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PoMiSA
Connecting Credentials Creating Futures

The State of Play of Microcredentials in:

Estonia

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Acronyms and abbreviations

Cedefop	European Centre for the Development of Vocational Training
CHE	Council on Higher Education
EC	European Commission
ECTS	European Credit Accumulation and Transfer System
EQF	European Qualifications Framework
EstQF	Estonian Qualifications Framework
EU	European Union
GDP	Gross Domestic Product
HARNO	Estonian Education and Youth Board
HEI	Higher Education Institution
ICT	Information and Communication Technology
NQF	National Qualifications Framework
NWU	North-West University in South Africa
OECD	Organisation for Economic Co-operation and Development
PISA	Programme for International Student Assessment
PoMiSA	Potential of microcredentials in Southern Africa
R&D	Research and Development
RPL	Recognition of Prior Learning
STEM	Science, technology, engineering, and mathematics
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNICEF	United Nations Children's Fund
UT	University of Tartu

Chapter 1

Introduction

1.1 Purpose of the report

1.1.1 PoMiSA purpose and scope

The Potential of Microcredentials in Southern Africa (PoMiSA) is a collaboration between Southern African and European universities and other higher education entities exploring the potential of microcredentials within their respective national and regional contexts. PoMiSA is systematically developing principles, policies, frameworks, and guidelines for good practice regarding the recognition, definition, provision, quality assurance, and regulation of microcredentials. The initiative specifically focuses on capacity building in higher education and training, including high-level technical and vocational education and training, and, crucially, the interface with employers (Alasmari 2024).

PoMiSA provides a platform in South Africa for the Department of Higher Education and Training, the South African Qualifications Authority, the Council on Higher Education (CHE), the Quality Council for Trades and Occupations, and the post-school sector to jointly formalise agreed definitions and a position on microcredentials. This process should be carried out in collaboration with employers and other demand-side actors and could lead to the establishment of a permanent infrastructure for microcredentialing (CHE 2022). The process would align with developments currently underway in many parts of the world, including PoMiSA partner countries, as well as Australia (Australian Government 2021), Malaysia (Malaysian Qualifications Agency 2020), and the Seychelles (Seychelles Qualifications Authority 2024).

1.1.2 Definitions of microcredentials

The emergence of microcredentials globally (Council of the European Union 2022; OECD 2023; UNESCO 2023) has led to a strong push for common definitions and standards. Global organisations, including the United Nations Educational, Scientific and Cultural Organization (UNESCO), the European Commission, the European Training Foundation, the European Centre for the Development of Vocational Training (Cedefop), and the Groningen Declaration Network, have played key roles in defining microcredentials and proposing approaches and guidelines.

The UNESCO definition of a microcredential is the outcome of a global consultation process commissioned by UNESCO in 2021, involving a panel of 47 experts and led by Beverly Oliver (UNESCO 2022). This definition serves as a valuable reference point for the International Labour Organization and UNICEF in their efforts to assess existing definitions, practices, and functions of microcredentials.

A microcredential:

- *Is a record of focused learning achievement verifying what the learner knows, understands or can do.*
- *Includes assessment based on clearly defined standards and is awarded by a trusted provider.*
- *Has standalone value and may also contribute to or complement other microcredentials or macro-credentials, including through recognition of prior learning.*
- *Meets the standards required by relevant quality assurance.* (UNESCO 2022: 6)

1.1.3 Purpose of the report

This report presents the existing 'state of play' of microcredential conceptualisation, policy development and implementation in Estonia in both the public and private sectors with respect to provision of, need for, interest in and effectiveness thereof. Microcredentials are a

field of growing interest in both in Europe, including Estonia, as well as across the PoMiSA partner countries (UNICEF 2024) and globally (Cedefop 2022). The report aims to give an overview of the evolution and key aspects of microcredentials in Estonia. The report can, moreover, contribute to groundwork for developing guidelines for microcredentials in other country-specific contexts, including among partners in South Africa, and, additionally, provide input for facilitating current and future compatibility of adult learning formats and cooperation regionally and globally.

The report, focusing on the case study of Estonia, has five chapters: 1) an introduction; 2) conceptualisation of microcredentials; 3) analysis of implementation and effectiveness of microcredentials; 4) microcredential policy development, and 5) a summary of findings and policy recommendations.

1.2 Methodology

The methodology adopted for this study involved a close analysis of the research questions provided by the NWU Work Package 2 group (see table below). The authors conducted a desktop literature review, focusing on Estonia, to extract material relevant to the respective questions. The documents were sourced using the Google search engine, and topics were organised according to previously agreed themes. Where possible, information was verified through the triangulation of multiple sources

The report is primarily based on a desktop review using the following categories of resources:

- Legislative documents published by the Estonian government and Ministry of Education and Research.
- Documents published by the European Union on microcredentials and learning.
- Statistics on Estonia.
- Publications and grey literature on the use of microcredentials in Estonia.

Given that microcredentials have emerged in Estonia only in the past couple of years, there were several instances where public information was lacking. In such cases, the authors supplemented the data with their expert knowledge and practical experience from the implementation of microcredentials at the University of Tartu, Estonia. Towards the end of writing this report, additional materials were incorporated; most importantly, these included the cover letter and accompanying documents related to the bill on legislative amendments to incorporate microcredentials, which was discussed by the Estonian Parliament in 2024.

Despite acknowledging the limitations of this research, it provides insight into the maturity level of microcredential implementation, particularly in the field of higher education in Estonia. It also examines the role of Estonian legislation in regulating and ensuring quality in this microcredential initiative.

Table 1: Research themes and questions

Research Theme	Research Questions
Microcredential Conceptualisation	What are the key political, economic, social and technological drivers and attractors for adopting microcredentials in Estonia? How do these drivers and attractors align with current educational and workforce trends? How are microcredentials defined and understood by various stakeholders (educational institutions, students, employers, policymakers) in Estonia? How do/could stakeholders' views on microcredentials impact their practical implementation?
Public and Private Sector Microcredential Providers	What is the current/projected role of public and private sector providers of microcredentials in Estonia? What benefits do/could users gain from microcredentials offered by these providers? What variations exist in the needs of microcredential users across formal, non-formal and informal education sectors?
Microcredential Implementation and Effectiveness	What criteria would indicate that microcredentials effectively meet their envisaged educational and vocational objectives in Estonia? To what extent are the socio-economic impacts of microcredentials being considered, particularly regarding access, equity, and inclusion in Estonia? How do industries respond to and/or recognise microcredentials, and what challenges and opportunities does this present? What key factors are most likely to positively or negatively influence the implementation, impact and long-term sustainability of microcredentials?
Microcredential Policy Development	How is/should quality assurance (be) managed for microcredentials in Estonia? What progress has been made toward institutional and/or national standards in Estonia?

To what extent are microcredentials integrated into, or being considered for, integration with the national and regional qualifications frameworks?

What practical steps should be taken in developing national and regional microcredential policy framework?

1.3 Estonia: Overview and context

DEMOGRAPHICS

Population size and distribution

Estonia has a relatively small population of around 1.3 million people, with significant urbanisation trends. A large proportion of the population resides in urban areas, particularly in the capital city, Tallinn, and the second-largest city, Tartu. Rural areas are more sparsely populated and face challenges such as depopulation and ageing communities. Regional disparities between urban centres like Tallinn and rural areas can be significant, with rural regions experiencing higher rates of unemployment, lower wages, and fewer educational opportunities. This demographic distribution presents a potential challenge for equitable access to education, particularly in rural regions, where access to educational infrastructure and employment opportunities may be more limited. These disparities underscore the importance of creating accessible and flexible learning pathways for rural residents.

Age structure

Estonia is experiencing a demographic shift towards an ageing population, with a median age of approximately 43. This ageing trend is likely to continue, as fertility rates remain below replacement levels and life expectancy increases. The working-age population is shrinking, resulting in a smaller labour pool and increasing pressure on the existing workforce to remain competitive in the labour market. Estonia has a history of emigration, particularly among younger adults seeking better opportunities abroad. However, in recent years, immigration has increased, with returning Estonians as well as citizens from other countries, particularly from Eastern Europe and Central Asia. Additionally, Estonia has seen an influx of digital nomads and expatriates, attracted by its favourable digital environment and remote work policies.

Workforce

Estonia's labour force participation rate is high, but like many European countries, there is a growing need for continuous skill development, particularly in sectors such as ICT, manufacturing, and green technologies. Estonia's workforce is highly educated, with a significant proportion holding tertiary qualifications, yet a gap remains in specialised, niche skills that could be addressed through targeted, short-term training programmes.

While Estonia has a relatively balanced gender ratio, disparities persist in certain educational and occupational fields. Women are more likely to pursue higher education, yet they remain underrepresented in sectors such as ICT and engineering, where skill shortages are most acute.

SOCIOECONOMIC CONTEXT

Economy and labour market dynamics

Estonia has a small, open, tech-driven economy that has undergone a complete transformation since the end of the Cold War, transitioning from a socialist to a market economy. More recently, Estonia has been known for its rapid growth and strong focus on innovation and digital transformation. The country's economy has shifted from being largely resource-based to focusing on technology, services, and innovation, with information and communications technology (ICT) playing a key role. Estonia's GDP growth has been robust, although it has faced challenges such as regional economic and income disparities and labour shortages in key sectors such as technology, healthcare, and manufacturing.

While Estonia has experienced significant economic growth in recent years, the current economic situation presents notable challenges. Estonia's economy has slowed, impacted by both global and regional factors. Rising inflation, energy prices, and disruptions in global supply chains have put pressure on businesses and households. The once-rapid growth driven by the tech sector and digital innovation has decelerated, raising concerns about the ability to sustain long-term economic growth. Energy prices have spiked, affecting industries across the board and increasing the cost of living for households. The reliance on oil shale, a domestically sourced but environmentally damaging energy resource, is becoming increasingly untenable as Estonia pushes towards green energy transitions.

The Estonian labour market is characterised by relatively high employment rates, but the economy faces a mismatch between available jobs and skills. There is a shortage of qualified workers in fields such as ICT, healthcare, and engineering, while traditional industries are becoming more automated. Automation is reshaping industries across Estonia, particularly in manufacturing, logistics, and services. While automation increases productivity, it also creates a skills gap, requiring workers to transition to new roles that demand more advanced digital and technical skills. This has prompted a growing focus on reskilling and upskilling the workforce to prepare for the jobs of the future.

The Estonian government is actively promoting lifelong learning and vocational education to address these gaps, with a particular focus on digital skills and green jobs. Initiatives have been introduced to support reskilling and upskilling programmes, particularly in the tech sector, to combat labour shortages and improve workforce competitiveness. As a member of the EU, Estonia benefits from access to the broader European market and labour mobility, but it also faces competition for talent. Globalisation has increased the need for continuous skill development, particularly in rapidly evolving industries.

At the same time, despite rising unemployment in certain sectors due to economic contraction, Estonia continues to face severe labour shortages in key industries. This paradox reflects a skills mismatch, where available workers lack the qualifications or training needed for in-demand jobs. As a result, companies are increasingly relying on foreign labour, while skilled Estonian workers continue to emigrate in search of better opportunities.

Income inequality and regional disparities

While Tallinn and other urban centres continue to benefit from economic development, rural areas remain behind. The income gap between urban and rural regions is widening, with rural areas experiencing higher unemployment rates, lower wages, and fewer opportunities for growth. Certain regions, such as northeast and southeast Estonia, lag behind in terms of economic development, which has implications for wages, employment opportunities, and modern infrastructure. The government has introduced economic programmes, mostly funded by the EU, to address the challenges in Ida-Viru County in the northeast of Estonia.

TECHNOLOGICAL SATURATION

Estonia has been a leader in digital innovation and was dubbed the "most advanced digital society" by *Wired* magazine as early as 2015 (Hammersley 2017). The government's e-Estonia initiative, a cornerstone of Estonia's technological landscape, has digitised public services, making its technological infrastructure

one of the strongest in Europe. The country boasts near-universal internet access, with over 90% of the population connected to the internet. Estonia was also one of the first countries to implement e-governance, allowing residents to complete tasks such as voting, filing taxes, and accessing healthcare services online. However, regional disparities persist: rural regions, particularly in the northeast, experience slower internet speeds, fewer public Wi-Fi spots, and limited access to advanced technologies compared to major cities such as Tallinn and Tartu.

Estonia's education system has embraced digital tools, with many schools and universities offering e-learning options. During the COVID-19 pandemic, the country successfully transitioned to remote learning, further solidifying digital education as a viable alternative to traditional methods. Estonia also has a strong culture of digital literacy, with residents familiar with using online platforms for learning and development.

Estonia's workforce is tech-literate, with a significant portion of the population working in ICT and related fields. The country has a strong base of software developers, data analysts, and cybersecurity experts and is home to many tech startups, including companies such as Skype and TransferWise. This tech-savvy environment creates a demand for continuous skill development, particularly in emerging technologies.

At the same time, in the current economic crisis, innovation in Estonia has been lagging behind in recent years. In part due to national austerity measures, companies and entire industries have been struggling to survive.

EDUCATION

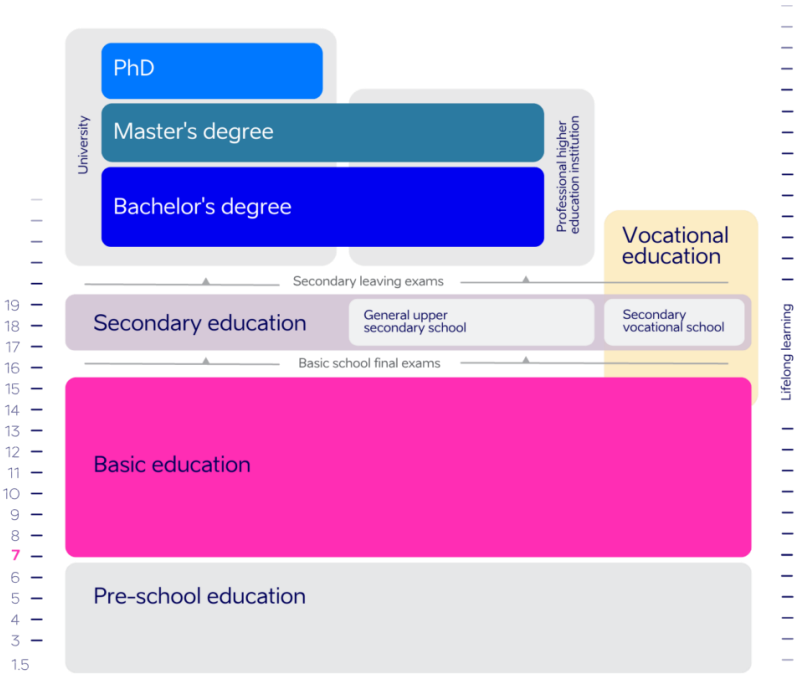
Estonia's education system is often praised for its high quality, inclusiveness, and digital integration. Estonian pupils consistently rank among the top in Europe in the international PISA (Programme for International Student Assessment) survey, conducted at the initiative of the OECD. The education system is regulated by the Ministry of Education and Research, ensuring equitable access to formal education and maintaining stringent quality assurance standards across both the public and private sectors.

Structure of the education system

The formal education system in Estonia is structured into the following levels (see Fig. 1 below, where the numbers in the left-hand column indicate the typical age of learners at each specified level):

- Pre-school education – for children aged 18 months to 7 years
- Basic education – compulsory for all children (primary and lower secondary education, grades 1-9)
- General secondary education (provided by upper secondary schools or vocational education institutions)
- Higher education (offered by universities, applied universities, and professional higher education institutions).

Figure 1: Estonian education system (Education Estonia, n.d.)



Estonia adopted an eight-level Estonian Qualifications Framework (EstQF) in 2008, which is similar to those of other EU member states (see Fig. 2). Qualification level 2 in Fig. 2 is obtained upon completion of basic education after finishing ninth grade, while qualification level 4 is attained upon completing secondary education. Level 5 is the highest possible qualification in vocational education, and levels 6–8 correspond to higher education at universities.

Figure 2: Estonian Qualifications Framework (Estonian Education and Youth Board, n.d.)

EKR/EQF	Kvalifikatsioon/Qualification			
8	**Doktorikraad** Doctoral Degree			
7	**Magistrikraad** Master's Degree	**Arstikraad** Degree in Medicine	**Hambaarstikraad** Degree in Dentistry	**Loomaarstikraad** Degree in Veterinary Medicine
6	**Bakalaureusekraad** Bachelor's Degree			
5	**Kutseerihariduse lõputunnistus** Certificate of Specialised Vocational Education			
4	**Gümnaasiumi lõputunnistus** Certificate of General Secondary Education	**Kutsekeskhariduse lõputunnistus** Certificate of Vocational Secondary Education	**Neljanda taseme kutseõppe lõputunnistus** Certificate of Vocational Education Level 4	
3	**Kolmanda taseme kutseõppe lõputunnistus** Certificate of Vocational Education Level 3			
2	**Põhikooli lõputunnistus** Certificate of Basic Education	**Põhikooli lihtsustatud õppekava lõputunnistus** Certificate of Simplified Basic Education Programme	**Teise taseme kutseõppe lõputunnistus** Certificate of Vocational Education Level 2	
1	**Toimetuleku õppekava lõputunnistus** Certificate of Moderate Learning Disabilities Programme			

Role of public and private sector

The public sector dominates formal education in Estonia, particularly in basic and secondary education. The Republic of Estonia allocates 6.4 percent of its GDP to education, one of the highest proportions among EU member states (EuroStat 2020). Though smaller in number, private educational institutions play a critical role in non-formal and informal learning. These include private companies, vocational training centres, and professional development organizations that often offer more flexible, industry-oriented learning solutions.

Lifelong learning

The Estonian government, educational institutions, and the private sector have all played key roles in promoting and supporting lifelong learning. Estonia's approach to lifelong learning is guided by national strategies, most notably the Education Strategy 2021–2035, which sets ambitious goals for increasing adult participation in education, with a particular focus on upskilling and reskilling. The plan emphasises the need for accessible learning opportunities that are aligned with labour market demands and technological advancements. Non-formal education plays a key role in Estonia's lifelong learning ecosystem. This includes adult education centres, vocational training providers, and online learning platforms.

Estonia's high level of digital integration has had a profound impact on lifelong learning, making online education widely accessible. Digital learning platforms such as Moodle, Coursera, and Estonian-based e-learning tools are commonly used by adult learners for both formal and non-formal education. The ability to access learning remotely has expanded opportunities for lifelong learning, particularly for those in rural areas or those who are already employed full-time.

Accreditation and quality assurance

The Estonian Quality Agency for Higher and Vocational Education oversees quality assurance in higher education and vocational training. Non-formal education, including microcredentials, is less regulated, though the government has begun addressing this gap by proposing clearer quality standards and introducing mechanisms to ensure the validity of microcredentials offered by private training providers.

Chapter 2

CONCEPTUALISATION OF MICROCREDENTIALS

2.1 Key drivers for adopting microcredentials in Estonia

The immediate impetus behind the emergence of microcredentials[1] in Estonia was the recommendation adopted by the Council of the European Union (EU) in June 2022, which encouraged all EU member states to follow a common European approach to microcredentials (Council of the European Union 2022). At the time, there was no official definition or understanding of microcredentials in Estonia, but the need for one was highlighted in various documents emphasising the importance of recognising prior learning experiences, enhancing motivation for lifelong learning, and encouraging individuals with lower levels of education to continue their studies (Kivistik et al. 2021: 30).

As noted by other authors, various small units of learning have long been provided by higher education institutions (HEIs), and the innovation introduced by microcredentials lies primarily in the attempt to standardise their provision (Cirlan 2023: 4). The same applies to Estonia. However, in addition to the EU-level policy initiative, there were (and still are) a number of domestic drivers that explain Estonia's rather enthusiastic adoption of microcredentials.

Political considerations. There is broad political will in Estonia to implement the EU Council recommendations at the national level, aligning the country with the EU's rules and standards while enhancing the competitiveness of the labour force in the EU's internal market. In addition, the introduction of microcredentials aligns with various national strategies, such as the long-term development strategy Estonia 2035 and the Education Strategy 2021–2035 (both adopted in 2021).

According to the Education Strategy, Estonia aims to have at least 25% of adult learners engaged in lifelong learning through formal and non-formal education by 2035, up from a baseline of 20.1% in 2019 (Ministry of Education and Research 2021: 11). The document proposes an action towards "Flexible learning opportunities, high-quality education, and supported learning", with smaller-scale study opportunities such as microcredentials being one of the main innovations in this regard.

The policy considerations respond to various long-term trends, such as technological development, geopolitics, and climate change at the global level, as well as demographic decline and a shortage of skilled labour (particularly in the manufacturing industry) at the national level. The resulting social and economic changes necessitate a more flexible and inclusive approach to education.

Labour market needs. Various policy analyses and reports have highlighted the need for Estonia to adapt to the demands of the labour market. Estonia's most recent economic competitiveness report from 2024 identifies five crucial areas that need to be addressed: 1) a shortage of qualified labour; 2) low levels of

[1] Following the conceptualisation by the PoMiSA project, the term "microcredential" is used as an umbrella term referring to a record of recognised and assessed learning experiences and achievements that are usually small in volume or short in duration. However, it must be noted that in the Estonian context, a distinction is made between a microqualification and a microcredential. A microqualification is a general term for a set of verified and recognised knowledge and skills necessary primarily in the labour market or for meeting societal needs. Meanwhile, a microcredential is a type of microqualification that can only be issued by a higher education institution, on the condition that at least half of the microcredential curriculum consists of courses offered in degree studies (Ministry of Education and Research 2024: 8-9).

digitalisation and automatisation, as well as resource efficiency; 3) high levels of bureaucracy and a lack of clarity in political decision-making; 4) higher cost of capital compared to most other EU countries; 5) potential increases in costs related to the green transition towards a more ecologically sustainable economy (Konkurentsivõime ekspertkogu 2024: 5–6).

As a result, there is a generally positive outlook towards microcredentials among employers. Microcredentials could help alleviate the shortage of qualified labour to some extent by providing retraining and upskilling, enabling the faster production of necessary specialists compared to formal education. However, the sectors most in need are looking for highly qualified specialists—an issue that cannot be resolved solely through short-term education or training.

Attitudes towards education and lifelong learning: In Estonia, education is mostly state-funded, except for private schools and higher education in English. Higher education is free of charge for those studying full-time in Estonian, though restrictions apply from a second higher education onwards at the same study level within ten years of graduating from previous education.

It is quite common for individuals to obtain multiple qualifications at different study levels or to re-enter the education system once the restriction period no longer applies. Individuals with higher education can pursue professional education, which does not necessarily lead to a career change but is often undertaken for self-development. This places a financial strain on the country, and recent legislative changes have introduced further restrictions to address this previously lenient policy.

In this situation, microcredentials can offer an alternative to meet the needs for professional or personal development. Although microcredentials are almost exclusively fee-based, they are more affordable than degree-based education and can be financially manageable for both employers and individuals.

Underfunding of public HEIs by the state. Since 2013, public HEIs in Estonia have been legally obligated to offer full-time higher education in Estonian free of charge. In return, the state is expected to provide funding. As a result, higher education is largely dependent on government policy priorities and the state budget. Although political commitment is reaffirmed rhetorically, financial support to HEIs has not increased in line with the rising cost of living. Opportunities to involve private funding are limited. The most common approach is securing external research funding, followed by the introduction of either part-time study programmes or programmes in English. Part-time programmes have proven successful in only a few disciplines (such as Law), where there is high public demand.

Due to the culture of free education outlined above, individuals tend to seek non-fee-based education opportunities. However, HEIs have begun discussing more openly the creation of additional fee-based education opportunities.

Therefore, HEIs have seized the opportunity to offer microcredentials as a means of increasing their income. In many cases, this is also seen as a way to optimise resources, as degree-seeking students and microcredential learners are taught together in the same group. However, this approach can be problematic in practice, both didactically and in terms of quality assurance.

2.2 Alignment with current educational and workforce trends

Education and workforce trends in Estonia are similar to those in other EU member states. Given modern trends in the reorganisation of various economic sectors—particularly those affected by the transition to a carbon-neutral economy—and the shortage of qualified labour, combined with the overall decline in taxpayers needed to sustain a social welfare system struggling with an ageing population, the focus is on retraining, upskilling, immigration of skilled labour, automation, and digitalisation.

In higher education, the number of adult students (aged 30 and above) has been declining in recent years, mirroring the overall drop in student numbers. Conversely, in vocational education, the number of adult learners has been increasing each year, reaching approximately 32% of all vocational students in the 2015–16 academic year (Reinhold 2016: 10).

The need for more accessible, flexible, and diverse learning opportunities remains a priority at the state level. In Estonia, participation in formal and non-formal education is more strongly influenced by job-related factors—such as workplace characteristics, skill intensity, industry, sector, and company size—than by personal traits like education level and skills. About half of adults engage in education primarily to improve job performance, with the next most common reason being the desire to gain knowledge and skills in an area of personal interest (Reinhold 2016: 12). Microcredentials can help address gaps created by changing economic trends, particularly with supportive measures from employers, such as financial assistance and/or flexibility for taking time off to study.

With respect to the unemployed, all registered unemployed individuals can access various labour market training opportunities with financial support from the Unemployment Fund, tailored to their training needs and labour market conditions (assessed based on various skills and labour demand surveys). For microcredentials, it is therefore crucial to define and verify the specific competence being acquired with evidence that aligns with labour market needs (Kivistik et al. 2021: 33).

Participation in such a microcredential programme thus requires an administrative tracking system with continuous monitoring of the individual's participation and progress. The HEI must provide evidence to the Unemployment Fund that participants funded by the scheme are regularly attending the programme. Once the study programme has been successfully completed, a certificate listing the qualifications obtained is issued. The certificate may be provided either as a paper copy or as a digital certificate[2].

Whereas automation and digitalisation are on the rise globally, many international and national experts have encouraged Estonia to adopt a carefully monitored migration strategy for highly skilled labour, rather than migration

[2] Information on the digital certificate at the University of Tartu: https://ut.ee/en/digital-continuing-education-certificates

where upskilling is required (e.g., via microcredentials).

2.3 Definition of microcredentials by various stakeholders

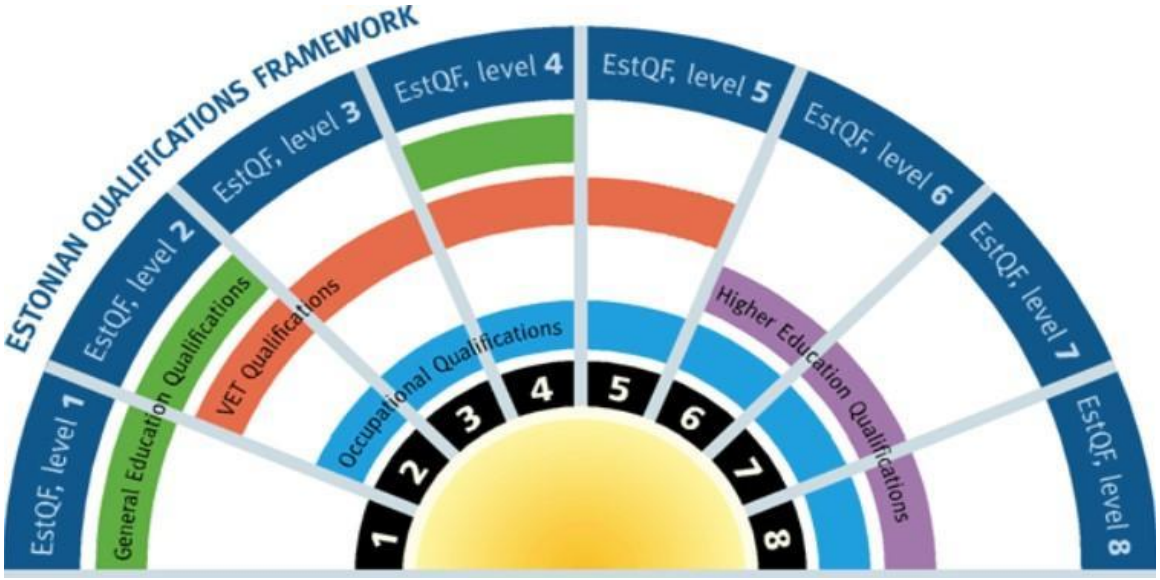
As of autumn 2024, no formal definition of microcredentials has been agreed upon in Estonia. However, a bill was submitted to the Estonian Parliament on 15 July 2024 for consideration, proposing amendments to the Adult Education Act to regulate the provision of microcredentials in Estonia (Kultuurikomisjon 2024). While the Parliament has not yet passed the suggested amendments, they are at a sufficiently advanced stage to be discussed in this report.

The bill differentiates between a *microqualification* and a *microcredential:*

A microqualification is defined as "a set of verified and recognized knowledge and skills necessary primarily in the labour market or for meeting societal needs". A microqualification can be designated as a microcredential if: 1) it is offered by a recognised HEI, and 2) at least 50% of the overall microqualification programme consists of courses from a higher education degree programme. (Ministry of Education and Research 2024: 8-9)

In line with the European Qualifications Framework (EQF), Estonia has adopted an eight-level qualification framework that covers both formal education and professional qualifications. Under the Professions Act, a qualification is defined as a "competence recognised as an official result of assessment" (Professions Act, n.d.: §3(5)). Professional levels are linked to educational levels, creating a unified qualification framework that is internationally comparable. Microcredentials have not been placed directly within the Estonian Qualifications Framework (EstQF) but can be considered part of it under various qualification levels (Kivistik et al. 2021: 30), particularly in relation to lifelong learning.

Figure 3: Estonian Qualifications Framework (Ministry of Education and Research of Estonia, n.d.)



Having only a rather vague definition of a microcredential has led to a situation in Estonia where each HEI (or other continuous education provider) has its own interpretation of the term. In practice, the key shared characteristics of microcredentials across Estonian HEIs have been the following:

- Short duration of the study programme compared to formal education (0.5–1.5 years).
- A small and specific curriculum, usually consisting of fewer than five subjects.
- Designed to provide specialised (professional) knowledge and competencies.
- Often emphasises continuous education and lifelong learning, i.e., while many microcredentials are open to adult learners with at least secondary education, it is frequently assumed—either directly or indirectly—that the learner has already obtained some formal or professional education and is motivated to gain further specialisation related to their work or in preparation for a career change.
- Upon full completion of the programme, the HEI issues a formal diploma/certificate that aligns with its institutional standards as well as national and international regulations.

In many cases, the microcredentials offered by HEIs can also be integrated into their existing degree programmes using the principles of Recognition of Prior Learning (RPL). This makes microcredentials attractive to learners considering further degree studies. However, as of today, there is no formalised way to aggregate multiple microcredentials or other forms of microlearning into a unified and comprehensive learning experience. One potential avenue is currently being explored by the University of Tartu, which is developing a Master's programme in Social Sciences that can be assembled from various microcredentials. This initiative could enable HEIs to attract new learners on the one hand while generating additional revenue from the market for the otherwise state-funded higher education sector on the other. The main limitation from the learners' perspective is that the microcredentials must be obtained from the same institution, meaning it is not possible to integrate external learning experiences.

Legal amendments have been proposed requiring microcredentials in Estonia to adhere to the following standards:

- **Outcomes-based curriculum:** Microcredentials must have a clearly defined structure and content that align with the outlined learning outcomes. The training must correspond to labour market needs and adhere to quality assurance measures to ensure the microcredential remains relevant and valuable.
- **Quality requirements for the microcredential provider:** Providers of microcredentials must meet established quality standards. Only institutions offering formal education or licensed training institutions with the right to provide education in a specific study area, study field, or study programme—and which have passed quality assessment in the relevant curriculum group—can issue microcredentials.
- **Volume of a microcredential:** The suggested range for microcredential volume is between 5 and 30 ECTS. The workload must be calculated in ECTS to ensure international recognition.

Employers expect microcredentials to provide a relatively quick solution to their business needs, doing so flexibly and with as few entry limitations as possible. From the perspective of both learners and employers, microcredentials should primarily aim to increase the learner's competitiveness in the labour market rather than serve as an additional track towards further (degree-based) education (Kivistik et al. 2021: 38–39). However, given that education is highly valued socially and culturally in Estonia, the option of obtaining a formal degree should not be removed entirely but instead offered as an additional pathway for those who wish to pursue it.

A key challenge, particularly for employers and policymakers, is that the microcredentials on offer may not always align with the competencies required in the labour market. On the one hand, microcredentials are fully market-based and must account for employer needs to remain competitive. On the other hand, HEIs have commonly developed microcredentials by repurposing courses from degree programmes rather than creating tailor-made courses for microcredential learners. In this context, special attention must be paid to learning outcomes, the flexibility of studies, and the specific needs and motivations of adult learners.

2.4 Impact of stakeholders' views on the practical implementation of microcredentials

While HEIs are currently the main providers of microcredentials, operating within an environment shaped by policymakers, they must remain competitive with other private providers in the microcredentials market. Therefore, other stakeholders—such as learners and employers—are likely to have the most significant influence on their implementation.

For learners, the key aspects of microcredentials are as follows (University of Tartu, n.d.):

- Short-term, flexible study format that takes into account learners' needs and diverse educational and professional backgrounds.
- Up-to-date content with clear learning outcomes and competencies that enhance labour market competitiveness through upskilling or retraining.
- Strong administrative and technical support, considering learners' potential unfamiliarity with HEI institutional rules, regulations, and practices.
- Efficiency in time management and administrative arrangements, ensuring streamlined procedures.

While it is still too early to conduct significant formal national-level surveys on the benefits of microcredentials for learners, initial feedback surveys conducted by HEIs indicate a clear positive impact on their careers. This includes higher pay, increased responsibility, new professional opportunities, or other benefits.

For employers, the main expectations of microcredentials are as follows:

- Short-term and flexible study formats that allow employees to gain the required skills within a relatively short period, enabling them to balance work and studies.

- A modern, high-quality programme incorporating the most up-to-date content in the relevant field, on which company-specific skill sets can be built.

For HEIs, there is a clear learning curve in the implementation process. Leaving aside other long-established continuous education programmes, the first microcredential programmes in Estonian HEIs were launched in autumn 2022. HEIs generally set internal structural requirements that programmes must adhere to. For example, at the University of Tartu, a microcredential programme must have a workload of 12–24 ECTS and a duration of one to two semesters.[3]

Furthermore, as a rule, the courses included in a microcredential programme should be part of an existing degree curriculum. This has inevitably led to complex situations in which diverse learners—degree-seeking students and lifelong learners—are taught simultaneously within the same learning framework, despite having differing prior experiences, current needs, and expectations, which are sometimes conflicting. While some HEIs have successfully introduced flexible and modular educational programmes for all adult learners, these remain exceptions rather than the norm. Given that education must meet institutional quality standards, HEIs must sometimes make additional efforts to adjust or redesign programmes to address the varying prior experiences of diverse learners in order to achieve the expected outcomes.

As a result, universities have come to realise that attempts to optimise operational efficiencies without considering the needs of other stakeholders cannot ensure success. Instead, they must carefully navigate between the expectations of various stakeholders and their institutional standards.

2.5 Summary

Microcredentials in Estonia have gained traction largely due to EU Council recommendations and national strategies that emphasise lifelong learning, workforce development, and the need for greater flexibility in educational opportunities. While microcredentials are still loosely defined in Estonia, proposed legal amendments aim to standardise their structure and quality. The primary drivers of microcredential adoption include political alignment with EU standards, economic demands for a skilled workforce, social interest in accessible education, and technological advancements.

Political drivers include Estonia's commitment to EU guidelines and alignment with national strategies such as Estonia 2035 and the Education Strategy 2021–2035, both of which advocate for flexible learning to support a lifelong learning culture. Economically, Estonia's workforce faces challenges, including skilled labour shortages and limited digitalisation, prompting employers to support microcredentials as rapid upskilling options. Socially, state-funded education policies have encouraged multiple learning pathways, yet

[3] In the Estonian higher education system, 1 ECTS equals 26 hours of work. In degree studies, students must complete 30 ECTS per semester and 60 ECTS per academic year. One semester lasts five months, and an academic year consists of two semesters. Therefore, the workload of a microcredential may be significantly lower compared to degree studies.

rising public costs are pushing Estonia towards microcredentials as cost-effective alternatives to degree-based education. Technologically, the need to address labour skill gaps and enhance adaptability in a digital economy underscores the relevance of microcredentials in upskilling and reskilling.

However, challenges remain. HEIs often integrate microcredentials into traditional programmes, which may not fully meet labour market needs or lifelong learners' expectations for flexibility. A formalised microcredential framework has yet to be established, and HEIs frequently apply different standards and structures, leading to inconsistencies.

Chapter 3

IMPLEMENTATION AND EFFECTIVENESS OF MICROCREDENTIALS

3.1 Role of public and private sector providers of microcredentials and their benefits for users

Currently, only accredited public and private HEIs, or an HEI in cooperation with the private sector, may offer microcredential programmes in Estonia. There are 19 HEIs in Estonia, and they must request a registration licence from the government to offer studies in a given field and at a specific level of education. Additionally, HEIs are externally evaluated by an independent accreditation agency. It must be emphasised that the proposed amendments to the law currently under discussion would open up the possibility of offering training via microcredentials to educational institutions other than HEIs (i.e. private providers). Even though the quality standards to which such institutions must adhere are strict, it is likely that more microcredential providers will emerge as a result.

Having only HEIs as providers of microcredentials, as opposed to a variety of public and private actors who can offer a wider range of continuous education, training, and programmes, ensures that programmes meet institutional quality standards. However, it does not necessarily guarantee a learner's competitiveness in the labour market. Further benefits of microcredentials were outlined in sections 2.3 and 2.4, including the potential for more flexible and tailor-made learning opportunities compared to degree studies (including the recognition of prior learning), continued professional development opportunities such as addressing skills gaps, and leveraging future innovation potential. Opening up the educational market to other microcredential providers is likely to increase competitiveness, offer a wider range of opportunities to diverse learners, and realise greater benefits in terms of labour market alignment.

3.2 Needs of microcredential users across formal, non-formal and informal education sectors

The needs of microcredential users have not been studied beyond individual HEIs, which conduct such studies solely for internal purposes. Therefore, it is difficult to formulate the specific needs of different sectors. However, the Education Strategy 2021–2035 outlines a key challenge for formal, non-formal, and informal education in Estonia in the coming years:

- Dividing lines exist between formal, non-formal, and informal education on the one hand, and between general and vocational education on the other. One of the strategic aims for 2035 is to bridge these divisions and introduce greater flexibility into the learning process, further normalising lifelong learning opportunities and contributing towards the creation of a seamless learning environment. (Ministry of Education and Research 2021: 13)
- Microcredentials are seen as a means of integrating non-formal and informal education experiences into formal education. In the proposed framework, one initiative is to adjust assessment systems across all study levels to better recognise practical skills and general competencies as an inherent part of

learning. (Ministry of Education and Research 2021: 21).[4] A more personalised learning approach must also be pursued, in which the learner actively shapes their learning path.

3.3 Criteria for microcredentials meeting the educational and vocational objectives

Standardisation: Developing a joint national definition of microcredentials, along with a set of recommendations regarding requirements (including learning outcomes, volume, duration, etc.). While complete harmonisation may be neither necessary nor desirable, greater convergence would help establish a common understanding of microcredentials among various stakeholders and support the achievement of educational objectives.

Integration into the wider educational framework: Given that there has been no formal state regulation of microcredentials to date, their position within the Estonian Qualifications Framework remains unclear, as does the expectation regarding their role in achieving medium- and long-term strategic goals in education. Legal amendments are expected to address this and provide the necessary framework for assessing the benefits and quality of microcredentials.

Monitoring and auditing: This should be conducted at multiple levels to ensure the quality and effectiveness of microcredentials. At the programme level, learning outcomes—such as skill acquisition—along with teaching methods, learning formats, and learners' satisfaction should be assessed to maintain compliance with institutional standards and enhance the overall effectiveness of education. For microcredential providers, regular analyses of effectiveness may highlight the need to revise existing internal procedures and processes. This includes ensuring compliance with labour and educational market expectations, maintaining quality assurance, and aligning with state-level strategic aims. From a broader perspective, other stakeholders in the microcredential ecosystem, including the national government, should also be engaged in monitoring efforts. Key areas of focus include national regulations, enabling and disabling factors, employment market expectations, and skills gaps. Continuous oversight in these areas will help refine policies and improve the overall impact of microcredentials on the labour market and lifelong learning opportunities.

3.4 The socio-economic impact of microcredentials

While microcredentials have the potential to contribute effectively to improving access, equity, and inclusion, their impact remains limited. On the one hand, microcredentials provide greater access to education due to lower entry requirements, flexible learning formats, and shorter study periods compared to degree programmes. They can also enhance employability and increase participation among underrepresented groups.

[4] This aligns with the EU Council's recommendations to Member States in 2012. See Council of the EU (2012).

At the same time, the main barrier is that microcredentials in Estonia are almost exclusively fee-based, costing approximately 30–120% of the average monthly gross wage in 2023 (€1,823) (Statistics Estonia 2024). The cost is most often borne by the learner or the employer but can, under certain conditions, also be covered by the national social system (the Unemployment Fund of Estonia) or by donors (e.g., through national development aid programmes or EU funds).

Data on the socio-economic impact of microcredentials can be gathered through learner feedback, national and institutional HEI statistics on microcredential learners, and employer and professional association surveys. At present, data collection occurs at the individual level (learner feedback) and the institutional level. However, HEI statistics on enrolments and graduates do not always distinguish microcredentials from other continuous education programmes, meaning they may not provide a fully accurate picture of the current situation.

3.5 The response of industry to microcredentials

The response of the industry largely depends on the domain in which the microcredential is earned. Employers are highly likely to value practical skills that have a direct impact on the learner's professional output. Most commonly, microcredentials provide opportunities for upskilling or reskilling. Examples include:

- Teacher training programmes that provide additional subject competencies. This is particularly relevant in STEM fields, where HEIs struggle to meet enrolment targets for two-year programmes. By introducing flexibility and allowing a chemistry teacher to acquire an additional subject competence in mathematics through a microcredential programme, they become qualified to teach both subjects.
- Public servants at the national or local level looking to enhance their competencies in areas such as big data analysis, administrative law, or project management skills.
- Specialists or generalists requiring a basic understanding of ICT development, artificial intelligence, or programming skills to lead respective teams or collaborate with industry partners.
- Learners seeking to upskill in response to 21st-century trends, such as sustainable development and the green economy, service design, digitalisation, and innovation.

Microcredentials that contribute to personal development and mental health support are also increasingly valued by employers, particularly in the private sector. Examples include programmes on language training, cultural competencies, nutrition, and mental health.

There is limited information on employers' perspectives on microcredentials beyond individual programme observations at HEIs. At the University of Tartu, for instance, a justification report—along with a general labour market analysis or an employers' needs assessment—must be submitted before a microcredential programme can be launched. However, there are currently no nationwide

surveys or systematic employer monitoring and analysis specifically related to microcredentials.

That said, data on skills development in formal and non-formal education in Estonia may be extrapolated to provide some insights. Participation in formal education is higher among skilled workers, especially in fields such as education, science, and healthcare, and lower in blue-collar jobs such as industry, transport, and the service sector. Non-formal education is more common among white-collar workers and those in the public sector, where employers in skill-intensive positions offer greater financial support for training.

Participation in continuing education is notably lower in Estonia's industrial sector compared to the OECD average. Company size also affects training participation, with small firms offering fewer opportunities than larger enterprises (Reinhold 2016: 12).

3.6 Key factors influencing the implementation, impact and long-term sustainability of microcredentials

A variety of factors are likely to influence the implementation of microcredentials in Estonia. Central among these are:

Market demand: This will affect both the demand and supply of microcredentials. On the one hand, it is essential that microcredential programmes meet the expectations of both employers and employees; on the other, HEIs will only continue to offer these programmes if they have sufficient financial, human, and competence-based resources. In the context of austerity, which Estonia is facing at the time of writing this report, all parties will be (re)assessing their priorities. As funding models are unlikely to change in the foreseeable future, accessibility to microcredentials for less advantaged groups will continue to be affected.

Regulatory frameworks: At the national level, amendments to the Adult Education Act—the law regulating microcredentials—are expected to be adopted in the second half of 2024. If the current draft law is approved, it will redefine adult education according to new principles. This change, along with its impact, must be continuously monitored and assessed in the future.

Academic recognition: At the time of writing this report[5], microcredentials, as a relatively new trend, are not sufficiently regulated at the national level. The main issues concerning recognition of microcredentials include cross-institutional recognition—not only within Estonia but also across the EU as a single market—and their potential incorporation into formal workplace training programmes. Given the limited size of the labour market and the shortage of a competent workforce, Estonian employers tend to be relatively flexible and open to new forms of learning.

3.7 Summary

In Estonia, microcredential programmes are currently limited to accredited public HEIs, which must receive government registration and undergo external evaluation to ensure quality

[5] The report reflects the situation up until the end of 2024, at which time the bill was being discussed in Parliament. The Act will be adopted in January 2025 and will consequently enter into force on 1 April 2025.

standards. Proposed legislative amendments may soon allow private providers outside the HEI system to offer microcredentials, potentially expanding the range of available programmes and providers. This expansion could enhance accessibility and responsiveness to labour market needs, providing diverse learners with more options.

While limiting providers to HEIs ensures programme quality, it does not necessarily align microcredentials with specific learner needs or labour market demands. Opening the market to additional providers could boost competitiveness and better address industry-specific skill needs and the requirements of diverse lifelong learners. Variations in microcredential user needs across formal, non-formal, and informal education sectors have not been comprehensively studied. However, Estonia's Education Strategy 2021–2035 aims to create a more integrated learning environment. This strategy envisions bridging gaps between formal and informal education to promote lifelong learning and more personalised, flexible learning paths.

The effectiveness of microcredentials in Estonia depends on establishing standardised definitions, integrating them into the educational and qualifications framework, and implementing robust monitoring systems. Currently, microcredentials offer flexibility and access to various groups but remain predominantly fee-based, posing challenges for affordability and inclusivity. Industry responses vary by sector, with practical, upskilling-focused microcredentials generally favoured, though comprehensive national data on employer perspectives is lacking. Key factors affecting the long-term sustainability of microcredentials include market demand, regulatory frameworks, academic recognition, and access to resources amid economic constraints.

Chapter 4

MICROCREDENTIAL POLICY DEVELOPMENT

4.1 Quality assurance and progress towards institutional and/or national standards of microcredentials

Quality assurance processes for microqualifications[6] are set at the national level with the proposed amendments to the Adult Education Act (Ministry of Education and Research 2024) and consist of the following elements:

- **Quality requirements:** Programmes must meet specific criteria, including a defined course volume (5–30 ECTS), competencies aligned with labour market needs, and transparent, clearly formulated learning outcomes. The quality of microqualifications (including microcredentials) is confirmed by nationally recognised formal education institutions or by licensed training institutions that have undergone quality assessments in relevant curriculum groups.
- **Regulation and licensing:** Institutions providing microqualification training must pass a quality assessment in the relevant curriculum areas before receiving a licence. This process ensures that only high-quality institutions offer microcredentials. If an institution lacks the right to provide formal education in a particular curriculum group, it must apply for a special activity licence. The licence must be renewed every five years to ensure continuous monitoring and quality assessment of programmes.
- **Evaluation by competent authorities:** The Estonian Education and Youth Board (HARNO) manages quality assessments, including forming evaluation councils and issuing licences based on these assessments. The evaluations focus on whether training programmes meet industry standards, support learners, and have competent educators.
- **Integration with existing systems:** HEIs and vocational education institutions in Estonia already have comprehensive quality management systems. Microqualification programmes should be integrated into these systems to ensure continuous monitoring and improvement of education quality.

The following reports and regulations have addressed the (potential) development of microqualifications in Estonia in the past 10 years:

- Mart Reinhold (2016). *Adult participation in lifelong learning*. Estonian Ministry of Education and Research.
- Ministry of Education and Research (2021). *Education Strategy 2021-2035*.
- Kats Kivistik, Mart Veliste, Maarja Käger, Robert Derevski (2021). *Possibilities of using micro-qualifications in the Estonian education and vocational system relying on international practice*. Institute of Baltic Studies.

[6] Given that this section discusses specific proposed changes to a legal act, we follow here the vocabulary proposed at the national level and refer to microqualifications as an umbrella term (see section 2.3 on definitions above) and acknowledge that this departs from the standard use of the term "microcredential" employed elsewhere in the report.

- Kantar Emor (2022). *Estonian citizens' interest in continuous education and microqualifications*. Annual trend survey.
- Foresight Centre (2022). *The Future of Higher Education. Development trends up to 2035*.
- *Adult Education Act* (first adopted in 2015, with amendments expected in 2025).

Additionally, all HEIs in Estonia have internal guidelines for the institutional planning, implementation, and assessment of microcredential programmes.

Estonia has embedded the development of microcredentials into its broader education strategy, as outlined in the Education Strategy 2021–2035. A key objective is to ensure flexible and modular learning pathways for lifelong learning. By 2030, the goal is for 52.3% of adults to participate in some form of education or training each year.

As of October 2024, the development of a regulatory framework for microcredentials to ensure quality and recognition is in progress. This includes standards for curriculum design, learning outcomes, and transparency of assessment. Microcredential programmes must meet quality assurance requirements for adult education, ensuring that they are recognised and trusted by employers and educational institutions.

Estonia is aligned with the European Skills Agenda, which advocates for microcredentials across the EU. Estonia aims to meet European Commission recommendations, ensuring the transparency and quality of microcredentials by following shared EU guidelines.

4.2 Integration with the national and regional qualifications frameworks and suggestions for future development

Microcredentials in Estonia are increasingly being integrated into the National Qualifications Framework (NQF), with significant emphasis on their alignment with formal education and labour market needs:

- **Lifelong learning strategy:** Microcredentials are recognised as an important component of lifelong learning, providing adults with flexible opportunities to acquire skills and transition between education levels and the job market.
- **Recognition in formal education:** Estonia has begun recognising microcredentials within its formal education system. Learners can combine microcredentials to acquire a full qualification under the framework for Recognition of Prior Learning (RPL) and work experience. This flexibility allows microcredentials to be formally recognised, particularly in higher education, and counted towards full qualifications, such as degrees.
- **Transparency and validation:** Microcredentials must meet clear criteria, such as defined learning outcomes and volume, to be considered for inclusion in the NQF. Training providers offering microcredentials must pass quality assessments.

To develop a national microcredential policy framework, Estonia could take the following steps:

- **Clear definitions and scope:** Clearly define microcredentials, including their purpose, structure, and relevance to both the labour market and society.
- **Alignment with European and national qualifications frameworks:** Ensure that microcredentials are aligned with the European and Estonian qualifications frameworks, facilitating their recognition and integration into formal education systems. For instance, Estonia plans to enable learners to use microcredentials as part of formal qualifications.
- **Quality assurance systems:** Establish robust quality assurance mechanisms for institutions offering microcredentials. This would include mandatory quality evaluations for educational institutions providing these programmes, ensuring that they meet national standards and are recognised by both employers and HEIs.
- **Support for lifelong learning:** Promote microcredentials as part of lifelong learning strategies. Estonia's Education Development Plan (2021–2035) already emphasises flexible learning pathways, including modular learning and microcredentials, to support transitions between education levels and careers.
- **Licensing and accreditation:** Institutions offering microcredentials should undergo accreditation and quality assurance processes, especially if they lack existing rights to offer specific curricula. This ensures that only qualified institutions can provide microcredentials, giving confidence to both employers and HEIs, both from the perspective of competencies for the labour market and formal learning.
- **Digital tracking and transparency:** Implement systems to digitally track microcredential achievements, making it easier for individuals to collect and validate their learning outcomes across different platforms and institutions. This helps facilitate the recognition of prior learning (RPL).

The ongoing process of incorporating microqualifications into the Estonian Adult Education Act is likely to address many of the currently undefined and unregulated issues in the Estonian context outlined above.

4.3 Summary

Estonia is advancing microcredential policy with a focus on quality assurance, integration into national frameworks, and alignment with European standards. Proposed amendments to the Adult Education Act aim to establish clear quality requirements for microcredentials, including programme volume, labour market relevance, and transparent learning outcomes. The regulatory framework involves licensing, periodic evaluations, and oversight by the Estonian Education and Youth Board (HARNO), with HEIs and vocational institutions expected to integrate microcredentials into existing quality management systems. Estonia's Education Strategy 2021–2035 supports modular, lifelong learning pathways, with a goal of annual adult participation in education or training exceeding 50% by 2030. Steps toward aligning microcredentials with the national qualifications framework include recognition within formal education through stackable learning options and validation of prior learning.

Chapter 5

SUMMARY OF FINDINGS AND RECOMMENDATIONS

Estonia is actively exploring and implementing microcredentials to support lifelong learning and address skill gaps within the labour market. This report highlights the strategic importance of microcredentials in promoting lifelong learning and providing adults with flexible educational opportunities. Microcredentials are seen as key tools for supporting career transitions, addressing workforce skill shortages, and fostering an adaptable, future-proof labour force. This is particularly important for meeting labour market needs in areas such as ICT, renewable energy, and other high-demand sectors.

Microcredentials provide flexible, targeted educational opportunities that align with rapid economic changes and technological advancements. Given that the education system already supports various continuous learning opportunities, the integration of microcredentials carries significant potential.

The legislative amendments recently introduced—namely, the proposed changes to the Adult Education Act—are set to formalise the regulation of microcredentials. This includes defining microcredentials, regulating the educational market, and setting quality assurance standards.

The report emphasises the need for a robust quality assurance framework for microcredentials. They must include clearly defined learning outcomes and be assessed based on transparent criteria, distinguishing them from other forms of continuous education training. The proposed legislation mandates that only licensed institutions or those with teaching rights in the respective study group can offer microcredentials. This ensures credibility and trust while also simplifying international recognition.

The report suggests that continued alignment with European standards, such as the EU Council's recommendations on microcredentials, will strengthen Estonia's position in adopting these educational tools. Emphasis should be placed on increasing accessibility, supporting smaller training institutions in meeting quality requirements, and promoting employer recognition of microcredentials.

The findings underscore Estonia's commitment to integrating microcredentials into its educational framework as a way to enhance lifelong learning and meet the evolving needs of the labour market. The ongoing legislative changes will play a pivotal role in formalising this integration, ensuring that microcredentials are credible, quality-assured, and aligned with both national and EU standards.

Recommendations

Conceptualisation of microcredentials

1. **Define and standardise microcredentials:**
    - Establish a clear, nationally recognised definition of microcredentials, specifying their structure, purpose, and relevance to both the labour market and lifelong learning. Align this definition with both Estonian and European qualifications frameworks to facilitate consistent understanding and cross-border recognition.

2. **Encourage labour market alignment and collaboration:**

- Design microcredential curricula in collaboration with industry to ensure that programmes target specific skill gaps and competencies relevant to employers. Jointly funded initiatives or collaborative industry partnerships could expand both the scale and specificity of microcredentials. Regular assessments should be conducted to ensure continuous alignment with economic demands, particularly in high-need sectors such as digitalisation and the green economy.

3. **Support HEIs with incentives for tailored microcredentials:**

    - Provide funding or incentives for HEIs to develop distinct microcredential programmes, rather than simply repurposing existing degree courses without adapting them for microcredential learners. Tailored microcredentials would allow HEIs to cater specifically to market demand while ensuring they also meet the educational needs of both degree-seeking and lifelong learners.

4. **Develop clear pathways for lifelong learning integration:**

    - Ensure microcredentials are stackable and recognised across institutions, potentially counting towards formal qualifications or career advancement. Clear pathways between microcredentials and formal education would encourage lifelong learning, while still preserving degree options for learners who seek them.

Implementation and effectiveness of microcredentials

1. **Expand the provider base with quality assurance:**

    - Encourage private providers to offer microcredentials in collaboration with HEIs or as stand-alone providers. Require all microcredential providers to undergo licensing and accreditation to ensure programme quality. This includes special licensing for non-HEI providers, with regular renewals to maintain standards.

2. **Promote microcredentials as a key element of lifelong learning and personalised learning pathways:**

    - Emphasise microcredentials in Estonia's lifelong learning strategy, supporting flexible, modular learning pathways that allow individuals to move seamlessly between education and employment.

    - Support microcredential offerings that enable learners to

tailor their educational journeys, reflecting individual career and personal development goals.

- Develop a standardised recognition and assessment framework to integrate non-formal and informal learning into formal education. This framework should ensure that competencies gained outside traditional settings are formally recognised through Recognition of Prior Learning (RPL) policies, aligning with Estonia's lifelong learning goals.

3. **Promote socio-economic accessibility and equity:**

    - Ensure microcredential programmes are flexible in delivery and entry requirements, catering to working adults and individuals with diverse educational backgrounds. Blended or fully online options should be developed to enhance accessibility and appeal to a broader demographic, including those outside traditional HEI pathways.

    - Develop funding models, such as subsidies or employer partnerships, to offset the cost of microcredentials for underrepresented groups. Greater financial support, especially for those facing economic barriers, would promote equity and broader workforce participation.

4. **Increase cross-institutional and EU-wide recognition:**

    - Facilitate agreements for cross-institutional recognition within Estonia and across the EU. Enhanced academic and professional recognition would enable learners to stack microcredentials toward formal qualifications, promoting flexible, lifelong learning paths.

Microcredential policy development

1. **Ensure comprehensive quality assurance systems:**

    - Implement rigorous quality assurance protocols, including periodic evaluations by HARNO and institutional reviews, to maintain high standards and ensure that microcredentials meet national educational and labour market needs.

    - Strengthen licensing requirements for institutions offering microcredentials, including non-HEI providers, to ensure consistency and reliability in programme quality and labour market relevance.

2. **Implement digital tracking for recognition and transparency:**

- Develop a digital system for tracking microcredential achievements, enabling easier validation of learning outcomes across different institutions and platforms, and supporting the Recognition of Prior Learning (RPL) process.

3. **Monitor and adjust policy based on ongoing legislative amendments:**

    - Continuously monitor the impact of upcoming amendments to the Adult Education Act, scheduled for implementation in 2025. This would allow for timely adjustments, ensuring the framework remains responsive to the evolving needs of both learners and employers.

4. **Address long-term resource sustainability:**

    - Identify sustainable funding models and resource allocation strategies to support microcredential development, particularly in the context of economic constraints.

    - Diversify funding sources and prioritise high-demand fields to ensure programme continuity, while maintaining accessibility for disadvantaged groups.

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