

Ontario Micro-Credentials: Harnessing the Potential

**A recommendation for an
Ontario Micro-Credential Quality Assurance
Framework**

Prepared by the Postsecondary Education Quality Assessment Board (PEQAB) at
Ministerial Request

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Executive Summary

The goal of the Ontario Micro-Credential Quality Assurance Framework (the Quality Framework) is to make short program offerings transparent to students, employers, industry, and educational providers, thereby providing recognition of achievement, facilitating stacking into larger credentials, and supporting lifelong learning, whether independently driven or employer supported. To facilitate common understanding, recognition and integration, the proposed Quality Framework builds upon existing structures for the quality of postsecondary credentials in the province.

As an initial point about the term “micro-credential”: it is not now and realistically will not ever be a protected term in itself. Globally, any institution, employer, industry, or professional association can currently call any short course it offers a “micro-credential,” and this will continue even if a quality assurance framework for micro-credentials is established in Ontario. The goal of the Quality Framework proposed here will be to distinguish which micro-credentials are quality-assured to agreed-upon standards in Ontario.

Quality assured micro-credentials can be signaled by using a protected term: *Ontario Micro-Credential (OMC)*¹. This term may be protected through an “official mark” designation under the Trademarks Act for use only by the Ontario government or its designates. Under the Trademarks Act, use of the official mark could be granted with the government’s approval. It is proposed that the Ministry of Colleges and Universities authorise OMC providers as Designated Ontario Micro-Credential Institutions (DOMCIs)

OMC provider status (DOCMI) would be achieved upon the endorsement of an External Quality Assurance Agency (EQAA). Institutions would gain EQAA endorsement by demonstrating alignment with an Ontario Micro-Credential Qualifications Framework (OMCQF) (which establishes the parameters of the credentials), and by demonstrating how the Institutional Quality Assurance Process (IQAP) meets expectations set out by the EQAA. Once approved as a DOMCI, the institution would utilise the IQAP for any micro-credential that seeks OMC status.

Providers which are not under the umbrella of a provincially recognised EQAA, such as private career colleges, industry, employers, and professional associations, are invited to partner with a DOMCI to gain access to the OMC mark via the quality assurance process. Industry, employers, community and professional associations are also invited to endorse programming, thereby further validating the labour market relevance of an OMC.

OMCs would thus be legitimated programs awarded by recognised providers, which can be integrated into registrarial databases and then registered on existing platforms such

¹ Microcertification de l’Ontario (MCO) in French.

as digital credential wallets (e.g. MyCredits), and the eCampus Ontario and Ontario Council for Articulation and Transfer (ONCAT) registries—as with any other credential. This provides students with a recognised and transportable credential to share with employers and academic institutions alike.

The processes outlined in this Framework are not intended to hinder innovation or be overly burdensome. Indeed, the value of programming responsive to employer and labour market needs is a central feature of micro-credentials and must be preserved. Hence, both internal and external quality assurance processes should be flexible, responsive, and proportional in order to support the development and review of short, targeted, programming.

The central role of this quality assurance process is to support institutions in the establishment of solid OMC policy and practice that will serve both educational goals and labour market needs while aligning with provincial norms, thereby validating the inclusion of the short programs into the Ontario higher education credential landscape.

We have sought to make this Framework justifiable, understandable and actualisable. Implementation of the model will require a coordinated effort of institutions, industry and employers, quality assurance agencies, government and its affiliated agencies and will result in high quality, targeted, training and learning opportunities that will be easily visible, clearly signalled for stacking opportunities and transportable to the labour market.

Introduction

Globally, the interest in short-duration, employment focused, flexible and innovative learning opportunities has swelled in the past decade, and this has only accelerated following the pandemic. In 2023, a survey of over 2000 Ontarians between the ages of 20 and 84 found that nearly half of respondents had taken short education or training in the last year, and that three quarters are interested in pursuing short education or training within the next five years (Academica, unpublished).

Responding to this increased demand, Ontario has invested in its people by developing strong policies to support the upskilling and reskilling of individuals, targeting sectors of innovation, and providing financial assistance to individuals wishing to engage in an educational experience.

The increased interest and government supported activities have led to a proliferation of offerings by a wide range of providers, and yet there is a lack of clarity on quality. Presenting information in a clear and organised manner and legitimising programming is critical to ensure confidence in educational decision-making processes and to validate learning experiences. Ontario should have a system that students, industry and the public alike can understand.

This document presents a quality framework that will make micro-credential educational provision transparent, validate the quality, and support recognition of student achievement in both academic and professional spheres. The paper begins with the project background and then presents definitions and a literature review. The literature review examines global trends in micro-credentials, with a specific focus on the Ontario context. It explores key issues surrounding micro-credentials, including their role in serving the access agenda and labour market needs, the role of qualifications frameworks and quality assurance regimes, and the engagement of industry partners and recognition practices. Far from being a comprehensive literature review, its purpose is to present some of the challenges and opportunities associated with quality assuring micro-credentials. A problem statement is then presented to clarify the purpose of the quality framework, and a working definition of an Ontario Micro-Credential is then articulated.

The section that follows presents the primary features of a proposed Ontario Micro-Credential Quality Framework, including the proposed Qualifications Framework (OMCQF)², clarifying the parameters of the credential; this is followed by a description of quality assurance considerations and the integration of industry partners, followed in turn by a discussion of opportunities for recognition. This provides an overview of how micro-credentials can be integrated into the current Ontario landscape in a way that

² A list of acronyms used in this document is provided in Appendix 1.

appropriately supports learner achievements, institutional autonomy, and governments' desire for a cohesive system.

The main report then concludes with the anticipated benefits of this model as well as a section on policy consideration that arose. These policy considerations are issues that arose during the development, and may have influence on the implementation of the framework, but which are firmly in the purview of the Ministry of Colleges and Universities.

Finally, there is a section on Frequently Asked Questions (FAQs). This Framework was built through consultation and a variety of voices and perspectives have significantly contributed to its final shape. Some of the insightful queries posed during the discussion are presented so that readers can benefit from the questions as well as the responses.

Project Overview and Background

In 2020, the Ontario Government announced investments of close to \$60 million over three years through the Ontario Micro-Credentials Strategy, aimed at supporting, upgrading, and retraining individuals for new employment. The Strategy emphasises life-long learning and strives to normalise micro-credentials as a permanent feature of the Ontario postsecondary education and training system. Key objectives of the Strategy are accessibility, flexibility, and job-readiness. To date, the Ministry of Colleges and Universities—in partnership with its sector and ministry partners—has funded three initiatives to support the development of micro-credentials: RapidSkills, pilots funded through eCampusOntario and the Ontario Micro-Credentials Challenge Fund. (See Appendix 2 for more details on current ministry initiatives).

In December 2022, the Minister initiated another targeted approach to support micro-credential provision in the province, by inviting the Postsecondary Education Quality Assessment Board (PEQAB) to develop, through consultation, a recommendation for a Micro-Credential Quality Assurance Framework. The Ministerial request directed PEQAB to “lead a consultation process to arrive at consensus on Micro-Credential Quality Assurance principles and a practical implementation plan that includes feedback from relevant stakeholders” to “ensure that Ontario Postsecondary Institutions continue to help address skills gaps and labour shortages in an effective way.”

PEQAB is an arms-length External Quality Assurance Agency (EQAA) responsible for degree-level programming provided by institutions other than Ontario public universities. The role of PEQAB as a ministerial agency encompasses ensuring quality standards through the assessment of institutions and programs, fostering collaboration among stakeholders, and promoting ongoing quality improvement in Ontario's postsecondary education sector. The Minister has the discretion, through referral, to request PEQAB provide recommendations on any matter related to postsecondary education quality.

PEQAB has been closely following quality assurance trends in micro-credentials for years through membership, conference participation, academic contributions, and leadership positions in international organisations such as the International Network for Quality Assurance Agencies in Higher Education (INQAAHE)³ and the US Council for Higher Education Accreditation's International Quality Council (CHEA/CIQC). Thus, work quickly began to update knowledge and establish a strategy to consult and develop the requested Framework.

The project entailed four main components. In the first phase, an environmental scan and literature review of academic and grey literature were performed to ensure theoretical and practical considerations were front and centre to the Framework.

The second phase of the project entailed key informant interviews with individuals engaged in some aspect of micro-credential work, either from institutions, government agencies, sector experts, academics, or quality assurance bodies in Ontario, in Canada and around the world. Between January and March, Drs Lennon and Wilcox had hour long interviews with over 20 individuals. These interviews served to provide information and insights on current best practice, ongoing initiatives, preferences and priorities, and capacities for engaging with micro-credentials. These conversations, and the detailed notes taken, supported the development of a draft Framework.

In the third phase, the first draft of the Framework was presented to institutional sector councils including Council of Ontario Universities (COU), Colleges Ontario (CO), Indigenous Advanced Education Skills Council (IAESC) and Career Colleges Ontario (CCO), and their affiliate representatives such as Ontario Council for University Lifeline Learning and College Heads of Continuing Education and the College Degree Operating Group (CDOG). Approximately 200 individuals participated in these consultations. The considerations raised and feedback received supported multiple revisions and iterations of the concepts to form the draft Framework presented in the white paper (attached). Prior to public launch, the penultimate draft of the white paper was shared with approximately 10 key individuals, including academics, QA partners and experts, for final input.

The fourth component of the work sought the broadest feedback on the published draft proposal through written submissions between July 31 and September 30, 2023. The document was posted on the PEQAB website and disseminated widely through networks and targeted emails, for example, to student groups (i.e. Ontario Undergraduate Student Alliance and the College Student Alliance).

By request, this phase and also included presentations and discussions of the draft proposal with groups including the eCampus Ontario micro-credential community of practice (over 120 participants from institutes and businesses across the province

³ Dr. Mary Catharine Lennon is a two-term Board Director of INQAAHE.

attended), and the Ontario government micro-credential community of practice where 11 ministries participated in a discussion, including

- EDU (Education)
- IAO (Indigenous Affairs)
- MCCSS (Ministry of Children, Community and Social Services)
- MCU (Ministry of Colleges and Universities)
- MEDJCT (Ministry of Economic Development, Job Creation and Trade)
- MINES (Ministry of Mines)
- MLITSD (Ministry of Labour, Immigration, Training and Skills Development)
- MND (Ministry of Northern Development)
- MTCS (Ministry of Tourism, Culture and Sport)
- OMAFRA (Ontario Ministry of Food, Agriculture and Rural Affairs)
- SOLGEN (Ministry of the Solicitor General)

Additional targeted discussions were had with Career Colleges Ontario (CCO), the Ontario Fairness Commission⁴, the Association of Registrars of the Universities and Colleges of Canada (ARRUC)/MyCreds Registrars' Advisory Group and the Indigenous Institutes Consortium.

A complete list of individuals and organisations consulted during Phases 2, 3 and 4 are included as Appendix 3.

Written feedback from 17 organisation representing all the institutional stakeholder associations, affiliated government agencies, students, and at least one submission from each of the institutional types in the province. (see Appendix 4 for complete list) Feedback was carefully analysed and incorporated into the final report.

A note for consideration: it may be noticed that explicit EQAA standards and benchmarks are not presented here, nor was this degree of specificity part of the wider consultations; however, as an example, see Appendix 5 for what PEQAB would anticipate. The rationale is that once there is Ministerial direction on the Framework the EQAA component can be developed rather quickly in cooperation with agencies and institutional partners based on the foundational principles established here.

Definitions

Before launching into the realm of micro-credentials, an explanation of some terms, as they are used here, is required. A micro-credential **quality assurance framework**, a

⁴ The Fairness Commissioner assesses the registration practices of certain regulated professions and trades to make sure they are transparent, objective, impartial and fair for anyone applying to practice his or her profession in Ontario.

qualifications framework, and external and internal **quality assurance processes** are terms closely related and similar in verbiage though each plays a very specific role.

The term *Micro-Credential Quality Assurance Framework* refers to the entirety of the various inter-connected parts presented in this document and is referred to as the ‘Quality Framework’ or ‘model’ throughout this document. It is the system coordinating piece at the provincial level for clarity, implementation, and recognition.

The *Ontario Micro-Credentials Qualifications Framework (OMCQF)* is the proposed government policy that would dictate the parameters of the qualification, and could be aligned with, or integrated into the Ontario Qualifications Framework. It is the academic coordination piece that establishes expectations of quality at the system level.

External Quality Assurance Process (EQAP) is the operational oversight mechanism of an external agency to ensure provincial expectations are met by an institution. *Internal Quality Assurance Process (IQAP)* is the operational oversight mechanism within an institution to ensure external quality assurance and provincial expectations are met.

All the of these ‘quality’ pieces will be carefully described in context later, but knowing the role they play and how they relate is important for clarity.

The definition of micro-credentials varies across different contexts and provides numerous perspectives on how micro-credentials are considered for different purposes. The European Commission states "Micro-credentials certify the learning outcomes of short-term learning experiences, for example a short course or training. They offer a flexible, targeted way to help people develop the knowledge, skills, and competences they need for their personal and professional development" (nd). The Irish Higher Education Authority provides the following definition: "Micro-credentials are small, accredited courses designed to meet the demands of learners, enterprise, and organisations, created by IUA partner universities in consultation with enterprise. Micro-credentials provide learning opportunities which offer a highly flexible, bite-sized and an accessible way of upskilling and reskilling" (HEA, nd). The Australian definition reads as: "A microcredential is a certification of assessed learning or competency, with a minimum volume of learning of one hour and less than an AQF award qualification, that is additional, alternate, complementary to or a component part of an AQF award qualification" (Australian Government, 2021; 3).

In the Ontario context, eCampus Ontario states that a "micro-credential is a certification of assessed learning associated with a specific and relevant skill or competency. Micro-credentials enable rapid retraining and augment traditional education through pathways into regular postsecondary programming" (nd). The Higher Education Quality Council of Ontario (HEQCO) offers this definition: "A micro-credential is a representation of learning, awarded for completion of a short program that is focused on a discrete set of

competencies (i.e. skills, knowledge, attributes), and is sometimes related to other credentials” (Pichette et al, 2021).

Providing the most detail, UNESCO presents the following definition (2022): “A micro-credential: 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 micro-credentials or macro-credentials, including through recognition of prior learning; and, Meets the standards required by relevant quality assurance.”

Each of these definitions offer a slightly different focus but are generally complementary. It is interesting to note that in the definitions above, few reflect the stackability element that is prevalent in most presentations of the value of micro-credentials, and only the Irish and UNESCO definitions address the issue of accreditation.

It is not the purpose of this paper to present a global or even Provincial definition for micro-credentials. Instead, the purpose is to consider the commonly understood elements of micro-credentials to ensure that an Ontario Micro-Credential is conceptualized in ways which are reasonably representative of international norms while determining the critical elements for a recognised qualification within the Ontario education and training landscape. The working definition is presented below.

Literature Review and Environmental Scan

This section highlights the significance of micro-credentials in the global context and reviews the Ontario landscape. The intention of this section is to present key concepts, considerations, and controversies in the field in order to provide the backdrop for the proposed Framework.

Lifelong Learning and Continuing Education

In a 2023 survey of over 2000 Ontarians between the ages of 20 and 84, nearly half (45%) of respondents had taken short education or training in the last year, most often for professional development or career advancement (Academica, unpublished). The survey also found that 76% were interested in pursuing additional education or training in the next five years, demonstrating a commitment to personal growth and lifelong learning.

The term ‘lifelong learning’ encompasses a comprehensive approach to ongoing personal and professional development throughout one's life. Continuing education, more specifically, refers to structured learning programs aimed at enhancing specific skills and knowledge for adult learners. Continuing education is recognised as a vital component of lifelong learning, addressing the evolving needs of individuals and the labour market (CAUCE, 2019).

Lifelong learning and micro-credentials are intrinsically linked, with continuing education programs serving as a key avenue for delivering micro-credentials. This connection is emphasised in studies such as the Lumina Foundation's 2015 report, highlighting the role of continuing education in offering targeted, short-term credentials to address specific skill requirements, addressing the evolving needs of individuals and the labour market.

Continuing education has long been a part of the Canadian educational landscape: In 1872, for example, the University of Toronto introduced evening classes to fill gaps for practical competencies and skill building, under the new School of Technology (UofT, nd). Canada has witnessed significant developments and transformations over the years. The Canadian Association for University Continuing Education (2019) for example, highlights the establishment of continuing education units within universities, the diversification of program offerings, and the expansion of accessible and flexible learning opportunities for adult learners, as central to the evolution of activities.

Despite the increased prominence, continuing education continues to be primarily provided outside of an institution's central administration and oversight through specific continuing education units. Anecdotally, institutions seem to draw the line at credit versus non-credit bearing programming as to whether or not it warrants consideration. Arguably this has provided the notable advantage in terms of expediency, as short-continuing education programs can therefore be developed and implemented swiftly, particularly when delivered through digital platforms. Consequently, institutional continuing education programming has been valuable in addressing skills gaps in the labour market.

Labour Market Alignment

Employer or industry-based continuing education programs also play a crucial role in meeting the specific needs of employers and industries, ensuring a skilled workforce, and promoting professional development thereby facilitating workforce development (Conference Board of Canada, 2019). In Canada, the federal government recently invested \$250 million program funding to support short-cycle upskilling programs driven by industry needs in high-growth sectors (Government of Canada, 2023)."

Micro-credentials have gained prominence in Canada as a strategic solution to offer targeted and flexible training opportunities that align with specific industry demands and enable individuals to quickly acquire specialised skills and knowledge, thereby enhancing their employability and adaptability in a rapidly changing job market.

The role of employers and industry in designing micro-credentials that align with industry requirements is vital. For example, industry-led micro-credentials in sectors like healthcare, technology, and advanced manufacturing are critical avenues to upskill and reskill workforces. The importance of employer-driven continuing education program has also been noted by the Canadian Apprenticeship Forum (2018) for improving workforce

skills and fostering industry growth. In Ontario, a 2023 survey found that of the 717 individuals taking additional education or training in 2022, 36% did so through their employer and 17% were enrolled through their industry or professional association (Academica, unpublished).

Specifically, micro-credentials can serve as a solution when a potential employee possesses overall qualifications for a position but lacks proficiency in a specific required skill. This targeted approach enables individuals to efficiently acquire the necessary competence, bridging the gap and increasing their suitability for employment (OECD, 2021). Employers can also benefit from micro-credentials granted by other institutions/employers or industries as they provide a signal of an individual's specialised knowledge and skills, aiding in talent acquisition and workforce development.

This skills-upgrading argument corresponds to the findings of an Ontario based study (Academica, unpublished) which found that 19% of respondents (N=717) were enrolled in education or training in order to maintain their professional designation and 10% because their employer expects or requires it.

In fact, the OECD (2021b p. 29) notes that current enrollments in micro-credential include individuals who:

- are likely to be of working age
- tend to already have a higher education degree
- tend to be from more privileged socio-demographic groups
- generally have a higher level of digital competence
- likely to already have some knowledge related to the course topic

Access Agenda

Micro-credentials also have the potential to promote access to education and training, particularly for underserved and vulnerable populations. This is because of the flexible nature of micro-credentials and their ability to cater to diverse learner needs, including those who face financial, time, or geographical constraints.

The desire for flexible education is evident: an Academica survey (unpublished) found the key factors in the decision to pursue additional education in the next 5 years include cost (72%), convenience (56%), can be taken online (56%), and length (can be completed in a short period of time (45%) (N=1540). Thus, it is possible that micro-credentials can provide alternative pathways to higher education, making education more accessible and relevant to a broader range of learners (OECD, 2020, European Union 2019, HEQCO, 2020, Conference Board of Canada, 2019).

Despite the potential for micro-credentials to serve the access agenda, there are also strong cautions that they may instead deepen the existing societal inequities and reinforce

disparities. Wheelahan and Moodie (2021) posit that micro-credentials will serve marginalised individuals such as the economically disadvantaged, unemployed, older adults, disenfranchised, racialized, and others, while privileged students benefit from a comprehensive, portable education. Consequently, this can perpetuate inequities as only the privileged may have the more enduring benefit of an education with focus on transversal skills whereas the disadvantaged may access more episodic just-in-time training.

The OECD 2021a report provides a range of examples where micro-credentials are used as a bridge from high school to higher education and a means to support postsecondary education. The results show, however, that results are mixed and that when multiple stacked pathways are available it presents more decision points for learners and can lead to higher attrition rates.

Similarly, the OECD cites numerous studies that show a “positive correlation between time spent in education and training and positive labour market outcomes, and this holds true for targeted and short-term qualifications” (2023; 6). Recognising the risks that micro-credential innovations might deepen existing inequalities in access to higher education and lifelong learning, both Ireland and New Zealand have imposed caps on fees for micro-credentials (OECD, 2023).

In Ontario, recognising the potential risks, Pichette et al (2021, p. 2) recommend “microcredential strategies should not seek to replace traditional programs or address the comprehensive reskilling needs of learners; we encourage governments and institutions to consider competency-based education programs for the latter.”

Stacking

An additional component to targeting micro-credentials to serve an access agenda is ensuring that they can be recognised as academic achievements and incorporated—or stacked—into other programming. These concepts have been widely discussed in the literature, with the Lumina Foundation's Connecting Credentials Initiative (2015) and the European Commission's Micro-credentials in Europe report (2019) highlighting the potential of stacking and credit transfer in promoting learner mobility, recognition, and the integration of micro-credentials into formal education systems.

Stacking refers to a completed micro-credential being recognised for academic credit in a larger qualification, such as a certificate, diploma, or degree. As part of the access agenda, the recognition of prior learning achieved through micro-credentials is critical.

In some cases, micro-credentials have been designed to stack into other credentials and thus align with curriculum content and assessment expectations (OECD, 2023). While this model has sound benefits, it also generates fears that existing programs can be ‘unbundled’ leading to the ‘modularisation’ of programming which can fragment

knowledge, devalue traditional degrees, and lead to inequalities in access (Wheelahan and Moodie, 2021). Nevertheless, the majority of micro-credentials are not intentionally designed for access, and thus seek recognition only after the fact.

This after-the-fact stacking is one of the more complicated issues in the realm of micro-credentials, and, thus far, an area where there has been only marginal policy success. The true crux of the issue is in the assignment of credit value.

Academic credentials—whatever their type—are achieved through the accumulation of credits. There are different ways to articulate credit value, for example, the European Credit Transfer and Accumulation System (ECTS) uses study hours (class time, lab time, etc. but also expected preparation and study time) as the baseline for assigning credit. The EU Tuning Project spent well over a decade working to articulate student workload into credit values through the articulation of learning outcomes. The result is that there is clear understanding of an ECTS credit value which makes the learning outcomes and the estimated workload of a course visible.

In Ontario, regardless of the institution or credential type, instructional hours are typically used as the benchmark for assigning credit. York University, for example, notes “credit value normally correlates to the length of the course and the number of hours the course meets per week” (York, nd). On average, 3 credits derive from 3 hours of class time over 12-15 weeks.

Of course, time is only a meaningful indicator for credit if there is transparency of what education takes place during that time through statements of learning outcomes. Naturally, each discipline will have its own content expectations, but the overall expectations of qualification achievement are most clearly laid out by the learning outcomes or competencies established for the academic level (i.e. Diploma, Bachelor’s, Master’s, etc.). The establishment of academic standards (typically through Qualifications Frameworks) clarifies the rigour of programming. Thus, noting the level of academic achievement to which the credit hours can be assigned is critical. For example, a course bearing 6 credits in a diploma program will have very different learning outcomes—less academic rigour—than a 6 credit course in a degree program. Further, for credit transfer purposes, those diploma credits may translate into a lesser number of degree level credits if applied to a degree program (if recognised at all). Hence, the duration of programming is only a meaningful signal for credit after academic level is factored in.

In most jurisdictions, including Ontario, current micro-credential provisions only provide information on program duration and do not articulate the academic level at which the education is provided. It is clear, however, that programming is being targeted to different populations—ranging from those without any postsecondary education or labour market experience to those with graduate credential and years of technical/professional

experience. Programming will therefore have appropriate learning outcomes to match the intended purpose and audience. This information, unfortunately, is not currently articulated or captured. Thus, calculating appropriate academic credit for a micro-credential to stack into other programming is problematized by there being no transparency of the academic value.

This puts pressure on credit transfer offices, registrars, program acceptance committees etc. to apply Prior Learning Assessment and Recognition (PLAR) principles to the programming to determine what, if any, credit can be assigned to a given micro-credential towards a larger credential. Due to this complication, anecdotally, there is a very low success rate of micro-credentials being granted credit— “stacked into”—a larger credential. Thus, despite the desire for micro-credentials to be recognised as legitimate learning and integrated into mainstream programming, the lack of information on the academic level of programming significantly hinders that implementation.

Recognising this conundrum, some jurisdictions have sought to formalise micro-credentials within the higher education landscape by articulating the academic level through aligning micro-credentials with qualifications frameworks.

Qualifications Frameworks

Qualification frameworks are the international norm for delineating the landscape of credentials and establishing benchmarks for quality. They serve as a mechanism for developing, categorising, and recognising skills, knowledge, and competencies across defined levels. By fostering a shared understanding of the value of educational experiences, qualification frameworks enable effective verification, transfer, stacking, and integration of credentials within academia and recognition within the labour market.

However, not all jurisdictions have, or use, their qualifications framework for micro-credentials. There are many comparative reports outlining the various approaches to integrating micro-credentials into the formal higher education landscape through alignment with or integration into qualifications frameworks.⁵ Here we will highlight four different models – the US, UK, New Zealand and European; Appendix 6 provides a table of fuller comparative information.

The USA does not have a formal qualifications framework and therefore lacks the opportunity to coordinate credential provision. There are no accreditation standards specific to badges and micro-credentials broadly, although anything that is “credit-bearing” needs to fall into the auspices of institutional accreditation by the regional accreditors. Typically, in the US, micro-credentials are understood as learning activity consisting of “more than a single course but less than a full degree,” and are labelled

⁵ See for example, European Commission (2021), OECD (2020) or van der Hijden P. and Martin, M. (2023)

differently across providers (UNESCO-UNEVO, nd). An analysis of 450 MOOC-based micro-credentials used in growing numbers of industries “reveals many options but little consistency” (Pickard, 2018).

New Zealand explicitly states that a micro-credential is not a “qualification,” and therefore these are not included in the qualification framework. Instead, the New Zealand Qualifications Authority (NZQA) has adopted an approval framework for micro-credentials, which aligns these credentials with existing qualification levels.⁶ It notes that a micro-credential is smaller than a full “qualification” and focuses on skills development opportunities not currently catered for in the regulated tertiary education system. It is also subject to the same requirements as other training programs and assessment standards, being required to:

- Be 5-40 credits in size
- Demonstrate a need from employers, industry and/or community
- Not duplicate any learning already approved by NZQA (such as that offered by tertiary education providers)
- Be reviewed annually to confirm they are meeting their purpose

Micro-credentials may also be offered by universities, polytechnics, industry training organisations, wānanga and private training establishments, employers and professional bodies, either in partnership with tertiary education providers or directly.

The UK has introduced micro-credentials as part of its credit framework which articulates the ‘value’ of an educational experience. Because the UK uses a common credit system (a nationally devised scheme that references the European Credit Transfer and Accumulation System or ECTS) it is relatively simple to articulate the credit value of a micro-credential. The UK literature argues micro-credentials are not qualifications and therefore should not be included in qualifications frameworks. The England Credit Framework indicates that micro-credentials are typically short courses or component elements of larger courses (but smaller than a current award) and can be certified as credit bearing. They are to be awarded by a body with the powers to award academic credit, quality assured and mapped against the Credit Framework levels.

In 2022, the MICROBOL program of the European Commission’s Erasmus+ presented a framework for micro-credentials for Europe.⁷ As part of the framework, they note: “Micro-credentials should be included in the National Qualifications Frameworks, whenever possible (and) the criteria for inclusion should be decided. These criteria might include for

⁶ Interestingly, NZQF notes that “The title of a micro-credential must not include: any of the words “New Zealand”, “national”, “diploma”, “degree”, “bachelor”, “master”, “doctor”, “under-graduate” or “post-graduate” where it may cause confusion with a qualification on the NSQCF.

⁷ For more information about the 2020-2022 MICROBOL project see: <https://microcredentials.eu/>

example the size, naming, value/relevance and quality assurance of the micro-credentials.” (MICROBOL, 2022, p. 9).

The European Training Foundation’s assessment notes two primary ways in which micro-credentials are being included in National Qualifications Frameworks (NQF) (ETF, 2023; p. 19):

- A new micro-credential qualification type may be established under the NQF
- A micro-credential may be outlined as a subunit of an existing qualification on the NQF

The uptake and accumulation of micro-credentials into larger credentials hinge on learning outcomes being understood and made comparable in a transparent way. The learning outcomes descriptions provided in a qualification framework can be used as a basis for referencing the level of the learning outcomes provided by the micro-credential, thereby supporting credit recognition.

Learning outcomes are statements of what students know and are able to do upon the completion of a learning experience. They clarify content and learning goals, and provide clarity for assessment options. Resistance to learning outcomes is common, it is based on the fear establishing learning outcomes standardises and controls educational activities and reduces innovation. There has been ongoing work in Ontario for over 15 years to support the integration of learning outcomes into academic programming. This includes a bi-annual conference hosted by a collective of quality assurance and academic support agencies in Ontario (including PEQAB). The reason for this continued work is that learning outcomes are *the* means through which educational transparency is achieved, and transparency supports clarity of quality.

In the case of micro-credentials, there are further concerns surrounding the challenge of articulating vocational/competency-based learning outcomes and the further the challenge of aligning them to traditional academic levels. Nonetheless, identifying and establishing learning outcomes for vocational short programs should not be that difficult—in fact they are likely to be in place already; and the work of placing the learning outcomes onto the spectrum of qualifications should be very feasible. Thus, the ongoing challenge is getting people to understand the value of making education and training transparent and assessable. Nevertheless, this challenge is achievable and ultimately critical for student level transparency, employer understanding and for recognition and stacking purposes.

Quality Assurance

Having established the parameters of micro-credentials embedded in or aligned with qualifications frameworks, the next step for any jurisdiction is ensuring quality. The way

in which the quality assurance component is approached ranges from public statements attesting to specific features and quality review processes (as in the Australian case), to the European model which promotes the use of existing external quality assurance process to ensure there is functional institutional quality assurance for micro-credentials (van der Hijden and Martin, 2022).

One of the most frequently cited challenges of formalising micro-credentials in a higher education landscape is that regulatory procedures and full external quality assurance processes are considered too burdensome to be applied to micro-credentials (MICROBOL, 2022). Recognising this, the European model rests on the well-developed quality assurance processes that are in place for the various provider types: i.e. for some types the European Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG); the European quality assurance reference framework (the EQAVET Framework) is applicable to others including in the field of vocational education and training, and other quality assurance instruments, including registries and labels. The European model calls for a tailored approach to internal micro-credential quality, based on the significantly smaller volume of learning associated with micro-credentials and their expected need for frequent updates in response to evolving societal demands. Hence, it is suggested that External Quality Assurance Process (EQAP) should primarily ascertain that higher education institutions offering micro-credentials possess a robust and dependable Institutional Quality Assurance Process (IQAP).

Closer to home, the Ontario University Council on Quality Assurance (OUCQA) has already included micro-credentials in its evaluation process, and has done so in a light touch manner in line with European thinking:

“The IQAP (Institutional Quality Assurance Process) will set out the intra-institutional steps that will apply to the quality assurance of other program changes that do not necessarily rise to the level of a major modification. These would minimally include: changes to an existing Emphasis, Option, or Minor Program; the creation of a new micro-credential(s); undergraduate certificate(s); and laddering, stacking or similar options, or comparable elements that do not require Quality Council appraisal and approval. However, it is important for the purposes of transparency and consistency that the IQAP indicate how such changes will be made and quality assured” (OUCQA, nd).

Following this leadership, some Ontario institutions, including Ontario Tech University, have already incorporated micro-credentials into their IQAP process.

The growing role of external quality assurance in the realm of micro-credentials is signaled by its inclusion in the 2022 International Standards and Guidelines (ISG’s) of the

International Network of Quality Assurance Agencies in Higher Education. The guideline for Short Learning Programmes (an optional Module in the ISGs) promotes a more robust consideration of micro-credential quality assurance practices, as it includes elements such as ensuring institutions have standards in place for flexible pathways, workload/ISCED (i.e. credit value), learning outcomes, assessments, and others (INQAAHE 2022).

The above examples demonstrate well thought-out processes for integrating micro-credentials into traditional institutions and traditional external and internal quality assurance processes. These models normally exclude alternate providers which fall outside of the scope of academia, which may not have regular IQAPs, and which generally do not have an external agency to provide oversight. Yet these other providers play a significant role in micro-credential delivery.

Examples of micro-credential regulatory frameworks which are not based on traditional quality assurance (QA) practices and are more inclusive of alternate providers are found in New Zealand and Australia. Instead of external QA, the NZQA has registration requirements for micro-credentials, which are pithy at first glance but somewhat burdensome when considering the work required to achieve them. An impact of the robust registration requirements is that while they have had some success in registering some providers, relatively few universities have registered micro-credentials (NZQA, 2022). Arguably, this is because public university providers have considered that the cost of seeking such registration exceeds the benefit and therefore continue to operate unregulated despite the opportunities presented by formal recognition.

The 'lightest touch' regulatory model, the Australian Framework, does not rely on traditional quality assurance review activities to evaluate micro-credentials but rather has "critical information requirements" that providers must meet in order to be recorded on the Microcredentials Marketplace (Australian Government, 2021). For example, information is required on learning outcomes, academic level, assigned credit value, etc., and "Providers are encouraged to stipulate quality assurance processes on the Marketplace" (p. 19). This is a transparency model where it is the responsibility of the providers to provide the information and, if the information needs are met, the micro-credential can be included in the Microcredential Marketplace.

The benefit of this model is that it does not, in theory, preclude industry, employer, professional associations access because it does not rely on the academic QA system. However, it seems in the development of the Microcredential Marketplace, the rules for inclusion were somehow altered so that it is "only open to higher education providers, rendering the investment in the platform irrelevant to most students" (ITECA, 2022). As implemented then, this has in fact excluded alternate providers from recognition in Australia, which undermines the utility of the framework. A further complication is that,

while open to all providers, there may be limited capacity for developing appropriate learning outcomes, assigning academic level and determining credit value outside of educational institutions.

This example brings focus to the two remaining elements of this literature review: 1) the role of vocational training, industry, employers, community and professional associations and 2) the importance of recognition.

Alternate Providers

Employers, professional or industry associations, private career colleges and communities- particularly Indigenous communities - are important players in the field of micro-credentials. By nature, these providers have a keen awareness of specific skills gaps, upskilling and reskilling needs and the ability to rapidly respond.

In Ontario, the role of non-education institutional providers should not be underestimated. In a 2022 survey (Academica, unpublished) found that of current additional education and training enrollments (n= 717), 36% are with employers, 27% are with a private company and 17% with an industry/professional association. 30% percent of enrollments are split evenly between public colleges and universities and 2% in private career colleges (Academica, unpublished).

Governments around the world are using multiple approaches to ensure these providers are able to have their offerings validated. The different approaches described above reflect the intended, or desired, role of alternate providers (i.e. those outside the higher education regulation system). In Australia, as noted above, their Marketplace was intended to provide access to all micro-credentials that satisfy the information and transparency expectations, thereby opening it to non-traditional providers.

One of the challenges for recognising education and training provided outside of traditional higher education is the different terminology used. This does not mean the expectations of quality are different, only that there has not been the translation of programming into common academic language, such as credit value, learning outcomes, clarified assessments. Until alternate providers are able to utilise this language and associated educational principles, the ability for micro-credentials to be legitimised and recognised is limited. Hence for stacking and recognition purposes, this translation will be critical.

In their work for UNESCO, van der Hijden and Martin note that “the success of flexible pathways depends, crucially, on the capacity of education and training systems to enable recognition of competencies resulting from a variety of learning experiences” (2022; 8). The fact that 61% of individuals (N=1541) note they are interested in attending a public university or college for additional education or training in the next five years demonstrates the opportunities for colleges and universities to further engage with

industry, employers, and professional associations to meet the growing demand for targeted training.

Recognition

The recognition and portability of micro-credentials across institutions and sectors are critical for their transferability and impact. Furthermore, there is also a call for micro-credentials to be learner-owned and easily “shareable.” Hence, there are two main elements to consider: the first is providing transparent information on the programming and the second piece revolves around how the student achievement is recorded. These are entwined but slightly different elements.

Australia notes that the term micro-credential is not protected (Australian Government 2022), and worldwide this is the case. Thus, the issue of transparency is about the way in which students can access information about what micro-credentials are available, their quality, and how they compare. In most jurisdictions, including Ontario, learners currently have little or no information about either the educational or the labour market benefits of micro-credentials, and limited ways to assess the value of the programming.

There is a trend toward online digital learning platforms which can present information on a range of offerings and providers in ways which makes these comparable, and learners are becoming increasingly familiar with these platforms, and engaging with them in greater numbers (OECD, 2021). In Ontario, 27% of additional education or training enrollments were with private company (n=717), of which 40% took programming through LinkedIn Learning, 37% with Coursera and 28% with Udemy (n=197) (Academica, unpublished).

A challenge of these platforms is that learners are unable to fairly compare and contrast offerings. Furthermore, learners who seek a micro-credential with the aim of having it recognised as part of a wider academic program typically do not have information about the prospects of their micro-credential being recognised by a higher education institution and therefore being stackable into a degree program.

Thus, New Zealand and Australia have both sought to resolve the “signalling” of recognised programming by establishing registries of micro-credentials (the recognition principles are described above). Similarly, in Ontario, eCampus Ontario, currently provides a listing of all micro-credentials eligible for student financial assistance (i.e. OSAP approved). This listing only includes a selection of programs from educational providers which have programs eligible for public assistance via student grants or loans and is currently only open to publicly funded institutions. Note that being quality assured is not a requirement for OSAP nor does OSAP approval imply there has been a quality assessment of the programming.

It is worth noting that maintaining updated information across learning platforms for learners and public authorities about micro-credentials can be more burdensome than is the case for more stable programs, such as degrees. As a result, it is likely that meaningful comparisons of micro-credentials will present a persistent challenge for learners and policy makers.

Regarding the ‘portability’ of micro-credentials, some jurisdictions already have mechanisms in place to support the transport of legitimate credentials to the labour market or further education. For example, the Europass, an online tool supported by the European Union, allows skills, qualifications, and experiences to be stored in one secure, online location. This allows for a diploma and a “diploma supplement” (which is the explanation of the credential) to be shared automatically. There are several key features of the European system that make the connection between quality assurance, central cataloguing and visibility possible. Firstly, Europe relies on the European Credit Transfer and Accumulation System (ECTS) that allows for ascribing credit value to learning accomplished in a way that is consistent and standardised across Europe. Secondly, a pre-existing database of all ‘trusted’ postsecondary institutions that are quality assured through the European Quality Assurance Register for Higher Education (EQAR) allows for the mutual connectivity, the automatic recognition of institutional quality assurance processes, and, finally, the recognition of credits themselves (through pilots using blockchain technology).

A powerful feature of the cataloguing of available programs at postsecondary institutions, is the potential for mutual verifiability. The European Blockchain Service Infrastructure (EBSI) under the European Commission uses blockchain technology infrastructure to develop mutually recognisable and therefore verifiable credentials. The EBSI Conformant wallet brings together Trusted Accreditation Organisations, Trusted Issuers (e.g. postsecondary institutions), Verifiers (e.g. employers) and Holders (e.g. the student/person who makes a claim). The trust in the exchange is mediated by Trusted Accreditation Organisations. Currently, several pilot projects are underway in Europe, with the potential of recognising micro-credentials as credits appearing on a graduate’s testamur (certificate/diploma) in a manner recognisably comparable to that of any traditional credential.

The idea of “creating a network of systems in which they can communicate with each other” has been recognised as a useful and effective mechanism of quality assuring micro-credentials (MicroHe, 2019; 33). Ontario lacks the same level of connectivity within its infrastructure; nevertheless, the elements are available and the connectivity could be replicated, linking institutional quality assurance processes and using blockchain technology to make visible—and therefore validate—available credentials.

Credential wallets where institutions upload information and students can share a token with an employer or industry are increasingly common and can be used for micro-credentials. For example, approved, quality assured micro-credentials, are recorded on the learner's New Zealand Record of Achievement (NZRoA). Research by eCampus Ontario found that "Learners foresee using a virtual wallet for holding and tracking their educational credentials, gaining employment, and obtaining future education...and that they are looking for specific features in a virtual wallet which will enable the shareability and socialization of credentials, with data privacy, user security, and accessibility" (eCampus, 2023: 40). Ontario could leverage the work of MyCreds.ca, for example, to connect institutions to one another, to underscore their mutual trust and leverage reliance on existing institutional quality assurance processes to determine that credentials (micro-credentials included) can be considered of quality.

This literature review is intended to highlight relevant global trends in micro-credentials, while considering their potential application in Ontario. Addressing issues related to definition, purpose, access agenda, labour market alignment, stacking, credit transfer, qualifications frameworks, quality assurance regimes, recognition, and portability, it provides an understanding of the challenges and opportunities associated with micro-credentials. The review has contributed to the dialogue on the role of a made-in-Ontario quality assurance system for micro-credentials.

Globally, there are many models and experiments in quality assuring micro-credentials, and it is clear that the quality assurance regimes in place must be in balance with the scale of micro-credential development to have the effect of encouraging institutions to formalise micro-credentials. Any such system should also recognise the valuable contribution of alternate providers in this space. Balanced properly, a quality assurance system can support student choice and access and satisfy a public policy goal of supporting employment-ready educational opportunities for students.

Problem Statement

Continuing education and employer/industry training is an established feature of the Ontario lifelong learning system; yet the current demand for short, labour market relevant programming (now called micro-credentials) has led to a proliferation of offerings. This "jungle of micro-credentials" puts the onus on the student to presume the value of investment in the educational experience in advance and requires after the fact judgement by an employer, industry, or academic institution to determine the relevance of programming for labour market advancement or academic credit.

This "let the buyer beware" model hinders the integration of micro-credentials into lifelong learning due to a lack of clarity, leading to a lack of trust, and resulting in a lack of recognition. Concerns from the higher education community that integrating micro-

credentials into the mainstream higher education system will negatively impact the quality of other credentials further hinders integration efforts.

Hence, formal recognition that some short programming meets agreed upon expectations will provide transparency of that educational experience, establish in advance the value of a given micro-credential for employers, industry, and academic institutions, and thereby provide students with a clarity of options, confidence of recognition, and the validation of their educational investment.

The challenge of this activity is balancing the divergent yet equally important needs of:

- learner choice and learner protection
- employer needs and educational best practice
- simple signalling and sophisticated processes
- institutional autonomy and system coordination

Working Definition of an Ontario Micro-Credential

An Ontario Micro-Credential (OMC) is a formal qualification that recognises the achievement of one or more employment-focused skills, competencies, or learning outcomes. Typically, between 12-40 instructional hours, OMCs may be offered in a flexible format (e.g. competency based, learner paced, etc.) and mode (e.g. virtual, in-person or hybrid). Program learning outcomes and assessments are established in relationship to traditional qualifications and may integrate with, or complement, those credentials. Ontario Micro-Credentials are offered by institutions with Ontario government authorisation as a Designated Ontario Micro-Credential Institutes (DOMCI), or by industry, employers, etc. in partnership with an authorised institution. DOMCI status is achieved through an Ontario External Quality Assurance Board review process recommendation.

The Ontario Micro-Credential Quality Assurance Framework

There are three separate yet equally important components to the proposed Quality Framework that work in concert to create a coordinated system of higher education that supports student choice, labour market understanding and academic value through transparency and trust. When in place, a quality framework for micro-credentials will support student employment and educational goals by providing programming that is recognised, portable, and has stacking potential, all while allowing for provider autonomy.

- 1) **A Qualifications Framework** provides transparent parameters of credential expectations

- 2) **Quality Assurance** monitors programming through an External Quality Assurance Process (EQAP) of an Institutional Quality Assurance Process (IQAP)
- 3) **Recognition** demonstrates and legitimises achievements.

Note that there is a fourth component that frequently emerges in quality discussions which could be considered ‘accountability’, where government recognition for funding purposes (i.e. program development funding, eligibility for Ontario Student Assistance Program, OSAP) is based on factors beyond quality considerations. While these elements may have a bearing on operational aspects or strategic planning of OMCs, they are not addressed in this document as they are policy and political decisions outside of the realm of a quality framework.

Ontario Micro-Credential Qualifications Framework

Qualifications frameworks are the global norm for denoting the credential landscape and establishing quality parameters; they serve as an instrument for the development, classification, and recognition of skills, knowledge and competencies along a continuum of agreed levels. Since 2001, Ontario’s higher education system has been guided by the Ontario Qualifications Framework (OQF) (Ontario Government, nd).

The OQF establishes the parameters of an educational program in two main ways: *Qualification Descriptions* and *Qualification Standards*. The *Qualification Description* component of the OQF sets out for each qualification: its purpose, typical admission requirements, typical duration, and typical credit value. The *Qualification Standards* component “articulates the levels of knowledge based on...mastery of particular, established bodies of knowledge and skills...into qualification types” (Ontario Government, nd). The Standards establish the competencies/learning outcomes (knowledge, skills, and abilities) which students are expected to demonstrate through assessment upon completion of each qualification type (from Certificate to Doctoral Degrees).

A clear and transparent framework which articulates the parameters of recognised Ontario Micro-Credentials (OMCs) is the central component to this quality strategy. An Ontario Micro-Credential Qualifications Framework (OMCQF) can align with, or be embedded into, the existing OQF by establishing the parameters of the programming vis-a-vis the already established categories and subcategories. Orienting micro-credentials with the OQF can provide clarity by setting expectations on programming in three primary areas:

- **Academic level:** Alignment of curriculum and assessments with established qualification levels in the OQF
- **Duration:** Signals expectations of student and faculty engagement
- **Providers:** Establishes who is eligible to confer the OMC qualification

The proposed OMCQF is not intended to standardise educational opportunities but to harmonise provision, recognition and understanding so that students can be fully and appropriately awarded for their learning experiences. An OMCQF creates a common understanding of the ‘value’ of an educational experience. When the value is understood and agreed upon, it can then be verified, transferred, stacked, and transported to the labour market.

Academic level

A significant dilemma in the current micro-credential landscape is that there is no way to signal the academic rigor of a program. A course with the same name might be an introduction to the topic or designed for experts with advanced degrees and experience in the field. Currently it is the responsibility of the student both to determine and explain to others the degree to which they acquired a new skill or competency. This problem can be mitigated by relating the program curriculum with the commonly understood Ontario Qualifications Framework (OQF) credential levels.

It is proposed that OMC programming align with qualifications of the OQF in order to signal the complexity of programming as well as expectations of background knowledge, skills or competencies needed in order to successfully manage the curriculum.⁸ It will also support OMC program development, review, and credit transfer as it provides a reference point for the consideration of learning outcomes, curriculum, and assessments to the stated academic qualification. Ensuring assessments are at the appropriate level is a critical element of this process of establishing the level (i.e. this “levelling” process). Hence, orienting OMCs to existing qualification levels can provide clarity as to their academic rigor, informing student choice, program development and recognition.

It is proposed that seven distinct OMC qualifications be awarded. They each align with one primary category of qualification within the OQF (see Table 1 below). Note that there is no OMC distinction for the differing lengths of programs (i.e. Advanced Diplomas or Honour Bachelors). Note also that Graduate Diplomas are not included in this qualification table as the credential is not included in the OQF.

⁸ Note that the academic categorisations are not intended to prohibit access to programming (i.e. admissions policies and practices would remain within the domain of the institution/department).

Table 1: OMC Qualification awarded and OQF Level

Qualification awarded	Credential level of curriculum and assessments on the OQF	
OMC (Cert)	Certificate 1	OQF Level/Column 1
OMC (App)	Apprenticeship	OQF Level/Column 3
OMC (Dip)	Diploma 2	OQF Level/Column 7
OMC (PostDip)	Post-Diploma Certificate	OQF Level/Column 9
OMC (Bac)	Bachelor’s Degree	OQF Level/Column 10
OMC (Ma)	Master’s Degree	OQF Level/Column 12
OMC (Doc)	Doctoral Degree	OQF Level/Column 13

Its important to note that the alignment of the OMC, this “leveling” with the level/column on the current OQF, is strictly in terms of establishing the appropriate level of learning outcome and is not in any way dictated by the length of the program. Hence the additional consideration of the OMC’s “Duration” described below.

Duration

The second dilemma of the current micro-credential landscape is that the term can signal anything from a one-hour tutorial to a course of over 300 hours. Articulating the duration of the learning experience is an important second signal to the total value of the experience and provides transparency to students in terms of their investment of time and money. As noted by van der Hijden and Martin in their 2023 report for UNESCO “Competencies are the end goal, but in the process the indication of the average notional learning time is useful information for both teachers and learners” (p. 21).

Despite a desire for innovation in competency-based programing based on student learning effort and signaled by credit value,⁹ the current model in Ontario is based on duration of time through instructional hours or semesters. This is how Ontario institutions currently operationalise the administration of programming (e.g., tuition fees, space, or HR requirements) and also how programming is translated into credit value.

Hence, for functionality, OMCs will utilise instructional hours as a means to signal educational effort. This is not intended to, nor should it in practice, prohibit competency-

⁹ A common discussion within the consultations was a desire for robust competency-based credit system for Ontario.

based/innovative programming. Rather, the intention is to translate innovative training or professional programming into academic language, where the term “instructional hour” is understood.

An average OMC would be between 12-40 instructional hours. Note that this is only a guideline, and institutions/programs are able to self-determine the appropriate hours below or beyond the guideline as reskilling and upskilling requirements may vary according to the topic of study. Nevertheless, this set range recognises that the average college/university academic credit is valued at 12-15 instructional hours (thereby supporting stacking opportunities) and respects that OQF Certificate I programming is over 40 hours; thus, promoting typical OMC programming to be under 40 hours would maintain the qualification distinction.

Note that an OMC does not have automatic credit awarded towards larger credentials. However, once the level of the OMC learning outcomes have been determined in relationship to the learning outcomes on the OQF, also denoting the duration in hours will facilitate the translation of programming into academic credit value. This could occur during program development, where a micro-credential could be purposely designed for stacking into a larger credential or, after the fact, if a student seeks to apply for OMC credit recognition to a larger credential. For example, an OMC (BA) of 40 hours might be awarded 3 credits towards a BA program in a related field, or 1 credit or in another more distant field. As with other credentials, a receiving institution/program will continue to have discretion to determine if, and if so, how much, transfer credit is awarded for any programming.¹⁰

The above discussion of stacking OMCs presents a simplified version the rather complex credit transfer system in Ontario. Nevertheless, this model establishes the opportunity for micro-credentials to be purposely built for stacking into specific programs and eases the ex-poste credit transfer assessment of OMCs.

Providers

The term Ontario Micro-Credential (OMC) will be a legally protected term owned by the Ontario Government, and only recognised providers will be able to award the credential. Institutions approved to offer OMCs would be known as Designated Ontario Micro-Credential Institutes (DOMCI).

Permission to use the term OMC will be awarded to institutions which have demonstrated their internal quality assurance process (IQAP) satisfies the expectations of their external

¹⁰ This principle is consistent with the Lisbon Convention or the Global Convention supporting credit recognition.

quality assurance agency (including adherence to the OMCQF) (see details on this process below).

The vast majority of Ontario higher education providers are quality assured and therefore eligible to become a DOMCI.

Table 2 below indicates the provider type, the assigned quality assurance agency, and the eligibility for DOMCI status. In accordance with the OQF, each provider will be able to award OMCs only at the credential levels for which they have current government approval and for which they are quality assured.

Table 2: Provider type, External Quality Assurance Agency (EQAA) assignment, OMC eligibility

Provider	EQAA	OMC awarding eligibility
Ontario Public Colleges	Ontario College Quality Assurance Service (OCQAS)	OMC (Cert) OMC (App), OMC (Dip), OMC (PostDip)
Indigenous Institutes	Indigenous Institutes Quality Assessment Board (IIQAB)/ Indigenous Advanced Education and Skills Council (IAESC)	OMC (Cert) OMC (App), OMC (Dip), OMC (PostDip) OMC (Bac), OMC (Ma), OMC (Doc)
Ontario Public Universities with COU membership	Ontario Universities Council on Quality Assurance (OUQCA)	OMC (Bac), OMC (Ma), OMC (Doc)
Private, out of province and other degree providers with Ministerial Consent ¹¹	Postsecondary Education Quality Assessment Board (PEQAB)	OMC (Bac), OMC (Ma), OMC (Doc)
Private Career College	None	None
Alternate Providers (Industry, Employer, Community or Professional Associations, etc.)	None	None

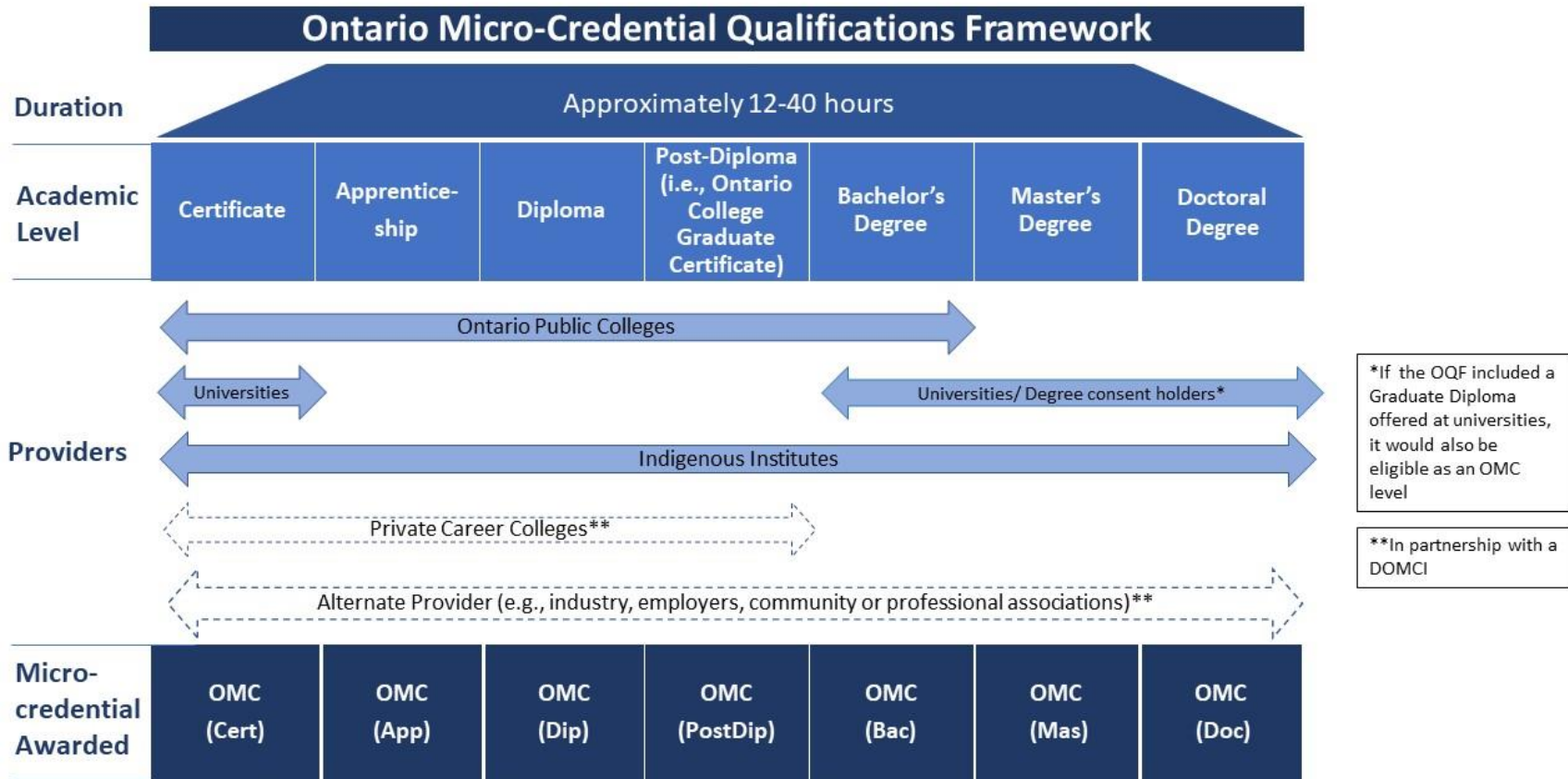
Those provider types that do not have a provincially assigned external quality assurance agency (EQAA) would be ineligible to hold DOMCI status to independently award an OMC. Note if an EQAA was established for private career colleges they would also be eligible to seek OMC granting powers.

¹¹ There are a small number of institutes with legislated degree granting powers which currently operate without external quality assurance.

Employer, professional associations, industry and others are not eligible for DOMCI status to independently award OMCs. The role of these groups in micro-credential provision is nonetheless significant – as noted earlier, over 50% of students taking additional education in 2022 did so through these providers (Academica, unpublished). Those organisations may seek partnership with authorised institutions to have an OMC jointly awarded by the institution and partner. Partnerships may take the form of joint delivery or delivery entirely by the partner industry/employer/etc. as long as the program and relationship have been reviewed and approved through the institutional quality assurance process. The testamur would note both providers as awarding the credential.

Employers, industry, professional associations and others can also endorse OMCs and have this formally acknowledged through marketing and recognition processes.

Figure 1: Ontario Micro-Credential Qualifications Framework (OMCQF) Visual



Quality Assuring Providers and Programming

The term “micro-credential” is widely used by industry and employers, private and public institutions, and currently denotes a wide range of educational and training opportunities. The term micro-credential is not and cannot be protected.

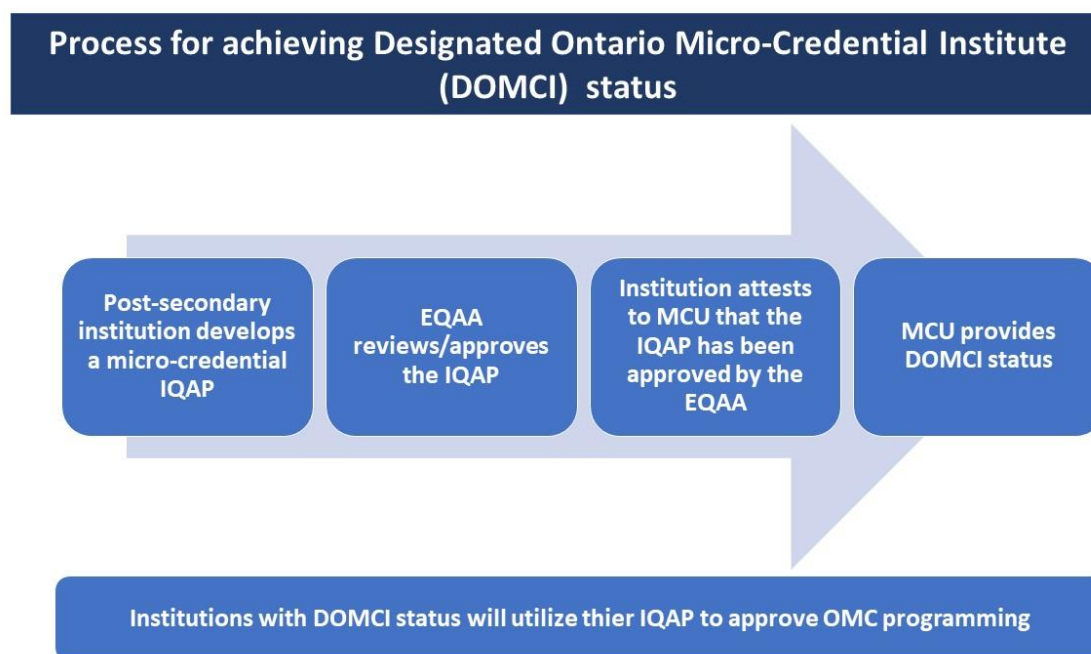
However, the term “Ontario Micro-Credential” (OMC) may be protected through an “official mark” designation under the Trademarks Act¹² for use only by the Ontario government or its designates. Under the Trademarks Act, use of the official mark could be delegated to institutions with the government’s permission. These institutions would have the status of Designated Ontario Micro-Credential Institutes (DOMCI)

The proposed condition for DOMCI status is that an institution must have their Institutional Quality Assurance Process (IQAP) for OMCs approved by a provincial External Quality Assurance Agency (EQAA). Once complete, that institution can apply to the Ministry through an attestation that they have satisfied the quality assurance expectations. Upon successful application, the authorized DOMCI can then utilise the internal quality assurance process to achieve OMC status for the programming for some or all of its micro-credential offerings. See Figure 2 below.

Note that only micro-credentials that have been approved through the IQAP process are able to use the term OMC. This would allow a qualifying institution to provide both OMC programming (when quality assured) and other micro-credentials (outside of the QA process) at its option.

¹² PEQAB is currently pursuing this through the Legal Services Office for the Ministry of Colleges and Universities (MCU).

Figure 2: Process for acquiring DOMCI status



External Quality Assurance for DOMCI Status

As presented in the literature review, External Quality Assurance Processes (EQAPs) set expectations and review Institutional Quality Assurance Processes (IQAPs) surrounding academic policies and practices to ensure academic quality goals are met. It is this synchronisation of external guidance and institutional autonomy that provides independence and flexibility to the institutions while maintaining a coordinated and transparent system.

In Ontario, EQAP standards and guidelines for policies and practices are independently determined by the agencies; however, all follow the Ontario Qualifications Framework (OQF), and are part of a network of Canadian quality assurance agencies that supports shared best practice.

Together, the four Ontario EQAAs of OCQAS, OUCQA, IIQAB, and PEQAB¹³ will establish common baseline expectations of institutional OMC quality activities.¹⁴ The

¹³ Ontario College Quality Assurance Service (OCQAS), the Ontario Universities Council on Quality Assurance (OUCQA), the Indigenous Institutes Quality Assessment Board (IIQAB), and the Postsecondary Education Quality Assessment Board (PEQAB)

¹⁴ If there was a recognised EQAA for Private Career Colleges that adhered to the QA common expectations, PCCs could be eligible to seek OMC granting powers.

benchmarks and specific processes for review will be then set by the independent EQAAs.

The external quality assurance review processes will not be overly burdensome or prescriptive but are likely to seek information on OMC learning outcomes and assessments, industry/employer engagement, and any partnership arrangements. As is common in current EQAA practices, there would be a cyclical review of the internal assurance processes which would allow for the institution to renew its MCU approval to grant OMCs. A sample of what the PEQAB process for providing external quality assurance *might* look like is available in Appendix 5.

Some degree of commonality among the provincial EQAAs is a critical component of the Quality Framework because it sets common expectations in OMCs which is an important factor for gaining trust: it guarantees that all OMCs have been considered through a similarly robust process.

A further goal of the coordinated quality assurance practice is to provide guidance to the institutions on developing measured systems for OMCs that will serve short and long-term student, institution, and labour market goals. As the micro-credential landscape changes, so do technology advances, pedagogical best practice etc., thus ensuring there are policies and processes in place to navigate these changes will be important to ground and focus efforts, while still allowing for innovation and exploration. Thus, the coordination of common expectations established by the provincial EQAAs provides autonomy and flexibility to the institutions while maintaining a coordinated and transparent system.

Once an institution has satisfied the EQAA expectations, it will be endorsed as a Designated Ontario Micro-Credential Institute.

Internal Quality Assurance of Ontario Micro-Credentials

The work of quality assuring individual micro-credentials rests with the institutions. The institutions have the content and curriculum development expertise. Recognising there are considerable quality and approval processes in place for short programs currently, this Quality Framework process will require institutions to demonstrate how they meet the Ontario Micro-Credential Qualifications Framework (OMCQF) and other policy needs as set by their EQAA. It is anticipated the application of an EQAP to current practices is likely to be straight forward, as many elements are already in place and can be easily mapped.

The provincial OMCQF also creates new opportunities for institutions, and the EQAP can provide guidance on key elements to consider. For example, if an institution determines it is open to OMC partnerships, it will need to develop a policy on partnership arrangements for provision that would likely include information on expectations for joint

provision/external provision, the process for quality assuring externally provided OMCs, and consideration of any financial arrangements.

Institutions might also need to develop a credit transfer and recognition policy for OMCs. As noted previously, OMCs can be aligned with other credential offerings, but the determination of credit transfer value rests entirely with the accepting institution/program. Where appropriate, institutions may wish to consider stacking opportunities in the IQAP to ensure alignment. Similarly, the institution may wish to design policies surrounding the amount of OMC credit a traditional qualification can bear. For example, most residency requirements dictate 50% of a student's course credits be from the institution from which the student graduates. Similar policies could articulate guidelines for stacking OMC credits into existing programs.

A similar challenge for institutions may be that current micro-credential offerings are provided through a Continuing Education department (or other non-credit bearing program units), which may not be integrated into the main administration's quality assurance or registrarial processes. Each institution will need to determine for itself if, and how, these programs will be integrated into institutional quality practices. Similarly, institutions may need to consider the supports needed to translate traditional training and professional curriculum into the commonly understood academic language of learning outcomes required in OMCs.

The elements outlined above are suggestions for what institutions might consider when developing an internal quality assurance process suitable for OMCs. Note that EQAAs will be supportive of internal quality assurance processes that are flexible, responsive, and proportional in order to support the development and review of short, targeted, programming. It is important to emphasize here that this proposal is for a "light touch" from the EQAA: a single consideration of the institution's IQAP processes resulting in general OMC eligibility for any/all micro-credentials which the institution wishes to run through that internal process.

Quality Assurance of Alternate Provider Ontario Micro-Credentials

As noted previously, providers of training and education that operate without external quality assurance will not be eligible for DOMCI status, and therefore unable to confer OMC programming independently.

Instead, they will have access to the OMC term via partnership with a DOCMI. Because external EQAA review of DOMCI's will include a review of policies and practices for how they will partner with other providers, DOMCI's will be able to approve alternate providers micro-credentials as Ontario Micro-Credentials. The proposed micro-credential would be considered through the DOCMI's IQAP, as would occur for any micro-credential seeking OMC status. Partnerships may take the form of joint delivery or delivery entirely by the

partner industry/employer/community etc. as long as the program and relationship have been reviewed and approved through the institutional quality assurance process. The testamur would note both providers as awarding the credential.

As part of the EQAA cyclical IQAP review process, DOMCI's would be required to review the programming and partnerships with alternate providers.

Recognition of Ontario Micro-Credentials

A central rationale for integrating micro-credentials into the formal higher education landscape is that the education would be validated through understood processes. Ontario's postsecondary education sector has robust means to assure the recognition of credentials. Thus, treating micro-credentials the way other larger credentials are treated within institutions naturally legitimises the programming. The next challenge is ensuring that the programming—and the learner—receive appropriate recognition. This can be supported by targeting three issues: public validation of the educational experience and its value to students, stackability towards further education, and portability to the labour market. These three elements are discussed below.

Validated

Higher education insiders can recognise the legitimacy of the QA processes described in this Framework. To further facilitate recognition beyond that audience, a critical piece to this Framework is that the validity of programming is instantly recognisable through the protected 'OMC' designation, differentiating the programs from other, unvalidated, micro-credentials and any other named credentials (e.g., programs offered through Continuing Education or other departments for which the institution has chosen not to go an OMC route). This is a unique feature of the proposed Ontario Micro-Credential Quality Framework. By using the protected term "OMC", the programming is immediately recognisable as a legitimate credential provided by an authorised institution.

The proposed Quality Framework relies on leveraging existing structures and processes. Therefore, the need for a registry of legitimate OMCs is perhaps less critical than in jurisdictions where micro-credentials are offered by a variety of providers and without another signal of validity or oversight. Nevertheless, this is an important resource for learners and employers alike. Building on the valuable work of the eCampus Micro-Credentials Portal¹⁵ there may be opportunity to include OMCs in the current registry of OSAP eligible micro-credential offerings. OMCs could also be reflected in other existing databases and public-facing registries, for example the Ontario Colleges Application Service (OCAS), Ontario Universities' Application Centre (OUAC), OntarioLearn and ONCAT.

¹⁵ See <https://microlearnontario.ca/>

An important consideration about Ontario databases housed by ONCAT, eCampus, etc. is the meta-data they collect. For example, eCampus already requires information including employer/industry endorsements and National Occupational Classification (NOC)¹⁶ codes as they provide useful labour market signals, and ONCAT requires explicit program learning outcomes. Currently, institutions are both willing and able to provide this information. It is reasonable to believe that an institution may choose to address these meta-data needs through the internal OMC QA practices if the institution sought to register OMCs with the commonly used databases.

Stacking

Stacking opportunities are a critical aspect of micro-credentials that are not currently made visible — perhaps because the opportunities are few and far between. However, under the Framework’s proposed model of academic leveling, the process of stacking should be eased because the academic value of an OMC will be determined through the program development/QA processes by leveling the learning outcomes, curriculum and assessments to certain qualification levels and determining the appropriate duration. Thus, the assignment of credit value of an OMC towards a larger credential is significantly simplified.

As noted earlier, a learner may seek ex-poste to stack an OMC into any given credential. The already established information on the academic level and duration of the OMC shifts the process from the much more labour-intensive Prior Learning Assessment and Recognition (PLAR) for individual student transcripts to a credit recognition and transfer process.

In other cases, some OMCs may be designed ex-ante to stack into certain programs. For example, an OMC (Cert) might be designed as an access opportunity to those without prior experience in PSE, or an OMC (Ma) in the field of business might be eligible for credit within an MBA program. Of course, not all micro-credential programs will seek (or receive) advanced credit recognition towards a larger credential.

Anticipating that stacking opportunities will be of interest to learners, it is proposed that institutions indicate if an OMC has credit value towards a given program and, if so, how much. It is further proposed that for simple signalling purposes, the term “OMC+” be used by the institution in marketing and promotional materials to indicate a pre-existing stacking agreement or precedent that assigns the OMC credit value towards a program. The OMC+ signal does not signal a change in the quality of the program but does provide a signal of opportunities to integrate the short learning experience into larger credential.

¹⁶ <https://www.canada.ca/en/immigration-refugees-citizenship/services/immigrate-canada/express-entry/eligibility/find-national-occupation-code.html>

To further support the goal of stacking and supporting lifelong learning, platforms such as ONCAT's ontransfer.ca could use the OMC+ and display credit transfer options for OMCs much like they do for larger credentials. ONtransfer.ca aims to facilitate the accumulation and transfer of credit across different programs, institutions, and sectors. ONCAT's role is as a "pathway navigator", helping students understand how they can leverage their previously earned credits and credentials and work experience to maximize their labour market opportunities.

Therefore, signaling which OMCs have approved credit value in at least one program through the OMC+ will support the individual learner and the higher education landscape in four primary ways:

- Signals an academic pathway for students
- Supports the access and lifelong learning agenda of the government
- Supports ex-ante credit pathways (and therefore curriculum design)
- Reduces ex-post credit recognition challenges at institutions.

Transportable

As a formal qualification, an OMC would be integrated into institutional quality assurance processes, registrarial and institutional databases. Thus, like other credentials, the programs would be eligible to be listed within distinct databases such as OCAS and OUAC, as well as OntarioLearn and ONCAT. Institutional registrars would treat the student qualification information in the same manner as all other programming.

Institutions would also be able to upload the qualification into already existing digital credential wallets, such as MyCreds.ca. These already-existing platforms allow for secure and legitimate verification of credentials using blockchain technology which in turn allows individual students/graduates to share their academic and training accomplishments with employers and other institutions. Again, the inclusion of meta-data such as NOC codes, program outcomes, etc., are important elements to share with the labour market and can be provided by these digital platforms. The validity of an OMC would be underscored by its inclusion in the digital credential wallet sphere.

Innovations and Anticipated Benefits of the Quality Framework

The simple phrase "access without quality is a cruel deception" (National Governors Association, 1986: 10) is at the core of this Framework. The "wild west" of micro-credentials presents multiple opportunities; however, it is the individual learner who suffers the consequences of an investment in training or education that does not provide value. Value, like quality, is subjective. What is proposed here would put learners at the

centre so that they are in control of their learning experience, are aware of the choices, and can make their own evaluations. The Framework is based on a balance of:

- learner choice and learner protection
- employer needs and educational best practice
- straight-forward signalling for public understanding and a sophisticated means to ensure formal recognition
- institutional autonomy and system coordination.

The structure of the Quality Framework builds upon strong foundations and networks of the current Ontario system and takes into account promising practices from other jurisdictions, specifically in the alignment of curriculum to established qualification levels. There are three specific innovations in this model worth noting: the protected OMC term, the signalling of stackability with OMC+, and the opportunities for joint provision of OMCs in partnership with employers, industry and professional associations.

Protected OMC Term

The Ontario Micro-Credential Qualifications Framework (OMCQF) establishes agreed upon parameters of a recognised Ontario Micro-Credential (OMC). Primarily, it requires programmatic academic leveling, establishes providers, and recommends program duration. External Quality Assurance Processes (EQAPs) then support the Institutional (internal) Quality Assurance Processes (IQAPs) which legitimates the OMC programming, allowing for recognition from learners, employers, industry and academic institutions. Institutions that have demonstrated their capacity to deliver OMC's will be recognised as Designated Ontario Micro-Credential Institutions (DOMCIs)

Rather than hindering micro-credential innovation, this framework should instead foster opportunities for micro-credentials. By reducing the confusion and questions about what a micro-credential is, institutions will be able to focus on the integration of micro-credentials into internal quality assurance activities (if they chose to) and work through issues of curriculum design and assessment activities. These pieces are in line with best practices and literature (see European Commission, nd)

The innovation here is that the “Ontario Micro-Credential” may be protected through an “official mark” designation under the Trademarks Act¹⁷ for use only by the Ontario government or its designates. Under the Trademarks Act, use of the official mark could be granted with the government’s permission. It is proposed the designates be known as Designated Ontario Micro-Credential Institutes (DOMCI). This is not unlike the protected Designated Learning Institute (DLI) term which indicates government approval for host

¹⁷ PEQAB is currently pursuing this through the Legal Services Office for the Ministry of Colleges and Universities (MCU).

international students or the protected “university” term that requires governmental consent.

Signalling Stackability with OMC+

The expectation that the successful completion of an academic or training program will lead to further educational opportunities is reasonable: learners have demonstrated their ability to meet expectations and they are justified in demanding recognition. To date, the limiting issue is the academic community has not agreed on the expectations of a micro-credential, and Prior Learning and Recognition capacities are insufficient on their own to solve the problem of assigning credit.

If the academic level of an Ontario Micro-Credential (OMC) is articulated (based on the appropriate learning outcomes, curriculum and assessments), there would be little argument against its being recognised as contributing to a knowledge base that might be included in a larger credential. Of course, credit recognition in Ontario is institution and program specific and shall remain that way. For this reason, there is already significant work in the realm of pathways and credit transfer in Ontario, specifically by ONCAT.

This OMC Quality Framework can further simplify the inclusion of micro-credentials by signalling which OMCs are stackable. The OMC+ status can be attached to an OMC that has a pre-determined eligibility for credit in larger qualifications or, through ex-post review, has been accepted towards another credential. This can be indicated through the various recognition platforms (such as eCampus, ONCAT and MyCreds). This simple signal will allow for students to understand if, and where, there are pre-existing pathway opportunities.

Alternate Providers of OMCs.

Employer/industry/community and professional association engagement is a long-standing priority of both the government and educational institutions alike. The economic impact of this is significant, and efforts of provincial, national and international systems demonstrate the commitment to it. Partnered development and provision of an Ontario Micro-Credential (OMC) can serve this public priority by validating technical programming, simplifying professional upgrading, and recognising its academic credit value.

While Ontario institutions have a long history of partnerships with employers, industry and professional associations, the introduction of the OMC opens opportunities industry/employers/community and professional associations to be partners in credential provision. Employers benefit because there is access to expertise within the institution, validation of the programming, and the ability to contribute to the life-long learning goals of employees as the OMC has potential for credit recognition. E-Campus has indicated a willingness to support alternate providers in navigating institutional processes.

Institutions will have increased recruitment opportunities through access to new populations who may, through an OMC, have potential credit towards a larger credential. There is also a potential institutional revenue stream through partnership agreements. The monetisation of OMC industry/institution partnerships through quality assurance for credential granting powers is a realistic and positive opportunity that each institution will navigate. The threats to institutional prestige, in concert with external quality assurance agency oversight, should mitigate risks to the OMC status and the Ontario higher education system.

Policy Considerations

Throughout the consultation process that supported the development of this quality framework, considerations were raised that were outside of the scope of quality assurance, but core to the institutional activities surrounding the delivery of micro-credentials. We would be remiss not to acknowledge and bring forward these policy issues as they could have impact on the implementation of any quality framework.

The issue of learner access to OMCs was raised in two primary ways. Firstly, it was noted that cost of OMCs should be kept low ensure access for all, specifically to ward against a two-tiered system of high cost OMCs and low cost micro-credentials that are not quality assured. Secondly, institutions frequently raised the issue of if and how OSAP will be tied to a micro-credential quality framework. Indeed, the proposed OMCQF parameters of an OMC differs from the current OSAP eligibility requirements, and there are questions surrounding future compatibility and transitions.

Universities were concerned that they were ineligible to provide OMC at the graduate certificate level, as this is a qualification that they currently confer despite its absence on the Ontario Qualification Framework. OMCQF is based on the OQF, and therefore if the OQF were to acknowledge a university provided graduate diploma/certificate, the credential could also be incorporated in to the OMCQF.

The capacity and resources required to develop and deliver OMCs within the proposed regulatory processes is a concern to some institutions. Particularly the Indigenous Institutions fear that their ability to move quickly to achieve DOMCI status will be hindered by this. This proposed QA model relies heavily on existing institutional practices rather than developing a standalone micro-credential quality silo, hence government support for the institutional activities would be extremely beneficial to ensure equitable access to the DOMCI status and ongoing OMC development and delivery.

Conclusion

This document presents a recommendation for how to recognise the value of micro-credentials by signalling the quality. The goal was to create a system that supports individual lifelong learning and labour market advancement through the recognition of

short, skills based, employment focused, programs. To reduce costs, confusion, and complications, the choice was to work within existing Ontario practices of quality assurance. Naturally there are implications to retrofitting an existing model to a new phenomenon, but the Ontario processes are robust and based on trust, and therefore respectful of educational paths. We sought to make this Framework justifiable, understandable and actualisable.

Micro-credential provision is likely to continue to play a crucial role in supporting labour market needs. The central role of this proposed Quality Assurance Framework is to support postsecondary institutions in the establishment of solid OMC policies, curriculum development and provisions that both meet their goals and are aligned with provincial norms, thereby validating the inclusion of the short programs into the Ontario higher education credential landscape.

The result of implementing this coordinated framework effort by institutions, industry and employers, quality assurance agencies, government and its affiliated agencies, is that high quality student learning opportunities will be made easily visible, clearly signalled for stacking opportunities and transported to the labour market.

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Frequently Asked Questions

Why is PEQAB developing a quality assurance framework for micro-credentials?

The Minister of Colleges and Universities has directed PEQAB to make a recommendation for a quality assurance framework for micro-credentials in Ontario, and to make a recommendation on its implementation to the ministry. The goal of the Ontario Micro-Credential Quality Assurance Framework is to make short program offerings transparent to students, employers, industry, and educational providers, thereby providing recognition of achievement, facilitating stacking into larger credentials, and supporting lifelong learning, whether independently driven or employer supported.

What is an Ontario Micro-Credential?

An Ontario Micro-Credential (OMC) is a formal qualification that recognises the achievement of one or more employment-focused skills, competencies, or learning outcomes. Typically, between 12-40 instructional hours, OMCs may be offered in a flexible format (e.g. competency based, learner paced, etc.) and mode (e.g. virtual, in-person or hybrid). Program learning outcomes and assessments are established in relationship to traditional qualifications and may integrate with, or complement, those credentials. Ontario Micro-Credentials are offered by institutions with Ontario government authorisation as a Designated Ontario Micro-Credential Institutes (DOMCI), or by industry, employers, etc. in partnership with an authorised institution. DOMCI status is achieved through an Ontario External Quality Assurance Board review process recommendation.

What does Ontario Micro-Credential (OMC) signify?

The OMC mark signals that the micro-credential has undergone an internal quality assurance review process at the providing postsecondary institution confirming that the programming conforms to agreed upon expectations set out by Ontario Micro-Credential Qualifications Framework (OMCQF).

How will the ministry determine Designated Ontario Micro-Credential Institutes?

Institutions will request a review of their Institutional Quality Assurance Processes (IQAP) by their assigned External Quality Assurance Agency (EQAA). Through attestation of a successful review, the institution can seek to be a Designated OMC Institute (DOMCI) by the Ontario government.

Will an institution have to go through multiple external quality assurance reviews?

In order to receive Designated Ontario Micro-Credential Institute (DOMCI) Status institutions will have their IQAP for OMC's reviewed only by their current External Quality Assurance Provider. The OMC IQAP would then be cyclically reviewed - likely be incorporated into the institutions cyclical review every 5-7 years.

Will Institutions have to be approved by PEQAB?

Only private, out of province or other providers who currently undergo Organisational Reviews with PEQAB would seek PEQAB approval. All other institutions will seek approval from their assigned quality assurance body. NB. Colleges that provide degrees will seek approval from OCQAS only.

Who approves each Ontario Micro-Credential?

An institution with DOMCI status will approve their own OMC offerings.

Does the Micro-Credential Qualifications Framework (OMCQF) align with the Ontario Qualifications Framework (OQF)?

An Ontario Micro-Credential Qualifications Framework (OMCQF) can align with, or be embedded into, the existing OQF by establishing the parameters of the programming vis-a-vis the already established categories and subcategories. Orienting micro-credentials with the learning outcomes in the OQF can provide clarity on micro-credentials by setting expectations on programming in three primary areas: academic level, duration and providers.

What is the length of an Ontario Micro-Credential?

Institutions will determine the length of a micro-credential. PEQAB recommends that OMCs be between 12 and 40 instructional hours in length. Note that this is only a guideline, and institutions/programs are able to self-determine the appropriate hours below or beyond the guideline as reskilling and upskilling requirements may vary according to the field of study.

How was the OMC length defined?

For functionality, a typical OMC would be between 12-40 instructional hours. This set range recognises that the average college/university academic credit is valued at 12-15 instructional hours, thereby supporting stacking opportunities, and respects that Certificate I programming is over 40 hours; thus, promoting typical OMC programming to be under 40 hours would maintain the qualification distinction. This is not intended to, nor should it in practice, prohibit competency-based/innovative programming. Rather, the intention is to translate innovative training or professional programming into academic language, where instructional hours is understood.

Many micro-credentials are competency based and mapping them to academic levels or instructional hours may be difficult – what's the process?

Institutions already have expertise in content, learning outcome articulation, curriculum and assessment design in the disciplines and qualifications they provide. Applying this knowledge to a shorter program should be feasible. Further, institutions have decades of expertise in mapping of achieved competencies to an academic level as reflected on the

OQF. Similarly, they will exercise their already existing judgment as to how many instructional hours are needed to achieve a specific competency.

Why doesn't the Framework stipulate credits, similar to the European Credit Transfer and Accumulation System (ECTS)?

Articulating the workload of the learning experience is important to signal the 'value' of the experience and provide transparency to students on the expectations on their investment of time and money. In Ontario and in Canada, institutions have traditionally reflected learning by using instructional hours as proxy, which can also be reflected as credit hours where one credit represents 12 to 15 hours of learning. Ministry program funding to institutions also takes into account instructional hours. While a competency-based credit recognition system would be more elegant, it would require a thorough conversion of all programs into credits that would be consistently recognised and recognisable across all programs and institutions.

At what academic levels can OMCs be offered?

It is proposed that six distinct OMC qualifications can be awarded within the scope of the Framework each aligning with one primary category of qualification within the OQF: Certificate, Apprenticeship, Diploma, Post-Diploma Certificate (i.e. Ontario College Graduate Certificate), Bachelor's, Master's, and Doctoral Degrees. Note that there is no OMC distinction for the differing lengths of programs (i.e. Advanced Diploma or Honours Bachelors Degree).

Who can offer OMCs?

The term Ontario Micro-Credential will be a legally protected term owned by the Ontario government, and only authorised providers will be able to award the credential. Delegation to use the term OMC will be awarded to institutions which have demonstrated their Internal Quality Assurance Processes satisfy the expectations of their External Quality Assurance Agency. Approved institutions will have Designated Ontario Micro-Credential Institute (DOMCI) status.

Is offering OMCs mandatory for those institutions eligible to offer them?

Institutions delegated to offer OMCs can also offer other micro-credentials. Institutions can choose to quality assure some or all of their micro-credentials as OMCs but are not required to do so.

Who ensures external quality assurance of postsecondary education in Ontario?

Currently postsecondary education institutions are quality assured through the following External Quality Assurance Agencies (EQAAs): Ontario Colleges of Applied Arts and Technology are quality assured by the Ontario College Quality Assurance Service (OCQAS); Ontario public universities are quality assured by the Ontario University Council on Quality Assurance (OUCQA); Indigenous Institute programs are quality

assured by the Indigenous Institutes Quality Assurance Board (IIQAB) and out-of-province, 'other' or private degree providers are quality assured by the Postsecondary Education Quality Assessment Board (PEQAB). Private Career Colleges currently do not work with an external quality assurance agency.

Will all external quality assurance organisations approach micro-credentials in the same way?

In Ontario, EQAP standards and guidelines for policies and practices are independently determined by the agencies, however, all follow the OQF and are part of a network of Canadian quality assurance agencies that supports shared best practice. Each respective external quality assurance body will be responsible for overseeing the incorporation of micro-credentials into the IQAPs of institutions. Together, the four Ontario external quality assurance agencies of OCQAS, OUCQA, IIQAB, and PEQAB will establish common baseline expectations of institutional OMC quality activities. The benchmarks and processes for review will be then set by the independent EQAA's.

Will the External Quality Assurance Agencies review each OMC?

The EQAAs will review and approve institutional IQAPs - the quality policies and processes institutions use to quality assure Ontario Micro-Credentials. Only the institutions will perform the quality assurance reviews for the individual micro-credentials.

Can Private Career Colleges offer OMCs?

Only institutions that have gone through an EQAP would be eligible to independently confer OMCs. Providers which are not under the umbrella of a provincially recognised EQAA, such as Private Career Colleges, industry, employers and professional associations, are invited to partner with approved institutions to gain access to the OMC mark. Of course, the term micro-credential is not protected, and private career colleges are able to use that term in their educational offerings. Ontario Career Colleges or the government may wish to explore external QA options for Private Career Colleges. Under an external quality assurance review agency, the PCCs would be eligible to independently confer OMCs.

Can industry, employers or professional associations offer Ontario OMCs?

Providers which are not under the umbrella of a provincially recognised EQAA, such as Private Career Colleges, industry, employers and professional associations, are invited to partner with approved institutions to gain access to the OMC mark. To partner with an institution to provide an OMC, programming would be reviewed through the institution's IQAP process. An Ontario Micro-Credential provided in partnership would be granted jointly, i.e. the testamur would have the names of both the institution and the partner employer/industry/association.

Why can't Private Career Colleges or industry providers automatically offer micro-credentials under the OMC label?

The term "Ontario Micro-Credential" will be protected through an "official mark" designation under the *Trademarks Act* for use only by the Ontario government or its designates. Under the *Trademarks Act*, use of the official mark could be granted through the government's delegation for example to individual institutions. Leveraging existing quality assurance processes is an accountability mechanism that represents a basis on which the Ontario government can grant consent or permission to use the OMC Official Mark.

Micro-credentials are to be quickly mountable and achievable, responsive to the changing needs of the labour market. Will this Quality Framework make the development of micro-credentials slower and more onerous?

While the premise of the Framework relies on the existence and deployment of both internal and external quality assurance processes, these processes can be adapted to effectively serve micro-credentials. For example, institutional IQAPs can be modified and simplified for micro-credentials compared to that for traditional programming; the external quality assurance agencies also will have streamlined processes to verify that micro-credentials are effectively quality assured by an IQAP. Therefore, the IQAP and EQAP need not hinder the deployment of micro-credentials.

If some institutions offer OMCs and others offer micro-credentials not classified as OMCs, will that create a tiered system?

The Ontario postsecondary system already distinguishes between credentials offered by postsecondary education providers with quality assurance mechanisms, and those credentials offered by other providers. For example, in Diploma delivery, only public colleges are eligible to confer an 'Ontario Diploma', where private institutions can confer Diplomas. OMC vs. micro-credentials will adhere to the same principles that allows for student choice.

Can all institutions offer OMCs at any academic level?

Institutions will be able to offer OMCs at the same academic levels as those corresponding to their other programming under the Ontario Qualifications Framework (OQF). For example, Ontario's publicly-assisted universities will not be offering OMCs at the Ontario College Certificate level and Ontario Colleges will not be offering Master's or Doctoral level OMCs.

What happens to micro-credentials that are already offered to students – can they continue to be offered?

The proposed Framework will not preclude the development or continuation of any micro-credentials. Rather, its purpose is to define and classify existing and new micro-

credentials in adherence with common quality assurance principles. Pre-existing micro-credentials can continue to be offered. The Framework represents a valuable addition to the postsecondary education system, where providers can choose to align their offerings with common principles and established quality assurance mechanisms and access a new and clarifying OMC designation.

Ministry has already approved many micro-credentials. Do they automatically become OMCs?

The Ministry of Colleges and Universities has approved hundreds of micro-credentials for OSAP eligibility purposes. Once a micro-credential quality framework is in place, the ministry may choose to include OMC status in its considerations for purposes of determining OSAP eligibility of existing and new programming. The ministry will determine how a new Micro-Credentials Quality Assurance Framework interacts with OSAP-eligible micro-credentials previously approved by the Ministry.

What will be the role of postsecondary institutions in quality assuring micro-credentials?

The work of quality assuring individual micro-credentials rests with the institutions. Recognising there are considerable quality and approval processes in place for short programs currently, this new Quality Framework will require institutions to demonstrate how they meet the OMCQF and other policy needs as set by their EQAA. It is anticipated the application of the QA framework to current practices is likely to be straight forward, as many elements are already in place and can be easily mapped. Once approved as an OMC provider, the institution would utilise the IQAP for any micro-credential that seeks OMC status.

Can I get academic credit or advanced standing towards another program if I have completed an OMC?

Institutions have established processes to determine academic credit for prior learning obtained within or outside of classroom. They will be able to assess Ontario Micro-Credentials on the same basis as other types of credit. The classification of micro-credentials as OMCs, reflecting a particular academic level and length, will aid Registrar offices and institutions in determining whether academic credit can be granted. Institutions would be the ones to determine if and how much credit would be accepted. There is also an opportunity for institutions to determine credit eligibility during the program development and quality assurance phase.

What does the OMC+ mean?

Indicating that an OMC has 'guaranteed' credit value in at least one other program can be indicated by the OMC+ status, which would signal to students the potential for stackability. All OMCs have the potential for credit recognition, but the OMC+ may have a recognised value in a specific program or at least a precedent in such a program.

Can OMCs make up a larger credential, e.g., a Diploma?

Institutions will have the discretion to determine whether or how many micro-credentials can be considered towards the completion of a larger, traditional credential. However, the credit value of a micro-credential is generally small and for this and other reasons it may not be practicable for a student to complete a larger credential entirely via micro-credentials.

Will the Framework inadvertently lead to fragmentation of the postsecondary credentials?

While micro-credentials can play an important role as additional, complementary and industry-focused units of learning, they are not intended to replace traditional credentials. Though it is possible to develop micro-credentials that derive from other programs also offered as larger, more traditional credentials, it is unlikely that institutions will consider it a sustainable model to replace traditional programming with micro-credentials or break up all existing programs into micro-credentials. Normalizing micro-credentials to a duration of less than 40 hours should also mitigate any tendency to “unbundle” or deconstruct current degrees. Institutions and their respective external quality assurance organisations are encouraged to consider the appropriate interaction between micro-credentials and traditional credentials.

If institutions already have quality assurance processes for their micro-credentials, do they have to change them?

The Framework relies on the two-step implementation of an IQAP and EQAP for micro-credentials. If institutions currently have quality assurance processes for micro-credentials outside of their IQAP, they may wish to adjust and incorporate them. Alternatively, they can continue to offer micro-credentials via other quality assurance processes and without the OMC official mark.

Will an OMC show up on a student’s transcript?

An OMC would be a recognised credential, therefore institutions would be encouraged to work internally through their Registrars to allow OMCs to be represented on students’ transcripts.

Is it possible to display an OMC digitally?

Because micro-credentials are meant to be an aid to the labour market, including it in a passport/wallet would be helpful, e.g. myCreds.ca where credentials are uploaded. Student can share a token with the employer. Institutions are encouraged to partner with myCreds or another provider to allow for the digital displaying of OMCs.

Appendix 1: List of Acronyms

CHEA: Council for Higher Education Accreditation

DOMCI: Designated Ontario Micro-Credential Institute

EBSI: European Blockchain Services Infrastructure

ECTS: European Credit Transfer and Accumulation System

EQAA: External Quality Assurance Agency

EQAP: External Quality Assurance Process

EQAR: European Quality Assurance Register for Higher Education

ESG: European Standards and Guidelines

HEQCO: Higher Education Quality Council of Ontario

IAESC: Indigenous Advanced Education and Skills Council

IIQAB: Indigenous Institutes Quality Assessment Board

INQAAHE: International Network for Quality Assurance Agencies in Higher Education

IQAP: Institutional Quality Assurance Process

MCU: Ministry of Colleges and Universities

NOC: National Occupational Classification

NZQA: New Zealand Qualifications Authority

NZRoA: New Zealand Record of Achievement

OCAS: Ontario College Application Service

OMC/MCO: Ontario Micro-Credential/ Microcertification de l'Ontario

OMCQF: Ontario Micro-Credential Qualifications Framework

ONCAT: Ontario Council on Articulation and Transfer

OQF: Ontario Qualifications Framework

OUAC: Ontario Universities' Application Centre

OUCQA: Ontario Universities Council on Quality Assurance

PCC: Private Career College

PEQAB: Postsecondary Education Quality Assessment Board

PLAR: Prior Learning Assessment and Recognition

QA: Quality Assurance

Appendix 2: List of current MCU initiatives supporting micro-credentials:

The Ontario Challenge Fund

The Micro-credentials Challenge Fund was first announced in April 2021, with an investment of \$15 million. The goal was to accelerate the development of micro-credentials that respond to regional labour market needs and to strengthen partnerships among postsecondary education institutions, training providers and employers. The proposal-based fund led to the development of up to 250 new micro-credentials created through partnerships between industry, colleges, universities, private career colleges and Indigenous Institutes across the province. Micro-credentials were created across several fields, including artificial intelligence, network security, mental health, dementia care, Indigenous relations, tourism and digital marketing. The 2023 Ontario Budget included an additional investment of \$5 million, launching a second round of the Challenge Fund.

eCampus Ontario

In December 2021, eCampusOntario (eCO) launched a centralised online micro-credentials portal in partnership with the Ministry of Colleges and Universities, to support the growth of short-duration training opportunities. The portal currently lists OSAP eligible micro-credentials available from 36 of Ontario's publicly funded postsecondary institutions; updates to the portal are iterative and ongoing. To support and expand micro-credential activity across Ontario, eCO has developed and published a framework to provide high-level guidance for micro-credential development in local academic and workplace settings; it also released an Open Competency Toolkit and a Micro-credential Toolkit. Since 2019, numerous pilot projects have been carried out by Ontario's postsecondary institutions based on the eCO framework and other resources. eCO continues to support institutions in their deployment of micro-credentials through policy research and the development of relevant resources and cross-sectoral knowledge exchange opportunities such as conferences, forums and a Community of Practice.

Virtual Skills Passport

In 2021, the Ontario Budget committed one-time funding of \$2 million to support the Virtual Skills Passport Pilot Project in partnership with eCampusOntario and the Association of Registrars of the Universities and Colleges of Canada (ARUCC), enabling learners to access, store and share their earned credentials. The pilot project supported Ontario postsecondary institutions to adopt or expand their use of ARUCC's

MyCreds™ platform to incorporate micro-credentials.¹⁸ ARUCC selected ten participating publicly assisted Ontario postsecondary institutions for the pilot project via a competitive Expression of Interest (EOI) process in summer 2022; the pilot was completed in late March 2023.

OSAP

In March 2021, the government announced OSAP eligibility for ministry-approved micro-credentials offered at publicly-assisted Ontario Colleges, Ontario universities, and Indigenous Institutes. In 2022, the Ministry expanded eligibility for OSAP for micro-credentials offered by private institutions, including private career colleges. Over 1,800 micro-credentials offered at both public and private Ontario institutions are OSAP-eligible.¹⁹

¹⁸ MyCreds™ is an existing platform which provides fast and easy access to request and send transcripts, graduation awards, credentials, badges and other academic documents, including micro-credentials, to employers, government offices and others.

¹⁹ OSAP eligibility criteria for micro-credentials include: Canadian citizenship (permanent residency or a protected person status), Ontario residency, programs of less than 12 weeks in duration.

Appendix 3: PEQAB consultation activities

Organisation	Date
Contact North	January 27, 2023
eCampus Ontario	January 31, 2023
Ontario Council on Articulation and Transfer (ONCAT)	February 9, 2023
myCreds	February 8, 2023
eCampus Ontario (follow-up)	March 7, 2023
International Network for Quality Assurance Agencies in Higher Education (INQAAHE)	March 21 and April 3, 2023
Canadian Information Centre for International Credentials/ Council of Ministers of Education (CICIC/ CMEC)	March 9, 2023
Ontario College Quality Assurance Service (OCQAS)	March 14, 2023
Ontario Universities Council on Quality Assurance (OUCQA)	March 14, 2023
University of Waterloo	March 28, 2023
Ministry (PEPEB/ PCCB/ DLPB/ IEB)	March 30, 31 and April 3, 2023
York University	April 13, 2023
Higher Education Associates (HESA)	April 14, 2023
Council of Ontario Universities (COU) and OUCQA	April 17, 2023
Ontario Institute for Studies in Education: Centre for the Study of Canadian & International Higher Education (OISE-CIHE)	April 18, 2023
Colleges Ontario (CO)	April 19, 2023
OISE Centre for Continuing and Professional Learning (CPL)	April 25, 2023
Humber College	April 25, 2023
Career Colleges Ontario (CCO)	May 5, 2023
Six Nation Polytechnic Indigenous Institute	May 6, 2023
Higher Education Quality Council of Ontario (HEQCO)	May 9, 2023
Oshki-Wenjack Indigenous Institute	May 9, 2023
Indigenous Advanced Education & Skills Council (IAESC)	May 10, 2023
Indigenous Institutes and IAESC	May 10, 2023
First Nations Technical Institute (FNTI)	May 12, 2023

CO including Heads of Quality Management (HQM)/ Committee of College Vice Presidents Academic (CCVPA) and Registrars	May 17, 2023
COU inclusive of Ontario Council of Academic Vice Presidents (OCAV- Provosts)/ Registrars/ Ontario Council for University Lifelong Learning (OCULL)/ Ontario Council on Graduate Studies (OCGS)	May 29, 2023
College Heads of Continuing Education	June 13, 2023
Canadian Quality Assurance Agencies from BC, AB, SK, MB, YK, ON, MPHEC	June 15, 2023
Ontario University Council on Online Learning	July 26, 2023
Ontario Government Micro-Credential Community of Practice including EDU, IAO, MCCSS, MCU, MEDJCT, MINES, MLITSD, MND, MTCS, OMAFRA, SOLGEN	August 3, 2023
eCampus Ontario Micro-Credential Community of Practice	August 24, 2023
Indigenous Institutes Consortium	August 25, 2023
Career Colleges Ontario (CCO)	August 30, 2023
Association of Registrars of the Universities and Colleges of Canada (ARRUC)/MyCreds Registrars' Advisory Group	September 19, 2023
Integrity Commission	September 20, 2023
Indigenous Institutes Consortium	September 20, 2023
International Network of Quality Assurance Agencies in Higher Education public presentation	September 27, 2023
College of Nurses of Ontario	October 4, 2023
College of Early Childhood Educators	November 10, 2023

Appendix 4: Formal responses to the draft framework White Paper

Stakeholder Type	Name
Government Agency	Contact North
Government Agency	e-Campus Ontario
Indigenous Institute	Six Nations Polytechnic
Private Career College	Great Lakes College
Private University	Northeastern University
Public College	Fanshawe College
Public College	Georgian College
Public College	Humber College
Public University	Ontario Tech University
Public University	Toronto Metropolitan University
Public University	York University
Stakeholder Association	College Student Alliance
Stakeholder Association	Council of Ontario Universities
Stakeholder Association	Career Colleges Ontario
Stakeholder Association	Colleges Ontario
Stakeholder Association	Indigenous Institutions Consortium
Stakeholder Interest Group	Ontario Council for Ontario Lifelong Learning

Appendix 5: Example of EQAA process for OMC review

Below is an example of what PEQAB's EQAP might entail

1. Process

- a) Create a new PEQAB “Committee” of Expert Reviewers
- b) Create a Micro-credential *Manual* and *Panel Guidelines*
- c) Organisations apply to PEQAB with a submission based on demonstrating they meet the Standard by addressing the benchmarks below.
- d) PEQAB facilitates a Desk Review of the IQAP for each institution applying to offer “Ontario Micro-credentials” with a member of the PEQAB Micro-Credential Committee.

2. Standard

The organisation’s Internal Quality Assurance Processes (IQAP) appropriately accommodate micro-credentials.

f) Benchmarks:

The organisation explains:

- a) how the quality of micro-credentials is appropriately assured within its IQAP processes.
- b) how the curriculum and learning outcomes for micro-credentials are appropriately developed
- c) how the learning outcomes for micro-credentials are appropriately assessed
- d) how micro-credentials are linked to the appropriate level (column) for learning outcomes (competencies) on the Ontario Qualifications Framework (OQF)
- e) how employer/labour market needs are assessed and incorporated
- f) how duration is appropriately assigned
- g) how partnerships with employers, industry and professional associations—if any—ensure quality provision

3. Endorsement

The Expert Panel Report would go to a PEQAB Board meeting—and if successful the organisation would be “endorsed” as an Ontario Micro-Credential Provider by PEQAB, and MCU would grant access to the OMC official mark—allowing any and all such micro-credentials that had undergone quality assurance through the IQAP to use that term. Mirroring the consent process, the PEQAB endorsement would be for a term (5-7 years) – after which a renewal Review would be conducted.

Appendix 6: International comparative table of micro-credential quality practices

Jurisdiction	Alignment with qualifications framework (Integrated into existing micro-credentials framework or separate)	Mechanism of quality assurance	Providers of microcredentials	Overseeing Organisation/ Regulator/ Government body	Recognition	Definition/ Common features/ Stackability
New Zealand	<p><u>New Zealand Microcredential Framework:</u> Micro-credential approval framework is part of NS Qualifications and Credentials Framework. Micro-credentials are listed on the Qualifications and Credentials Framework.</p>	<p>Program-level government approval by NZQA based on defined criteria. Approved programs are entered into a public registry.</p>	<p>PSE institutions, industry training organisations, wānanga and private training establishments, employers and professional bodies, either in partnership with postsecondary or directly</p>	<p>New Zealand Qualifications Authority (NZQA)</p>	<p>Learner's New Zealand Record of Achievement (NZRoA) awarded to learner.</p> <p>Public registry lists NZQA-approved micro-credentials.</p>	<p>Micro-credential is an award that is not a qualification and cannot duplicate other training. Can be stacked/ used as components of learning in programs leading to qualifications.</p>
Australia	<p><u>National Microcredentials Framework:</u> supplementary to the Australian</p>	<p>Framework focuses on transparency and consistency of</p>	<p>Higher education providers, industry, professional associations, and</p>	<p>Australian Government</p>	<p>Providers that meet the minimum standards (8) may appear on</p>	<p>Microcredential is a certification of assessed learning or competency,</p>

	Qualifications Framework (AQF)	public information. Outlines 12 critical information requirements and 8 recommended elements for all providers to stipulate and make available. Attestation and detailed description of quality assurance process is a required element, though it is left up to the provider to define.	vocational providers.		the <i>Microcredentials Marketplace</i> , a national, government-funded platform facilitate comparison of micro-credentials based on consistent information elements (e.g., outcomes, duration, mode of delivery and credit point value). Credit awarded at the discretion of the institution.	with a minimum volume of learning of one hour and less than an AQF award qualification. It is additional, alternate, complementary to or a component part of an AQF award qualification. Stackability is a recommended 'critical information element'.
United Kingdom	Embedded into the UK Qualifications and Credit Frameworks, using a common credit system referencing the	Institutional-level quality assurance. Expectations for quality assurance are described by the QAA Micro-	Body with the powers to award academic credit, quality assured and mapped against the Credit Framework levels.	UK Governments (Ofqual); Quality Assurance Agency for Higher	Micro-credential must be evidenced through formal certification, e.g., a transcript depicting ECTS	Per the Micro-credentials Characteristics Statement: micro-credentials are to be credit-bearing against

	European Credit Transfer and Accumulation System (ECTS).	<u>credentials Characteristics Statement.</u>		Education (QAA) ²⁰	credits and other information.	a recognised level of the Qualifications Frameworks; subject to standard quality assurance mechanisms and not normally an award in its own right on the Qualifications Frameworks, although there are no upper or lower limits on the amount of credit that a micro-credential carries.
Europe	European Common Microcredential Framework/ <u>Recommendation on a European Approach to Micro-credentials for Lifelong</u>	Micro-credentials are subject to internal and external quality assurance by the system producing them. Quality	Education and training institutions and organisations, social partners (i.e. organisations representing workers and employers),	European Commission/ Parliament of the European Union	Credit awarded using European Credit Transfer and Accumulation System (ECTS). Database of European	Microcredential is a record of the learning outcomes that a learner has acquired following a small volume of learning. These

	<p><u>Learning and Employability:</u> Adherence to National qualifications frameworks.</p>	<p>assurance processes must be fit-for-purpose, clearly documented and accessible and meet the needs and expectations of learners and stakeholders.</p> <p>Postsecondary: Institutional-level quality assurance through established processes. External quality assurance at the national level based on a common pan-European understanding of and adherence to the Standards and Guidelines for Quality assurance in</p>	<p>employers and industry, civil society organisations, public employment services (PES) and regional and national authorities, and other types of actors designing, delivering and issuing micro-credentials for formal, non-formal and informal learning.</p>		<p>Quality Assurance Register (DEQAR) includes externally quality assured European institutions and their programs. Micro-credentials would be presumably included as well.</p>	<p>learning outcomes will have been assessed against transparent and clearly defined criteria. Learning experiences leading to microcredentials are designed to provide the learner with specific knowledge, skills and competencies that respond to societal, personal, cultural or labour market needs. They may be stand-alone or combined into larger credentials/ stackable. They are underpinned by quality</p>
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		the European Education Area (ESG) of the European Quality Assurance Register for Higher Education (EQAR)				assurance following agreed standards in the relevant sector or area of activity
Malaysia	<u>Guidelines to Good Practices (GGP): Micro-credentials</u> allowing the unbundling of accredited programs of higher education providers. Micro-credentials are to reflect established academic level on the Malaysian Qualifications Framework (MQF)	The MQA requires that Quality Management System (QMS) must be established and implemented by the higher education provider. Suggested process is outlined. Stand-alone micro-credentials can be externally quality assured by the MQA.	Higher Education Providers (HEP)	Malaysian Qualifications Agency (MQA)	Recipient receives a Malaysian Micro-credential Statement outlining the key features of the micro-credential received, including credits.	Digital certification of assessed knowledge, skills and competencies in a specific area or field which can be a component of an accredited programme or stand-alone courses supporting the professional, technical, academic and personal development of the learners.