

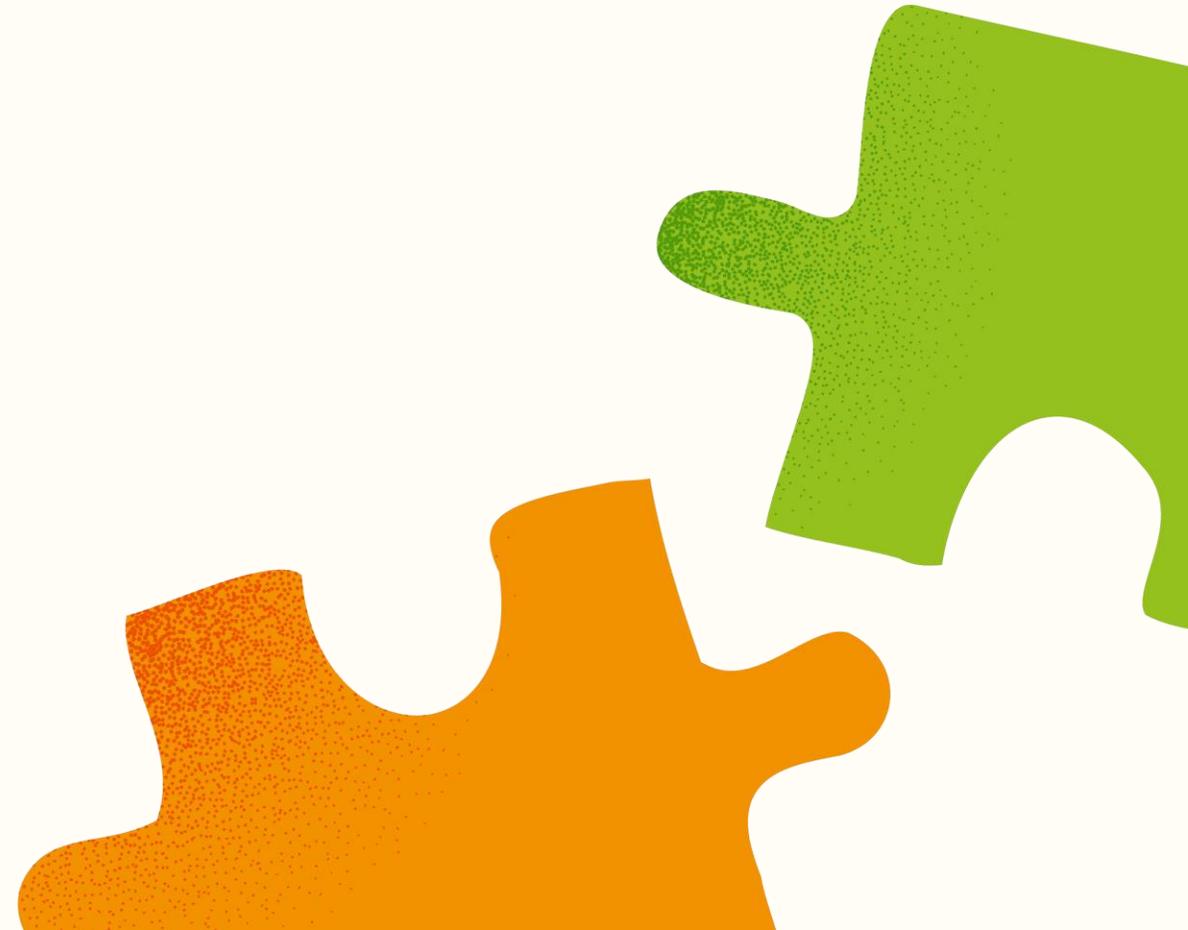
Micro-Credentials for Inclusive and Lifelong Learning:

Recognition of Qualifications for a Greener Future

2 April 2026



Definition and diversity



Micro-credentials:

1. Short, targeted certifications that recognize specific skills, competencies, or learning outcomes acquired through short learning experiences.
2. They are designed to be:
 - Flexible (short duration, often online or blended)
 - Targeted (focused on a specific skill or competency)
 - Recognized (issued by an institution or organization)
 - Stackable (can sometimes be combined toward larger qualifications)

UNESCO promotes micro-credentials as part of lifelong learning, helping people quickly upskill or reskill in response to changing labor market needs.

Source: UNESCO, 2022

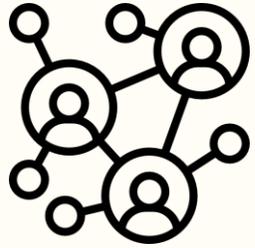
[Towards a common definition of micro-credentials](#)

1. A record of **focused learning achievement** verifying what the learner knows, understands or can do.
2. Includes **assessment** based on clearly defined standards and is awarded by a trusted provider.
3. Has **standalone value** and may also contribute to or complement other micro-credentials or macro-credentials, including through recognition of prior learning.
4. Meets the standards required by **relevant quality assurance**.

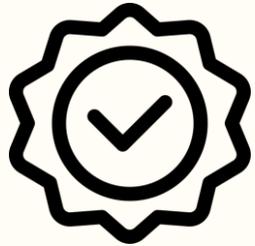


Source: UNESCO, 2022

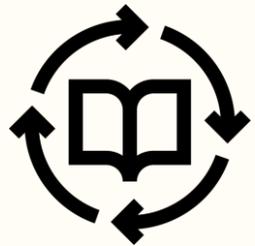
[Towards a common definition of micro-credentials](#)



Non-traditional learning modes: formal, non-formal and informal mechanisms for the delivery of educational programmes and learning activities not primarily relying on face-to-face interaction between the educator and the learner



Qualifications framework: a system for the classification, publication and organization of quality-assured qualifications according to a set of criteria



Other definitions: Non-formal learning, partial recognition, partial studies, prior learning...

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Challenges & growing demand from learners and industry



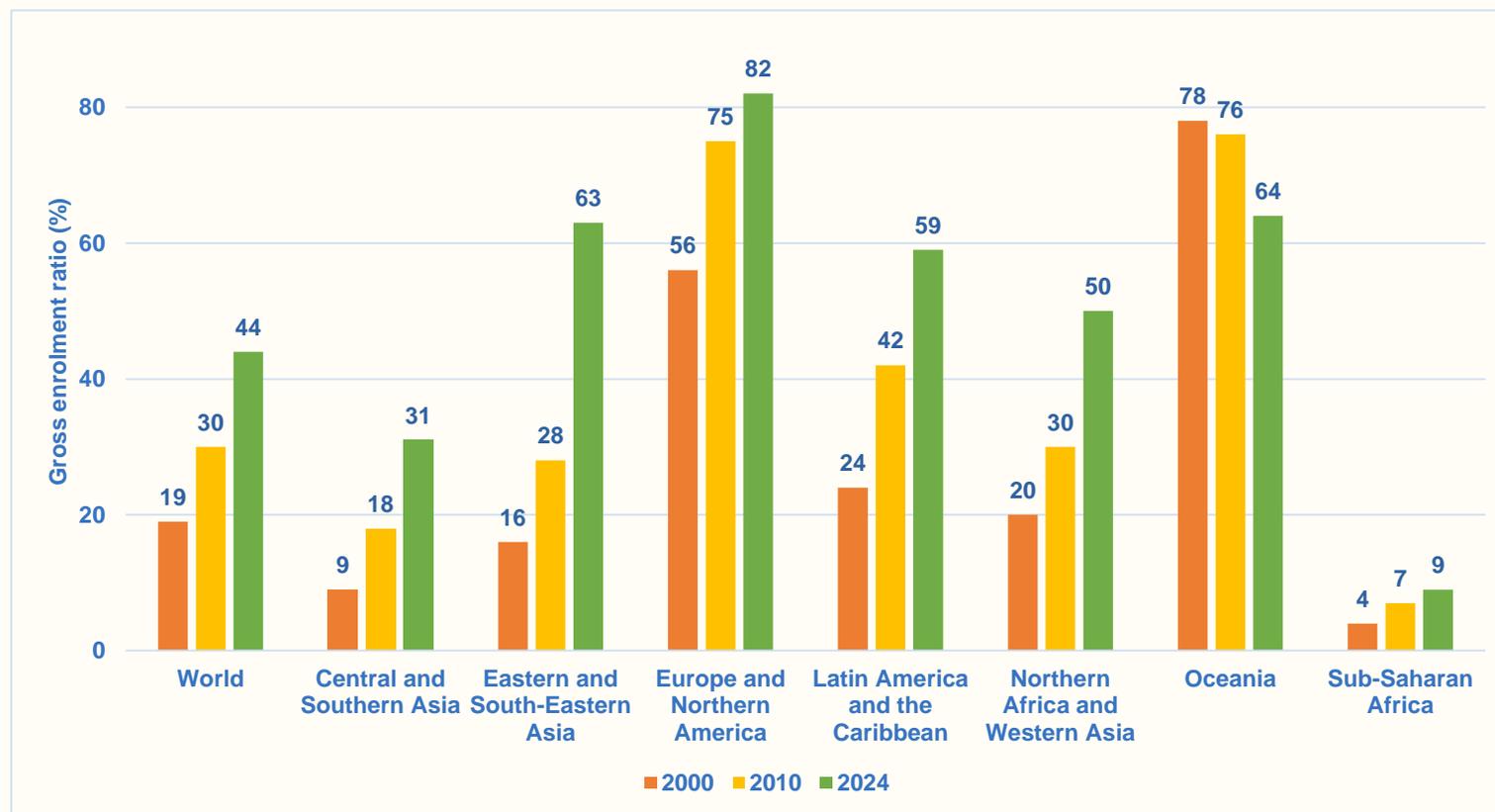
Global tertiary education enrolment by gender, 2000-2024 (number of students)



The number of students in higher education globally **more than doubled** over the past two decades, rising to **269 million**.

Global tertiary education enrolment: Enrolment in tertiary education, all programmes, both sexes. Individuals officially registered in ISCED 5 - 8 programmes, or stage or module thereof, regardless of age.

Gross enrolment ratio (%) by region, 2000-2024



19% to 44%

The average world's gross enrolment ratio for higher education more than **doubled**, increasing from 19% in 2000 to 44% in 2024.

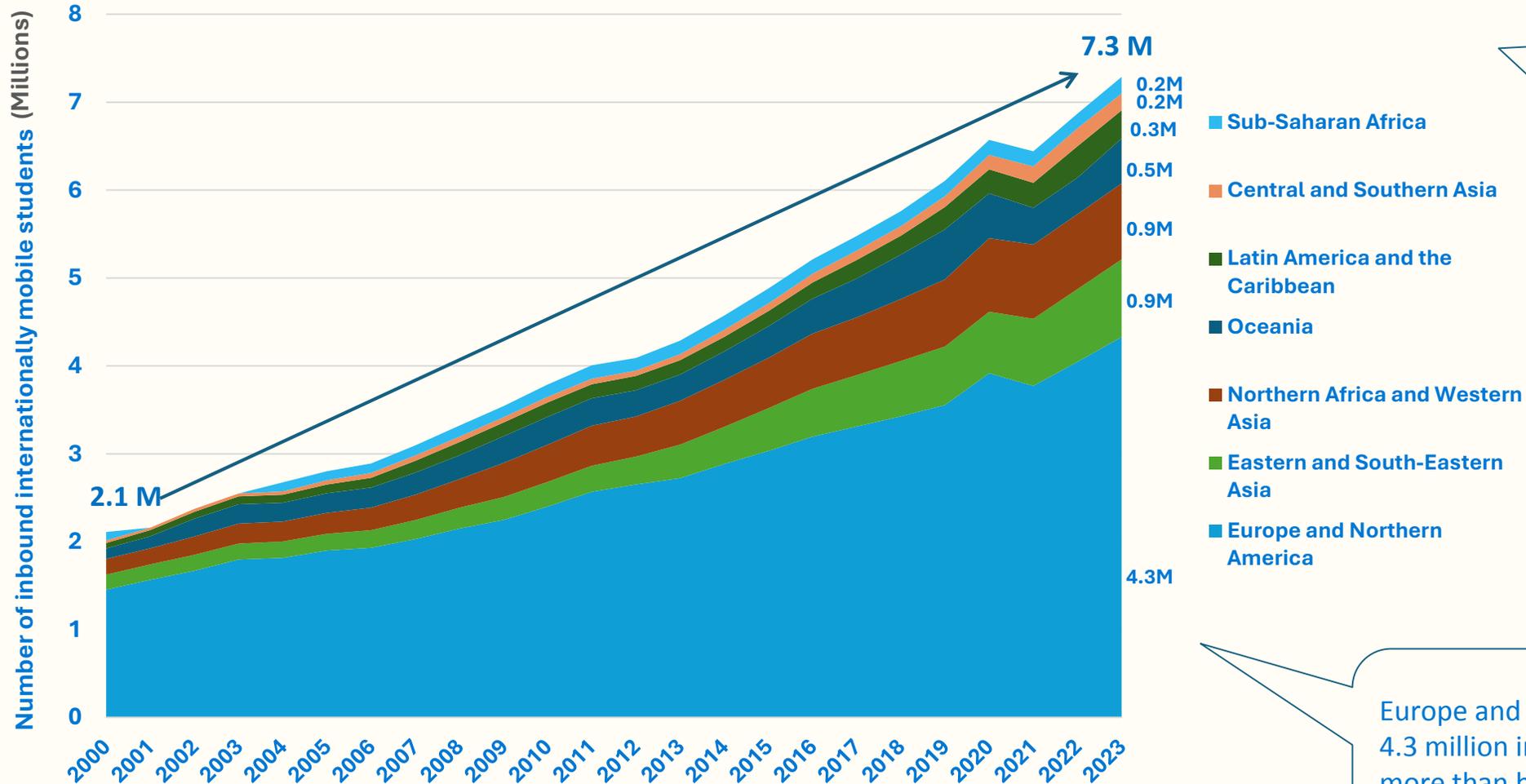
82% vs 9%

The global enrolment average masks **large disparities** in access to higher education, with the highest world region at 82% and the lowest at just 9%.

Gross enrolment ratio (GER) for tertiary education, ISCED levels 5 to 8: Total enrolment in tertiary education regardless of age expressed as a percentage of the population in the 5-year age group immediately following upper secondary education.

Source: UNESCO Institute for Statistics

International mobile students by host region, 2000-2023



The global number of internationally mobile students more than **tripled** during the last two decades, rising from **2.1 million in 2000** to over **7.3 million in 2023**.

The COVID-19 pandemic interrupted the steady growth of international student mobility, causing a slowdown in 2020 and 2021.

Europe and North America hosted 4.3 million international students in 2023, more than half of the world's internationally mobile students

Internationally mobile students are individuals who have physically crossed an international border between two countries with the objective to participate in educational activities in the country of destination, where the country of destination of a given student is different from their country of origin.

Growing demand from learners and industry

Micro-credentials as an all-purpose solution?

-  Upskilling and reskilling
-  Employability
-  Lifelong Learning
-  More flexible, learner-centred education
-  Access to and completion of education and training
-  Student international mobility
-  Social inclusion
-  Active citizenship and well-being

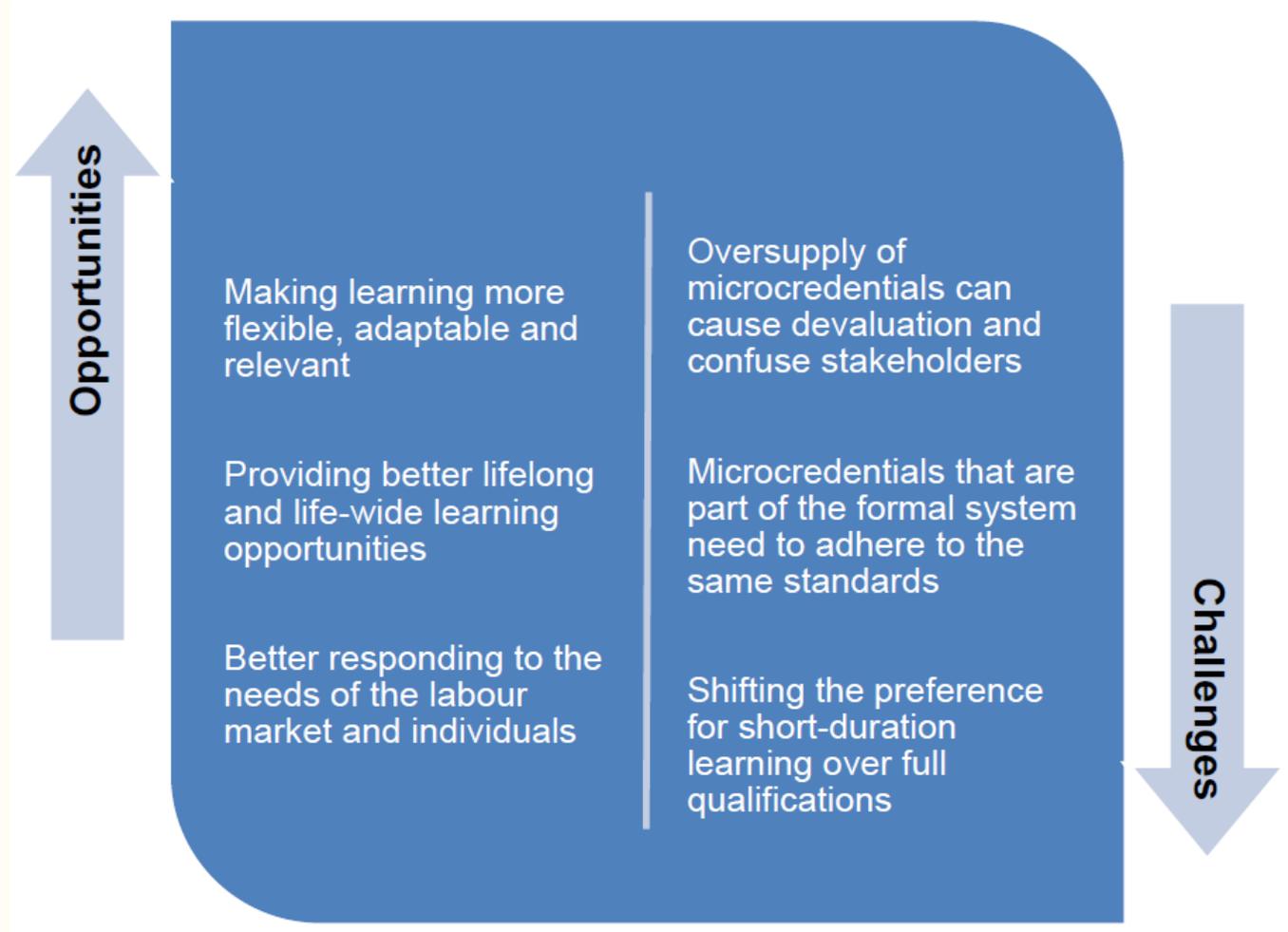
Considering the relative novelty and growing use of micro-credentials, **evidence of their value and impact** is still scarce.

Source: [OECD, March 2023](#)

Key challenges – How will quality assurance respond?

- Persistent inequities in access to quality education
- Increasing fragmentation in lifelong learning
- Rise of fraudulent credentials, qualifications and providers
- Fundamental challenges facing international cooperation
- Promoting ethical and learner-centred use of AI
- Calls to demonstrate local value and relevance

The value of micro-credentials - an employer perspective



Micro-credentials – a tool to accelerate green skills transition



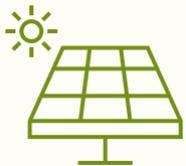
They are a policy tool to rapidly develop skills needed for sustainable development, e.g. green skills for agriculture and rural transformation



Agriculture is changing fast (climate, tech, sustainability) - traditional degrees are too slow to respond, micro-credentials allow just-in-time skills development



They bridge the gap between education and labour market and help align education systems with real labour market needs, especially in emerging green sectors.



For agriculture, examples:

- climate-smart agriculture
- sustainable irrigation
- soil health management
- agri-tech / digital farming

Transformation of universities and higher education



Universities are not only degree providers anymore — but are lifelong learning hubs. This means:

- ✓ offering short modular learning
- ✓ working with industry (farmers, agri-businesses)
- ✓ updating content quickly



Micro-credentials can expand access to education for vulnerable groups, e.g. rural populations, people with disabilities, farmers, women, youth not in formal education. Because they are:

- shorter
- more flexible
- often digital or blended

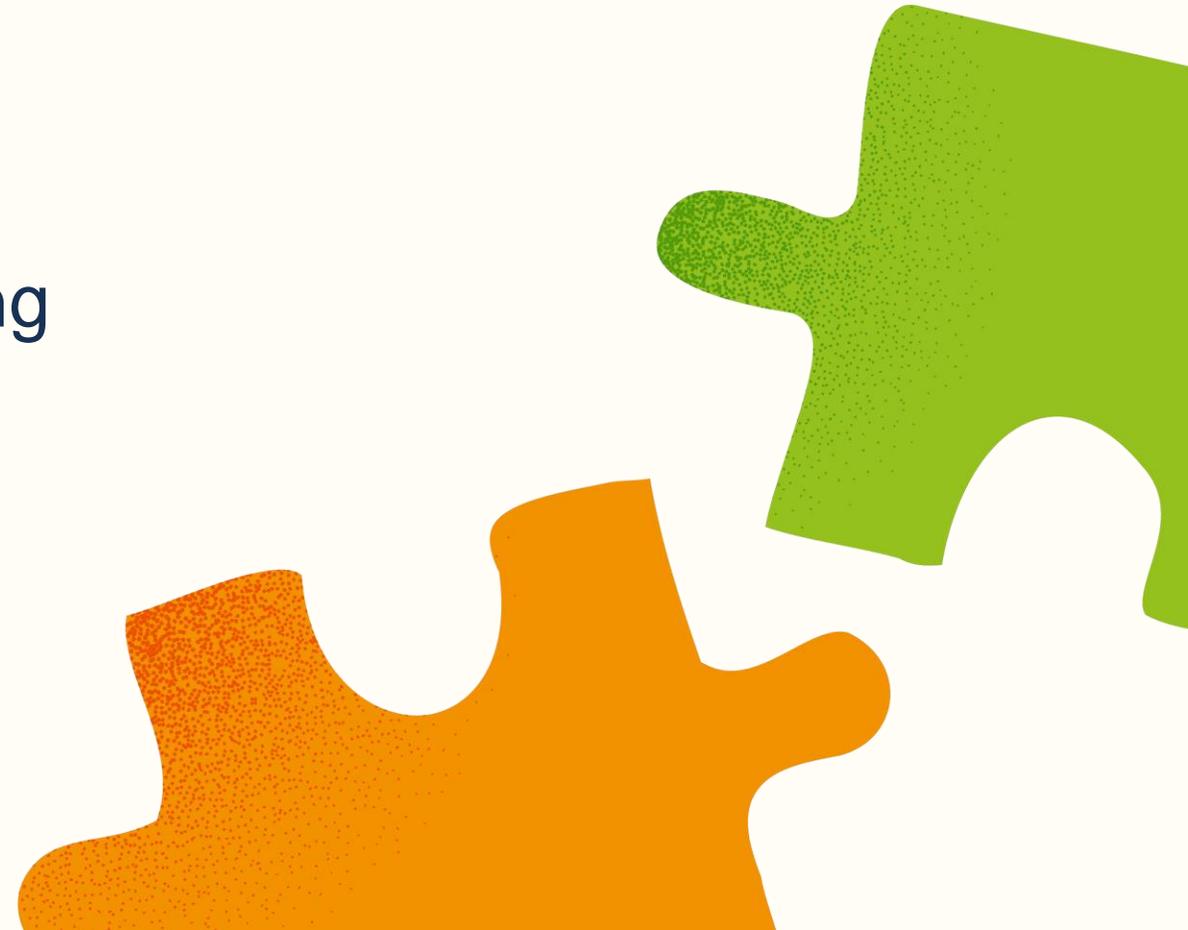


Micro-credentials should be stackable and recognized:

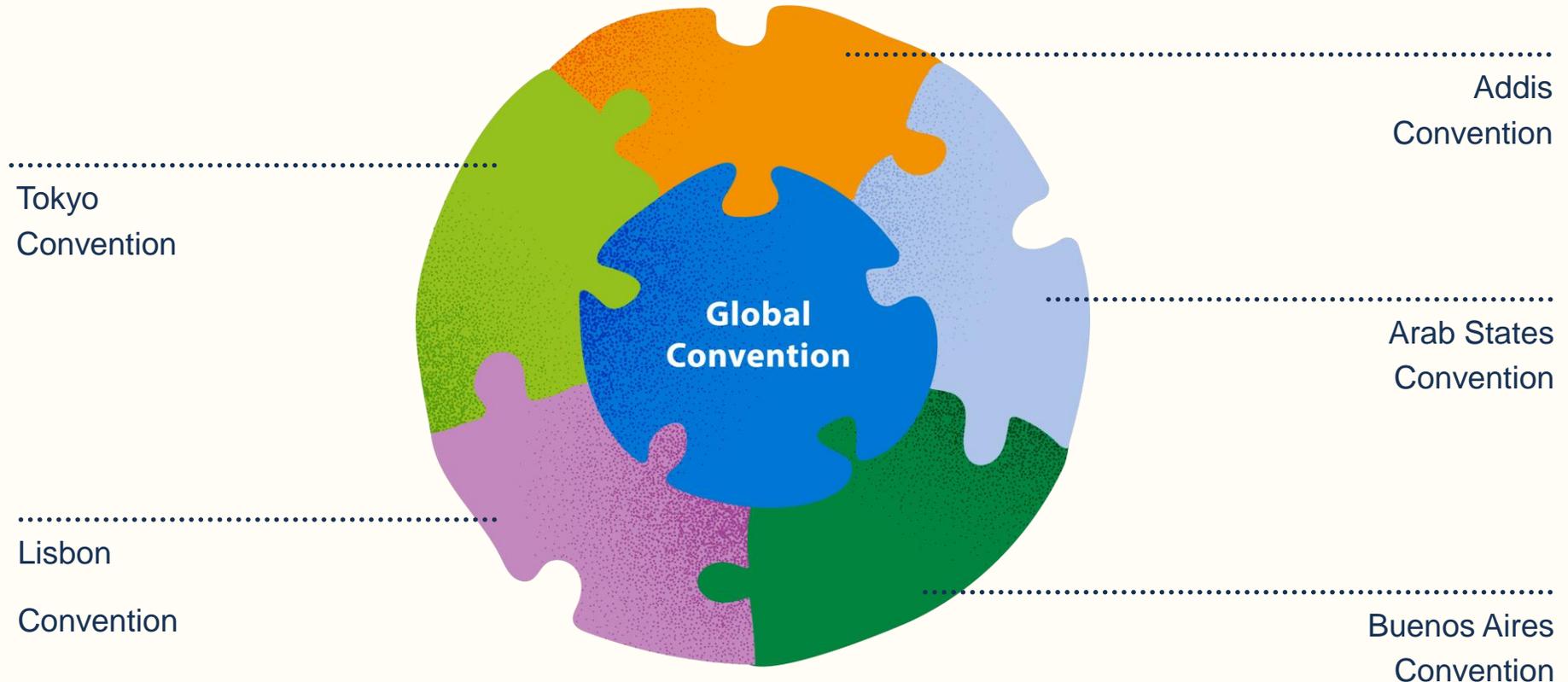
- alignment with national qualifications frameworks (NQFs)
- quality assurance
- possibility to stack into diplomas/degrees

.....

Futures of flexible lifelong learning systems



Global and regional conventions



Qualifications recognition under the conventions



Facilitates mobility through international cooperation



Provides an inclusive framework for fair recognition



Does not require automatic recognition



Respects domestic laws and Institutional autonomy

Global Convention: 40 States Parties and growing



2.2 million (30%)

of the world's 7.3 million mobile students are hosted by the States Parties



20+ Member States

Are reported to be well-advanced with ratification procedures, including countries in all UNESCO regions



Regional conventions

36 out of 40 countries that ratified the Global Convention are States Parties to one or more regional conventions

Africa



Cabo Verde



Côte d'Ivoire



Djibouti



Guinea



Senegal



South Africa



Zambia

Arab States



Palestine



Tunisia



Yemen

Asia and the Pacific



Australia



Japan



New Zealand



Mongolia



Rep. of Korea



Uzbekistan

Latin America and the Caribbean



Cuba



Ecuador



Nicaragua



Uruguay

Europe



Andorra



Armenia



Bosnia & Herzegovina



Croatia



Estonia



Holy See



Finland



France



Georgia



Hungary



Iceland



Lithuania



Luxembourg



Norway



Rep. of Moldova



Romania



San Marino



Slovakia



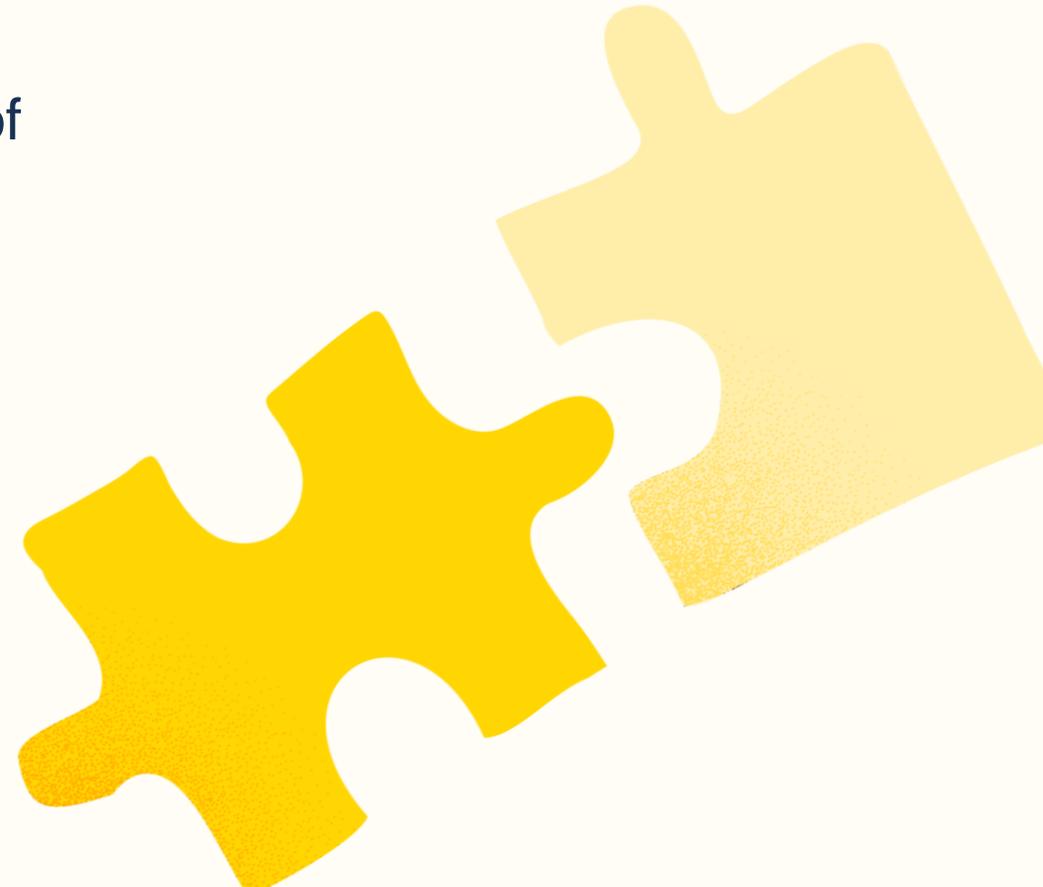
Sweden



UK

Benefits of the Global Convention on Higher Education

- Inter-regional coordination to advance international cooperation in higher education
- Building a global higher education policy space of exchange and dialogue
- Complementing and enhancing the cohesion among regional conventions



Recognition and the Global Convention on Higher Education



Education, training and learning providers are called to:

1. Design micro-credentials with learning outcomes described with skill and competency taxonomies, **aligned with qualification frameworks**, as well as appropriate learning design and valid assessment methods
2. Share data on quality assurance, learner-evaluation procedures and criteria publicly.
3. Make micro-credential quality standards as well as recognition and validation procedures accessible for non-experts
4. Implement semi-automated, transparent, fit for purpose, fair and fast recognition procedures in line with international standards and **UNESCO recognition conventions**
5. Embrace recognition practices that enable learners to share credentials from their digital wallets

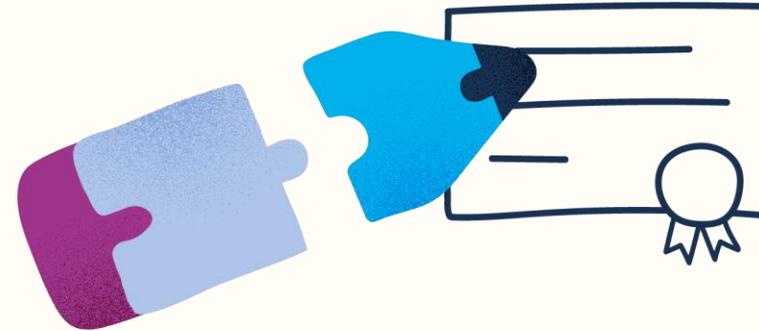
Source: [2023 International Micro-Credentials Summit Declaration](#)

New concepts in the Global Convention on Higher Education



Substantial difference

Significant differences between the foreign qualification and the qualification of the State Party which would most likely prevent the applicant from succeeding in a desired activity, such as, but not limited to, further study, research activities, or employment opportunities.



Partial recognition

Recognition of a full and completed qualification which cannot be fully recognized on account of the demonstration of substantial differences by a competent recognition authority.

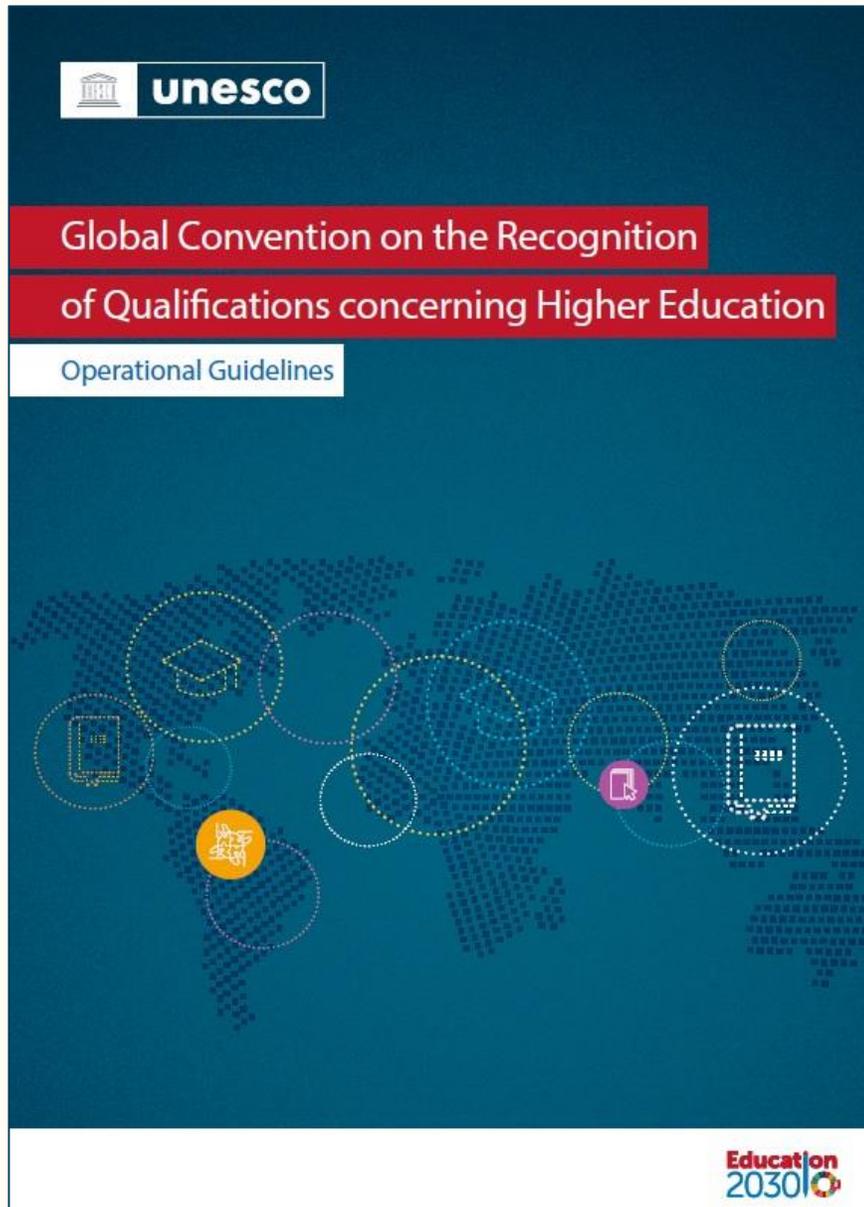
Guidance on quality assurance including cross-border education

These guidelines aim to provide:

- 1) principles and recommendations on quality assurance for relevant stakeholders
- 2) guidance on the implications of cross-border education for quality assurance and recognition

*The Global Convention calls for the implementation of context-sensitive approaches to advancing **quality standards and processes** while respecting the autonomy and diversity of higher education institutions and systems.*





- **Operational Guidelines**
<https://unesdoc.unesco.org/ark:/48223/pf0000395680.locale=en>
- **What is the Global Convention on Higher Education?** (benefits, how to ratify it, how to implement it)
www.unesco.org/en/education/higher-education/global-convention/about
- **A Practical Guide to Recognition**
<https://unesdoc.unesco.org/ark:/48223/pf0000374905>
- **Resolutions** Intergovernmental Conference of the States Parties to the Global Convention
<https://unesdoc.unesco.org/ark:/48223/pf0000386727> and
<https://unesdoc.unesco.org/ark:/48223/pf0000389637>
- **Regional recognition conventions**
www.unesco.org/en/higher-education/conventions
- **Model instrument of ratification** for all UNESCO conventions
www.unesco.org/en/node/66846

Towards a quality framework

IIEP Policy Brief / Flexible Learning Pathways in Higher Education
N°3 / 2022



Strengthening Pathways for Learners' Transition to the Labour Market



Why should pathways for learners' transition to the labour market be more flexible?

Globaly, higher education (HE) graduates have better earnings and employment prospects. In Organisation for Economic Co-operation and Development (OECD) countries, for instance, higher degree holders earn 54 per cent more than those with only upper secondary education. Nonetheless, evidence shows there is a mismatch between skills and qualifications in labour markets. The International Labour Organization (ILO) claims that 355 million workers worldwide have jobs that do not match their education level.

Typically, flexible learning pathways (FLPs) that aim to prepare learners for the labour market comprise work-based learning (e.g. internships) and continuing education programmes (e.g. professional certificates). These pathways are intended for traditional learners, but also working adults, part-time learners, HE returnees, learners from lower socio-economic backgrounds, and migrants.

The recognition of work-based learning or continuing education programmes allows learners and professionals to take advantage of more flexible ways to gain a qualification

or re-skill or upskill. But learners be made aware of and assisted in among FLPs that facilitate their into the labour market.

An important mechanism that enforces use of FLPs are information and services, which allow learners to up-to-date information on the pathways to them. Informing students about FLPs that support labour market allows learners (including adult learners with caring responsibilities) more conscious choices about how to combine study and work, or the skills to be needed in the labour market.

Flexible pathways promoting learners' transition to the labour market

Research by the UNESCO International Institute for Educational Planning (IIEP) shows that FLPs are a viable way for HE to enter the labour market for entering and progressing through countries where labour market pathways commonly include continuing programmes and work-based learning. Partnerships between higher education institutions (HEIs) and enterprises co-



Peter van der Hijden and Michaela Martin

Short courses, micro-credentials, and flexible learning pathways: A blueprint for policy development and action

Policy paper

FLEXIBLE LEARNING PATHWAYS IN HIGHER EDUCATION



United Nations
Education, Science and
Cultural Organization

Education Sector

Digital Credentialing

Implications for the recognition of learning across borders



Education 2030



What is next for micro-credentials in a transforming higher education landscape

Intergovernmental Conference on the Global Recognition Convention – Side event

25 June 2025



WORKING PAPERS

11

Mapping micro-credentials in Latin America and the Caribbean

Towards a common framework





Map of all 64 SUNY Campuses In New York



SHOW ALL CAMPUSES

- University Centers and Doctoral Degree Granting Institutions
- University Colleges
- Technology Colleges
- Community Colleges

* Empire State College has 30+ locations throughout New York State

A Policy-Based Approach to Scaling Micro-credentials Across Different Institution Types

SUNY Micro-Credentialing Task Force

Report and Recommendations

January 2018



The State University
of New York

Office of the Chancellor

State University Plaza
Albany, New York 12246

www.suny.edu

MEMORANDUM

January 23, 2018

TO: Members of the Board of Trustees

FROM: Kristina M. Johnson, Chancellor

SUBJECT: SUNY Micro-Credentialing Implementation

Action Requested

The proposed resolution commends the SUNY-wide Micro-Credentialing Task Force ("Task Force") for its report and directs the University Provost to work collaboratively with campuses to develop strategies over the next year to support implementation of the Task Force's recommendations and to keep the Board apprised of progress.

Resolution

I recommend that the Board of Trustees adopt the following resolution:

Source: Cynthia Proctor, 23 March 2023, [Micro-credentials Summit](https://system.suny.edu/academic-affairs/microcredentials/suny-launches-new-micro-credentialing-policy)

<https://system.suny.edu/academic-affairs/microcredentials/suny-launches-new-micro-credentialing-policy>



unesco



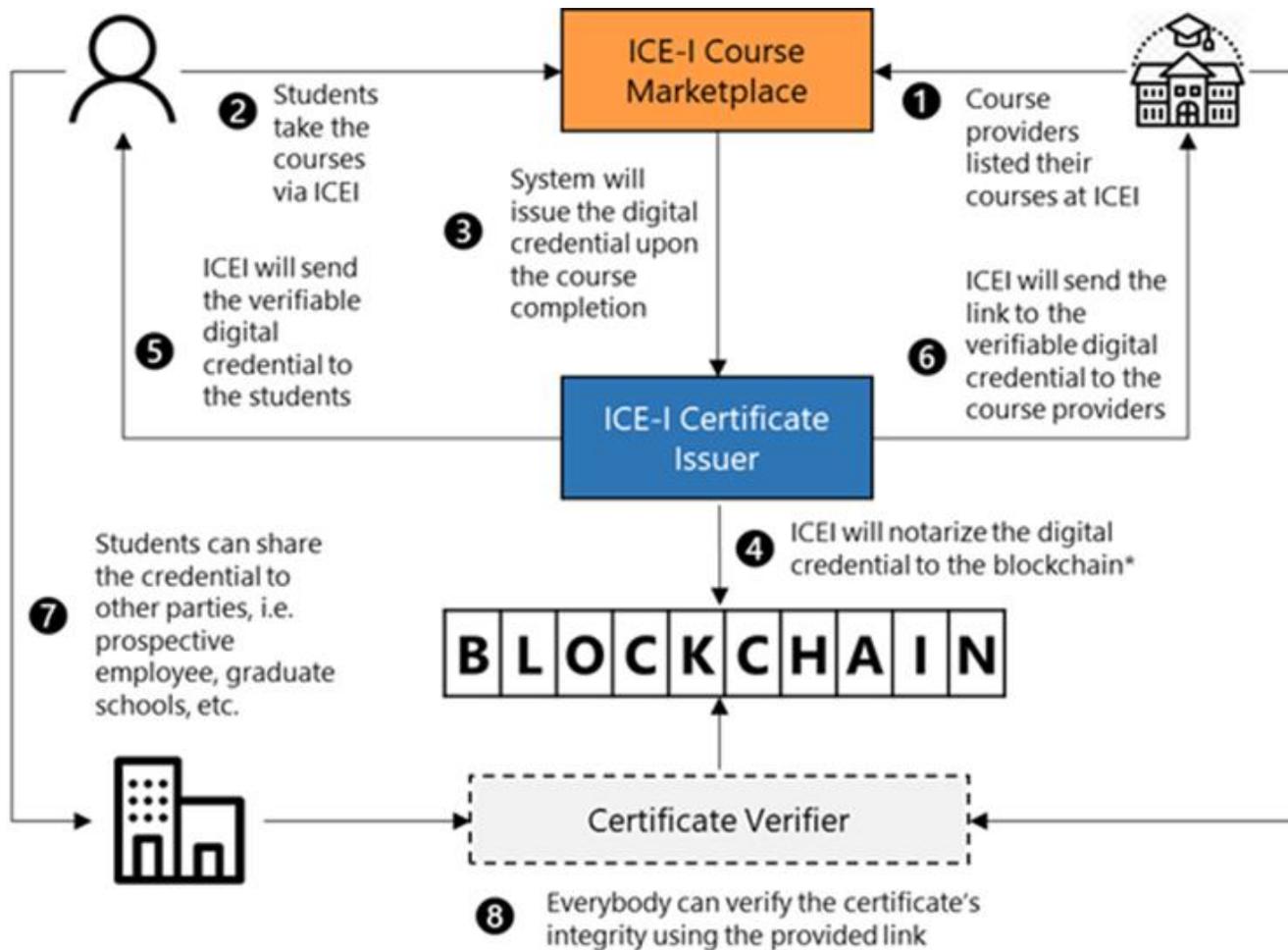
SUNY's Policy-driven Approach to Developing Micro-credentials

- ✓ **High quality** – approved by faculty governance
- ✓ **Industry specific** – provide in-demand skills
- ✓ **Stackable** – pathways for learning
- ✓ **Portable** – seamless transfer policies and digital badges
- ✓ **Multiple audiences** – lifelong learning for diverse groups

Source: Cynthia Proctor, 23 March 2023, [Micro-credentials Summit](https://system.suny.edu/academic-affairs/microcredentials/suny-launches-new-micro-credential-policy/)

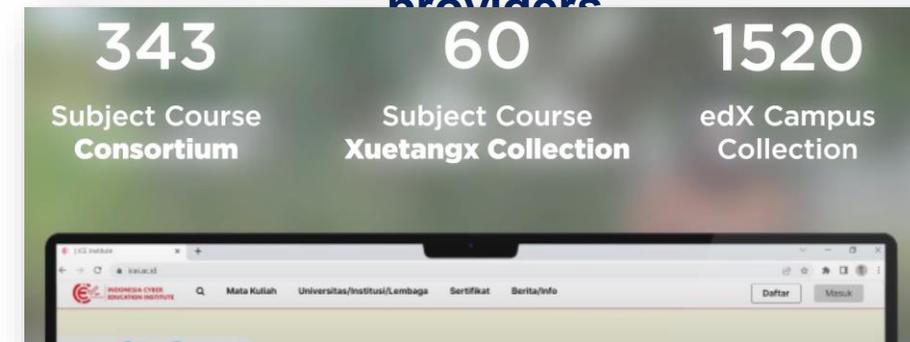
<https://system.suny.edu/academic-affairs/microcredentials/suny-launches-new-micro-credential-policy/>

Use Case: Micro-credentials and online learning in Indonesia



**INDONESIA CYBER
EDUCATION INSTITUTE**

**Collaboration between
local and international
providers**

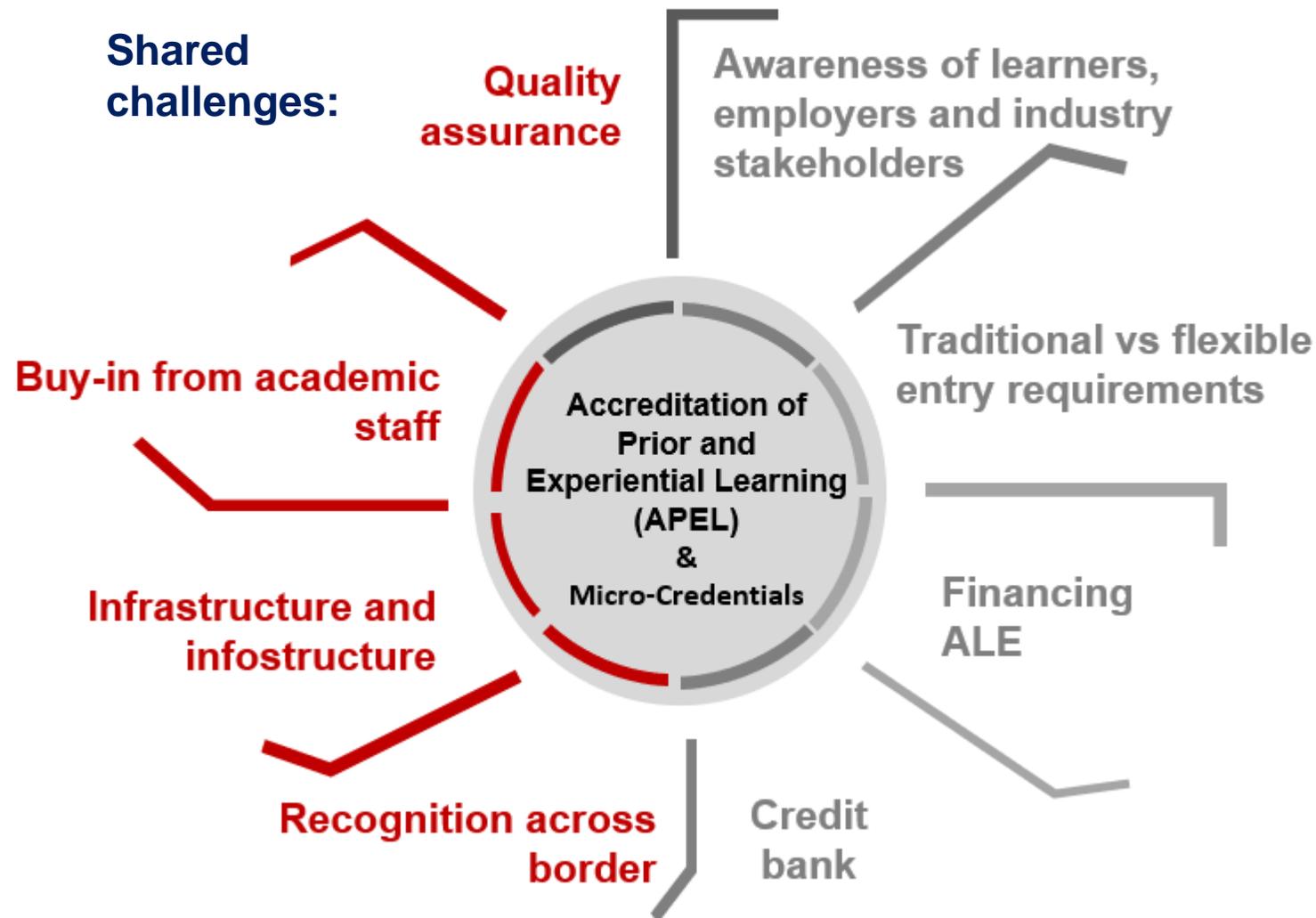
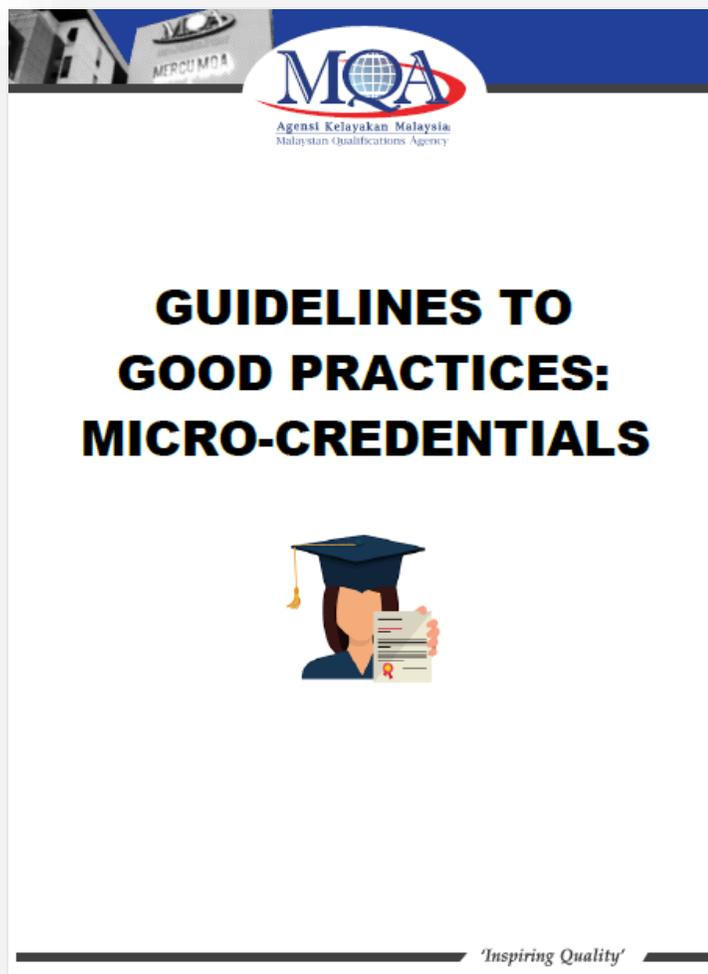


See also ICE-I's Micro-credential for Game Developers:

<https://gamedev.icei.ac.id/>

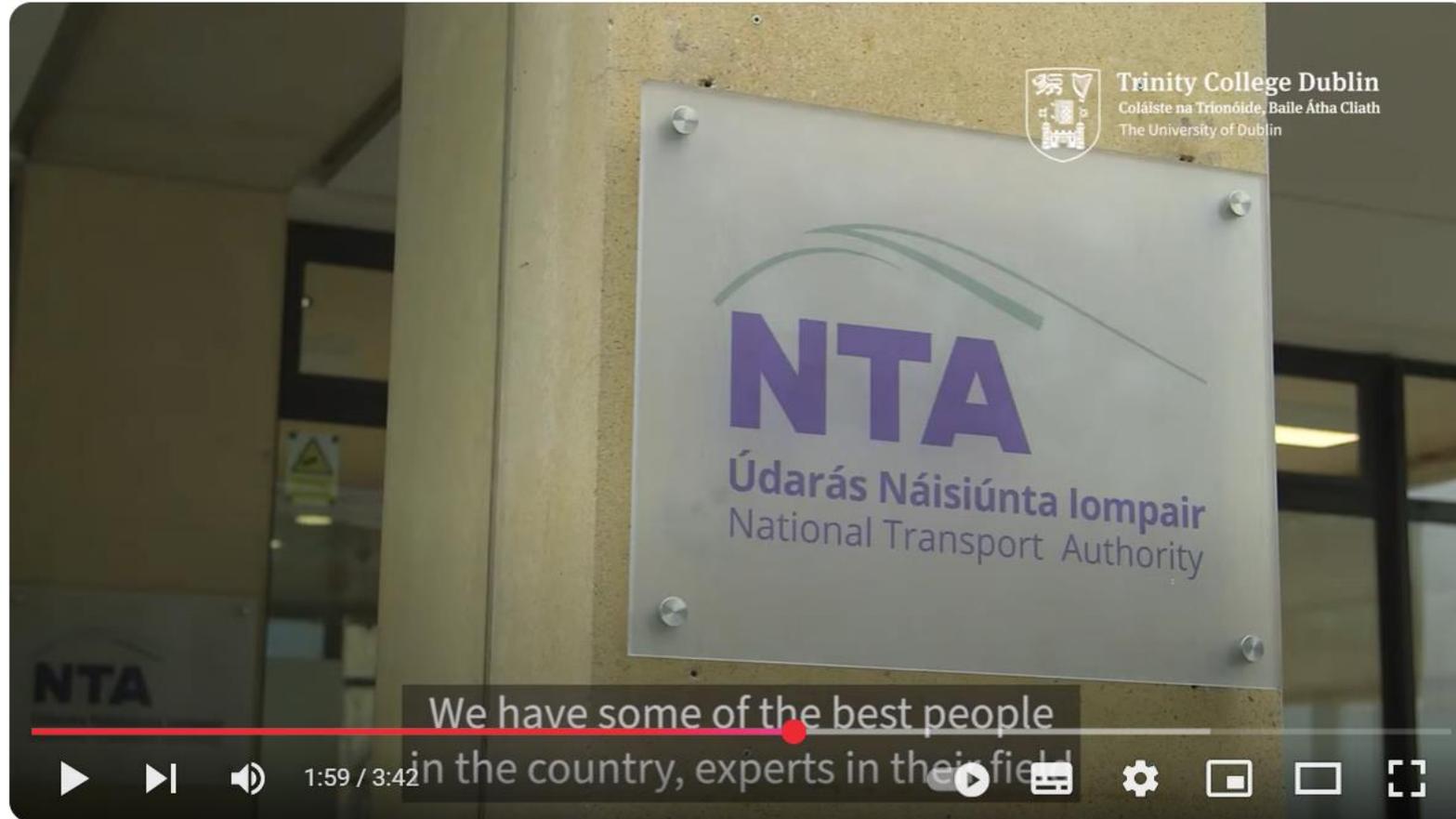
Source: Fathony, H. (23 June 2021). Blockchain for Education: Learner Centered Credentials

Use Case: Widening the scope of Micro-credentials in Malaysia



Source: Dr Eddy Chong, 5 June 2022. Asia-Pacific Regional Education Minister's Conference

Ireland: National transport authority- an employer



Source: [Trinity micro-credentials](#)



- ❑ The Greening Education Partnership(GEP): rooted in **Education for Sustainable Development (ESD)**, focusing on education’s role in tackling **climate change**
- ❑ Equips learners with the **knowledge, skills, values, and attitudes** to take **transformative action** to shape green, low emission and climate-resilient societies



Greening Education Partnership – a collective endeavour

Members

96 Member States
1600+ Stakeholder organizations

Advisory Group

Representatives of 15 organizations
(Member States, IGOs, youth, civil society, Foundations)

Secretariat

UNESCO

4 working groups, co-lead by:



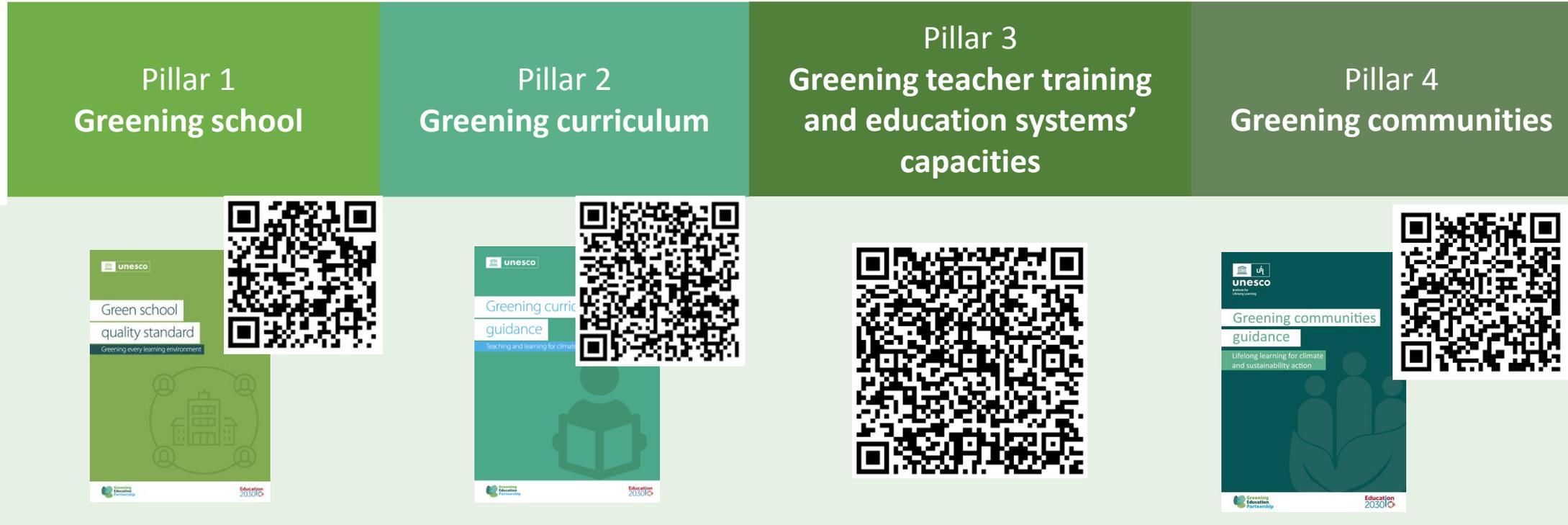
UN agencies and multilateral organizations:



Global standards and monitoring progress on climate education



Global standard setting



Target by 2030

50% of schools in each country "greened"



90% of countries green national curriculum



All GEP member states have professional teaching standards that include climate change



Cities and communities have at least one climate change lifelong learning programme



Country implementation support

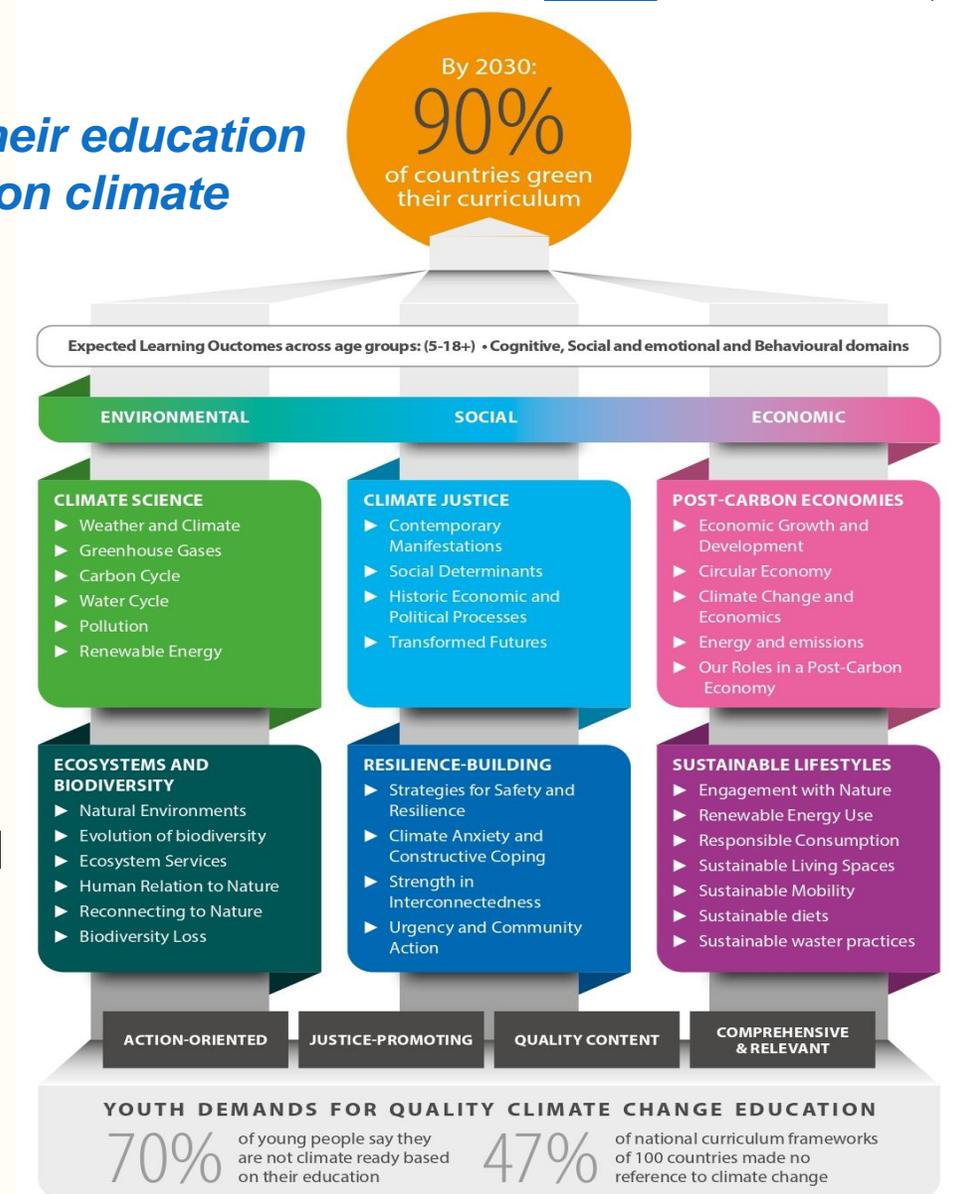
Greening curriculum guidance

70% of young people say they aren't climate ready based on their education and 47% of curriculum frameworks in 100 countries don't mention climate change

The Greening Curriculum Guidance:

- ✓ Supports countries to integrate climate change education into curriculum.
- ✓ Uses a holistic approach to education for sustainable development, considering social, economic, and environmental issues.
- ✓ Provides expected learning outcomes of learners on climate change education across different age groups and topics.
- ✓ Addresses the cognitive, socio-emotional and behavioural domains, with a particular emphasis on action.

The goal: By 2030, 90% of countries have 'greened' their curriculum



Greening curriculum guidance: 6 key concepts

Environmental

Social

Economic

CLIMATE SCIENCE

- ▶ Weather and Climate
- ▶ Greenhouse Gases
- ▶ Carbon Cycle
- ▶ Water Cycle
- ▶ Pollution
- ▶ Renewable Energy

CLIMATE JUSTICE

- ▶ Contemporary Manifestations
- ▶ Social Determinants
- ▶ Historic Economic and Political Processes
- ▶ Transformed Futures

POST-CARBON ECONOMIES

- ▶ Economic Growth and Development
- ▶ Circular Economy
- ▶ Climate Change and Economics
- ▶ Energy and Emissions
- ▶ Our Roles in a Post-Carbon Economy

ECOSYSTEMS AND BIODIVERSITY

- ▶ Natural Environments
- ▶ Evolution of Biodiversity
- ▶ Ecosystem Services
- ▶ Human Relation to Nature
- ▶ Reconnecting to Nature
- ▶ Biodiversity Loss

RESILIENCE-BUILDING

- ▶ Strategies for Safety and Resilience
- ▶ Climate Anxiety and Constructive Coping
- ▶ Strength in Interconnectedness
- ▶ Urgency and Community Action

SUSTAINABLE LIFESTYLES

- ▶ Engagement with Nature
- ▶ Renewable Energy Use
- ▶ Responsible Consumption
- ▶ Sustainable Living Spaces
- ▶ Sustainable Mobility
- ▶ Sustainable Diets
- ▶ Sustainable Waste Practices

Strategies for getting every learner climate ready

WHAT TO LEARN

- ◇ Address cognitive, social-emotional learning and taking action
- ◇ Contextualized, emphasizing the relevance of local knowledge

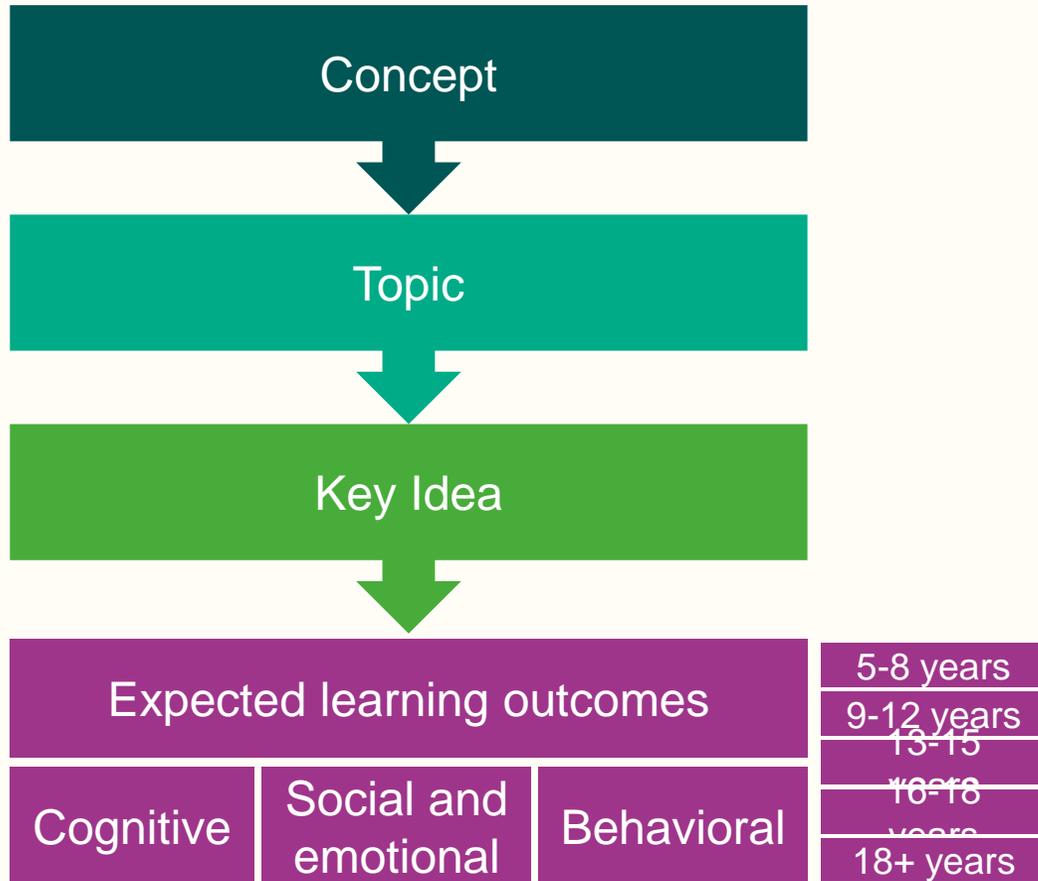
HOW TO LEARN

- ◇ Learner-centred, experiential and reflective
- ◇ Integrated approach
- ◇ Holistic assessment

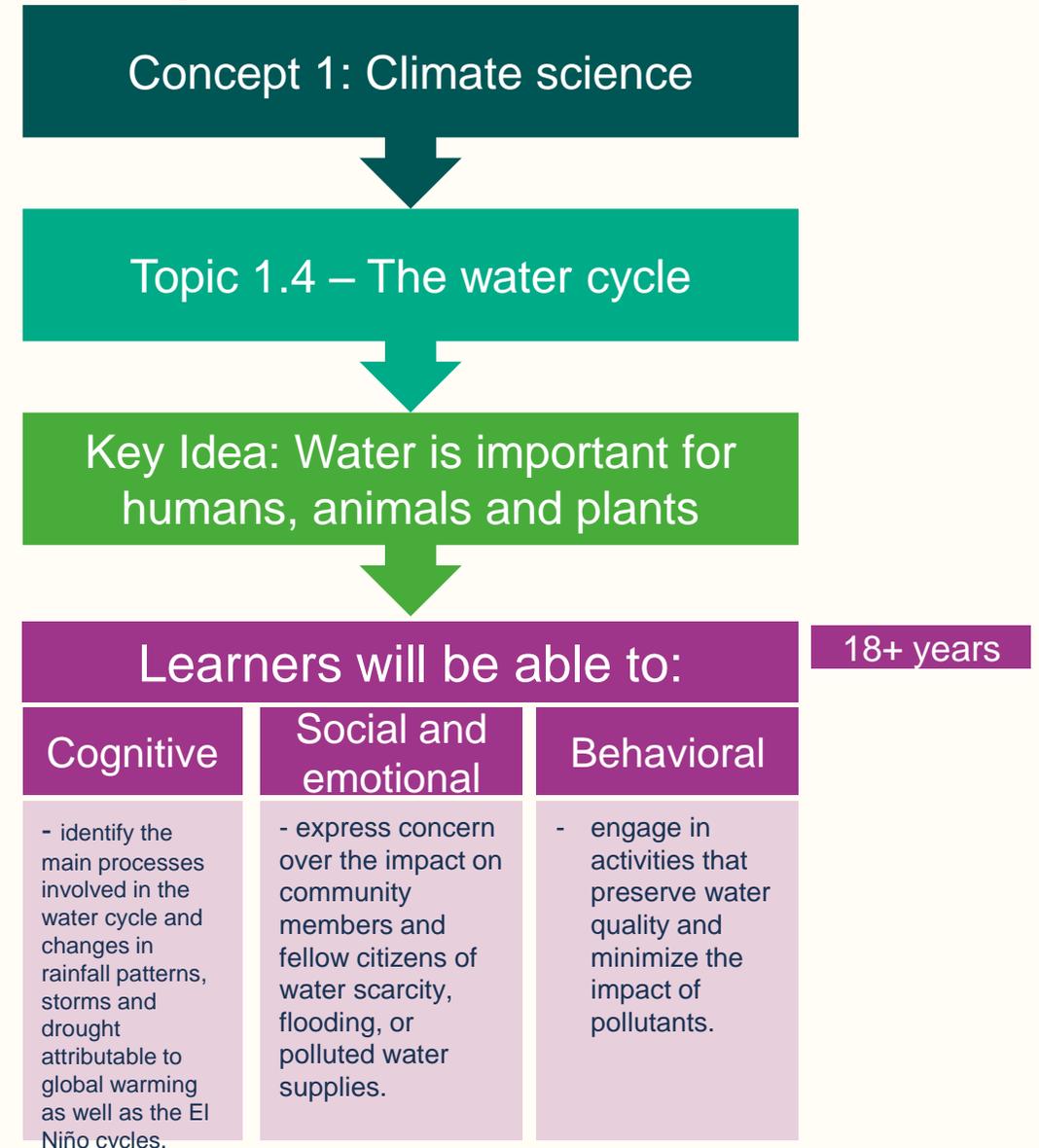
WHERE TO LEARN

- ◇ Schools through a whole institution approach
- ◇ Communities through public awareness campaigns
- ◇ Nature-based museums and UNESCO-designated sites
- ◇ Youth-created social movements

Greening curriculum guidance: structure and content



Example:

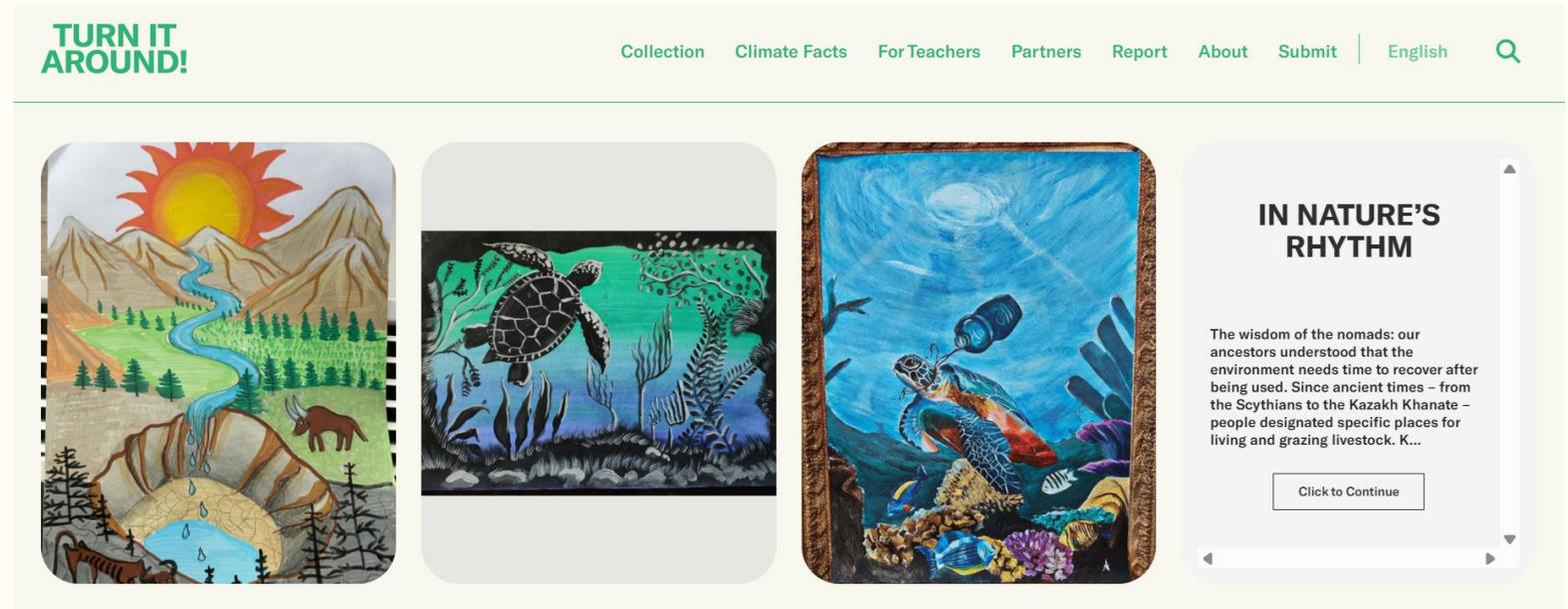


Topic 4.3. Climate anxiety and constructive coping

	Cognitive	Social and emotional	Behavioral
16-18 years	KEY IDEA: Climate anxiety presents an opportunity to better understand and manage our emotions.		
	<p>Learners should be able to:</p> <ul style="list-style-type: none"> ▶ describe the concept of climate anxiety, its causes, manifestations, and the reasons it has become prevalent among their age group. ▶ distinguish between various emotions related to climate concerns, such as grief, anger, fear, and guilt, and understand the potential sources of these feelings. 	<p>Learners should be able to:</p> <ul style="list-style-type: none"> ▶ foster empathy towards themselves and others experiencing climate anxiety and recognize the value of shared experiences in navigating challenging emotions. ▶ demonstrate a sense of hope and understanding that while the challenges posed by climate change are significant, collective action and individual contributions can make a difference. 	<p>Learners should be able to:</p> <ul style="list-style-type: none"> ▶ demonstrate skills to recognize and manage their emotions related to climate change, such as exploring local solutions to combat heatwaves through online research, ensuring they don't become overwhelming or paralyzing. ▶ Express their feelings through creative activities such as journaling emotions or debating about how climate anxiety can arise and ways to manage these emotions effectively. ▶ Participate in community events or initiatives that raise awareness about climate anxiety and promote mental health support.



- **Climate change Education Ambition in Central Asia** – report: <https://capsunlock.org/publications/climate-change-education-ambition-in-central-asia/>
- **TSAKO** – The Central Asian Climate Education Alliance – <https://tsako.capsunlock.org/>
- **Turn it Around Cards Central Asia in Kazakh, Kyrgyz, Tajik and Russian** <https://turnitaroundcards.org/tag/central-asia/>



TURN IT AROUND!

Collection Climate Facts For Teachers Partners Report About Submit | English



IN NATURE'S RHYTHM

The wisdom of the nomads: our ancestors understood that the environment needs time to recover after being used. Since ancient times – from the Scythians to the Kazakh Khanate – people designated specific places for living and grazing livestock. K...

Click to Continue

Micro-credentials for green skills:



- ❑ Fast → respond to changing agricultural needs
- ❑ Flexible → reach farmers and rural learners
- ❑ Relevant → aligned with labour market
- ❑ Stackable → pathways to qualifications
- ❑ Inclusive → widen access

BUT require:

- ✓ policy frameworks
- ✓ quality assurance
- ✓ recognition systems

THANK YOU

Meirgul Alpysbayeva
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UNESCO Regional Office in Almaty
m.alpysbayeva@unesco.org

For more information:

<https://www.unesco.org/en/higher-education/global-convention>

<https://www.unesco.org/ru/fieldoffice/almaty>

