issuer ▶ Awarding authority ▶ Date of issue ECTS (European Credit Transfer System) ▶ Level of the learning experience (EQF, NQF) ▶ Learning outcomes Form of learning Prerequisites for enrolment ▶ Type of assessment ▶ Supervision ▶ Quality assurance of the credential and the learning content, Grade achieved ▶ Integration/stackability options ▶ Other, please specify
<p>40. If you can, please upload a sample of a template you use for micro-credential or any other LLL certificates:</p> <ul style="list-style-type: none"> ▶ Upload file
<p>41. Do you have further information or comments to share with us?</p> <ul style="list-style-type: none"> ▶ Open answer

Annex 4: Abbreviations Used


Abbreviation	Full form
AES	Adult Education Survey
ANZSCO	Australian and New Zealand Standard Classification of Occupations
AQF	Australian Qualification Framework
BNVU	Bond van Nederlandse Volksuniversiteiten
CAS	Certificate of Advanced Studies
CDP	Continuing Professional Development
CEDEFOP	European Centre for the Development of Vocational Training
CEGEP	General and professional teaching college
CRICOS	Commonwealth Register of Institutions and Courses for Overseas Students
CVTS	Continuing Vocational Training Survey
ČSU	Czech Statistical Office
DAS	Diploma of Advanced Studies
DEQAR	Database of External Quality Assurance Results
DipHE	Diploma of Higher Education
DUO	Dienst Uitvoering Onderwijs n.d.
EBSI	European Blockchain Services Infrastructure
ECIU	European Consortium of Innovative Universities
ECTS	European Credit Transfer and Accumulation System
EHEA	European Higher Education Area
ENQA	European Association for Quality Assurance
EQF	European Qualifications Framework
ESG	European Standards and Guidelines
HESA	Higher Education Strategy Associates
HNC	Higher National Certificate
HND	Higher National Diploma
ISCED	International Standard Classification of Education
ITO	Industry Training Organisation
IUA	Irish Universities Association
LFS	Labour Force Survey




LOI	Leidse Onderwijsinstellingen
LRC	Lisbon Recognition Convention
MAS	Master of Advanced Studies
MOOC	Massive Open Online Course
NHA	Nationale Handelsacademie
NQA	National Quality Framework
NTI	Nederlands Talen Instituut
NVAO	Nederlands-Vlaamse Accreditatieorganisatie
NZQA	New Zealand Qualification Authority
NZQF	New Zealand Qualifications Framework
NZROA	New Zealand Record of Achievement
NZSCED	New Zealand Standard Classification of Education
OSAP	Ontario Student Assistance Program
PTE	Private Training Establishment
QF-EHEA	Qualifications Frameworks in the European Higher Education Area
RIO	Register Instellingen en Opleidingen
SCS	System Certification Services
SCQF	Scottish Credit and Qualifications Framework
SQF	Sectoral Qualifications Framework
SURF	Samenwerkende Universitaire RekenFaciliteiten
TEO	Tertiary Education Organisation
UofT	University of Toronto
UP	University Professional
VET	Vocational Education and Training
WDC	Workforce Development Council
WEF	World Economic Forum

Annex 5: Literature and Online Resources

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Annex 6: NZQA Microcredential Application Form



Micro-credential application form

Use this form for applying for new micro-credentials or making changes to micro-credentials.

It sets out the data to meet the requirements of the Qualification and Micro-credential Listing and Operational Rules 2022 and the Micro-credential Approval and Accreditation Rules 2022.

Use this form to apply for

- Listing and approval
- Listing, approval, and accreditation (education providers only)
- Accreditation only (education providers including schools and kura)
- Change to Micro-credential

Applicants may request that Te Hono o Te Kahurangi quality assurance is used for assessment of the application. In addition to meeting the requirements of this form, the application should relate to ngā kaupapa o Te Hono o Te Kahurangi. For more information see [Te Hono o Te Kahurangi quality assurance](#) or email tehono@nzqa.govt.nz.

Providers that do not hold consent to assess for standards in the micro-credential should apply for micro-credential support from the relevant Workforce Development Council (WDC) at the same time as requesting a letter of support for consent to assess. See each WDC's website for more information on consent to assess.

Apply online

Applications must be made as an 'Other' application through the NZQA online [application portal](#). The name of the application must include the term '**micro-credential**' and specify which type of application is being applied for.

Using this form

Please refer to the [Micro-credential Guidelines](#) when filling in this form.

Please include this form and all supporting documents with the online application.



Type of micro-credential application

(Tick all that apply)

Listing and approval	
Accreditation	
Accreditation with consent to assess	
Micro-credential change *	

* **For changes**, please include a tracked changes version of the micro-credential or training scheme and also complete the relevant sections of this form.

In sections of the form where changes do not apply, state n/a.

Name and contact details

Name of institution:		MoE number:	
Contact name and details:			

For changes

Micro-credential ID:		NZQCF (reporting) code:	
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NZQCF Listing

Refer to Micro-credentials Guidelines Section 3.

Title

--

Level and credits

--	--

Classification (NZSCED)

--



Purpose

Use, relevance Target learner group
--

Outcome

Knowledge, skills, and attributes Pathways On successful completion of this micro-credential, learners/ākonga will be able to:
--

Skill standards / Assessment standards:

ID	Title	Level	Credit

Review period

Month Year

Approval

Refer to Micro-credentials Guidelines Section 4.

Learning outcomes

Component learning outcomes

Need and acceptability

The content reflects /meet the needs of stakeholders
--



Requirements

Admission

Entry requirements

Credit recognition and transfer, recognition of prior learning

--

Length

--

Structure

--

Assessment methods

--

Completion

--

Review process

Planned procedures for review

Accreditation

Refer to Micro-credentials Guidelines Section 5.

Consent to assess

Indicate the standards' CMRs if consent to assess is required:

ID/domain	CMR



Delivery

Approach, mode, and methods

Evidence to meet the CMR for the standards (if applicable) eg Off-site Practical/Work-Based Components

Assessment

Assessment materials and decisions

Evidence to meet the CMR for the standards (if applicable)

Moderation

Internal and external moderation systems

Pre-assessment moderation of materials

Post-assessment moderation

Evidence to meet the CMR for the standards (if applicable)

Resources

Staffing

Qualifications and experience

Evidence to meet the CMR for the standards (if applicable)

Facilities

Delivery site/s

Evidence to meet the CMR for the standards (if applicable)

Educational and physical resources

LMS, online and physical resources; materials, equipment, clothing etc

Evidence to meet the CMR for the standards (if applicable)



Student support services

Information for students
Learning support/Workplace support etc
Evidence to meet the CMR for the standards (if applicable)

Review

How organisational capability will be reviewed and developed
Evidence to meet the CMR for the standards (if applicable)

Change to micro-credential

Refer to Micro-credentials Guidelines Section 6.

Summary of change and rationale

Please summarise the changes and confirm the need for the proposed change.

Impact of change

Please describe the consultation with affected stakeholders.

Quality assurance

Please provide evidence of the education organisation's internal review and approval of the proposed changes to the micro-credential.

Sub-contracting

Sub-contracting of micro-credential delivery can be notified to NZQA (where both parties hold accreditation) or applied for by the accreditation holder (where the sub-contractor does not hold accreditation). See Section 7 of the Micro-credential Guidelines for more information.

Contact

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