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Connecting Credentials Creating Futures

The State of Play of Microcredentials:

Mauritius

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Acknowledgement: Co-funded by the European Union. Views and opinions expressed are, however, those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them.

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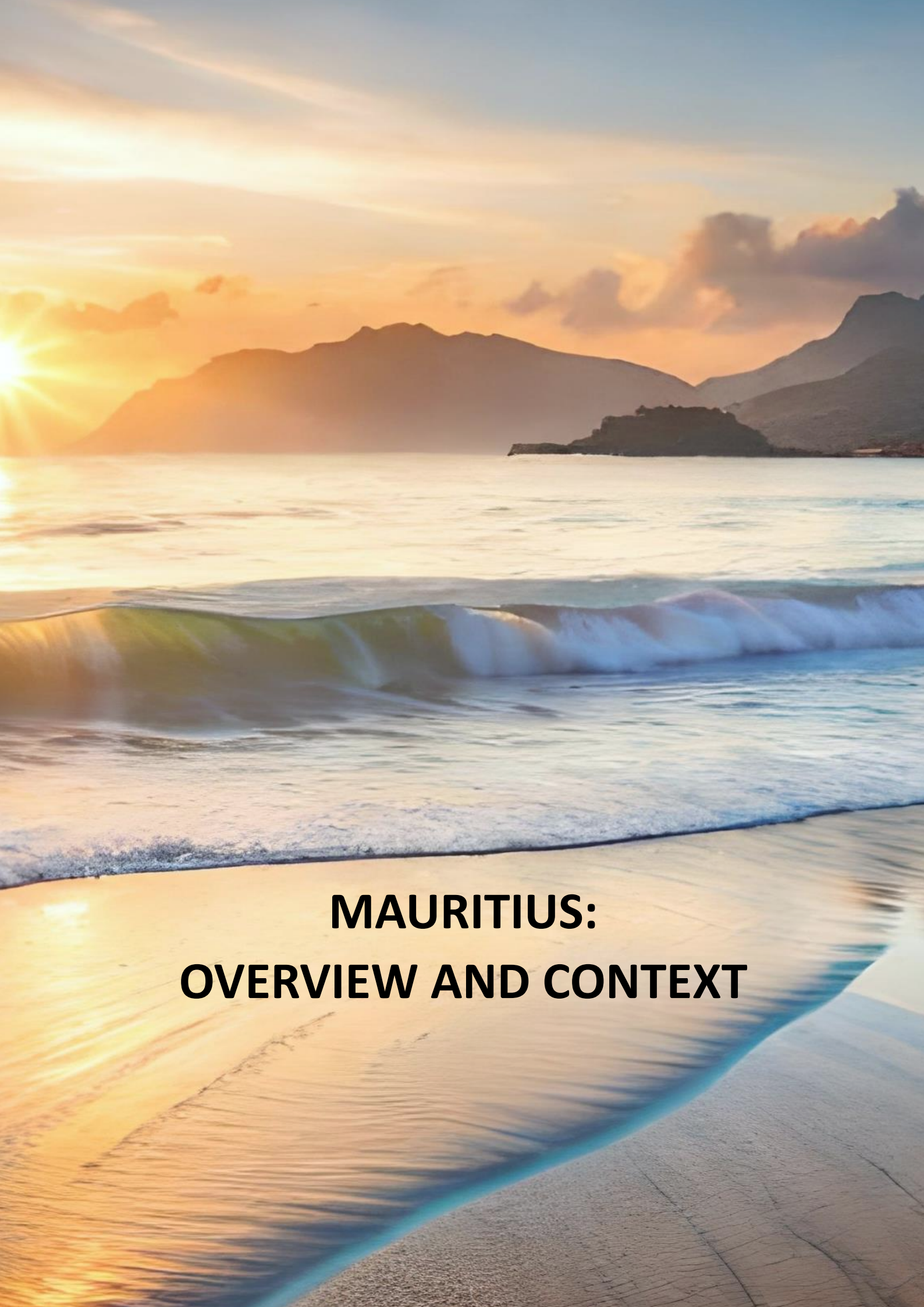
Acronyms and abbreviations

CBHE	Capacity Building in Higher Education
CHE	Council on Higher Education
CILL	Centre for Innovative and Lifelong Learning
COSC	Cambridge Overseas School Certificate
CPD	Continuing Professional Development
EACEA	European Education and Culture Executive Agency
EC	European Commission
ECTS	European Credit Accumulation and Transfer System
EHEA	European Higher Education Area
GDP	Gross Domestic Product
HE	Higher Education
HEC	Higher Education Commission
HEI	Higher Education Institution
ICT	Information and Communication Technology
IIEP-UNESCO	International Institute for Educational Planning - United Nations Educational, Scientific and Cultural Organisation
IUM	International University of Management

MC	Microcredential
MIE	Mauritius Institute of Education
MIH	Mauritius Institute of Health
MIoD	Mauritius Institute of Directors
MITD	Mauritius Institute of Training and Development
MQA	Mauritius Qualifications Authority
NCVTS	National Credit Value and Transfer system
NIED	National Institute for Educational Development
NQF	National Qualifications Framework
NSDS	National Skills Development Strategy
OUM	Open University of Mauritius
PDA	Professional Development Award
PoMiSA	Potential of microcredentials in Southern Africa
PRISMA-P	Preferred Reporting Items for Systematic Review and Meta-Analysis Protocols
QAA	Quality Assurance Authority
RPL	Recognition of Prior Learning
RTI	The Rabindranath Tagore Institute
SADC	Southern African Development Community
SAQA	South African Qualifications Authority
TEC	Tertiary Education Commission
TVET	Technical and Vocational Education and Training
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UOM	University of Mauritius
UTM	University of Technology, Mauritius
VET	Vocational Education and Training



MAURITIUS:
OVERVIEW AND CONTEXT

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Population Profile

The Republic of Mauritius has a population of 1.27 million with a rich mix of ethnicities, including IndoMauritians, Creoles, Sino-Mauritians, and Franco-Mauritians. With a GDP per capita of USD8,814, and a literacy rate of 92 percent, the country has a relatively high level of urbanisation, with the majority of the population residing in the capital, Port Louis, and other urban centers representing approximately 40 percent of the population. The country currently faces the challenges of an ageing population with a median age of 38 years and some 30% of the population being above 60[1], which has implications for healthcare, social security, and workforce sustainability.

Socio-economic Profile

During the past fifty years, the economy has diversified from a sugar-cane monocrop economy in the 1970's to one based on Sugar, Manufacturing (mainly textile and apparel), Tourism, Global business (offshore), ICT, the Financial Services and Freeport activities. Mauritius has maintained steady economic growth, with an average annual GDP growth rate of approximately 3 to 4 percent. This growth is supported by a diversified economic structure that has enabled the country to reduce its historical dependence on agriculture. Although sugarcane remains the primary agricultural product, its contribution to the overall economy has significantly diminished. Manufacturing, particularly in textiles and apparel, remains a crucial sector and a major contributor to exports. In addition, tourism is a vital pillar of the Mauritian economy, acting as a significant source of foreign exchange and employment. Mauritius has positioned itself as a premium tourism destination, attracting visitors worldwide. Financial services have grown substantially, with Mauritius recognised as an international financial center. Its strategic tax treaties and robust regulatory environment make it an attractive location for global business and offshore activities.

Moreover, ICT and digital services have emerged as priority areas, supported by ongoing infrastructure developments that facilitate high levels of digital connectivity. Additionally, Mauritius leverages its strategic location in the Indian Ocean to act as a trade and logistics hub, particularly for the African and Asian markets, through Freeport activities. Mauritius has an unemployment rate of approximately 7 to 8 percent, with youth unemployment presenting a notable challenge. The services sector accounts for the majority of employment, while the share of agriculture in the labour market has declined. In response to skills mismatches and the growing need for a knowledge-based economy, the government has emphasised capacity building, technical skills development, and initiatives aimed at enhancing employability among youth and addressing the country's shifting labour demands. The National Skills Development Strategy[2] has been advanced to find potential solutions to the human capital issues in Mauritius.

In terms of its social development, Mauritius has made considerable strides, maintaining a high Human Development Index (HDI) relative to regional standards. Universal healthcare and social security systems support a high life expectancy of around 74 years. Although poverty rates are low compared to regional levels, pockets of relative poverty persist, particularly in rural areas. Infrastructure development remains a priority, with well-developed transportation networks, including roadways, an international airport, and the port at Port Louis, which plays a critical role in trade.

In terms of digital infrastructure, Mauritius has high ICT penetration and has taken substantial steps toward developing a digital economy. The country's energy sector, although still reliant on fossil fuels, is progressively integrating renewable sources, reflecting Mauritius's commitment to environmental sustainability.

[1] Statistics Mauritius (2022), Annual Digest of Statistics, Mauritius in Figures.

[2] https://empment-labour.govmu.org/Documents/NSDS-2022-2026.pdf

However, Mauritius faces several socio-economic challenges, including an aging population, income inequality, and the need for economic diversification. The country remains vulnerable to climate change, particularly rising sea levels and extreme weather events, due to its small island status. Policymakers are focused on addressing these issues through strategic goals, including transitioning to a high-income economy, advancing sustainable development in line with the United Nations Sustainable Development Goals (SDGs), and strengthening regional cooperation within the Southern African Development Community (SADC) and the Common Market for Eastern and Southern Africa (COMESA).

Technology Saturation Indicators

Over the last decade, the country has heavily invested in its ICT infrastructure to reap the benefits of a digitalised economy. As of 2022, broadband penetration stood at 87% and almost 75% of the population had internet connectivity[3].

Mauritius Education System

In relation to higher education, the Gross Tertiary Enrolment Ratio (GTER) stood at 49.5% with 50,566 students enrolled in the year 2022. For the same year, most of these students (84%) were pursuing their studies locally in publicly funded Higher Education Institutions (64.5%) while 21.7% were in private HEIs. The remaining 13.8% were on Self Study[4].

The Higher Education Commission is the regulatory body for higher education in Mauritius and among others, is mandated to implement the national higher education strategy of the Government as well as foster the achievement of international standards of scholarship through a diversity of teaching and research. In order to further democratise access to tertiary education, policies are being developed for the implementation of microcredentials as a means for recognising scholarly activities undertaken both locally and internationally.

The country has also implemented policies for free access to education from pre-primary to tertiary level. The education system in Mauritius encompasses pathways from secondary to tertiary education through Technical and Vocational Education and Training (TVET).

Higher Education

Higher Education in Mauritius is guided by the Tertiary Education Strategic Plan 2013 – 2025 (TESP). In line with the New Economic Agenda, the Strategic Plan emphasises quality higher education and equitable access. An important sector goal is to turn higher education into a regional education hub, aimed to attract international students and staff, a strategic objective well under way given the current development of cross-border HE provision (Knight, Motala-Timol, 2022).

Governance: Higher education in Mauritius underwent an important governance reform in 2020 following the promulgation of a new Higher Education Act 2017. The formerly existing Tertiary Education Commission was separated into the Higher Education Commission (HEC), the regulatory body for higher education and the Quality Assurance Authority (QAA). Both organisations became operational as of 2020. The objective was to empower the regulating bodies considering the strong privatisation and internationalisation agenda (Knight & Motala-Timol 2022).

Mandate: HEC's mandate is to "monitor and oversee the higher education sector". The Commission establishes and registers private HEIs, accredits programmes offered in all HEIs, undertakes periodic accreditation audits of HEIs, and determines the recognition and equivalence of academic or professional qualifications in higher education obtained in or outside Mauritius. HEC also acts as the higher

[3] ADEA (2022), Study on the use of ICT in Education and Remote Learning during Crisis and Required Investment for Digital Transformation of African Countries.

[4] HEC (2023), Participation in Tertiary Education 2022.

education funding agency charged with allocating funding across public HEIs in Mauritius.

education sector and of conducting quality audits for both the public and private HEIs. QAA is also responsible for setting up a register of qualifications for the higher education sector (https://qaa.ac.mu/registerqualifications) to form the official repository of qualifications. At the point of writing the register was under construction.

Free Education: It is also worth mentioning that in 2019, the Mauritian Government came forward with the free tertiary education scheme. The Government pays for the tuition fees for citizens who wish to study for a first certificate, first diploma, or a first degree in any public HEI. In 2021, 24,526 students benefitted from the scheme. Through this scheme, access to higher education was further widened.

Credit Value and Transfer: In addition, the Higher Education Act 2017 mandated HEC under Section 18 to develop the National Credit Value and Transfer system (NCVTS). The Higher Education Commission (HEC) has successfully developed the framework and guidelines for the Mauritius National Credit Value and Transfer System (NCVTS) for the higher education sector. These documents include detailed frameworks and guidelines for the Credit Accumulation and Transfer System (CATS), as well as guidelines for the Recognition of Prior Learning (RPL). This significant effort was undertaken in collaboration with the Ministry of Education, Tertiary Education, Science and Technology, the Mauritius Qualifications Authority, and the Quality Assurance Authority and has undergone a number of validation meetings with higher education stakeholders.

The NCVTS is designed to serve as an integrated model for Higher Education Institutions (HEIs) in Mauritius, facilitating the development of internal credit value systems that are harmonized across institutions. Additionally, it aims to articulate clear and consistent learning pathways between different educational qualifications and between prior learning and formal qualifications, in alignment with the objectives of lifelong learning and the National Qualifications

Quality Assurance: The Quality Assurance Authority is in charge of developing standards for the higher

Framework. The project is aimed at enhancing student mobility and credit recognition across borders. Following Cabinet approval, the HEC will initiate the capacity-building and implementation phase in 2025, engaging key stakeholders in the higher education and TVET sectors.

Action Agenda: More recently flexible learning pathways and microcredentials have prominently entered the policy agenda. In 2021, HEC has developed a Higher Education Commission Strategic Plan 2022-2025: Building a Responsive, Relevant and Resilient Higher Education Sector. HEC has prepared a three-year Action Plan 2024-2026 translating both the Higher Education Act 2017 and the HEC Strategic Plan 2022 to 2025 into actionable operations. The Action Plan also makes direct reference to the recognition of microcredentials in response to the national goad of "enhancing the quality/relevance/flexibility of Higher Education Provision" (p.1.). One of the national policy objectives of the plan is to foster student mobility and flexible learning pathways, a stronger articulation between TVET and higher education, with number of students on microcredentials programmes being one of the key performance indicators (KPIs) (p.21). Regarding a stronger articulation between TVET and higher education, the current comprehensive reform allows for more diversified educational pathways, which require specific credit transfer mechanism.

Recognition of Prior Learning: The draft guidelines for the recognition of prior learning (RPL) covering non-formal, informal, and formal learning are under development for the higher education sector in 2024. A dedicated working group, including representatives from the HEC, MQA, and the Ministry of
Education, has been established to prepare a comprehensive document addressing credit transfer and RPL. This document has been finalized and vetted at the level of the HEC and is set to be submitted to the Cabinet for approval as part of the broader NCVTS framework.

TVET

TVET in Mauritius is regulated by the Mauritius Qualifications Authority (MQA). The MQA was established under the Mauritius Qualifications Authority Act 2001 to improve the articulation between education, training, and the world of work and to ensure that training responds to the changing standards and demands set by industry (UNEVOC, 2022). The MQA manages the NQF, ensures that there is compliance with the rules for registration and accreditation of training providers, qualifications and non-award courses. The MQA registers and accredits TVET institutions and approves TVET courses.

Recognition of Prior Learning: In 2016, the MQA issued the Recognition of Prior Learning Guidelines to "establish a single and all-encompassing point of reference for RPL" (p. 8). They were set up to allow persons who have dropped out of the education and training system to re-enter it without having to start anew. Qualifications from up to level six of the Mauritius Qualifications Framework (MQF) can be acquired through RPL.

Quality Assurance: In 2020 and 2021, several new guidelines were published by the MQA. In May 2020, in line with its role to register training providers and qualifications, the MQA issued the Quality Assurance Framework for the TVET sector in Mauritius. In October 2020, the MQA published Guidelines for Development and Validation of National Qualifications, which detail the national qualifications development process, indicating that all national qualifications need to express learning outcomes, level descriptors and credit value. In 2021, the Mauritius Qualifications Authority Act was amended providing MQA with the responsibility of approving non-award TVET courses offered by employers and maintaining a register for them. Once approved, employers are entitled to issue a "certificate of attendance". Following this new task, the MQA has developed both Guidelines on Approval of Non – Award Courses for Training Institutions in 2021 and on Approval of Non-Award Courses for Employers in 2021 for noncredit bearing courses. Under the Mauritius current regulatory framework for TVET, non-credit-bearing short volume credentials can currently be issued by TVET institutions, but they are currently not on the NQF and therefore not recognised.

ANALYSIS OF THE STATE OF PLAY OF MICROCREDENTIALS IN MAURITIUS

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Mauritius is strategically positioned to embrace and implement microcredentials as a key component of its educational and workforce development strategies. The country's robust policy intent, as outlined in several policy and regulatory documents, underscores its commitment to developing flexible learning pathways and integrating microcredentials into post-secondary education.

1. MICROCREDENTIAL CONCEPTUALISATION

1.1. What are the key political, economic, social and technological drivers and attractors for adopting microcredentials in Mauritius?

This section aims to elaborate the economic and societal factors that are driving or attracting your region towards microcredentials. It also seeks to relate these to current social, educational and workforce trends to provide context and further linkages.

The adoption and discussions surrounding microcredentials in Mauritius are significantly influenced by various social, educational, and workforce trends. These trends reflect the dynamic nature of the country's socio-economic landscape and underscore the importance of microcredentials in addressing emerging challenges and opportunities. The following sections provide an in-depth analysis of the most influential trends, supported by specific data and insights relevant to Mauritius.

Political Shifts

Mauritius is a country governed by stable democratic principles. The country's stable democratic framework, characterised by regular elections and coalition governments, has increasingly prioritised economic diversification and social inclusivity in response to evolving global and local demands.

Additionally, Mauritius' political strategies have leaned towards greater international cooperation and integration within African and global markets, which lends support to initiatives such as microcredentialing to foster workforce mobility and skill alignment with international standards. These shifts reflect a broader governmental commitment to modernise education and training systems in ways that support lifelong learning, innovation, and productivity, especially as the country aspires to transition into a high-income economy. Consequently, political support for alternative learning pathways like microcredentials has gained traction, aiming to bridge skills gaps, enhance employability, and drive economic resilience amidst changing global and local labour market demands.

Economic Shifts

Skill Development: Mauritius is a country with a strong focus on skills development. The Human Resource Development Council of Mauritius created in 2004 and placed under the Ministry of Education manages the training levy/grant scheme in the country, to financially support TVET institutions in Mauritius. More recently, it has developed the National Skills Development Strategy 2022- 2026. According to the strategy "Mauritius followed the traditional path of economic development, from primary to secondary to tertiary sectors, and is now paving its way towards a knowledge-based economy"
(p. 14).

The strategy recognises that investment in education and upskilling is strategic for the country's development and that linkages between education and the world of work need to be strengthened. The strategy makes extensive reference to the importance of microcredentials and their stackability as a lever for upskilling of the Mauritian labour force. For the latter, the strategy acknowledges the "need to review the legal framework to allow training centres deliver training based on microcredentials" (p. 53). The national skills strategy has also been translated into an unpublished action plan which foresees also to

"increasingly refund training developed and delivered based on microcredentials" (summary of the NSDS Action Plan, measure 62).

Furthermore, in 2019, the Skills Development Authority was established to enhance employability and drive economic growth by prioritising vocational training, lifelong learning, and the development of industry-relevant skills.

Social Shifts

Aging Population and Lifelong Learning: Mauritius, like many countries, is experiencing demographic shifts, including an aging population. The need for lifelong learning and continuous professional development is becoming increasingly important as older individuals seek to stay relevant in the workforce. According to Statistics Mauritius, the proportion of the population aged 60 and above is projected to rise from 14.2% in 2019 to 22.4% by 2030. This demographic shift drives demand for more flexible and diverse learning opportunities, such as microcredentials, which can provide older adults with the skills needed to remain employable and engaged in the labour market.

Technological Shifts

National Technology Agendas and Digital Capabilities: Mauritius has been actively pursuing a technology-driven development agenda, as outlined in the National ICT Strategic Plan 2018-2023. The plan emphasises the importance of digital skills and the need to enhance the digital capabilities of the workforce. Microcredentials are well-suited to address these needs by offering targeted training in specific digital competencies. The Mauritian government's focus on creating a digital economy and smart cities further underscores the relevance of microcredentials in equipping individuals with the necessary skills to thrive in a technologically advanced environment.

Technology Equity and Access: While Mauritius has made significant strides in improving internet penetration and access to digital technologies, there are still disparities, particularly in rural areas. According to the 2020 ICT Access and Usage Survey, 78.5% of households had access to the internet. Microcredentials can help bridge the digital divide by providing remote and online learning opportunities, thereby ensuring that individuals from all regions can benefit from quality education and training.

1.2. How do these drivers and attractors align with current educational and workforce trends?

Current Educational Trends

Evolving Attitudes Towards Traditional Degree Programmes: There is a growing recognition that traditional degree programmes may not always be the most effective way to acquire job-relevant skills. This has led to an increased demand for alternative, short-form educational offerings that are more aligned with the needs of the labour market. Microcredentials offer a flexible and efficient way to gain specific skills without committing to lengthy degree programmes. This trend is particularly relevant in Mauritius, where there is a strong emphasis on employability and practical skills.

Demand for Alternative Education: The Higher Education Commission (HEC) and the Mauritius Qualifications Authority (MQA) have been promoting the development of microcredentials as a means to diversify educational pathways and cater to the evolving needs of learners. The consultations held in January 2024 highlighted the importance of providing learners with more options to tailor their education to their personal and professional goals. This shift in educational pathways is driving the adoption of microcredentials as a viable alternative to traditional degrees.

Current Workforce Trends

In-Demand Skills and Sector-Specific Labour Shortages: The Mauritian labour market is experiencing rapid changes, with new in-demand skills emerging across various sectors. The Economic Development Board of Mauritius has identified key growth sectors such as ICT, financial services, healthcare, and the blue

economy. Each of these sectors requires specific skills that can be quickly acquired through microcredentials. For example, the ICT sector has a high demand for skills in areas like cybersecurity, data analysis, and software development, which can be effectively addressed through targeted microcredential programmes.

Job Security and Continuous Professional Development: In an era of rapid technological advancement and economic uncertainty, job security is a major concern for many workers. Continuous professional development through microcredentials can help individuals stay competitive in the job market. Employers in Mauritius are increasingly recognising the value of microcredentials in providing their employees with the skills needed to adapt to changing job requirements. This trend is particularly significant in sectors such as manufacturing and tourism, which have been heavily impacted by global economic shifts.

Significance of Trends in Mauritius' Context

The aforementioned trends are particularly significant in the context of Mauritius' socio-economic and educational landscape. As a small island developing state, Mauritius faces unique challenges, including limited natural resources, vulnerability to external economic shocks, and a need for economic diversification. The adoption of microcredentials is seen as a strategic response to these challenges, offering a way to enhance the skills and employability of the workforce, promote lifelong learning, and support the country's technological and economic development goals.

By aligning educational offerings with the needs of the labour market, microcredentials can help Mauritius build a more resilient and adaptable workforce. They also provide a flexible and accessible means of education that can accommodate the diverse needs of learners, from young adults entering the job market to older individuals seeking to upskill or reskill.

In summary, the adoption and discussions about microcredentials in Mauritius are driven by a combination of demographic, technological, educational, and workforce trends. These trends highlight the need for flexible, targeted, and accessible learning opportunities that can support the country's economic and social development objectives. The strategic integration of microcredentials into the education system and workforce development initiatives is essential for addressing the evolving needs of learners and employers in Mauritius.

1.3. How are microcredentials defined and understood by various stakeholders (educational institutions, students, employers, policymakers) in Mauritius?

This question aims to capture how microcredentials are being defined and perceived by different stakeholders across the ecosystem. These stakeholders could include: educational institutions, students, employers, and policymakers). Further, we want to understand the impact of their levels of awareness, their value on microcredentials, and how this impacts the progression of microcredential initiatives, implementations, or take-up.

Official Definitions

Microcredentials have emerged as a significant innovation in the educational landscape, offering flexible, modular, and competency-based learning opportunities tailored to diverse needs. In Mauritius, various authoritative bodies have been instrumental in defining and developing microcredentials, striving to establish a comprehensive and standardised framework. This report presents an in-depth analysis of the official definitions, guiding principles, and implementation strategies for microcredentials as recognised by key stakeholders in Mauritius.

Mauritian NCVTS Framework: The National Credit Value and Transfer System (NCVTS) Framework in Mauritius provides a precise and comprehensive definition of microcredentials. According to this framework, microcredentials are:

Records of learning outcomes that a learner has acquired following a small volume of learning, assessed against transparent and clearly defined criteria. These learning experiences are designed to provide the learner with specific knowledge, skills, and competencies that meet social, personal, cultural, and labour market needs. Microcredentials are owned by the learner, can be shared, and are portable, meaning they can be transferred across different educational contexts. They may function as stand-alone qualifications or be combined to form larger qualifications. Crucially, they are underpinned by rigorous quality assurance processes to ensure adherence to agreed standards.

This definition underscores several essential aspects: transparency and defined criteria, ensuring that the learning outcomes are measurable; flexibility and portability, allowing learners to accumulate and transfer credits; relevance to various needs, making the microcredentials applicable to different sectors; and the importance of quality assurance to maintain high educational standards.

Consultations with HE and TVET Stakeholders and UNESCO: The Higher Education Commission (HEC) and the Mauritius Qualifications Authority (MQA) have engaged in extensive consultations with UNESCO and stakeholders from Higher Education and Technical and Vocational Education and Training (TVET) sectors. This collaborative effort reflects a strong commitment to aligning local definitions and standards of microcredentials with global best practices. The outcomes of these consultations include the alignment of local frameworks with international standards, ensuring that definitions and practices in Mauritius are consistent with those recognised globally. Additionally, these consultations have involved a wide range of stakeholders to ensure that the framework addresses the diverse needs and expectations of all relevant parties. Recognising that the development of a robust framework for microcredentials is an iterative process, ongoing dialogue and refinement are essential to achieving a coherent and effective system.

International Agreements Supporting Microcredentials: Mauritius has ratified the 2014 Addis Convention (Revised Convention on the Recognition of Studies, Certificates, Diplomas, Degrees and Other Academic Qualifications in Higher Education in African States) that entered into force on 15 December 2019, which establishes a legal framework for the fair and transparent recognition of higher education qualifications in the African region to facilitate mobility and inter-university cooperation.

In summary, the definition and implementation of microcredentials in Mauritius are evolving, with significant contributions from various stakeholders, including the NCVTS, HEC, MQA, and UNESCO. The considerations around the principles and scope of microcredentials aim to balance flexibility, relevance, and quality, ensuring that microcredentials meet the diverse needs of learners and the labour market. As the microcredential framework continues to develop, ongoing dialogue and refinement will be essential to establish a robust and coherent system for microcredentials in Mauritius.

1.4. How do stakeholders' views on Microcredentials impact their practical implementation?

Microcredentials have garnered considerable attention as a flexible and targeted approach to education and skill development. Stakeholder groups in Mauritius, including educational institutions, students, and employers, perceive and value microcredentials in different ways. This analysis is grounded in diverse perspectives, the perceived impact on stakeholders, and insights gathered from various documents and artefacts, such as institutional policies, surveys, research studies, and industry reports. Additionally, it

integrates findings from the data collection process and consultations held in January 2024.

Methodology[5]

This section outlines the research methodology utilised in the POMISA project to capture comprehensive insights into the Technical and Vocational Education and Training (TVET) and Higher Education (HE) landscapes in Mauritius. Given the scope of this study, an action research framework was adopted to engage stakeholders across regulatory, institutional, and governmental sectors, facilitating a collaborative approach to data gathering and analysis. The primary aim was to examine policy alignment, institutional practices, and perspectives across the educational spectrum, thereby informing strategies for advancing quality and relevance within the Mauritian education sector.

The primary objective of this methodology was to gain empirical insights into the regulatory and operational environment of TVET and HE institutions in Mauritius. Through four carefully designed surveys, this research sought to investigate the perspectives of key stakeholders on current practices, challenges, and policy aspirations in the sector. Specifically, the study aimed to:

1. Evaluate the state of quality assurance and regulatory frameworks within TVET and HE institutions,
2. Identify perceptions and priorities of institutional leaders, policymakers, and regulators regarding the future of education in Mauritius,
3. Assess the sector's readiness to adapt to emerging educational models, such as competencybased learning and microcredentials, and
4. Gather data on institutional responses to policy shifts and workforce demands,

particularly in skills development and employability.

Given the small scale of the island nation, the study employed a comprehensive census approach rather than sampling, reaching out to all public and private TVET and HE institutions. Four surveys were meticulously crafted to address distinct categories of stakeholders: (1) regulatory bodies and relevant ministries, (2) institutional leaders in TVET, (3) institutional leaders in HE, and (4) additional cross-sectoral stakeholders contributing to the educational framework. The design of these surveys incorporated feedback from pilot tests and stakeholder consultations to ensure relevance, clarity, and depth.

Data collection was conducted through online surveys, allowing for broad participation across institutions while maintaining accessibility and minimising logistical constraints. This approach yielded robust participation, with a response rate of 23 HE institutions and 156 TVET institutions, reflecting the sector's vested interest in shaping future educational policies and practices.

The data gathered from the surveys was analysed using both quantitative and qualitative techniques. The quantitative analysis employed statistical software to evaluate trends, institutional responses, and sector-wide perspectives, enabling the identification of key themes and patterns. Additionally, qualitative responses were systematically coded and categorised, providing context and insights into stakeholder views on critical areas such as institutional autonomy, quality assurance mechanisms, and skills alignment with industry demands.

While the survey design and census approach ensured comprehensive coverage across institutions, the study acknowledges inherent limitations. Response accuracy

[5] The National and Institutional Surveys are found at Annex 1 and 2

depended on institutional transparency and participant engagement levels, which could be influenced by organisational priorities and resource constraints. Despite these considerations, the methodology provided a high-quality data set that offers valuable insights into the current state and future potential of the TVET and HE sectors in Mauritius, contributing to the broader objectives of the POMISA project.

Following the analysis of the surveys, a national stakeholder consultation was held in January 2024, regrouping public and private TVET and Higher Education providers, as well as regulatory bodies, including the Ministry of Education, Tertiary Education, Science and Technology and the Quality Assurance Authority. The Stakeholder Consultative and Validation meeting was held over two days, and covered themes in the guidelines for the national framework on microcredentials.

This methodological approach thus enabled a holistic view of the educational landscape in Mauritius, supporting the ongoing alignment of national policies with sectoral needs and positioning Mauritius as an evolving educational hub in the region.

Perceptions of Educational Institutions

Educational institutions in Mauritius generally view microcredentials as a means to enhance their offerings and meet the evolving needs of both learners and the job market. They define microcredentials as short, focused courses that provide specific skills and knowledge. The data collection process and consultations held in January 2024 revealed robust support for microcredentials as a conduit for lifelong learning, with 71% of TVET institutions and 80% of higher education institutions expressing support for such initiatives.

Educational institutions perceive several key benefits from integrating microcredentials into their programmes. Firstly, microcredentials enable institutions to offer flexible learning options that can be completed in a shorter time frame compared to traditional degrees. This flexibility caters to the needs of diverse learners, including working professionals and those seeking to upskill or reskill. Secondly, they allow institutions to innovate and respond quickly to industry demands by developing new courses and programmes. This responsiveness ensures that educational offerings remain relevant and aligned with the latest trends and needs in the job market. Lastly, microcredentials can attract non-traditional students and working professionals, broadening the institution's reach and increasing enrolment. This inclusivity makes education more accessible and relevant to a wider audience.

For example, the University of Technology, Mauritius (UTM) sees a lot of potential for microcredentials implementation in the technological fields. There are many working professionals that are regularly engaged in short courses, certification programmes and on the job training programmes, through which they develop capacity and competences relevant to their work. There is a huge potential for the recognition of these training programmes into the credit-based system of the UTM and for the award for formal qualifications. Indeed, UTM perceives microcredentials as a mechanism to tap into a market that is currently underserved in Mauritius. Moreover, microcredentials will enhance the educational offerings of the institution.

HEIs are generally convinced of the potential microcredentials, however, tensions within educational institutions often arise around issues of quality assurance, integration with existing programmes, and the recognition of microcredentials within traditional academic structures. Ensuring that microcredentials maintain high educational standards and are seamlessly integrated into the broader educational framework is crucial for their success.

Perceptions of Students

Students perceive microcredentials as a valuable tool for gaining specific skills that can enhance their employability and career prospects. Many students believe that microcredentials can help them advance in

their careers by acquiring new skills or demonstrating proficiency in specific areas. This belief is particularly strong among those looking to transition to new roles or industries. Additionally, microcredentials are seen as more accessible and affordable compared to full degree programmes. This affordability makes education more attainable for a broader audience, including those who may not have the time or resources to commit to a traditional degree. Furthermore, they support the concept of lifelong learning, allowing students to continuously update their skills in line with industry trends. This continuous learning approach is vital in a rapidly changing job market where new skills are constantly in demand.

For example, the students of the University of Technology, Mauritius perceive microcredentials as an opportunity in a competitive job market to stand out and demonstrate their expertise. They believe that microcredentials offer a flexible learning pathway to acquiring relevant practical skills quickly and effectively which add values to their educational journey, promote lifelong learning and skill adaptability while enhancing both personal development and career prospects. Students were also of the opinion that microcredentials serve as building blocks towards further academic qualifications or as standalone certifications to bolster resumés.

Despite these positive perceptions, students also express concerns about the recognition and value of microcredentials in the job market. There is apprehension about the potential for oversaturation and dilution of their perceived worth, as the proliferation of microcredentials could lead to uncertainty about their quality and relevance.

Perceptions of Employers

Employers generally value microcredentials as a means to ensure their workforce possesses the necessary skills to meet current and future job demands. Employers appreciate microcredentials for their focus on specific, job-relevant skills. This focus helps close skill gaps and improve productivity, making employees more effective and efficient in their roles.

Additionally, microcredentials provide a standardised way to assess the skills of potential hires. They can also be used for employee training and development, ensuring that staff have the up-to-date skills required for their positions. Furthermore, employers are keen to collaborate with educational institutions to develop microcredentials that align with industry needs. This collaboration ensures that the training provided is directly applicable to the workplace and meets the practical demands of the job.

Despite their positive outlook, employers may have concerns about the quality and consistency of microcredentials from different providers. There is a potential for credential inflation, where an abundance of microcredentials could lead to confusion about their value and significance.

Impact on Stakeholders Generally

Microcredentials have a significant impact on various stakeholders in the educational and professional landscapes of Mauritius. For students and employees, microcredentials are seen as a pathway to career advancement. They offer a means to quickly gain new skills and demonstrate competence in specific areas, which can lead to promotions, new job opportunities, and increased job security. Microcredentials impact education pathways by providing alternative routes to traditional degrees. They can be stacked or combined to form larger qualifications, offering a modular approach to education. This flexibility is particularly beneficial for lifelong learners and working professionals, allowing them to tailor their learning journeys to their specific needs and goals.

Microcredentials influence policy development by prompting discussions on recognition, accreditation, quality assurance, and the integration of non-traditional learning into formal education systems. Policymakers are considering how to support and regulate microcredentials to ensure they meet high

standards and are recognised across industries and institutions. This regulatory framework is essential for maintaining the integrity and value of microcredentials.

Challenges

Despite their potential, the implementation of microcredentials is not without its challenges. Adapting diverse methodologies, including online and blended approaches, poses a significant challenge. Ensuring that these methodologies are effective and engaging for learners is crucial for the success of microcredentials. Additionally, ensuring that assessments accurately measure the competencies acquired through microcredentials is critical. Developing robust assessment frameworks that can reliably evaluate skills and knowledge is essential for maintaining the credibility of microcredentials. There is also a crucial need for well-trained staff and adequate provisions for training to ensure the successful integration of microcredentials into existing educational frameworks. Training educators to deliver and assess microcredentials effectively is a key component of their successful implementation.

Opportunities

The exploration of microcredentials has identified substantial opportunities for various stakeholders. Microcredentials can address and fulfil the lifelong learning objectives of higher education institutions, aligning educational offerings with the evolving demands for continuous skill development. They provide a means for institutions to remain relevant and responsive to the needs of the job market. Additionally, microcredentials provide increased flexibility, offering a more adaptable and accessible pathway to attaining qualifications. They cater to the needs of learners seeking to gain specific skills quickly and efficiently, making education more inclusive. The adoption of microcredentials fosters robust collaboration between educational institutions and industry stakeholders. This collaboration ensures that academic programmes align closely with the practical skills and knowledge required in the workforce, enhancing the employability of graduates.

In summary, Stakeholder perceptions of microcredentials in Mauritius vary across different groups but share common themes of flexibility, accessibility, and relevance to the job market. Educational institutions see them as a means to innovate and attract learners, students view them as a means to enhance their careers, and employers appreciate their focus on job-specific skills. Addressing concerns about quality assurance and recognition will be essential to maximising the potential of microcredentials. A comprehensive understanding of these perceptions will inform policy development and ensure that microcredentials are effectively integrated into the education and employment landscapes, ultimately benefiting all stakeholders involved.

1.5. Section 1 Summary and Recommendations

Mauritius is committed to leveraging microcredentials to enhance its educational landscape and workforce development. The country's strong policy support and strategic vision, coupled with the need for economic growth, alignment with industry needs, and the promotion of lifelong learning, position microcredentials as a key component of its development strategy. The robust frameworks and initiatives in place demonstrate Mauritius's dedication to creating a knowledge-based economy and an inclusive knowledge society, ultimately contributing to its economic and social progress.

The conceptualisation of microcredentials by various stakeholder groups in Mauritius reveals a complex interplay of enablers and barriers influencing their adoption and implementation. As regulatory bodies in higher education, we recognise the critical role microcredentials play in promoting lifelong learning, addressing skills gaps, and enhancing workforce adaptability. Our goal is to create a cohesive framework that integrates microcredentials into the national

education and training systems while ensuring quality, relevance, and recognition.

From the perspective of Higher Education Institutions (HEIs) and Technical and Vocational Education and Training (TVET) providers, microcredentials are seen as short, flexible, and targeted learning modules that can swiftly address specific skills gaps and promote continuous professional development. These institutions view the alignment of microcredentials with industry needs as a primary enabler, ensuring that the curriculum remains relevant and up-to-date. Robust quality assurance (QA) processes, aligned with the National Qualification Framework (NQF), further bolster the credibility and recognition of microcredentials. However, the lack of standardisation in microcredential offerings and their recognition across institutions poses a significant barrier. Additionally, resource constraints within educational institutions limit their capacity to develop and implement new programs.

Employers and industry bodies conceptualise microcredentials as a means to quickly upskill and reskill employees, enhancing workforce adaptability and productivity. The close collaboration between industry and educational institutions is a key enabler, ensuring that microcredentials are tailored to meet specific organisational needs. The flexibility of microcredentials allows for customised training solutions that address immediate skills gaps.

However, concerns about the recognition and credibility of microcredentials by other employers and sectors present a significant barrier. Furthermore, limited engagement of employers in the design and delivery of microcredential programs hampers their widespread acceptance and adoption. Policy makers, including government and quality assurance authorities, view microcredentials as a strategic tool to enhance the national skills framework and promote lifelong learning.

2. PUBLIC & PRIVATE SECTOR MICROCREDENTIAL PROVIDERS

2.1. What is the current role of public and private sector providers of microcredentials in Mauritius?

In Mauritius, the landscape of microcredential provision is shaped by a diverse array of entities, including higher education institutions (HEIs), vocational education and training (TVET) institutions, professional bodies, and international platforms such as Google, Coursera, IBM, Microsoft, and LinkedIn. These providers offer microcredentials with the specific objectives of bridging skill gaps, providing pathways into or across formal learning, supporting continuing professional development (CPD), recognising prior learning (RPL), certifying workforce standards, and fostering community or lifelong learning. The active participation of these varied stakeholders reflects a growing recognition of the importance of microcredentials in enhancing employability and meeting the evolving needs of the labour market.

Engagement and co-delivery between education and industry

Survey data reveals significant engagement between educational institutions and industry in the development of microcredentials. Among HEIs, 65.21% have either collaborated or are planning to collaborate with industry and other societal stakeholders to develop microcredentials, while 51.29% of TVET institutions reported similar intentions. However, a notable 43.59% of TVET institutions have no plans for such collaboration. This indicates a need for targeted initiatives to encourage more widespread industry partnerships, which are crucial for ensuring that microcredentials remain relevant and aligned with current industry standards and skills requirements.

In terms of co-delivery of microcredentials, the survey data shows that 34.78% of HEIs and 23.72% of TVET

institutions have engaged in co-delivery with industry partners. However, a significant proportion of institutions, particularly TVET institutions, have no plans for co-delivery. Approximately 46.15% of TVET institutions reported no intention to co-deliver microcredentials with industry partners. This reluctance suggests a need for increased awareness and incentives to promote co-delivery, which can enhance the practical application and relevance of microcredentials.

Alignment with industry needs

Qualitative responses from HEIs underscore the importance of aligning microcredential content with industry needs. Institutions emphasise that collaboration with industry ensures that the skills and knowledge imparted through microcredentials are directly applicable in the workplace, thereby enhancing the employability of graduates. TVET institutions, with their extensive experience in collaborating with third parties, highlight ongoing efforts to seek new industry partners to develop bespoke microcredentials tailored to specific industry needs. This proactive engagement is essential for addressing emerging skill gaps and ensuring that microcredentials remain relevant in a rapidly changing job market.

Lack of policy framework

While many positive trends are emerging, some higher education institutions (HEIs) are awaiting the introduction of a national microcredential policy framework. These institutions look forward to receiving clear guidelines and support from policymakers to enable effective partnerships with industry and societal stakeholders. The forthcoming national framework will provide the necessary structure and incentives for institutions to engage in meaningful collaborations, ensuring the development of highquality microcredentials that align with national education and employment objectives.

Assessment with industry

Assessing microcredentials in collaboration with industry is another area with considerable room for improvement. Only 21.74% of HEIs and 14.74% of TVET institutions have collaborated with industry stakeholders in the assessment process. Given the importance of industry-relevant assessments in ensuring the credibility and recognition of microcredentials, it is essential to encourage institutions to involve industry partners in this critical aspect. Collaborative assessments can provide valuable insights into industry expectations and standards, thereby ensuring that microcredentials meet the needs of both employers and learners.

Future directions

Professional organisations like the Mauritius Institute of Directors (MIoD) and the Mauritius Institute of Professional Accountants (MIPA) provide microcredentials aimed at enhancing professional skills and knowledge. MIoD offers programs in corporate governance, risk management, and ethical leadership for board members, senior executives, and aspiring leaders. MIPA provides microcredentials in accounting and finance, covering topics like financial reporting, taxation, and audit practices, ensuring professionals remain updated with industry standards and regulatory requirements.

Businesses and industry bodies also play a crucial role in the provision of microcredentials. The Mauritius Chamber of Commerce and Industry (MCCI) collaborates with educational institutions and training providers to offer courses that address the specific needs of the business community in areas such as international trade, business management, and digital marketing. The Mauritius Employers' Federation (MEF) offers microcredentials designed to enhance the skills of employees across various industries, focusing on human resource management, occupational health and safety, and productivity improvement.

In summary, these findings underscore the vital role of industry and societal engagement in the development and implementation of microcredentials in Mauritius. Establishing a national microcredential framework that

promotes collaboration and co-delivery with industry partners can significantly enhance the relevance, quality, and impact of microcredentials. This approach aligns with broader national objectives, such as increasing participation in education, providing flexible learning pathways, and fostering partnerships between education providers and industry stakeholders. Ultimately, such a framework can support the upskilling and reskilling of the Mauritian workforce, addressing skill gaps and enhancing employability in a dynamic and competitive job market.

2.2. Who are the leading providers of microcredentials in Mauritius, and for what purposes do they provision microcredentials?

The provision of microcredentials in Mauritius has been a strategic response to the evolving needs of the workforce and the demand for continuous professional development. Microcredentials are designed to offer targeted, flexible, and industry-relevant training that enhances employability, addresses skills gaps, and supports lifelong learning. These credentials are increasingly offered by a range of providers, including higher education institutions (HEIs), vocational education and training (VET) providers, and industry stakeholders. This section outlines the leading providers of microcredentials in Mauritius and the specific purposes for which they are offered, focusing on how these programs contribute to workforce development, professional growth, and the alignment of education with industry requirements.

Higher Education Institutions (HEIs)

University of Mauritius (UoM)

The University of Mauritius provides microcredentials in fields such as information technology, business management, and environmental studies. These programs are developed in collaboration with industry partners to ensure alignment with market needs. UoM offers the Auditeur Libre program, which allows individuals to register for specific modules, subject to faculty approval and payment of fees. Upon successful completion, participants receive an attendance certificate.

UoM has partnered with Coursera to integrate online microcredential courses into their programs. Through this partnership, students can earn credits towards full qualifications, such as certificates, diplomas, and degrees, by completing short online courses. The Centre for Innovative and Lifelong Learning (CILL) at UoM offers short courses that allow students to earn credits through Coursera courses, which can contribute to full qualifications.

UoM has also established a collaboration with Ceridian Mauritius Ltd to provide a work-based learning program. This program allows learners to earn competency-based microcredentials that are transferable toward a Bachelor's degree in Applied Information Technology. The program includes both theoretical learning and hands-on experience through capstone projects in collaboration with industry partners.

University of Technology, Mauritius (UTM)

The University of Technology, Mauritius offers microcredentials in areas such as emerging technologies, engineering, and digital innovation. UTM provides a Diploma in Fisheries Enabled Services for Fisheries Protection Service Officers of the Ministry of Blue Economy. This program is composed of several units that focus on specific skills required for the officers' roles.

Additionally, UTM offers a Certificate in Special and Inclusive Education for teachers working with children who have cognitive impairments. This certificate is part of a series of six online micro-credits offered through Coursera in Special and Inclusive Education. Teachers who successfully completed the six units on Coursera were exempted from two modules in the Certificate in Special and Inclusive Education.

Vocational Education and Training (VET) Providers

Mauritius Institute of Training and Development (MITD)

MITD provides microcredentials in areas such as automotive technology, hospitality, and health and safety. These programs are designed to enhance the practical skills of individuals seeking employment in these sectors. MITD's microcredentials focus on developing competencies directly applicable to the trades and technical fields. Polytechnics Mauritius Ltd

Polytechnics Mauritius Ltd offers microcredentials in fields such as healthcare, engineering, and ICT. These programs are designed to address the practical skill needs of the workforce and ensure that individuals gain competencies required by employers in these industries.

Collaboration Between Educational Institutions and Industry Stakeholders

Educational institutions in Mauritius collaborate with industry stakeholders to ensure the relevance of microcredentials. For instance, UoM has partnered with the Mauritius Ports Authority to offer a Certificate in Port Management. This program is designed to provide skills relevant to the maritime industry. UTM's Diploma in Fisheries Enabled Services ensures that training aligns with the needs of the Ministry of Blue Economy.

Such collaborations ensure that microcredential programs remain relevant to industry requirements and enhance the employability of graduates.

Recognition of Prior Learning (RPL) and Accreditation

Both UoM and UTM have established Recognition of Prior Learning (RPL) policies. UoM's Accreditation of Prior Learning (APL) program allows individuals to gain formal qualifications based on skills, experience and knowledge acquired through formal, informal, or non-formal learning. This program benefits mature learners and individuals with relevant work experience.

UTM's APL policy provides an alternative pathway for candidates who do not meet general entry requirements but possess relevant work experience. This policy facilitates access to educational programs for individuals with industry experience.

Additional Microcredential Initiatives

Other microcredential programs include UTM's BSc (Hons) Procurement and Supply Management program, which is designed to equip procurement officers with the necessary skills for career advancement. This program focuses on the development of specific competencies required in procurement and supply chain management.

Microcredentials in Mauritius are provided by various institutions, including higher education institutions, vocational training providers, and industry bodies. These programs aim to address the skills gap, support lifelong learning, and enhance employability by offering targeted, flexible, and industryaligned training. The collaboration between educational institutions and industry ensures the relevance and applicability of these credentials, contributing to workforce development.

2.3. What variations exist in the needs of microcredential users across formal, non-formal and informal education sectors?

Diverse users

In Mauritius, the landscape of microcredentials reflects a diverse set of users across formal, non-formal, and informal sectors, each driven by specific educational and professional needs. According to recent data, microcredentials in the formal sector predominantly attract students and professionals enrolled in higher education institutions and accredited training providers. These users often pursue microcredentials to

supplement their formal qualifications, with a notable uptake observed in fields such as information technology, finance, and healthcare where specialised skills are in demand.

For example, working professionals in the ICT sector are actively involved in professional short courses and certification programmes related to software project management, software engineering, cybersecurity, development platforms and programming languages. Some of these training programmes are mandatory for the ICT professionals and are often sponsored by the employers or the HRDC. While these training programmes contribute significantly to enhance the competences of the ICT professionals and allow them to better contribute to the sector, however, they are not recognised as formal qualifications. Therefore, through the implementation of microcredentials, there is a huge potential to allow these ICT professionals to earn formal qualifications from higher education institutions and thus enhancing their career prospect in the sector.

Non-formal sectors

In contrast, the non-formal sector sees microcredentials catering to a broader audience, including individuals from vocational training centers, community learning hubs, and specialised academies. Recent trends indicate a growing interest among early-career professionals and mid-level managers in acquiring targeted skills like project management, digital marketing, and data analytics. This sector values practical applicability and the flexibility to enhance skills relevant to evolving job market demands.

Informal sectors

In the informal sector, microcredentials are adopted by learners seeking flexible learning opportunities outside structured educational pathways. This includes self-paced online courses, workshops, and seminars offered by international platforms like Coursera and local initiatives. Informal sector users are often motivated by personal enrichment, career advancement, or entrepreneurial pursuits, leveraging microcredentials to gain specialised knowledge in areas such as entrepreneurship, leadership, and digital literacy.

In summary, the adoption of microcredentials in Mauritius underscores their role in addressing diverse educational needs across different sectors, from formal academic enhancement to practical skill development and lifelong learning opportunities tailored to individual and professional goals.

2.4. Section 2 Summary and Recommendations

Table 1: Section 2 Recommendations

Tailor Microcredentials to Specific Sectoral Needs	For formal education users, align microcredentials with the needs of students seeking supplementary qualifications in high-demand fields like IT, healthcare, and finance.
	For non-formal sector users, offer targeted microcredentials in practical fields such as project management, data analytics, and digital marketing to equip professionals with skills that are directly applicable in the workplace.
Provide Flexibility and Accessibility for Informal Sector Learners:	Increase access to self-paced and online microcredential courses, particularly through international platforms, to cater to informal sector learners who seek flexible learning opportunities that align with personal and professional goals.
	Promote a variety of learning formats, including workshops, webinars, and seminars, to ensure informal learners can access relevant content tailored to their interests.
Encourage Lifelong Learning across All Sectors	Foster a culture of lifelong learning by ensuring that microcredential offerings are accessible to individuals at various stages of their careers, from early-career professionals to those seeking to reskill or upskill later in their careers.
	Support initiatives that allow individuals in the informal and non-formal sectors to earn microcredentials that can help them transition into formal education or improve their employability.
Create Pathways Between Sectors	Develop clear pathways that allow learners to transition between the formal, non-formal, and informal sectors, ensuring microcredentials earned in one sector are recognised in another.
	Support the transfer of credits from informal sector training (e.g., Coursera certifications) into formal qualifications, as seen in UoM's partnership with Coursera.

3. MICROCREDENTIAL IMPLEMENTATION & EFFECTIVENESS

3.1. What criteria would indicate that microcredentials effectively meet their envisaged educational and vocational objectives in Mauritius?

Due to the evolving global job market and the impact of technology on the educational trends, learners are seeking more targeted and flexible qualifications that best suit their needs and aspirations. Microcredentials which focus on specific knowledge and skills are gaining momentum among learners in Mauritius as a means for career advancement.

Educational and vocational objectives

The envisaged educational and vocational objectives for microcredentials in Mauritius are as follows:

- Supplement the current educational and vocational system in Mauritius to cater for the emerging trends and needs of the job market in several sectors of the economy
- Provide new pathways for learners to acquire qualifications in a flexible manner that meets their career aspirations
- Cater for the agility required in the emerging sectors of the economy with respect to competences and skills requirements
- Promote accessibility to affordable education that facilitates career advancement in a competitive job market
- Develop competency-based education that meet the needs of employers for people with demonstrable abilities and practical experience
- Develop a national framework for the implementation, assessment and quality assurance of microcredentials

3.2. To what extent are the socio-economic impacts of microcredentials being considered, particularly regarding access, equity, and inclusion in Mauritius?

Access to education and training through microcredentials

Microcredentials have the potential to complement the traditional and formal qualifications, universities and other higher education institutions offer by providing learning opportunities which are flexible and adapted to the needs of those seeking to update their skills portfolio in order to improve their position in the labour market and ultimately reduce youth unemployment. Due to its affordability and stackability, microcredentials is an alternative form of education for the underserved populations who cannot afford traditional degrees from HEIs. Therefore, microcredentials has the potential to increase access to education and promote inclusiveness.

Microcredentials access, equity, and inclusion in Mauritius

In Mauritius, the integration of microcredentials into the education and training systems presents a unique opportunity to promote greater access to learning and development opportunities for a diverse population. By offering flexible, short-term, and competency-based qualifications, microcredentials can be a powerful tool to address the skills gap and support individuals from various socio-economic backgrounds in accessing quality education. These credentials enable learners to gain recognised qualifications without the time or financial commitment associated with traditional degrees, thus providing a more accessible route to career advancement and lifelong learning. Microcredentials also support the inclusion of marginalised and underrepresented groups, including those in rural areas or with limited access to formal education, by offering online or blended learning formats that break down geographical and financial barriers.

However, ensuring equity in the delivery and recognition of microcredentials is essential to

guarantee that these opportunities reach all segments of the population. For microcredentials to truly contribute to inclusive education and professional development, the Mauritian government and institutions must prioritise initiatives that foster equitable access to digital infrastructure, learning resources, and support systems. Additionally, there is a need for clear, nationally recognised frameworks for the accreditation and transferability of microcredentials to ensure they are valued across sectors and by employers. By addressing these equity concerns, Mauritius can maximise the potential of microcredentials to foster an inclusive, skilled workforce and contribute to broader social and economic development goals.

3.3. How do industries respond to and/or recognise microcredentials, and what challenges and opportunities does this present?

The main factors challenging and enabling the adoption and implementation of microcredentials (MCs) in the Mauritian TVET and higher education sector are multifaceted, encompassing technical, logistical, financial, regulatory, and policy aspects.

Challenges

Recognition Issues: The most significant challenge identified by institutions is the recognition of microcredentials, with 82.6% of HEIs and 73.72% of TVET institutions highlighting this concern. Recognition is crucial for the success of microcredentials, as their value is dependent on acceptance by educational institutions, employers, and other stakeholders. The complexity of ensuring proper recognition necessitates collaboration among various entities within the education and employment sectors. This concern extends to the integration of microcredentials within the wider accreditation system, which was noted by 73.91% of HEIs and 67.95% of TVET institutions. This challenge reflects the difficulty in aligning microcredentials with existing formal education frameworks and the resistance to change from established mindsets.

Lack of Awareness: Both HEIs (73.92%) and TVET institutions (69.24%) pointed out the lack of awareness among prospective learners and employers about microcredentials. Despite the noted demand for microcredentials over the past five years, a significant gap in awareness needs to be addressed to ensure successful implementation. This lack of awareness could hinder the uptake of microcredentials, making it essential to conduct awareness-raising activities during the implementation period of the national framework.

Financial Challenges: Financial sustainability is a concern, with 69.56% of HEIs and 63.46% of TVET institutions agreeing that this is a challenge. Public funding for microcredentials is perceived as insufficient, particularly by HEIs (73.91%) compared to TVET institutions (58.33%). The reliance on private funding also poses a challenge, especially for TVET institutions.

Quality Assurance and Institutional Integration: Ensuring adequate quality assurance for microcredentials within institutions is a concern for 65.22% of HEIs and 56.41% of TVET institutions. Integrating microcredentials into existing institutional frameworks, including IT systems, is also seen as challenging, with 60.87% of HEIs and 62.82% of TVET institutions noting limitations in current systems. Additionally, there is resistance from staff favoring traditional education models, highlighted by 60.87% of HEIs and 41.02% of TVET institutions.

Regulatory and Compliance Issues: Regulatory and compliance issues, along with the legal basis for issuing microcredentials, present challenges, though they are of less concern compared to recognition and financial sustainability. The legal framework and resistance from national authorities were considered less significant by both HEIs and TVET institutions, indicating a degree of trust in current regulatory bodies.

Opportunities

Policy and Strategic Alignment: Despite the challenges, several factors enable the adoption and implementation of microcredentials. One significant enabler is the strategic alignment of microcredentials with national and institutional policies focused on lifelong learning and employability. Both HEIs and TVET institutions recognise the potential of microcredentials to enhance access to education, support lifelong learning objectives, and align with labour market demands.

Flexibility and Personalisation: Microcredentials offer enhanced flexibility for students to gain qualifications and personalise their learning experiences. This flexibility is seen as a key enabler by 86.96% of HEIs and 89.10% of TVET institutions. The ability to offer flexible learning pathways and modalities, such as online and blended learning, is crucial for the successful implementation of microcredentials.

Industry Collaboration: Facilitating collaborative teaching with industry and social groups is another enabler, supported by 86.96% of HEIs and 86.54% of TVET institutions. This collaboration can ensure that microcredentials remain relevant to the labour market and enhance employability. The alignment between education curricula and work-based learning further supports this integration.

Stakeholder Engagement: Engaging with key stakeholders, including employers, government bodies, and national authorities, is essential for the successful adoption of microcredentials. Institutions acknowledge the importance of building partnerships and ensuring stakeholder buy-in to address challenges related to recognition, quality assurance, and funding.

Opportunities for Upskilling and Reskilling: Microcredentials present significant opportunities for upskilling and reskilling, aligning with the national agenda for human capital development. They offer a flexible, targeted approach to help individuals develop the knowledge, skills, and competences needed for personal and professional growth.

3.4. What key factors are most likely to positively or negatively influence the implementation, impact and long-term sustainability of microcredentials?

Potential Bottlenecks in Implementing Microcredential Systems

Despite the promising advantages of microcredential systems, several bottlenecks may hinder their effective implementation.

Technology Ecosystems: One significant challenge is the integration of diverse technological systems across various higher education institutions (HEIs). Establishing a unified platform that can seamlessly interact with existing information systems and databases of multiple HEIs is complex and resource intensive. Compatibility issues, data standardisation, and ensuring secure data exchange between institutions can pose significant hurdles. Furthermore, the development and maintenance of a secure digital wallet system for learners to store and manage their micro-credits require substantial investment in technology and cybersecurity measures.

Regulatory and accreditation frameworks: Another major bottleneck is the regulatory and accreditation framework needed to support microcredentials. Traditional education systems and regulatory bodies may be slow to adapt to the new paradigm of microcredentials, creating delays in policy formulation and implementation. There is also the challenge of gaining widespread acceptance and recognition of microcredentials among employers, educational institutions, and learners. Without a robust framework that ensures the quality and relevance of the microcredentials, their value may be questioned. Additionally, ensuring the privacy and security of learners' data in a blockchain-based system requires careful consideration of legal and ethical implications,

which can further complicate the implementation process.

Indeed, while there are significant challenges to the adoption and implementation of microcredentials in

Mauritius, there are also substantial enablers that, if leveraged effectively, can facilitate their integration into the educational landscape. Addressing recognition issues, raising awareness, ensuring financial sustainability, and fostering stakeholder collaboration are key steps towards realising the potential of microcredentials to enhance access to education, support lifelong learning, and meet the evolving demands of the labour market.

Ensuring the long-term sustainability of microcredential initiatives

Indeed, ensuring the long-term sustainability of microcredential initiatives requires a multifaceted approach encompassing policy alignment, industry collaboration, quality assurance, recognition and portability, financial sustainability, flexible learning pathways, and stakeholder engagement. Below are some effective strategies to ensure the longevity and impact of microcredential initiatives.

Policy and Strategic Alignment: Aligning microcredentials with national and institutional policies focused on lifelong learning and employability is crucial. This strategic alignment enhances the relevance and acceptance of microcredentials, ensuring they meet labour market demands and support national development goals. For example, Mauritius has incorporated microcredentials into its National Skills Development Strategy 2022-2026 to bolster human capital development. This integration into national strategies ensures that microcredentials are not standalone initiatives but are embedded within broader educational and economic frameworks.

Industry Collaboration: Engaging with industry stakeholders to co-develop microcredentials ensures that the credentials are aligned with current and future job market needs. This collaboration not only enhances the employability of learners but also fosters industry buy-in, which is essential for the recognition and value of microcredentials. By working closely with employers and industry experts, microcredential programs can be tailored to address specific skills gaps and emerging trends, thereby increasing their relevance and attractiveness to both learners and employers.

Quality Assurance: Establishing robust quality assurance mechanisms is vital to maintain the credibility of microcredentials. This includes aligning them with national qualifications frameworks, ensuring transparency in the credentialing process, and regularly updating standards to reflect best practices and technological advancements. High-quality microcredentials are essential for gaining the trust of learners, employers, and educational institutions. Quality assurance processes should involve regular evaluations, stakeholder feedback, and adherence to international standards.

Recognition and Portability: Ensuring that microcredentials are recognised across different sectors and countries enhances their value and portability. This can be achieved by aligning microcredentials with national and international qualifications frameworks and through mutual recognition agreements. By facilitating the recognition of microcredentials beyond their issuing institutions, learners can more easily transfer their skills and knowledge across various contexts, promoting mobility and lifelong learning.

Financial Sustainability: Developing funding models that ensure the financial sustainability of microcredential programs is essential. This could involve public funding, partnerships with industry, and leveraging existing funding mechanisms such as training levy/grant schemes. Mauritius, for instance, leverages the Human Resource Development Council's funding mechanisms to support microcredential initiatives. Sustainable funding ensures that microcredential programs can continue to operate and expand, making them accessible to a broader range of learners.

Flexible Learning Pathways: Implementing flexible learning pathways that allow for the stacking of microcredentials into larger qualifications can enhance their attractiveness and utility. This approach supports lifelong learning by enabling learners to progressively build their qualifications over time. Flexible pathways can accommodate the diverse needs of learners, allowing them to upskill or reskill at their own pace and in line with their career goals. This adaptability is crucial in a rapidly changing job market where continuous learning is necessary.

Stakeholder Engagement: Continuous engagement with key stakeholders, including educational institutions, employers, government bodies, and learners, is crucial for the successful implementation and sustainability of microcredentials. This engagement ensures that microcredentials remain relevant, widely recognised, and effectively integrated into existing educational and employment systems. Stakeholder engagement should involve regular consultations, collaborative planning, and feedback mechanisms to ensure that the needs and expectations of all parties are met.

In summary, by addressing these key areas, microcredential initiatives can be designed and implemented in a manner that ensures their long-term sustainability and impact. Effective strategies such as aligning with policy frameworks, engaging with industry, maintaining high quality, ensuring recognition and portability, securing financial sustainability, offering flexible learning pathways, and engaging stakeholders are essential for creating resilient and valuable microcredential systems

3.5. Section 3 Summary and Recommendations

Table 2: Section 3 Recommendations

Develop a National Framework for Microcredentials	Establish a national framework for microcredentials to ensure standardisation, quality assurance, and recognition.
Ensure Socio-Economic Inclusivity	Provide support for underserved populations, particularly in rural areas, through accessible, affordable, and flexible pathways.
Align with National Policies	Integrate microcredentials into national strategies such as the National Skills Development Strategy to promote lifelong learning and employability.
Promote Industry Collaboration	Engage industries to co-develop microcredentials that align with labor market needs, enhancing employability and relevance.
Raise Awareness of Microcredentials	Increase awareness among students, employers, and educators to ensure greater uptake and value recognition across sectors.
Implement Flexible Learning Pathways	Develop pathways that allow learners to stack microcredentials into larger qualifications, facilitating lifelong learning.
Provide Financial Support for Microcredentials	Ensure sustainable funding models through public-private partnerships, industry contributions, and existing funding schemes.
Develop Recognition Mechanisms	Create mechanisms for the recognition and portability of microcredentials both nationally and internationally.
Ensure Robust Quality Assurance	Establish transparent and consistent quality assurance processes to ensure credibility and value in the market.
Focus on Digital Infrastructure	Invest in digital platforms that facilitate the delivery, tracking, and verification of microcredentials, ensuring access for all learners.
Engage Stakeholders Continuously	Involve all relevant stakeholders (educational institutions, industry, government) in the ongoing design, development, and evaluation of microcredentials.

4. MICROCREDENTIAL POLICY DEVELOPMENT

4.1. How is/should quality assurance (be) managed for microcredentials in Mauritius?

National Policies and Quality Assurance

National policies that support the integration of microcredentials into formal education and training systems serve as crucial enablers. The development of QA standards and guidelines ensures the quality and consistency of microcredentials across various sectors. However, implementation challenges, such as the need for a cohesive approach to policy execution and alignment with existing frameworks, present significant barriers. Effective collaboration among diverse stakeholders is essential to overcome these challenges and ensure the successful implementation of microcredentials.

There is a clear consensus on the importance of robust QA processes to ensure the credibility and recognition of microcredentials. All stakeholders acknowledge the necessity of aligning microcredentials with industry requirements to enhance employability. There is also a collective focus on the importance of collaboration among educational institutions, industry, and policy makers to develop and implement effective microcredential frameworks.

The establishment of nuanced QA processes and alignment with the NQF are key enablers that ensure the credibility and recognition of microcredentials. For example, the implementation of QA standards by the Higher Education Commission (HEC) and the Mauritius Qualifications Authority (MQA) ensures consistency and quality across microcredential offerings. Proactive evolution of microcredential provisions across HEIs and TVET institutions to meet industry needs is another enabler. Collaboration between HEIs and industry bodies to co-design microcredential programs addresses specific skill shortages, enhancing the employability of graduates. Strong willingness to collaborate with existing and new stakeholders to leverage current practices and resources is also a significant enabler. The formation of a national microcredential steering group comprising key stakeholders from education, industry, and government guides the development and implementation of microcredentials.

Real-world scenarios illustrate how these enablers and barriers manifest. For instance, a leading IT company partnering with a local university to develop a microcredential program in cybersecurity addresses a critical skills gap in the industry and enhances the employability of graduates. Conversely, a TVET institution lacking the necessary funding and expertise to introduce a new microcredential program in renewable energy highlights the resource constraints barrier. The collaboration between the HEC and MQA to develop QA standards for microcredentials ensures that all programs meet a high-quality threshold, aligning with the NQF and facilitating their recognition nationally.

The management of microcredentials in Mauritius, both from an internal and external quality assurance perspective, is characterised by a structured and evolving approach. This framework is designed to ensure the credibility, reliability, and integration of microcredentials within the broader education and training ecosystem. The following analysis provides a detailed examination of the processes and principles guiding the quality assurance of microcredentials in Mauritius, supported by insights from recent surveys and stakeholder consultations.

Internal Quality Assurance of microcredentials

Internal quality assurance (IQA) within Mauritian institutions focuses on integrating microcredentials into existing quality assurance systems while allowing for flexibility to accommodate the unique nature of these credentials. The approach is multi-faceted, emphasising

feedback mechanisms, alignment with national and international standards, and the involvement of industry stakeholders.

a. **Integration with Existing QA Systems:** Mauritian institutions, including Higher Education Institutions (HEIs) and Technical and Vocational Education and Training (TVET) providers, are increasingly incorporating microcredentials into their institutional quality assurance frameworks. According to survey data, 40.91% of HEIs and 50% of TVET institutions have established QA processes for microcredentials, with additional institutions planning to do so. This integration ensures that microcredentials adhere to the same rigorous standards applied to traditional qualifications.
b. **Feedback Mechanisms**: Stakeholders have emphasised the importance of robust feedback loops involving both learners and employers. Mechanisms such as tracer studies, surveys, and dedicated feedback forms are used to gather insights on the relevance and effectiveness of microcredentials. This feedback is crucial for continuous improvement and ensuring that microcredentials remain aligned with industry needs and learner expectations.
c. **Alignment with Standards:** Mauritian institutions are committed to aligning their IQA processes with both national and international standards. This alignment ensures consistency and recognition of microcredentials across different regions and sectors. Stakeholders highlighted the necessity of adhering to guidelines from the Mauritian Qualifications Authority (MQA) and other relevant bodies to maintain a high level of quality and credibility.
d. **Flexibility and Agility:** To address the dynamic nature of microcredentials, Mauritian institutions are developing more agile and flexible QA processes. This flexibility allows for the rapid development and piloting of short courses in response to industry demands. Stakeholders suggested that while maintaining rigorous standards, there should be room for innovation and adaptation in the QA processes for microcredentials.

External Quality Assurance of Microcredentials

External quality assurance (EQA) in Mauritius involves oversight and evaluation by independent bodies to ensure that microcredentials meet established standards and guidelines. The process is designed to enhance the credibility and acceptability of microcredentials both nationally and internationally.

a. **National Policy Orientation:** The MQA's draft policy orientation for microcredentials emphasises the need for a robust quality assurance process encompassing student experience, academic quality, and standards. This policy is aligned with international best practices and underscores the importance of a comprehensive QA approach for the proliferation and mainstreaming of microcredentials.
b. **Industry Collaboration:** A significant aspect of EQA involves collaboration with industry stakeholders. This partnership ensures that microcredentials are relevant to current market needs and that the assessment of learning outcomes is transparent and aligned with industry standards. Industry feedback is integral to the development and validation of microcredentials, ensuring they provide practical and employable skills.
c. **Guidelines for Online and Blended Learning:** Given the prevalent nature of online microcredentials, specific QA mechanisms for online and blended learning are essential. The development of guidelines and standards for online delivery modes ensures the quality of

the learning experience. These guidelines include appropriate pedagogies, staff development, and the use of technological tools to support online education.

d. **Regulatory Oversight:** Stakeholder consultations have highlighted the need for clear roles and responsibilities among bodies engaged in quality assurance. The MQA, in collaboration with other national agencies, is responsible for steering and regulating the QA processes for microcredentials. This oversight ensures that both current education and training providers, as well as non-traditional providers, adhere to established standards.

e. **Continuous Improvement and Enhancement:** EQA processes in Mauritius are designed to act not only as gatekeepers but also as catalysts for continuous improvement. Regular monitoring, review, and evaluation of microcredentials ensure that they evolve in response to changes in industry standards and educational advancements. This iterative approach solidifies the credibility and relevance of microcredentials over time.

SURVEY INSIGHTS AND STAKEHOLDER FEEDBACK ON QA

Recent surveys and stakeholder consultations provide valuable insights into the current state and future directions of QA for microcredentials in Mauritius.

Key findings include:

Adoption of QA Processes: A significant proportion of HEIs and TVET institutions have adopted or are planning to adopt QA processes for microcredentials. This trend reflects a growing recognition of the importance of maintaining high standards for these credentials.

Principles for EQA: Stakeholders have articulated principles to underpin the EQA of microcredentials, including competency-based design, flexibility, transparency in assessment, differentiation from longerterm CPD courses, and industry collaboration. These principles are crucial for ensuring that microcredentials meet the specific needs of industries and learners.

Challenges and Recommendations: Stakeholders have identified several issues to be addressed in the further exploration of IQA and EQA, such as the need for simplified IQA systems, the public tracking of changes to microcredentials, and the integration of industry training into QA processes. Recommendations include extending existing QA standards to include microcredentials, updating national guidelines, and leveraging international best practices.

The management of microcredentials in Mauritius, from both internal and external quality perspectives, is characterised by a comprehensive and evolving framework. This framework integrates microcredentials into existing QA systems, emphasises feedback and continuous improvement, and involves collaboration with industry stakeholders. By aligning with national and international standards, Mauritius ensures the credibility and reliability of microcredentials, thereby enhancing their value for learners, employers, and the broader educational community. The proactive approach to quality assurance, guided by stakeholder feedback and best practices, positions Mauritius as a leader in the effective management of microcredentials.

4.2. What progress has been made toward institutional and/or national standards in Mauritius?

A National Microcredentials Framework is being developed for Mauritius, spanning both TVET and Higher Education. The development of the national policy orientation for microcredentials in Mauritius is a collaborative effort involving key regulatory bodies and stakeholders. The draft policy provides a robust framework for ensuring the quality and recognition of microcredentials, emphasising clear and comprehensive information, the use of digital badges,

and the creation of centralised registers and course catalogues. Stakeholders' input has been instrumental in shaping the draft policy, particularly in aligning it with international best practices and ensuring that the information requirements support the portability and recognition of microcredentials within the national education system. As Mauritius continues to advance its microcredential initiatives, these efforts will contribute to a more flexible, inclusive, and responsive education and training ecosystem.

Principles and standards for microcredentials in Mauritius

The implementation and recognition of microcredentials in Mauritius are guided by several fundamental principles. Quality assurance is paramount, with all microcredentials required to be accredited by recognised bodies to ensure their validity and acceptance. Adherence to agreed standards is crucial for maintaining the high educational and training quality of microcredentials. Industry alignment is another critical principle, with microcredentials designed to meet specific labour market needs. This alignment ensures that the skills and knowledge provided are directly applicable to professional contexts, enhancing employability and relevance.

However, the lack of a standardised approach to microcredential offerings and their recognition across institutions is a significant barrier. Variability in the definition, credit value, and workload of microcredentials leads to confusion and inconsistency. Resource constraints within educational institutions further exacerbate this barrier, limiting their capacity to allocate sufficient funds and staff for the development of microcredentials. Concerns about the recognition and credibility of microcredentials by employers and other educational institutions also present a barrier. Employers remain sceptical about the value of microcredentials compared to traditional qualifications.

Transparency is essential, providing clear details about learning outcomes, assessment criteria, and the value of the microcredential. This clarity helps learners, employers, and educational institutions understand the representation and utility of each microcredential.

Outcome-based learning focuses on precise learning objectives, ensuring that the skills and knowledge gained through microcredentials are tangible and verifiable. This principle includes mandatory assessments to measure the achievement of learning outcomes, maintaining accountability and quality. Lifelong learning is supported through personalised learning paths that recognise diverse learner needs and promote continuous professional development. This approach accommodates various educational and professional backgrounds, encouraging ongoing education and skill enhancement throughout a learner's career. Accessibility and flexibility are also key principles, ensuring that microcredentials are accessible to all learners, regardless of their backgrounds or circumstances. Microcredentials are designed to be stackable, allowing learners to combine them to form larger qualifications, providing flexibility in learning and credentialing. Challenges such as standardisation, resource constraints, and recognition need to be addressed.

TVET: In 2023, the MQA Act has again been amended and empowered with a new function to approve and recognise microcredentials in the TVET sector (Act No. 12 of 2023). Therefore, the MQA prepared a draft document entitled The Implementation of microcredentials: Proposed Policy Orientation which "intends to forge the principles and procedures for the design, development, approval, delivery and quality assurance and recognition of microcredentials in the educational and training landscape" (unpublished document, p.1). The policy orientation emphasises the need to develop a national framework for microcredentials, which shall specify expectations from microcredentials. In 2024 the MQA is contemplating the implementation of a final project involving one or two microcredentials to evaluate their functionality and assess how they integrate with the existing system (Communication MQA, 2024).

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

The integration of microcredentials into existing National Qualification Frameworks (NQFs) is crucial for ensuring their recognition, transparency, and portability.

Positioning Microcredentials within the National Education System

The integration of microcredentials into Mauritius' NQF aims to foster lifelong learning and enhance employability by embedding these credentials within the broader educational ecosystem. NQFs offer a structured framework with level descriptors that define the expected knowledge, understanding, and competencies at each level. This alignment enables learners to make informed educational choices and helps employers assess the skills and qualifications of prospective employees more effectively.

National Policy Orientation: Mauritius' current policies underscore the importance of aligning microcredentials with the NQF. The draft National Credit Value and Transfer System (NCVTS) mandates that microcredentials be categorised according to Mauritian NQF levels, ranging from 1 to 10, with each microcredential assigned a minimum of 1 NCVTS credit. The Mauritius Qualifications Authority (MQA) has developed policies that require aligning the learning outcomes of credit-bearing microcredentials with specific NQF levels, streamlining the implementation process.

Stakeholder Consensus and Consultation: Stakeholder consultations have highlighted strong support for aligning microcredentials with Mauritius' NQF. This alignment ensures transparency and quality assurance, providing clarity on the educational value and standards associated with each microcredential. The 2024 Stakeholder Consultation underscored the role of alignment in promoting recognition, transferability, and informed decision-making for educational and career pathways.

Current Institutional Practices: Survey data indicates that a significant number of Technical and Vocational Education and Training (TVET) institutions and Higher Education Institutions (HEIs) in Mauritius either currently level or plan to level their microcredentials to comply with the NQF. However, challenges exist within the regulatory framework, particularly regarding the issuance of only non-creditbearing short courses by some TVET institutions. Stakeholder consultations have highlighted the need for clear definitions and regulations governing both credit-bearing and non-credit-bearing microcredentials.

Proposals for Alignment Approaches: Stakeholders have explored various approaches to aligning microcredentials with Mauritius' NQF, drawing from international practices:

- **Creating a New Microcredential Qualification Type on the NQF:** **This** approach aims to enhance local, regional, and international recognition of microcredentials, streamlining regulatory oversight and ensuring consistency in titling, workload, level, and stackability.
- **Recognising Microcredentials as Subunits of Existing Qualifications:** This method supports integrating microcredentials into larger qualifications, enhancing their practicality and leveraging existing quality assurance frameworks.
- **Adopting a Hybrid Approach:** This approach allows microcredentials to function as both qualifications on the NQF and as non-award microcredentials, promoting flexibility and resilience to meet diverse educational sector needs.

Awarding and Equivalency Services: Currently, only registered and/or recognised awarding bodies can issue qualifications in Mauritius. Expanding this framework to include microcredentials requires ongoing dialogue with stakeholders. There is also consideration for establishing a central equivalency service to support

levelling microcredentials from non-educational and training providers, potentially extending the MQA's process for approving non-award TVET courses.

Future Consultations and Regulatory Considerations: The integration of microcredentials into Mauritius' educational framework is an evolving process requiring continued consultations among stakeholders. There is consensus on the need for a robust regulatory system capable of managing the complexities associated with microcredentials, including relevance, currency, workload, and credit systems. Stakeholders advocate for phased implementation across educational providers, ensuring a comprehensive regulatory and infrastructural framework.

Integrating microcredentials into Mauritius' National Qualifications Framework is pivotal for enhancing the flexibility and accessibility of education. By aligning with international best practices, engaging stakeholders, and establishing clear regulatory guidelines, Mauritius aims to foster a cohesive and adaptable educational system. This initiative supports lifelong learning, enhances employability, and reinforces Mauritius' reputation as a leader in innovative educational strategies. Ongoing efforts reflect a commitment to educational excellence and meeting the evolving needs of learners and industries in Mauritius.

4.4. What practical steps should be taken in developing national and regional microcredential policy frameworks?

This evolving Mauritius microcredentials framework promises to enhance the educational landscape by providing learners with flexible, relevant, and high-quality learning opportunities that align with the dynamic needs of the labour market. The successful implementation of microcredentials in Mauritius will depend on maintaining high standards, ensuring industry relevance, and providing clear, accessible, and flexible learning pathways for all.

Scope of the Mauritius Microcredentials Framework

The scope of the Mauritius microcredentials framework includes significant advantages and potential disadvantages, particularly regarding the inclusion of non-education providers.

Advantages: One advantage is industry relevance, achieved through collaboration with non-traditional entities to ensure that microcredentials align with industry needs. This collaboration enhances employability by involving employers directly in shaping the required skills. Accessibility is another advantage, as recognising diverse learning paths, including on-the-job training and informal learning, broadens the scope of education and training. This inclusivity makes education more accessible and relevant to a wider range of learners. Addressing skill gaps effectively is another benefit, with direct employer engagement helping to identify and fill specific skill gaps in the market efficiently.

Disadvantages: However, there are potential disadvantages to including non-education providers. One significant issue is the maintenance of quality standards. Non-education providers may not uphold the same high standards as traditional educational institutions, leading to inconsistent quality and potentially diluting the perceived value of microcredentials. Uniformity issues also arise, as diverse providers may offer varied content and assessment methods, complicating the evaluation process and creating challenges in comparing and recognising microcredentials across different providers. Additionally, the proliferation of qualifications could create a complex and confusing landscape for learners and employers. Accrediting numerous non-education providers might overwhelm learners and employers with an abundance of qualifications, making it difficult to discern the quality and relevance of each microcredential.

By leveraging existing strengths and addressing these barriers, we can effectively integrate microcredentials into educational and professional contexts, promoting lifelong learning and enhancing workforce adaptability.

4.5. Section 4 Summary and Recommendations

Table 3: Section 4 Recommendations

National Qualifications Framework (NQF) Alignment	Mauritius has made notable strides in aligning microcredentials with the NQF. The draft National Credit Value and Transfer System (NCVTS) outlines a system where microcredentials are categorised based on NQF levels, ensuring they are recognised within the national education system. The NCVTS framework ensures that microcredentials are classified with appropriate credit values and learning outcomes that correspond to NQF levels. This framework strengthens the transparency of the education system and enhances the recognition of microcredentials.
Stakeholder Involvement	Stakeholders from various sectors, including education, industry, and government, have been involved in the consultation process regarding the integration of microcredentials into the NQF. This collaborative approach ensures that the alignment of microcredentials with the NQF is not only standardised but also meets the needs of the labour market. The consultations have provided valuable insights into the requirements for the recognition and portability of these credentials, highlighting the importance of aligning them with industry standards.
Institutional Efforts	Several institutions in Mauritius, including both TVET and HEIs, are increasingly aligning their microcredentials with the NQF. A significant portion of these institutions either already complies or plans to comply with the NQF alignment, as seen in survey data. This includes classifying microcredentials at appropriate NQF levels and ensuring that the learning outcomes are clearly defined.
Challenges	Despite the progress, some challenges remain: **Non-credit-bearing Courses:** Some TVET institutions still issue non-credit-bearing short courses, which complicates the integration of these credentials into the NQF. These institutions will need to align their programs to ensure they are credit-bearing and meet the required standards for recognition. **Standardisation Issues:** The variability in the definition, credit value, and workload of microcredentials is a challenge. There is a need for a standardised approach to ensure consistency across institutions and sectors. **Employer Recognition:** Employers continue to express some skepticism regarding the value of microcredentials in comparison to traditional qualifications. More efforts are required to build trust and demonstrate the practical relevance and benefits of microcredentials.
Future Plans	Moving forward, the Mauritius Qualifications Authority (MQA) is working on implementing pilot projects for microcredentials, which will be evaluated for their functionality and integration with the existing educational system. These pilot projects will serve as a model for broader implementation and provide insights into how microcredentials can be scaled across different sectors and educational institutions.

SUMMARY OF FINDINGS & RECOMMENDATIONS

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Summary of findings

Increasing Interest and Global Alignment: There is a growing interest in microcredentials as a means to address the evolving needs of the labour market by offering targeted, flexible qualifications that can complement or serve as alternatives to traditional degrees. This global trend of incorporating microcredentials into higher education aligns with efforts in various countries to enhance workforce development through lifelong learning.

Challenges in Standardisation and Recognition: Despite their potential, the adoption of microcredentials in Mauritius faces challenges such as the absence of a standardised framework for their development and recognition. Furthermore, concerns regarding the transferability of microcredentials across institutions and their acceptance by employers remain significant barriers to their widespread implementation.

Policy Development and Quality Assurance: The successful integration of microcredentials into Mauritius' education system necessitates the establishment of clear, cohesive policies and quality assurance mechanisms. These frameworks would ensure the credibility and value of microcredentials, enhancing their acceptance among educational institutions and employers alike.

Opportunities for Workforce Development: Microcredentials present an opportunity for improving workforce development, particularly in areas where skill gaps exist or where continuous upskilling and reskilling are necessary. They offer a viable option for individuals seeking to enhance their employability without the need for full degree programs.

Stakeholder Collaboration: Effective implementation of microcredentials in Mauritius will require active collaboration between key stakeholders, including higher education institutions, industry leaders, and government agencies. Ensuring that microcredentials align with labor market needs and are recognised by employers is critical to their success.

Potential for Internationalisation: Microcredentials also offer the potential for increasing the international mobility of learners and enhancing Mauritius' competitiveness in the global education sector. By offering qualifications that are recognised internationally, Mauritius can position itself as a hub for skills development in the region.

While microcredentials offer significant opportunities for addressing skills gaps and improving the alignment between education and employment in Mauritius, the successful integration of these credentials into the national education framework requires overcoming challenges related to standardisation, policy development, and stakeholder engagement

Summary of all recommendations

The table below gives recommendations around 5 thematic areas, including definition, quality assurance, national qualifications framework, recognition of prior learning and stacking and data, information and platforms.

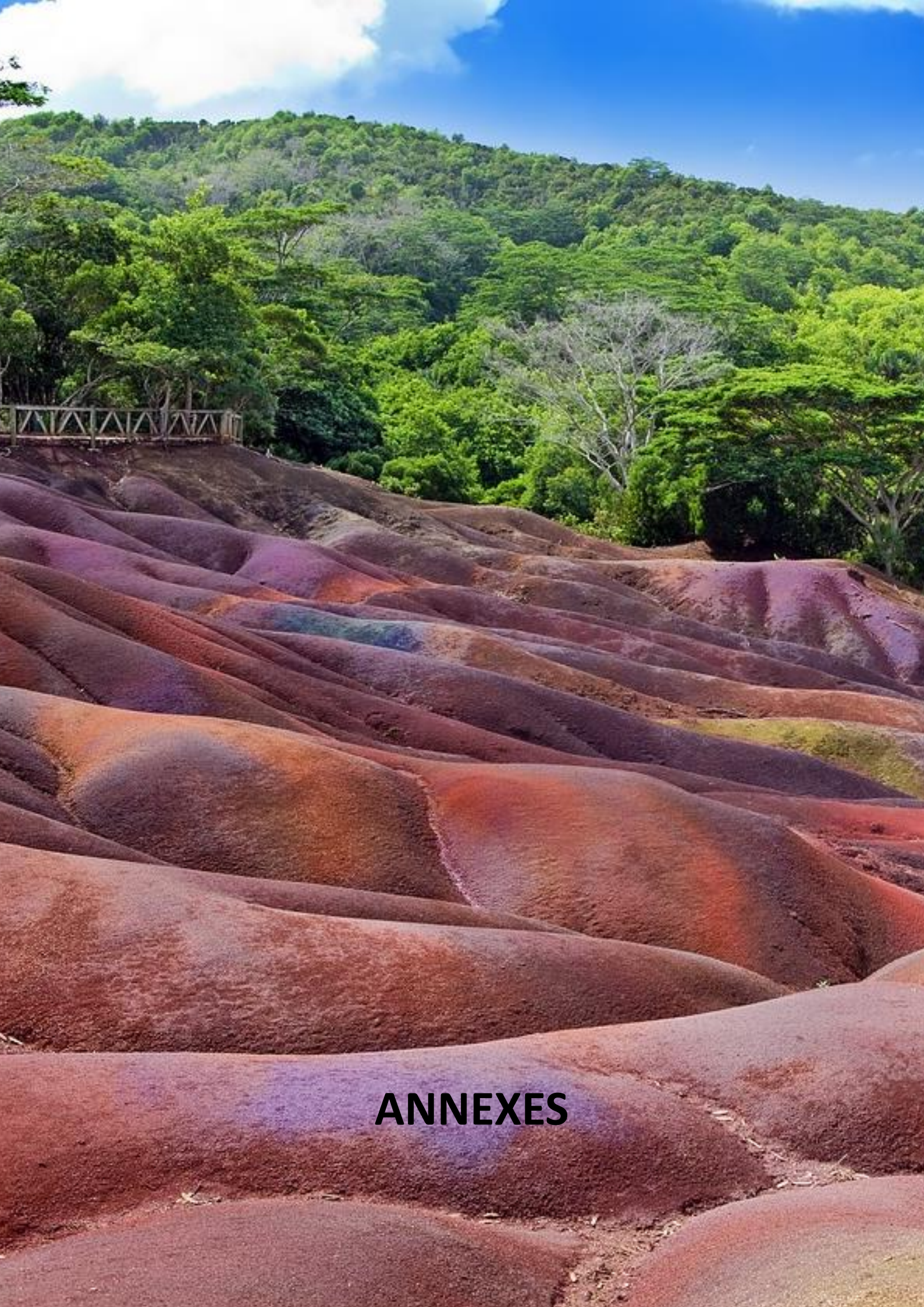
Table 4: All recommendations

Definition	**Inventory of Existing Offerings**: The conduct of an inventory of current microcredential offerings across various sectors to inform a comprehensive definition was recommended.
	Alignment with NCTVS: Alignment of microcredentials with the National Credit and Transfer Value System (NCTVS) for consistency across educational policies.
	Clarifying Key Terms: Definition of terms like "small volume of learning" to promote clarity in policy implementation.
	Integrating RPL and Stackability: Inclusion of Recognition of Prior Learning (RPL) and stackability to support lifelong learning and flexibility.
	Harmonising Titles Across Institutions: Harmonisation of microcredential titles under the NCTVS framework to promote consistency in credentialing practices.
Quality Assurance	**Clarification of Roles and Responsibilities**: Mapping the roles of bodies involved in quality assurance for accountability and efficiency.
	Audit of Existing Procedures: Conduct an audit to ensure alignment with guidelines from regulatory bodies like HEC and QAA.
	Establishing Standards: Set standards for internal and external quality assurance to ensure consistency in offerings.
	Stakeholder Integration: Engaging stakeholders, such as employers and alumni, for real-time reviews and endorsements of quality assurance processes.
	Industry Provider Registration: Register and review industry providers to ensure adherence to recognised standards.
	Exploration of Teaching Competences: Define bespoke teaching competences for microcredentials to enhance their job market relevance.
	Updating Guidelines: Update national guidelines to reflect the evolving landscape of open and digital learning.
	Expanding Internal Quality Assurance: Broaden internal quality assurance to include short course provisions across all institutions.
National Qualifications Framework	**Develop and Implement National Guidelines**: Establish clear national guidelines with a focus on staged implementation, aligning the approaches and structures for Higher Education (HE), Technical and Vocational Education and Training (TVET), and non-education and training providers. These should cover areas such as unbundled credentials, stand-alone microcredentials, and the review and updating of relevant policy and implementation documentation.
	Review MQA Recognition Processes: Conduct a comprehensive review of current Mauritius Qualifications Authority (MQA) processes for the recognition of non-award courses, with the potential to extend this approach, ensuring it is refined to include non-education and training providers.
	Leverage TVET Authorities for Credential Levelling: Assess the role of designated authorities within the TVET sector to support the levelling of credentials, thus facilitating scalability within the system.
	Assess Infrastructure for Central Equivalency Service: Examine the existing infrastructure to identify systems and frameworks that could support a centralised equivalency service, ensuring efficient credential comparison and recognition.

	Benchmark International Approaches: Benchmark the titling practices of international institutions with respect to microcredentials, identifying best practices to inform local policy and implementation strategies.
Recognition of Prior Learning and Stacking	**Review Institutional Challenges**: Assess current challenges to flexible learning pathways to inform guidance on stacking and the development of national principles for stacking credentials.
	Engage Stakeholders on Stacking: Collaborate with industry and other key stakeholders to inform national stacking principles specific to each subsector.
	Provide Clear Guidance: Offer clear, actionable guidance to providers, drawing on models such as those from the Malaysian Quality Authority.
	Pilot Recognition of Microcredentials: Explore the possibility of piloting a system recognising a range of microcredentials from both non-HEP and HEP providers simultaneously for access and credit, inspired by the Malaysian approach.
	Review Regulatory Bodies' Remit: Assess the current regulatory bodies' roles in reviewing recognition and equivalency services to ensure scalability and efficiency within the system.
	Audit RPL Best Practices: Conduct an audit of current best practices in Recognition of Prior Learning (RPL) to identify areas for improvement and integration within the system.
Data Information and Platforms	**Set National Standards for Microcredentials**: Establish standards for information to be issued on microcredentials by learners, ensuring recognition, transparency, and portability across systems.
	Prepare a National Microcredential Eco-System Report: Develop a national technical report to support the implementation and principles of the national microcredential framework.
	Analyse Current National Infrastructure: Conduct an analysis of the current national infrastructure to evaluate the integration of microcredentials, such as existing registers and systems.
	Support Digitalisation of Learning Proofs: Engage in processes to facilitate the digitalisation of proofs of learning, enhancing the credibility and accessibility of microcredentials.
	Audit Institutional Technical Requirements: Conduct an audit of the technical infrastructure and requirements within institutions to assess readiness for microcredential implementation.
	Centralise Technical Infrastructure: Consider centralising the technical infrastructure for the issuance and management of microcredentials to streamline processes.
	Explore Regional Infrastructural Alignment: Explore the possibility of aligning or participating in regional infrastructural developments (e.g., Europass, Credential Engine) to facilitate the implementation of microcredentials.

METHODOLOGY

This section outlines the methodology employed to conduct a comprehensive desktop review of the existing literature on microcredentials in the context of Mauritius. The review was carried out by systematically searching for relevant academic articles, government reports, policy documents, and publications from educational institutions, as well as other credible sources. These materials were selected based on their relevance to microcredentialing and its implications for higher education and workforce development in Mauritius. The gathered literature was then analysed to identify key themes, trends, challenges, and opportunities for implementing microcredentials in the Mauritian context. This approach ensured a thorough understanding of the topic and provided a foundation for informed recommendations.



ANNEXES

ANNEXES

1) National Higher Education Benchmarking Survey

Survey Introduction and Objectives:

The objectives of this survey are (i) to establish a benchmark of the status quo of microcredentials in a country's higher education sector and (ii) to establish the existing statutory and regulatory environment with respect to microcredentials. This data is being collected to support the development of a national microcredential framework and approach to microcredential implementation within the education and training sector. In the sections below, the term 'microcredential is used', in doing so, please note the UNESCO microcredential definition, p.6:

Namely that a microcredential is:

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

In Mauritius, the following definition from the NCTVS paper states (September draft, p.11):

Microcredential – record of learning outcomes that a learner has acquired following a small volume of learning, assessed against transparent and clearly defined criteria. Learning experiences leading to microcredentials are designed to provide the learner with specific knowledge, skills and competences that meet social, personal, cultural and labour market needs. Microcredentials are owned by the learner, can be shared and are portable. They may be stand-alone or combined to form larger qualifications. They are underpinned by quality assurance to agreed standards.

Survey Glossary

Microcredential - A microcredential is defined as a short volume credit bearing learning opportunity.

Microcredential Stacking - A general understanding of stacking in education and training systems implies the accumulation of microcredentials leading to an award or credit transfer to allow for access or recognition of credit.

***Recognition of Prior Learning** - Represents the identification, assessment and formal recognition of prior learning and achievement of learning outcomes that has occurred in a range of settings, mostly as informal and non-formal learning. RPL includes:

- Recognition of qualifications achieved in Mauritius and parts of learning.
- Recognition of foreign qualifications and parts of learning.
- Validation of non-formal and informal learning. (*NCTVS September draft p.27)

Section 1. Respondent Data

Please provide the following details

a. Name _____
b. Organisation _____
c. Current Position _____

Section 2. National Contextual, Challenges and Opportunities

2.1 To what extent do you agree with the below statements regarding microcredentials in your country's higher educational context?

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Microcredentials contribute to our country's policy on life-long learning.	☐	☐	☐	☐	☐
Microcredentials enhance access to Higher Education	☐	☐	☐	☐	☐
Demand from industry and professional sectors has increased for microcredentials over the past five years	☐	☐	☐	☐	☐
Demand from learners has increased for microcredentials /or short courses over the past five years	☐	☐	☐	☐	☐
Microcredential learning can complement Masters' programmes	☐	☐	☐	☐	☐
Microcredential learning is an alternative to Masters' programmes	☐	☐	☐	☐	☐
Microcredential learning complement Bachelors' programmes	☐	☐	☐	☐	☐
Microcredential learning is an alternative to Bachelors' programmes	☐	☐	☐	☐	☐

Microcredential Challenges

2.2 To what extent do you believe the following are challenges in the implementation of microcredentials within your higher education context?

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Integrate microcredentials within the wider higher education system	☐	☐	☐	☐	☐
Recognise microcredentials within a national qualification framework	☐	☐	☐	☐	☐
Provide a framework to support stackability for access in the sector	☐	☐	☐	☐	☐
Provide a framework to enable stackability for credit in the sector	☐	☐	☐	☐	☐
Establish the status of microcredential learners (e.g., learner, student)	☐	☐	☐	☐	☐
Ensure the financial sustainability of microcredentials	☐	☐	☐	☐	☐
Ensure public funding for microcredentials	☐	☐	☐	☐	☐

Establish support structures for students	☐	☐	☐	☐	☐
Establish the statutory basis for microcredentials	☐	☐	☐	☐	☐
Other regulatory, oversight and compliance concerns	☐	☐	☐	☐	☐
Develop a sufficient technical infrastructure to support recognition	☐	☐	☐	☐	☐

Please provide an explanation for the three items you identified as most challenging.

_____

_____

_____

If there are other challenges, please provide an explanation.

_____

_____

Microcredential Opportunities

2.3 To what extent do you believe the following are opportunities in the implementation of microcredentials within your higher education context?

Microcredentials can:	**Strongly Agree**	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**
Increase equitable access to HE	☐	☐	☐	☐	☐
Enhance flexibility for Students	☐	☐	☐	☐	☐
Support lifelong learning	☐	☐	☐	☐	☐
Enhance employability for graduates	☐	☐	☐	☐	☐
Enhance employability for unemployed citizens	☐	☐	☐	☐	☐
Reduce skills gaps amongst the labour force	☐	☐	☐	☐	☐
Facilitate inter-institutional mobility within your higher education system	☐	☐	☐	☐	☐
Increase personalisation of the learning experience for learners	☐	☐	☐	☐	☐
Formalise recognition of work-based learning within the Higher Education System	☐	☐	☐	☐	☐

Please provide an explanation for three items you identified as the greatest opportunities.

_____

_____

_____
_____

If there are other opportunities, please provide an explanation:

_____
_____
_____

Section 3.

Microcredential Definition & Structure

3.1 Has the term microcredential been defined in your higher education system?

1. Yes (link to national definition)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain_____
4. I do not know ☐

3.2 Is microcredential development an objective of your higher education policy?

1. Yes (link to policy)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

3.3 Does specific guidance or regulations regarding microcredentials in the higher education system at national level exist?

1. Yes (link to guidance/regulations)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

System, Stakeholder and Approach

3.4 Is there a whole education and training system approach to microcredentials across all levels within your country's education and training system?

1. Yes (please explain)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

3.5 Who are the key national stakeholders (national/institutional/) in the regulation of microcredentials for higher education in your country? [Please detail all national stakeholders]

_____
_____

Quality Assurance, NFQ & Regulatory Environment

3.6 What are the key legislative instruments relating to microcredential quality assurance in the higher education sector? [Please provide relevant links]

_____

3.7 If MCs are covered by national quality assurance, through which mechanism are they? [Please select all relevant options]

- Institutional Audit ☐
- Programme Accreditation ☐
- Programme Validation ☐
- None ☐
- Other (please detail) _____

3.8 Who has the main responsibility for QA of microcredentials in your system? [Please select all relevant options]

- Quality Assurance Agency ☐
- Individual HEIs ☐
- National Ministry ☐
- None ☐
- Other (Please explain)_____

3.9 Under your country's current regulatory framework for higher education can credit-bearing (such as ECTS) microcredentials be issued by higher education institutions in your system? 1. Yes (please explain)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

3.10 If so, are these issued on the same legal /statutory basis as macro-credentials (e.g., bachelor or master's level qualifications)?
1. Yes (please explain)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

3.11 Under your country's current regulatory framework for higher education can non-credit-bearing short volume credentials be issued by higher education institutions in your system? 1. Yes (please explain)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

3.12 At a national level are there regulatory oversight structures in place for non-credit bearing short volume credentials issued by HEIs and other providers?
1. Yes (please explain)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

3.13 Do HEIs have nationally or institutionally defined certification models for microcredentials?

- National only ☐
- Institutional only ☐

- Both ☐
- Other (Please explain)_____

3.14 Does your NQF currently allow for credit-bearing offerings which are non-awards i.e. smaller credit bearing components such as microcredentials to be recognised?

1. Yes (please explain)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

3.15 Does your current NQF enable the alignment/placement/levelling of non-award microcredentials i.e., credit only microcredentials on the NQF?

1. Yes (please explain)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

3.16 Does your current NFQ enable the alignment/or placement/levelling of microcredential awards on the NFQ?

1. Yes (please explain)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

3.17 Does your current NQF enable the alignment/or placement of non-credit bearing short form learning on the NQF?

1. Yes (please explain)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

3.18 To facilitate NQF alignment of microcredentials to your country's existing NQF, have specific actions taken place at a national level?

1. Yes (please explain)
2. No, but planned (please explain)
3. No, not planned (please explain)
4. I do not know ☐

Recognition of Microcredentials

3.19 Does your country have guidelines for the recognition of prior learning?

1. Yes (please explain & please link)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

3.20 If yes, are small volume learning such as microcredentials covered under these guidelines?

1. Yes (please explain)_____
2. No, but planned (please explain)_____

3. No, not planned (please explain)_____

4. I do not know ☐

3.21 Can microcredentials currently issued by *recognised* higher education providers be recognised for access into other institutions higher education programmes?

1. Yes (please explain)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

3.22 Are there specific national regulations regarding the recognition of microcredentials for access at national level?

1. Yes (please explain & please link)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

3.23 Can microcredentials currently issued by recognised HEIs and other HE providers be recognised for credit or exemptions by HEIs?

1. Yes (please explain)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

3.24 Are there national guidelines for HEIs in place relating to the recognition of microcredentials for credit by another institutions (HEIs) in place?

1. Yes (please explain & please link)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

3.25 What policies or guidelines (if any) are followed for the recognition of non-award credits issued by a HEI providers? [Please attach or link to]

_____

3.26 Can MCs earned outside of your country be recognised for credit by HEIs in your system?

1. Yes (please explain)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

3.27 Do you apply national regulations to guide recognition of international microcredentials for access?

1. Yes (please explain)_____

2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

3.28 Has your system considered the UNESCO Global Convention on Recognition, which covers the recognition of partial awards earned outside a HE system?

1. Yes (please explain)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

Stacking of Microcredentials

3.29 Has the concept of stacking with respect to microcredentials been nationally defined and agreed in your higher education system?

1. Yes (please explain, link to document)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

3.30 Are microcredentials issued by HEIs and other recognised HE providers currently being stacked into a larger qualification within your system?

1. Yes (please explain)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

3.31 Can microcredentials issued by industry be stacked into a larger qualification within your system?

1. Yes (please explain)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

Funding and Microcredentials

3.32 Is national funding provided to HEIs to design and deliver for credit short-volume learning such as microcredentials?

1. Yes (please explain)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

3.33 Is there competitive national funding open to HEIs to design and deliver short form learning such as microcredentials?

1. Yes (please explain)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

3.34 Do HEIs have access to national funding to support institutional change (e.g. strengthening of technological infrastructure) to facilitate the implementation of short volume learning for credit? 1. Yes (please explain)_____
2. No, but planned (please explain)_____

3. No, not planned (please explain)_____

4. I do not know ☐

3.35 Are students of short-volume learning eligible for national student support?

1. Yes (please explain)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

National Microcredential Register

3.36 Does your country have a national, publicly accessible digitally available register of microcredentials?

1. Yes (please explain & provide link)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

3.37 Are HEIs and other recognised providers required to provide details of awards to a centralised national/state register of qualifications?

1. Yes (please explain)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

Microcredential Students and Learners

3.38 Is there an existing statutory definition of a student in your country's higher education system?

1. Yes (please explain and does it include learners of microcredentials)_____
2. No, but planned (please explain will it include microcredential learners)_____
3. No, not planned (please explain)_____
4. I do not know ☐

3.39 Is student data regarding short volume learning for credit currently collected at the national level?

1. Yes (please explain)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

3.40 Is student data regarding short volume learning for full awards currently collected at the national level?

1. Yes (please explain)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

3.41 Is student data regarding short volume learning for partial awards currently collected at the national level?

1. Yes (please explain)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

2) Institutional Higher Education Benchmarking Survey

Survey Introduction and Objectives:

The objectives of this survey are (i) to establish a benchmark of the status quo of strategic intent and institutional implementation of microcredentials in a country's higher education sector and (ii) to establish the opportunities and challenges faced by HEIs as they engage with implementation. This survey should be completed by an individual with a good and in-depth knowledge of the educational provision, institutional strategy and policy framework of the institution e.g. academic pro-vice-chancellor, registrar, vice-president for academic affairs. This data is being collected to support the development of a national microcredential framework and approach to microcredential implementation within the education and training sector. In the sections below, the term 'microcredential is used', in doing so, please note the UNESCO microcredential definition, p.6:

Namely that a microcredential is:

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

In Mauritius, the following definition taken out of the NCTVS paper (September draft, p.11):

Microcredential – record of learning outcomes that a learner has acquired following a small volume of learning, assessed against transparent and clearly defined criteria. Learning experiences leading to microcredentials are designed to provide the learner with specific knowledge, skills and competences that meet social, personal, cultural and labour market needs. Microcredentials are owned by the learner, can be shared and are portable. They may be stand-alone or combined to form larger qualifications. They are underpinned by quality assurance to agreed standards.

Survey Glossary

Microcredential - A microcredential is defined as a short volume credit bearing learning opportunity.
Microcredential Stacking - A general understanding of stacking in education and training systems implies the accumulation of microcredentials leading to an award or credit transfer to allow for access or recognition of credit.
Blended Mode – A mix of learning activities both in person and online for each individual student. **Hybrid Mode –** Teaching both remote and in person students concurrently.

Section 1 Respondent and Institutional Data

Respondent Data

Please provide the following details

a. Name_____
b. Unit_____
c. What is your primary role within the higher education institute?

Higher Educational Management (President, Rector, Dean) ☐ Educational
Professional (Head of Program, Professor, Teacher) ☐
Staff (Researcher, Quality Assurance, etc) ☐
Other (Please specify)_____

Institutional Data

Please provide the following information

- Institutional Name _____
- Institutional Name in English if different _____
- Country_____

Which of the following best describes the type of your HEI?

- Comprehensive university (multi-disciplinary university) ☐
- Specialised university (university with a specific focus (e.g., technology university) ☐
- Post-secondary institution (non-university (e.g. Higher institute, community college) ☐
- Other (please specify) _____

Which of the following best describes the nature of your HEI?

- Public, with large share (80% or more) of public funding ☐
- Public, but generates a significant amount of private funds (more than 20 %) ☐
- Private, not for profit ☐ • Private, for profit ☐
- Other (please specify) _____

Which of the following best describes the main orientation of your HEI?

- Primarily research-oriented ☐
- Both teaching and research oriented ☐
- Primarily teaching oriented ☐
- Other (please specify)_____

What is the highest level degree offered at your HEI?

- PhD/Doctorate level ☐
- Master's level ☐
- Bachelor's level* ☐
- Associate degree/diploma level* ☐
- Other (please specify)_____

What is the size of the student body (i.e., full-time equivalent*; undergraduate, graduate and postgraduate combined) at your HEI in the last academic year for which data is available?

- Less than 1,000 ☐
- Between 1,001 and 5,000 ☐
- Between 5,001 and 10,000 ☐ • Between 10,001 and 30,000 ☐
- More than 30,001 ☐

Please indicate the student number and the reference year for the data (e.g., student number/ reference year):

_____

**Full-time equivalent: a unit indicating the workload of a student whereby part-time student workloads are consolidated to calculate the equivalent number of full time students*

Section 2. Microcredential Context, Barriers and Opportunities

2.1 To what extent do you agree with the below statements regarding microcredentials from an institutional context?

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Microcredentials are currently part of the existing policy framework for HE	☐	☐	☐	☐	☐
Microcredentials enhance access to Higher Education	☐	☐	☐	☐	☐
Demand from learners has increased for microcredentials over the past year	☐	☐	☐	☐	☐
Demand from industry and societal sectors has increased for microcredentials over the past year	☐	☐	☐	☐	☐
Microcredential learning can complement Masters' programmes	☐	☐	☐	☐	☐
Microcredential learning is an alternative to Masters' programmes	☐	☐	☐	☐	☐
Microcredential learning complement Bachelors' programmes	☐	☐	☐	☐	☐
Microcredential learning is an alternative to Bachelors' programmes	☐	☐	☐	☐	☐

2.2 *To what extent do you believe the below are challenges in the implementation of microcredentials from an institutional context?*

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Integration within the wider formal accreditation system	☐	☐	☐	☐	☐
Recognition issues of microcredentials	☐	☐	☐	☐	☐
Quality Assurance processes commensurate to short volume offerings	☐	☐	☐	☐	☐
Financial sustainability of microcredentials for institutions	☐	☐	☐	☐	☐
Lack of public funding for microcredentials	☐	☐	☐	☐	☐
Legal basis for the issuance of microcredentials	☐	☐	☐	☐	☐
Institutional regulatory and or compliance Issues for microcredentials	☐	☐	☐	☐	☐
Limitations of current institutional IT systems for microcredentials	☐	☐	☐	☐	☐

Resistance from academic staff favouring traditional models of higher education	☐	☐	☐	☐	☐
Resistance from national authorities (for example Ministry, QA agencies, recognition authorities)	☐	☐	☐	☐	☐
Complexity to offer adequate quality assurance for microcredentials within institutions	☐	☐	☐	☐	☐
Lack of awareness amongst prospective learners of microcredentials	☐	☐	☐	☐	☐
Lack of awareness amongst employers of microcredentials	☐	☐	☐	☐	☐
The exclusion of the teaching, development and delivery of short form learning from workload policies	☐	☐	☐	☐	☐

Please explain 3 items you identified as most challenging.

_____

_____

Please list any other challenges not listed and explain.

_____

_____

2.3 ***To what extent do you believe the following are opportunities in the implementation of microcredentials within your context?***

	Strongly Agree	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**
Increased access to higher education	☐	☐	☐	☐	☐
Enhanced flexibility for students to gain qualifications	☐	☐	☐	☐	☐
Potential to deliver on lifelong learning objectives of HEIs	☐	☐	☐	☐	☐
Facilitate collaborative teaching with industry and social groups	☐	☐	☐	☐	☐
Microcredentials will help HEIs to respond with enhanced agility to the demands of the labour market and employability	☐	☐	☐	☐	☐
Microcredentials will support an increased alignment between higher education curricula and work-based learning	☐	☐	☐	☐	☐

Please explain the three items you consider most important.

_____

_____

Please detail other opportunities not listed and explain.

_____

_____

Section 3. Short Volume Learning Institutional Data

In this section questions relating to short volume provision in your institution focusing on microcredentials for credit are covered, some questions relating to short volume learning with no credit are also. Please note microcredentials as short volume learning for credit may include smaller awards, single or stand alone modules and other assessments of learning for credit following completion of a small volume of learning i.e. learning opportunities with a substantially reduced workload which can be measured in terms of hours or weeks. The term microcredential is used to cover all types of the above provision for credit in subsequent questions.

3.1 Is lifelong learning an explicit objective of your institutional strategy?

1. Yes (please explain)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

3.2 Does your institution deliver short-volume learning? Please select from the following:

- Yes for credit ☐
- Yes not for credit ☐
- Both ☐
- None ☐

3.3 Which of the following in the short-volume learning opportunities does your institution deliver? [please select all that are relevant]

- Modular/or partial study programmes ☐
- Open online learning courses e.g. MOOCs ☐
- Continuing professional development short courses that can be accumulated into a degree ☐
- Short-courses provided in collaboration with other higher education institutions ☐
- Courses provided in collaboration with other education institutions from other sectors (schools, vocational) ☐
- Courses provided in collaboration with for-profit providers ☐
- Other (please specify)_____

3.4 Please estimate the total number of short-volume learning opportunities delivered by your institution in the current academic year. Please select the most appropriate range

☐ <10, ☐ <20, ☐ <50 ☐,<100, ☐ 100+

3.5 Has your institution adopted a framework to define short-volume non credit bearing offerings

1. Yes (please explain)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

3.6 Is microcredential development an objective of your higher education institution?

1. Yes (please explain)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

3.7 Has your institution adopted a microcredential for credit definition?

1. Yes (please explain & provide link)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

3.8 Does your institution offer microcredentials for credit?

- Yes
  - If yes, please estimate the total number of microcredentials delivered by your institution in the current academic year? Please select the most appropriate range ☐ <10, ☐ <20, ☐ <50, ☐ <100, ☐ 100+
- No, but planned (please select the most relevant statement
  - My institution intends to deliver microcredentials imminently < 1 year ☐
  - My institution intends to deliver microcredentials within a 3 year period ☐
  - My institution intends to deliver microcredentials within a 5 year period ☐
- No, not planned (open question; please explain)_____
- I do not know _____

3.9 How would you describe the current demand for microcredentials at your institution? Please select the most relevant statement.

- There is growing demand for them to be delivered in face-to-face mode ☐
- There is growing demand for them in blended mode i.e. a mix of learning activities both in person and online conducted ☐
- There is a growing demand for them in a hybrid mode i.e. teaching both remote and in person participants at the same time ☐
- There is a growing demand for them in fully online mode ☐

3.10 Has your institution collaborated with industry, society or other stakeholders to co-develop microcredentials?

1. Yes (please explain & provide link)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

3.11 Has your institution collaborated with industry society or other stakeholders to co-deliver microcredentials?

1. Yes (please explain & provide link)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

3.12 Has your institution collaborated with industry society or other stakeholders to assess microcredentials?

1. Yes (please explain & provide link)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

Microcredential Quality Assurance

3.13 How are credit bearing microcredentials quality assured for your institution?

- Internally ☐ please explain_____
- Externally - ☐ please explain_____

- Both ☐ please explain_____
- None, but planned ☐_____
- None ☐
- Other - please explain

3.14 Does your institution level microcredentials to the NFQ?

- Yes ☐ (Please explain)_____
- No, but planned (Please explain) ☐_____
- No, not planned (Please explain) ☐_____
- Other (Please explain)_____

3.15 How does your institution certify the credit for microcredentials? (Please select all relevant options)

- Transcript of results ☐
- Digital Transcript of results ☐
- University approved certificate ☐
- University issued digital certificate ☐
- Other (please provide details)_____

3.16 Has your institution adjusted academic policies, standards and guidelines for microcredentials?

1. Yes (please explain & provide link)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

3.17 Does your institution have regulations regarding the recognition of microcredentials obtained in your institution for access?

1. Yes (please explain & provide link)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

3.18 Are there institutional guidelines relating to the recognition of microcredentials from other institutions in place?

1. Yes (please explain & provide link)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

3.19 Does your institution have an institutional policy for the recognition of prior learning?

1. Yes (please explain & provide link)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

3.20 What other policies does your institution have in place with respect to microcredentials (open-ended)? Please detail and provide relevant links.

_____

3.21 Has the concept of stacking to an award with respect to microcredentials been defined institutionally?

1. Yes (please explain & provide link)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

3.22 Has the concept of stacking other than to an award with respect to microcredentials been defined institutionally?

1. Yes (please explain & provide link)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

Microcredential Funding & Costs

3.23 Does your institution receive public funding for microcredentials?

- Yes, for all ☐
- Yes, for some ☐
- No ☐
- I do not know ☐

3.24 Has your institution applied for competitive funding for microcredentials?

- Yes, (please explain) ☐_____
- No but planned (please explain) ☐_____
- No ☐
- I do not know ☐

3.25 Does your institution charge full-fees to prospective students for microcredentials?

- Yes, for all ☐_____
- Yes, for some please explain ☐_____
- No - please explain ☐_____
- I do not know ☐_____

3.26 Does your institution implement schemes to reduce the fees of microcredentials for learners such as scholarships, subsidisation etc?

1. Yes (please explain)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

3.27 Is your institution investing in technical infrastructure of current IT systems or digital transformation to support microcredential implementation in your institution?

1. Yes (please explain)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

Microcredentials Students

3.28 What is the status of microcredential learner or students in your institution

- Full student status ☐ Please explain_____ ● Student status, but not the full status ☐ Please explain_____
- A status different from students ☐ Please explain_____
- All or several of the above, depending on the course ☐ Please explain_____
- Other ☐ Please explain_____

3.29 Has your institution established a bespoke student support service for non-academic services such as health, wellbeing, guidance counselling for microcredential learners

1. Yes (please explain)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

3.30 Has your institution implemented specific terms and conditions with respect to academic services for microcredential learners i.e. access to learning resources, library, virtual learning environment,

1. Yes (please explain)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

3.31 Has your institution implemented bounded service provision (not listed in previous questions) for microcredential learners in comparison to other student cohorts

1. Yes (please explain)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

Microcredential Teaching

3.32 Is the provision of microcredentials in your institution recognised as part of the agreed teaching workload of lecturers/teaching staff within your institution?

1. Yes (please explain)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

3.33 Has your institution provided focused support to promote the teaching of microcredentials within your institution? (Please answer A, B,C & D.)

A. Staff Development for MC Teaching

1. Yes (please explain)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

B. Technological support for MC teaching

1. Yes (please explain)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

C. Developments to virtual learning systems/learning management systems

1. Yes (please explain)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

D. Technological support for MC teaching

1. Yes (please explain)_____
2. No, but planned (please explain)_____
3. No, not planned (please explain)_____
4. I do not know ☐

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