



# A Digitally Enabled Ecosystem of Micro-credentials

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Cedefop virtual event, 22-23 June 2023 #microcredentials

Microcredentials a labour market megatrend







European Centre for the Development of Vocational Training

### Three Truths and a Lie

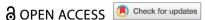
- 1 I have a strong research interest in micro-credentials
- 2 I have a strong background in micro-credential platforms
- 3 I have over 30 years experience in flexible lifelong learning





### A Complex Ecosystem With Many Diverse Habitats

CULTURE AND EDUCATION / CULTURA Y EDUCACIÓN https://doi.org/10.1080/11356405.2022.2102293



Unboxing micro-credentials: an inside, upside and downside view (Descifrando las microcredenciales: en qué consisten, ventajas e inconvenientes)

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#### **ABSTRACT**

Micro-credentials are the latest shiny new thing attracting the attention of politicians, policy-makers and educational leaders. This paper endeavours to 'unbox' the micro-credential by peeling away inherent tensions in competing definitions and underlying drivers. It reports the tripartite methodology adopted for a state-of -the-art literature review which offers an inside, upside and downside view on the micro-credential. Selected findings illustrate how the growth of the micro-credential needs to be understood in a wider socio-cultural context. The micro-credential movement is part of a complex credential ecology steeped in history, politics and cultural norms. In response to major societal and technological change forces, the paper invites debate on what counts as valued skill and knowledge in today's rapidly changing digital society. It challenges existing business models for higher and further education and the traditional status of the university degree. Therefore, the micro-credential is not just another passing educational fad, as it brings into question much bigger issues concerning employability, the changing nature of work and new models of life-long learning.

#### **ARTICLE HISTORY**

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#### **KEYWORDS**

micro-credentials: literature review: higher education: employability; life-long learning

#### **PALABRAS CLAVE**

microcredenciales: revisión bibliográfica: educación superior; empleabilidad; aprendizaje permanente

85% HE

Table 6. Distribution of publications by focus or sector.

	All pu	blications /	Highly relevant	
Sector	n	%	n	%
Higher education	126	85.1	42	93.3
Vocational and further education and training	42	28.4	12	26.7
Industry/corporate	26	17.6	15	33.3
MOOC sector	15	10.1	6	13.3
Community organization	2	1.4	1	2.2
K-12 schools	8	5.4	0	0
Employers (i.e., recruitment, training, etc.)	15	10.1	9	20.0
Employees (i.e., CPD, career benefits, etc.)	15	10.1	7	15.6
Societal (i.e., future private and public benefits)	11	7.4	8	17.8
Cross-sector	8	5.4	7	15.6
Other	1	0.7	0	0.0

Table 7. Drivers and attractors for micro-credentials.

	All publications		Highly relevant	
Туре	n	%	n	%
Increase employability	94	63.5	38	84.4
Support CPD and workplace training	88	59.5	28	62.2
Increase flexibility for learning	80	54.1	34	75.6
Close skills gaps in response to changing nature of work	74	50.0	32	71.1
Promote lifelong learning	71	48.0	30	66.7
Develop twenty-first-century transversal skills	50	33.8	23	51.1
Develop a new twenty-first-century credential ecology	35	23.6	22	48.9
Increase access and pathways to formal education	30	20.3	17	37.8
Support new models of pedagogy	27	18.2	12	26.7
Respond to COVID crisis	23	15.5	14	31.1
Reflects neo-liberal market forces	22	14.9	5	11.1
Test innovations and trigger changes	13	8.8	6	13.3
Reduce costs of education and training	12	8.1	5	11.1
Increase equity for under-represented groups	12	8.1	6	13.3
Promote major education system reform	10	6.8	4	8.9
Increase institution revenue and reputation	6	4.1	3	6.7
Promote sustainable development goals	5	3.4	4	8.9
Respond to changing demographics	3	2.0	3	6.7



### **A Complex Ecosystem With Many Diverse Habitats**

- 1 The ecosystem metaphor
- 2 External ecosystem for the QA of micro-credentials
- 3 Institutional ecosystem for the QA of micro-credentials



### Before we start...



### Micro-credential Observatory

The NIDL's Micro-credentials Observatory provides a regularly updated collection of major reports, policy initiatives and research related publications on the growth, development and impact of micro-credentials in higher education and lifelong learning more generally.

- NIDL Activities
  - NIDL Research
  - Major Policy Initiatives
  - National & International Reports
  - Useful Journal Articles
  - Events, Conferences and Webinars

#### NIDL Quicklinks

Research Outputs

**Research Projects** 

Research Links

Resource Bank

Micro-credentials

https://www.dcu.ie/nidl/micro-credential-observatory







#### THE STRAITS TIMES

**SINGAPORE** 

# Universities must change or lose their place to alternative education providers: OECD education chief

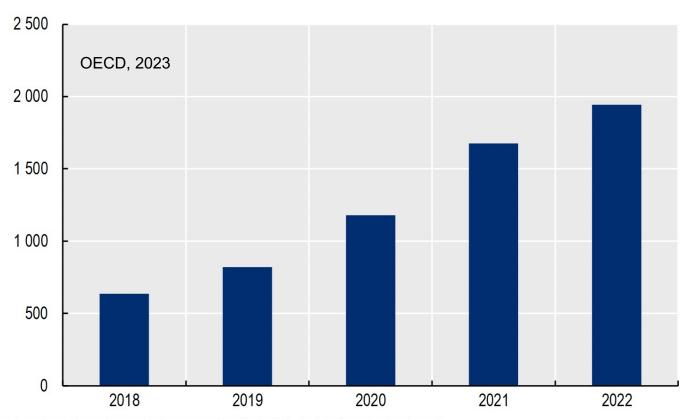




In the third of a four-part series on the changing role of universities, OECD's education chief Andreas Schleicher talks to The Straits Times' senior education correspondent Sandra Davie on how universities have to evolve to stay relevant.

For some time now, people have been questioning the value of universities. The challenge became more robust in the last two years as the Covid-19 pandemic hit and universities began to deliver their programmes online, said a global education expert.

Figure 1. The number of micro-credentials offered on six major learning platforms (2018-2022)





### Micro-credentials for Lifelong Learning and Employability: Uses and Possibilities

Figure 2. Examples of context in which micro-credentials are expected to play a role





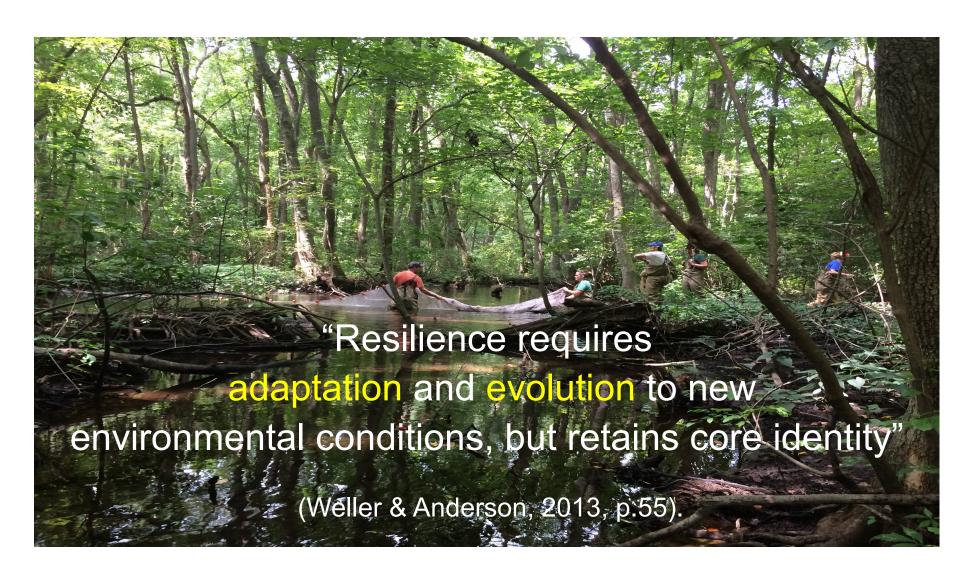


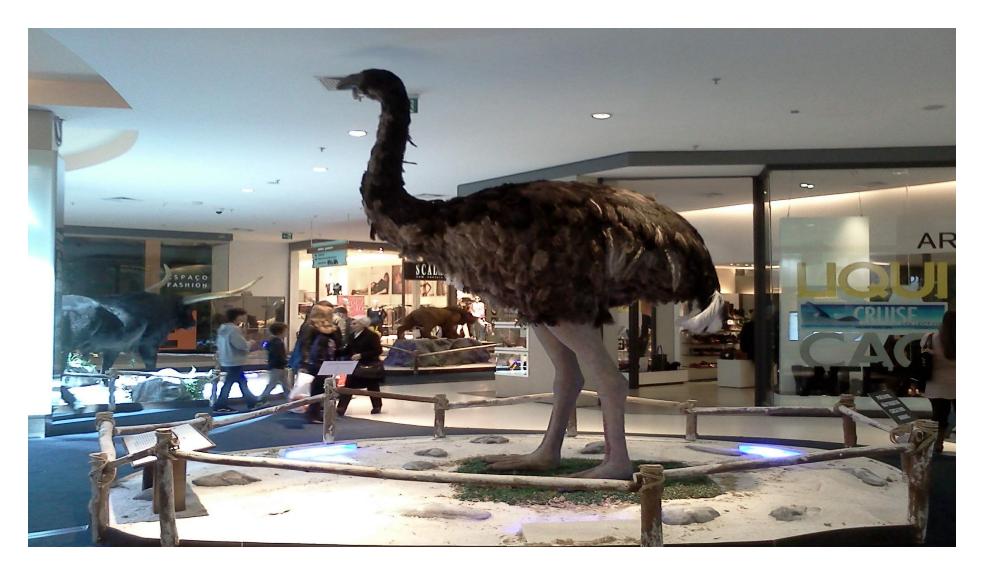
Note: The figure shows the number of micro-credentials offered on Coursera (MasterTracks, Professional Certificates, Specializations and University Certificates), edX (MicroBachelors, MicroMasters, Professional Certificates, Professional Education and XSeries), FutureLearn (Academic Certificates, ExpertTracks, Micro-credentials and Programs), Kadenze (Programs) and Udacity (Nanodegrees).

Source: (Shah, 2021<sub>[4]</sub>; Shah, 2022<sub>[5]</sub>)

https://www.oecd-ilibrary.org/education/micro-credentials-for-lifelong-learning-and-employability 9c4b7b68-en











### Employers value microcredentials but don't know how to assess their quality

Published Feb. 23, 2023





https://upcea.edu/employers-are-all-in-on-microcredentials-survey-shows-inside-higher-ed/

#### Survey of 510 US employers

- Although a majority of surveyed employers say they value alternative credentials, many also harbor concerns over assessing the quality of education and understanding the skills and competencies they represent.
- That's according to a recent survey of 510 employers from the University Professional and Continuing Education Association, also known as UPCEA, and Collegis Education, a technology services provider for colleges.
- Despite their concerns, 23% of respondents said the greatest benefit
  alternative credentials provide is giving workers real-world experience.
   Also, 16% of respondents said alternative credentials help employees
  develop specialized skills and 13% said they improve performance.

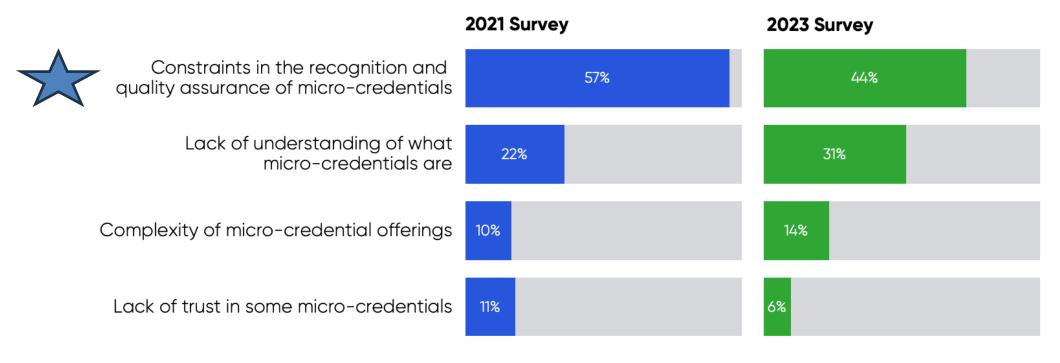




HOLONIQ, GLOBAL IMPACT INTELLIGENCE

Recognition and quality assurance constraints the top barrier, although less so in 2023, and now more concern regarding basic understanding.

The top barrier to the adoption of micro-credentials at scale is:



Source: HolonIQ, March 2023. n = 389 across 2021 and 2023 surveys.



(How) do the quality assurance principles apply to microcredentials?



OECD Education Working Papers No. 281

Digital higher education: Emerging quality standards, practices and supports François Staring,
Mark Brown,
Paul Bacsich,
Dirk Ifenthaler

Table 5. Key principles for the quality assurance of digital higher education

Description	The institution has clear objectives in all its areas of activity, as well as clear policies and processes for QA and development.
Description	These are developed with the participation of the relevant stakeholder groups, set out in writing and communicated transparently
	Quality-related decisions are evidence-based, recorded in writing and communicated clearly. The implementation of measures
	takes place in dialogue with the departments involved and is discussed as part of follow-ups. The results flow into the revision of
	goals, principles and processes and the "Plan-Do-Check-Adjust" cycle begins again.
Principles	Vision, mission and strategy for digitalisation and innovation
	2. Organisational quality culture centred on digitalisation, innovation and collaboration
	Digital education infrastructure
IMPLEMENT: Imp	plementation of quality assurance processes and supports for digital teaching and learning
Description	Whenever possible, QA and development processes are carried out on a decentralised basis, by the directly responsible unit. The
	university supports the QA and development processes centrally, through professional services and the provision of the necessary
	resources.
Principles	Digital course content, design, delivery and assessment
	5. Supporting and incentivising staff professional development
	Preparing and supporting students for digital learning
MONITOR: Feed	back and performance monitoring of digital teaching and learning quality
Description	Information obtained through the QA and development processes is communicated to relevant stakeholders at all university levels
	within the framework of feedback loops. In addition to the quality of the services provided, the institution regularly reviews its QA
	and development system based on qualitative and quantitative evidence, external reviews, and/or benchmarking.
Principles	7. Monitoring the quality of digital teaching and learning
	Strengthening feedback and monitoring practices

OECD, 2022





https://www.oecd-ilibrary.org/education/digital-higher-education\_f622f257-en





In **25+ countries**, we found no national framework, standards or guidelines for micro-credentials. In many cases, however, there is evidence of a plan or commitment in the future to integrating quality assurance standards for micro-credentials within existing requirements.

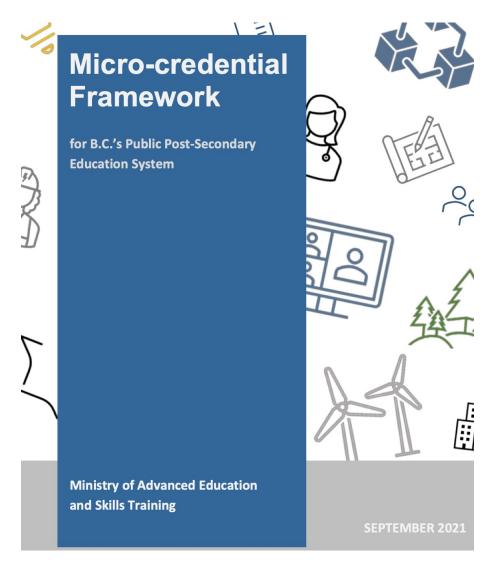
No specific quality assurance standards for micro-credentials

In **25+ countries**, we found no national framework, standards or guidelines for micro-credentials. In many cases, however, there is evidence of a plan or commitment in the future to integrating quality assurance standards for micro-credentials within existing requirements.

2 Common standards and quality assurance processes apply for micro-credentials

In Australia, Canada (x3), United Kingdom, Estonia, Spain (x2) and The Netherlands we found common standards already apply for micro-credentials, and tangible evidence of a decision to extend the application of existing standards for their quality assurance.





#### **GUIDING PRINCIPLES**

For Micro-credential Development and Implementation in B.C.'s Public Post-Secondary Education System

#### **ACCESS:**

Micro-credentials should increase access to post-secondary education and be accessible to a range of potential learners. They should provide flexibility, reduce barriers and increase opportunities for employment and life-long learning. Tuition and fees should align with the duration, skill level, learners targeted and expected outcomes of a micro-credential.



#### **QUALITY:**

Micro-credentials will be developed and assessed through a process that assures learners of their value and facilitates recognition by employers and other post-secondary institutions.

#### **Quality Assurance\***

Micro-credentials will be developed, approved and periodically reviewed, through an institutional process that aligns with existing post-secondary standards and policies, for credit and non-credit offerings, to ensure value to learners in meeting education or employment goals.



5.6 Quality Assurance

Quality assurance protects the integrity of the microcredentials ecosystem, by giving employers and recognising bodies confidence in the microcredentials being delivered by an issuing authority, and by protecting learners. While most microcredentials are unaccredited, a strong feature of stakeholder consultations is the need to ensure this framework is minimalist.

Quality assurance measures are important and have been captured in various parts of this framework - the requirement for clearly stipulated learning outcomes in **5.1**, evidence of attainment in **5.2**, and critical information requirements (such as issuing institution, provider or CRICOS codes, relevant regulator, and approach to academic integrity and assessment) in **Section 4**.

Microcredentials should be reviewed regularly (and as appropriate) by providers to ensure that microcredentials remain relevant and updated. Providers are encouraged to stipulate quality assurance processes on the Marketplace.



### Germany



Microcredentials at universities strategic development and quality assurance

**Results of the Microcredentials Future Workshop** 

#### **Spain**





ANECA presents a framework document for quality assurance of microcredentials in the Spanish University System



### EQA of MC provided by formal education institutions

- The institution can offer microcredentials if it has gained the right to conduct studies in that study programme group at the level of higher education.
- The quality is safeguarded via regular EQA of institutions (higher education) or study programme groups (VET).

#### REGISTER OF MCs

tions offering MCs must register

#### **AGENCY**

Assessing the formal and non-formal education institutions in a flexible, fair, and comparable way. Since 2018, Estonian Quality Agency for Education has assessed the quality of continuing education in more than 100 non-formal education institutions.

#### EQA of MC provided by nonformal institutions

- The institution requesting the right to offer MCs must undergo quality assessment in the study programme group that follows the requirements of ESG principles.
- Regular external review at least once in 5 years.



No specific quality assurance standards for micro-credentials

In **25+ countries**, we found no national framework, standards or guidelines for micro-credentials. In many cases, however, there is evidence of a plan or commitment in the future to integrating quality assurance standards for micro-credentials within existing requirements.

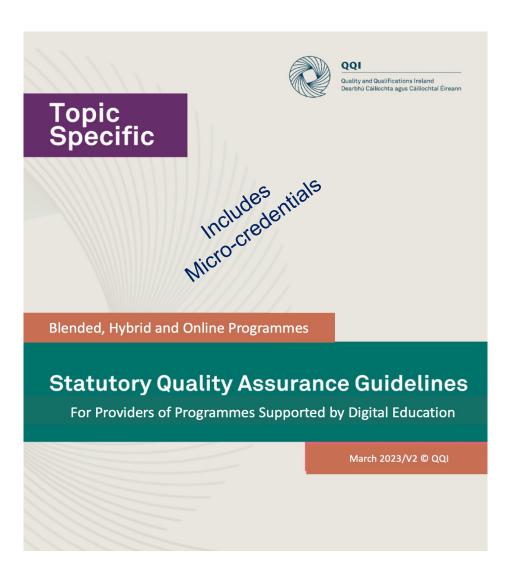
2 Common standards and quality assurance processes apply for micro-credentials



3 Specific guidelines and quality assurance processes developed for micro-credentials

In **New Zealand, Malaysia** and **Ireland** we identified a framework or specific standards or guidelines for micro-credentials to address particular issues related to their quality assurance.





### Specific QA issues for online [MCs]

#### **Organisational context**

- Business continuity
- Access to IT infrastructure
- Learners outside of country

#### **Programme context**

- Online teaching experience
- Training and professional development
- Synchronous vs asynchronous delivery

#### Learner context

- Learner readiness
- Access to online resources
- Equivalency of learning support



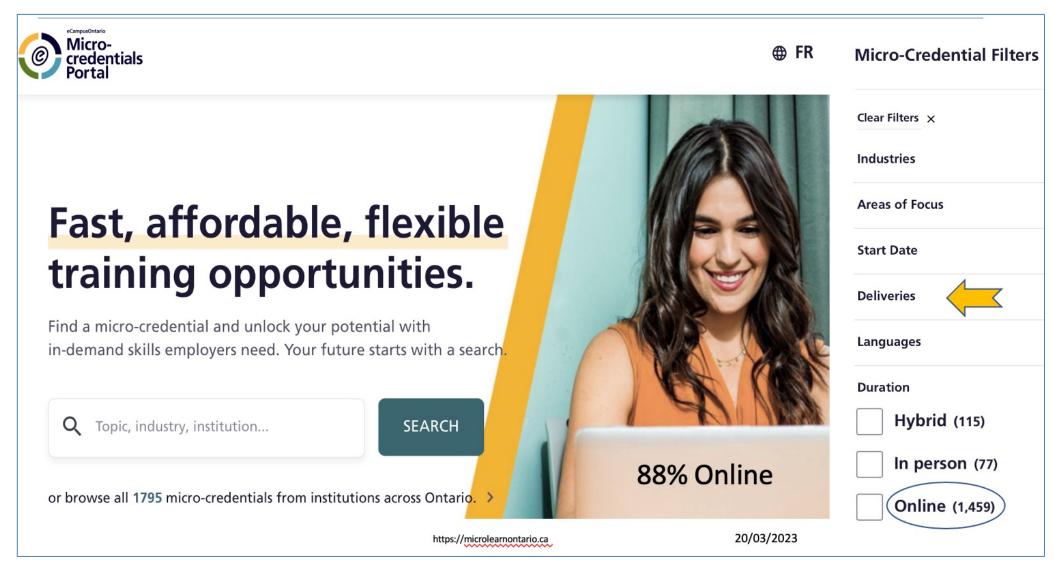


DESIGNING A VOLUNTARY
INSPECTION SCHEME
FOR MICRO-CREDENTIALS

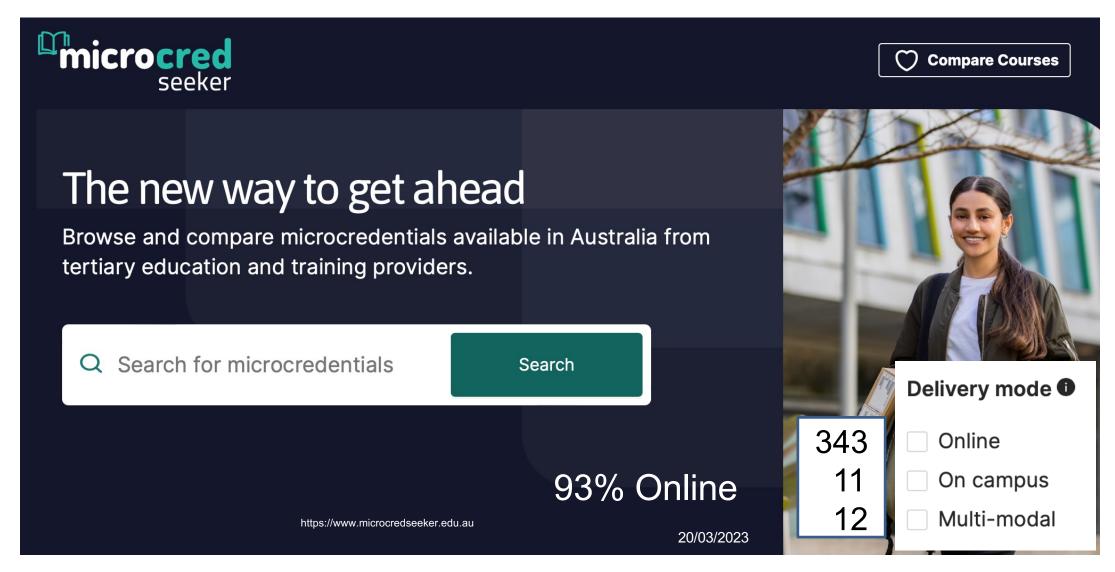
### Standards and Indicators

- Management, Staffing and Administration
- Teaching, Learning and Assessment
- Participant support
- Facilities
- Premises and facilities in the case of face-to-face delivery

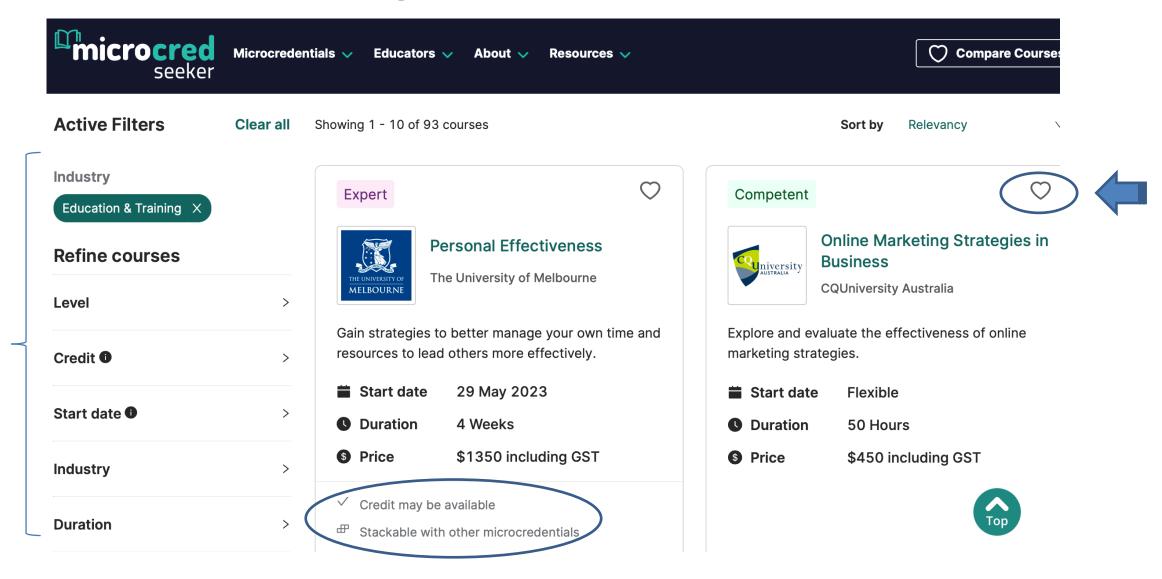




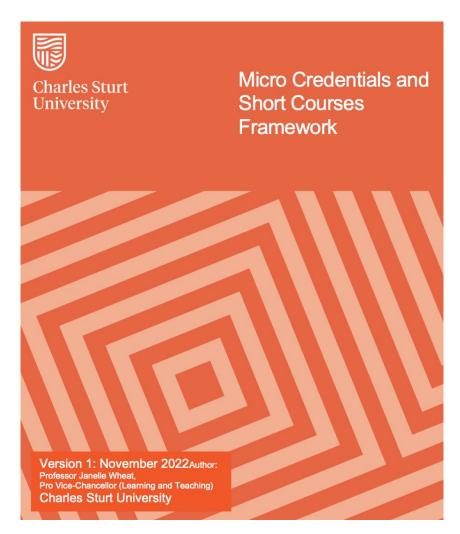












https://cdn.csu.edu.au/ data/assets/pdf file/0003/4137924/Micro-Credential-Framework.pdf

#### Types of micro credentials and short courses

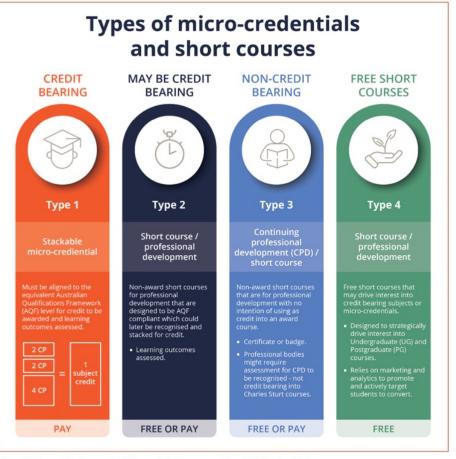
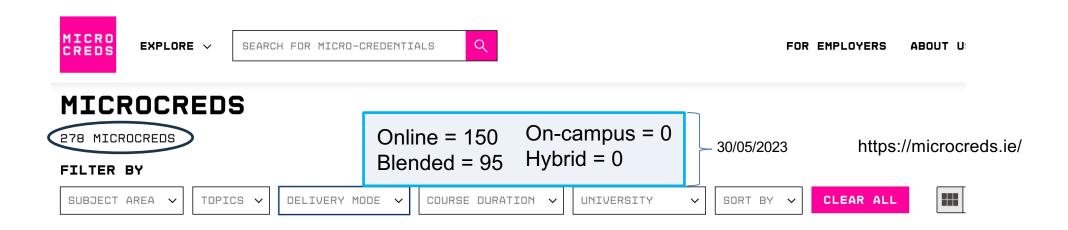
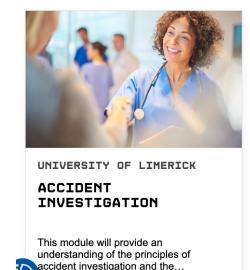


Figure 1. Types of micro credentials and short courses offered at Charles Sturt











### ADVANCED ANIMAL NUTRITION

The provision of feed is by far the greatest cost of modern animal production. It is important, therefore, to ...



UNIVERSITY OF LIMERICK

#### ADVANCED ASSESSMENT IN RESPIRATORY NURSING

This module provides the student with the opportunity to develop their competence and expertise in respiratory nursing...

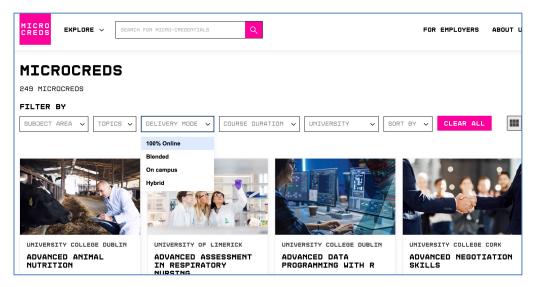


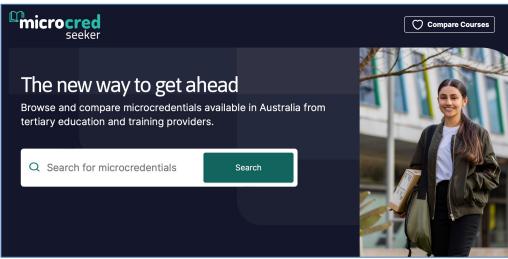
UNIVERSITY COLLEGE DUBLIN

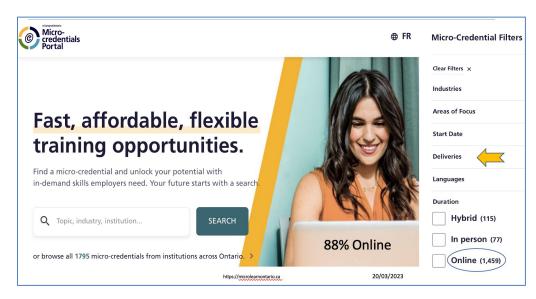
#### ADVANCED DATA PROGRAMMING WITH R

This comprehensive micro-credential covers advanced use of R and Rstudio, following on from the Data Programmin...









### Missing in the ecosystem...

- Careers guidance
- Course quality rating
- Details on QA processes
- Learner support information
- Employability outcomes data
- Evidence of a connected system













#### **Micro-credentials**

School of Food Science and Environmental Health Micro-credentials





Springboard+ is co-funded by the Government of Ireland and the European Union.















### Turn Off The Microcredentials Marketplace







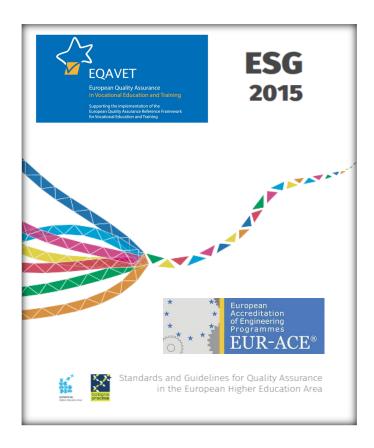
Despite the Microcredentials Marketplace being described as a colossal waste of money, another \$1 million has been committed by the Australian Government for an online resource that doesn't give students good advice on their full range of study options. The Independent Tertiary Education Council Australia (ITECA) has advised the Australian Government that this wasteful spending should stop and that a new online platform should be created that allows school leavers and existing workers to assess options across the skills training and higher education systems. This approach would bring together the three unconnected platforms that the Australian Government current spends taxpayers' money on.

### **Final Remarks**

**EUROPEAN QUALITY STANDARDS & GUIDELINES** 

**COUNTRY SPECIFIC QUALITY GUIDELINES & FRAMEWORKS** 

GUIDES & BENCHMARKING TOOLS FOR ENHANCING QUALITY



Quality and Qualifications Ireland Dearbhú Cáilíochta agus Cáilíochtaí Éireann Topic Specific Blended, Hybrid and Online Programmes Statutory Quality Assurance Guidelines For Providers of Programmes Supported by Digital Education March 2023/V2 © QQI

1. Policy and Strategic Planning

2. Unifying Design Principles & Minimum Standard Requirements

3. Approaches to Teaching and Learning

4. Technologies & Platforms

5. Industry Alignment & Forecasting

6. Quality Assurance Alignment

7. Recognition

7. Recognition

8. Joint Business and Sustainability Plan

9

New QA considerations?

**Enabling or Constraining?** 

**Fostering Quality Conversations!** 



### **Final Remarks**

A Strategic Institutional Response to Micro-Credentials: Key Questions for Educational Leaders

https://jime.open.ac.uk/

COLLECTION:
MICROCREDENTIALS

**ARTICLE** 



#### **ABSTRACT**

This article responds to the rise of the micro-credential movement. It evidences the heightened attention politicians, policy-makers and educational leaders are giving to micro-credentials by framing the discussion in several recent high-level policy developments, an exponential growth in the number of academic publications and the increasing level of interest shown by popular media. It follows that micro-credentials appear to be high on the change agenda for many higher education institutions (HEIs), especially in the post-COVID-19 environment.

However, the emergence of the micro-credential raises several crucial questions for educational leaders, set against fear of missing out. Importantly, the paper identifies a significant gap in the literature regarding leadership and strategic institutional responses to micro-credentials. Indeed, there is a dearth of literature. Leadership is crucial to the success of any educational change or innovation, so five key questions are presented for institutional leaders. They challenge institutions to make strategic decisions around how they engage with and position micro-credentials. If micro-credentials are part of an HEI's change agenda, then serious consideration needs to be given to the type of leadership and internal structures required to develop and execute a successful micro-credential strategy. Consideration must also be given to fit-for-purpose business models and how to mitigate potential risks. We hope to bring these strategic questions to the table as institutions plan, envision and develop their micro-credential strategies.

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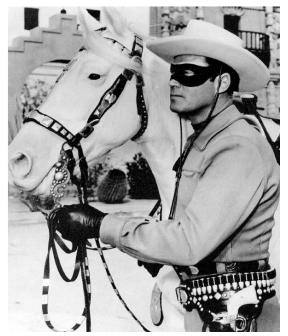
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#### **KEYWORDS:**

Micro-credentials; Higher Education Leadership; Educational Change Management

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## Thank you



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