

MICROCREDS Project

*“The Irish journey towards multi-campus,
flexible learning, upskilling & re-skilling micro-
credentials development”*

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MicroCreds Project Lead

University of Galway, Ireland



Rialtas na hÉireann
Government of Ireland



MICRO
CREDS



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UNIVERSITY OF GALWAY

City of Culture & Arts

Ireland's West Coast



Over 19,000 students
4,000 international students
from 110 countries
2,600 staff members.
110,000 Alumni Worldwide.

Con Mór

© darachphotography



Walking in the
footsteps with
Enterprise.....



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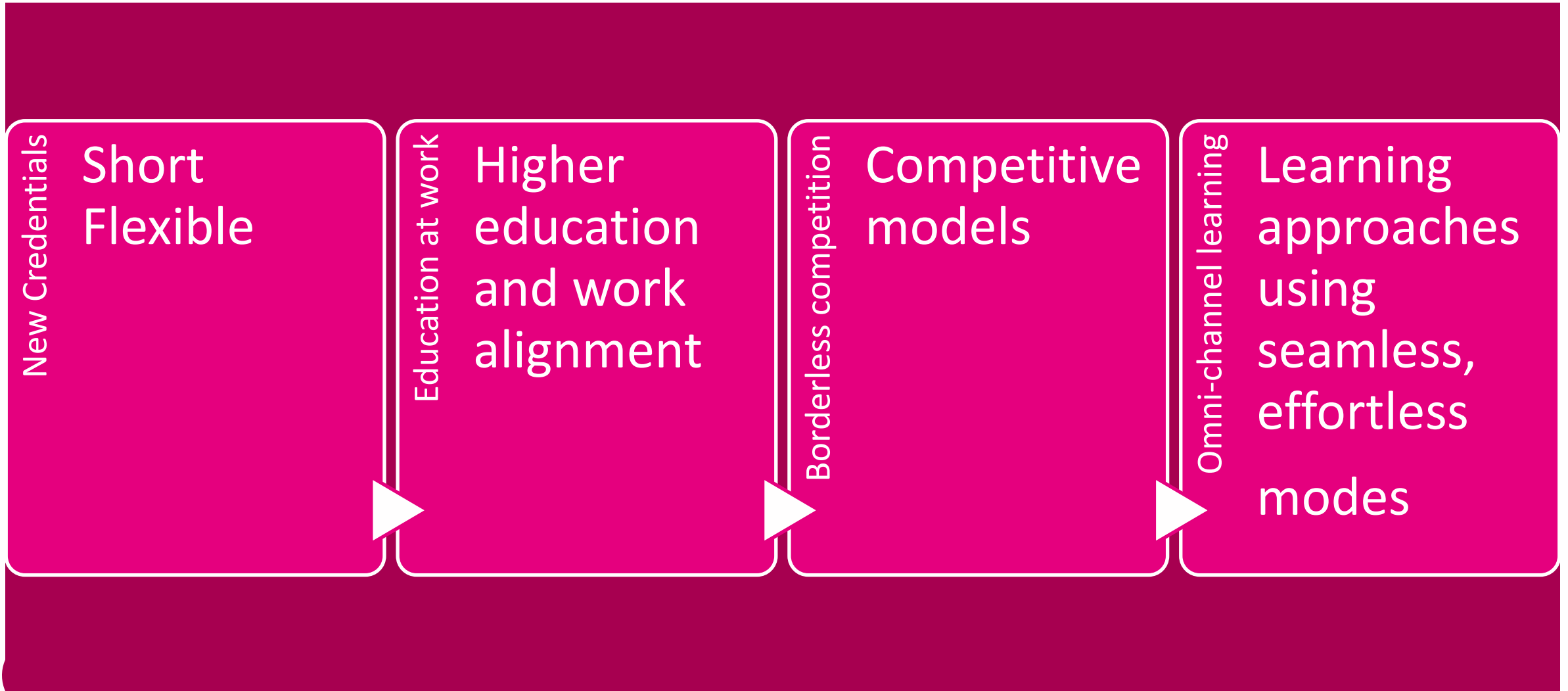
Foghlaim & Forbairt
Ghairmiúil d'Aosaigh
Adult Learning &
Professional Development

Outline

EU and Micro-credentials
Ireland – The MicroCreds Project
Galway – Our journey so far.....



Future of Higher Education – Strategic Shifts





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Micro-credentials Development - EU Context

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A group of people in a meeting, with a woman in the center smiling and clapping. The image is overlaid with a semi-transparent pink filter.

**Estimated that 50% of employees
worldwide will need reskilling by 2025**

World Economic Forum, The Future of Jobs Report 2020



EU Wide

Policy drivers

Council Recommendation on a European approach to micro-credentials for lifelong learning and employability adopted 16 June 2022

- **Common Definition**
- **11 Standard Elements**
- **10 Principles**



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Policy context:

Council of the European Union

<https://data.consilium.europa.eu/doc/document/ST-9237-2022-INIT/en/pdf>

Microbol Framework

[Microcredentials linked to the Bologna Key Commitments \(Microbol\) - EQAR](#)

<https://data.consilium.europa.eu/doc/document/ST-9237-2022-INIT/en/pdf>



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European Context



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COUNCIL
OF EUROPE

CONSEIL
DE L'EUROPE

Individual learning
accounts

Micro-credentials,

Learning for
environmental
sustainability,

European Strategy
for Universities.

<https://esu-online.org/?policy=european-union-higher-education-package-a-first-step-on-a-long-journey>



Microbol – Common Framework for Micro-credentials in the EHEA



Micro-credentials linked to the Bologna Key Commitments

Common Framework for Micro-credentials in the EHEA

Definition

A micro-credential is a certified small volume of learning

Purpose

Micro-credentials are designed to provide the learner with specific knowledge, skills, and competences that respond to societal, personal, cultural or labour market needs

Use

- Credentials are owned by the learner, are portable and may be combined into larger credentials or qualifications
- Micro-credentials can be earned before, during and after higher education degree programmes and as a new way to certify competences acquired earlier in life

Constitutive elements

Information on the learner

Information on the provider

Information on the micro-credential

Information on the learning experience

Information on the QF level

Form of participation

Access requirements

Link to Bologna key commitments

Quality Assurance

- Providers are responsible to assure the quality of the micro-credentials they offer through their internal QA processes
- External QA should focus on the institutional approach to micro-credentials
- A register of trustworthy providers could support the acceptance and recognition of micro-credentials

Recognition

- Micro-credentials can be assessed in line with the Lisbon Recognition Convention principles, provided that all constitutive elements are properly displayed
- A micro-credential can be recognized on basis of a proof of the learning outcomes achieved by a learner, according to transparent requirements and after assessment

Qualifications Framework & ECTS

- Micro-credentials should be included in the NQF, whenever possible
- The learning outcomes approach can be useful when developing micro-credentials
- ECTS, as a recognisable system, can support the development and description of micro-credentials



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Irish Context

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Micro-credentials
Project

IUA led



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7 Universities



**Online Discovery
Portal**



**Suite of stackable,
portable courses**



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Rialtas na hÉireann
Government of Ireland

The National Training Fund (NTF) was established by the **National Training Fund Act, 2000**

- dedicated fund to support raising the skills of those in employment, and those preparing for employment.

- provides funding for research on existing and likely future skills of the economy.

(0.1% levy on employers)



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Higher Education System Performance Framework 2018 – 2020

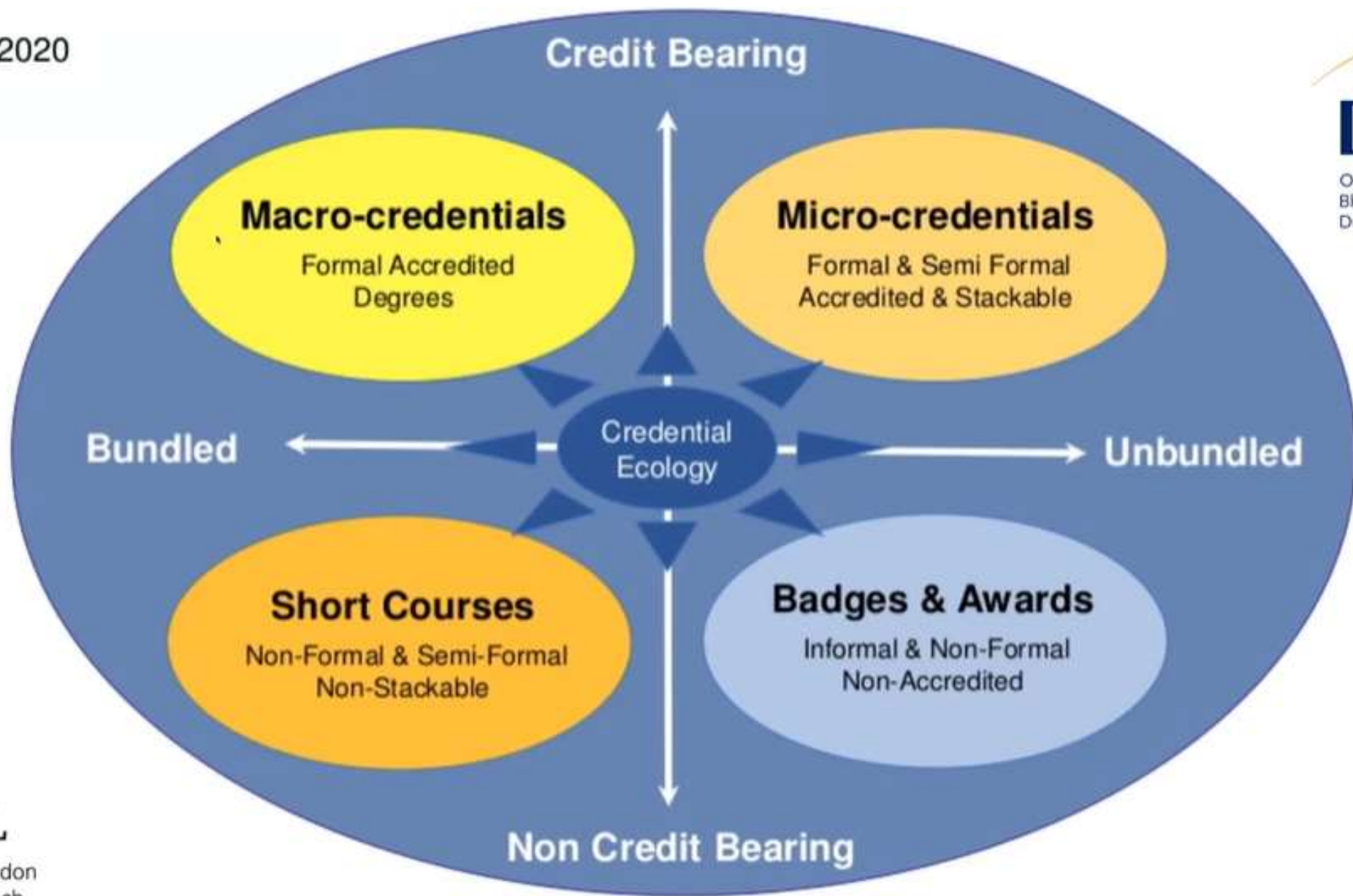
- ✓ Strong Talent Pipeline
- ✓ Engagement with enterprise & community
- ✓ Research, development & innovation
- ✓ Equality of opportunity
- ✓ Quality & academic excellence
- ✓ Governance, leadership & operational excellence

Key System Objectives for the Higher Education System 2018 -2020

- | | |
|--------------------|---|
| Objective 1 | Providing a strong talent pipeline combining knowledge, skills & employability which responds effectively to the needs of our enterprise, public service and community sectors, both nationally and regionally, and maintains Irish leadership in Europe for skill availability |
| Objective 2 | Creating rich opportunities for national and international engagement which enhances the learning environment and delivers a strong bridge to enterprise and the wider community |
| Objective 3 | Excellent research, development and innovation that has relevance, growing engagement with external partners and impact for the economy and society and strengthens our standing to become an Innovation Leader in Europe. |
| Objective 4 | Significantly improves the equality of opportunity through Education and Training and recruits a student body that reflects the diversity and social mix of Ireland's population |
| Objective 5 | Demonstrates consistent improvement in the quality of the learning environment with a close eye to international best practice through a strong focus on quality & academic excellence |
| Objective 6 | Demonstrates consistent improvement in governance, leadership and operational excellence. |

Department of Education
16th Jan 2020

University
ofGalway.ie



MICROCREDS Partner Universities





4 Strands of MICROCREDS Project

STRAND 1: **National Framework** for micro-credentials

STRAND 2: **MicroCreds Innovate** sustainable model of data informed university – enterprise collaboration

STRAND 3: **Discovery Platform** linked to a digital credentialing solution (Europass early adopter)

STRAND 4: Agilely developed & flexibly delivered **suite of micro-credentials** across partner universities



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Strand 1 National Framework



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Definition

"A micro-credential is the record of the learning outcomes that a learner has acquired following a small volume of learning. These learning outcomes have been assessed against transparent and clearly defined standards".



What are they?



Record of the learning outcomes that a learner has acquired following a small volume of learning.



Learning outcomes assessed against transparent and clearly defined standards.



Designed to provide the learner with specific knowledge, skills and competences that respond to societal, personal, cultural or labour market needs.



Owned by the learner, can be shared and are portable.



Standalone or combined into larger credentials.



Underpinned by quality assurance.

11 standard elements



1	Identification of Learner	7	Notional workload to achieve LO (in ECTS where possible)
2	Title of Micro-Credential	8	Level and Cycle of the Learning Experience
3	Country/Region of the Issuer	9	Type of Assessment
4	Awarding Body	10	Form of Participation in the Learning Activity
5	Date of Issuing	11	Type of Quality Assurance
6	Learning Outcomes		



10 Principles for Design and Issuance

1	Quality
2	Transparency
3	Relevance
4	Valid Assessment
5	Learning Pathways
6	Recognition
7	Portable
8	Learner Centered
9	Authentic
10	Information & Guidance



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Strand 2 MicroCreds Innovate Enterprise Engagement

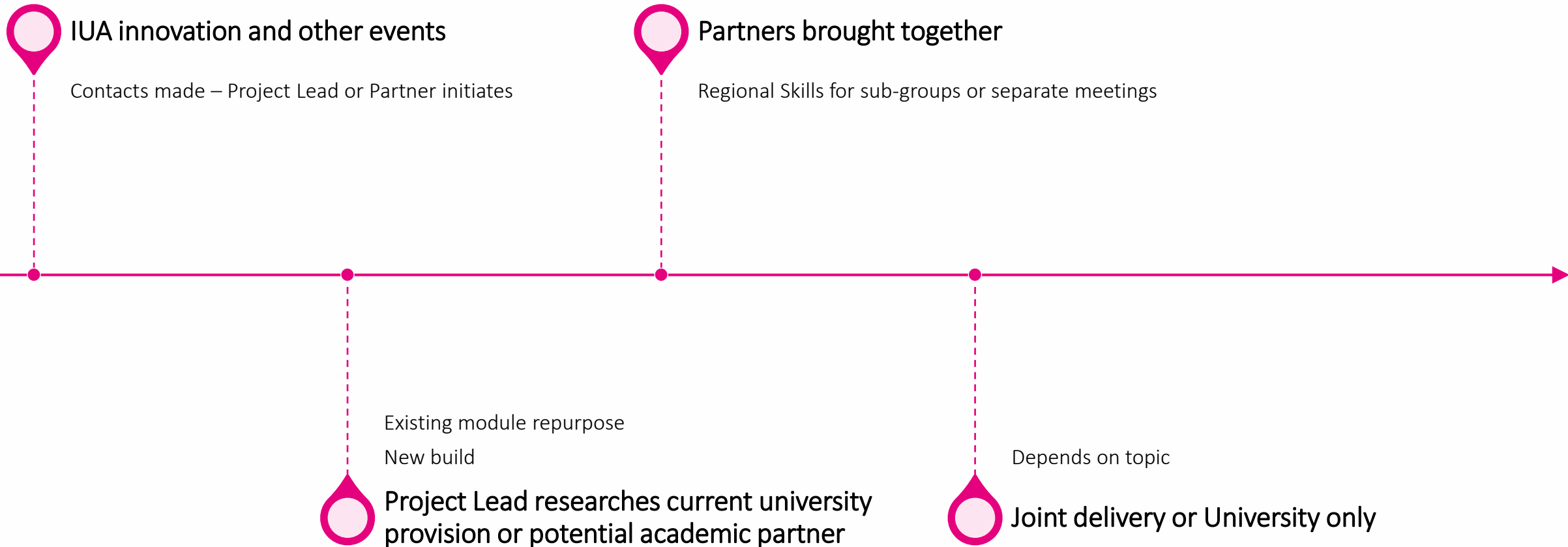
MICROCREDS Innovate

- Zero Carbon Innovate Event
- Digital Transformation Innovate Event
- SME Productivity Innovate Event
- SME Focus Innovate Event
- Food & Drinks Industry Innovate Event
- Bio/Pharma/Chem Innovate Event
- Transversal Skills Innovate Event





Enterprise Engagement



FUTURE SKILLS NEEDS

The Global Outlook

The **Top 10 cross-cutting skills** which the World Economic Forum has identified as rising to prominence to 2025 across all sectors.

TOP 10 SKILLS FOR 2025

1. Analytical thinking and innovation	6. Leadership and social influence
2. Active learning and learning strategies	7. Technology use, monitoring and control
3. Complex problem solving	8. Technology design and programming
4. Critical thinking and analysis	9. Resilience, stress tolerance and flexibility
5. Creativity, originality and initiative	10. Reasoning, problem solving and ideation



Skills					
Data Analytics					
Digital Marketing					
Market Research					
People Management					
Communication					
Human Resource Management					
Lean Practices and Processes					
Marketing					
Sales					
Supply Chain Management					

Shifting sands – Navigating the patterns emerging in the Irish Labour Market post-COVID -19

<https://www.solas.ie/f/70398/x/376c4b5fb4/shifting-sands.pdf>

Finance

In the Finance job family, top growing skills include interpersonal and human skills, including Creativity, Verbal/Oral Communication, Mentoring, and being a Self-Starter. This contrasts with the top demanded skills, almost all of which focus on job-specific tasks and knowledge. Interestingly, this marks a shift towards placing greater value on soft skills in the traditionally content-focused Finance job family.

Fig 8. Top Growing Finance Skills



Fig 9. Top Demanded Finance skills



Hospitality, Food, and Tourism

Finally, looking at occupations within the Hospitality, Food, and Tourism job family, we see a growing emphasis on cleaning and occupational health and safety, a trend that is present in other countries as well after the emergence of the pandemic.

Fig 12. Top Growing Hospitality, Food, and Tourism Skills



Fig 13. Top Demanded Hospitality, Food, and Tourism skills



Manufacturing and Production

Within the Manufacturing and Production job family, occupations have become more technical in nature, with growing demand for Computer-aided Manufacturing and Computer Numerical Control (CNC). Quality Assurance and Control is the most demanded skill, with over 30% of postings in Manufacturing and Production requesting this specific skill.

Fig 6. Top Growing Manufacturing and Production Skills



Fig 7. Top Demanded Manufacturing and Production skills



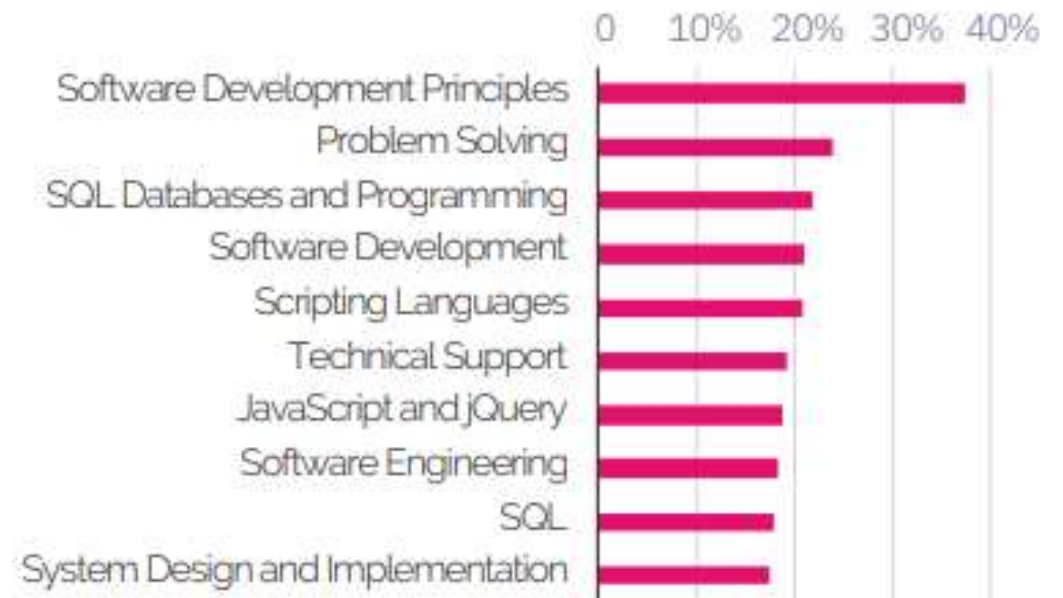
Information Technology

Within Information Technology jobs, there is an increased demand for data analysis and associated skills such as Data Techniques, Machine Learning, and PostgreSQL. Most of the top demanded skills are related to Software Development, as that occupation tends to dominate the overall IT job family.

Fig 10. Top Growing Information Technology Skills



Fig 11. Top Demanded Information Technology skills





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Ireland's National Skills Strategy 2025

IRELAND'S NATIONAL SKILLS STRATEGY 2025



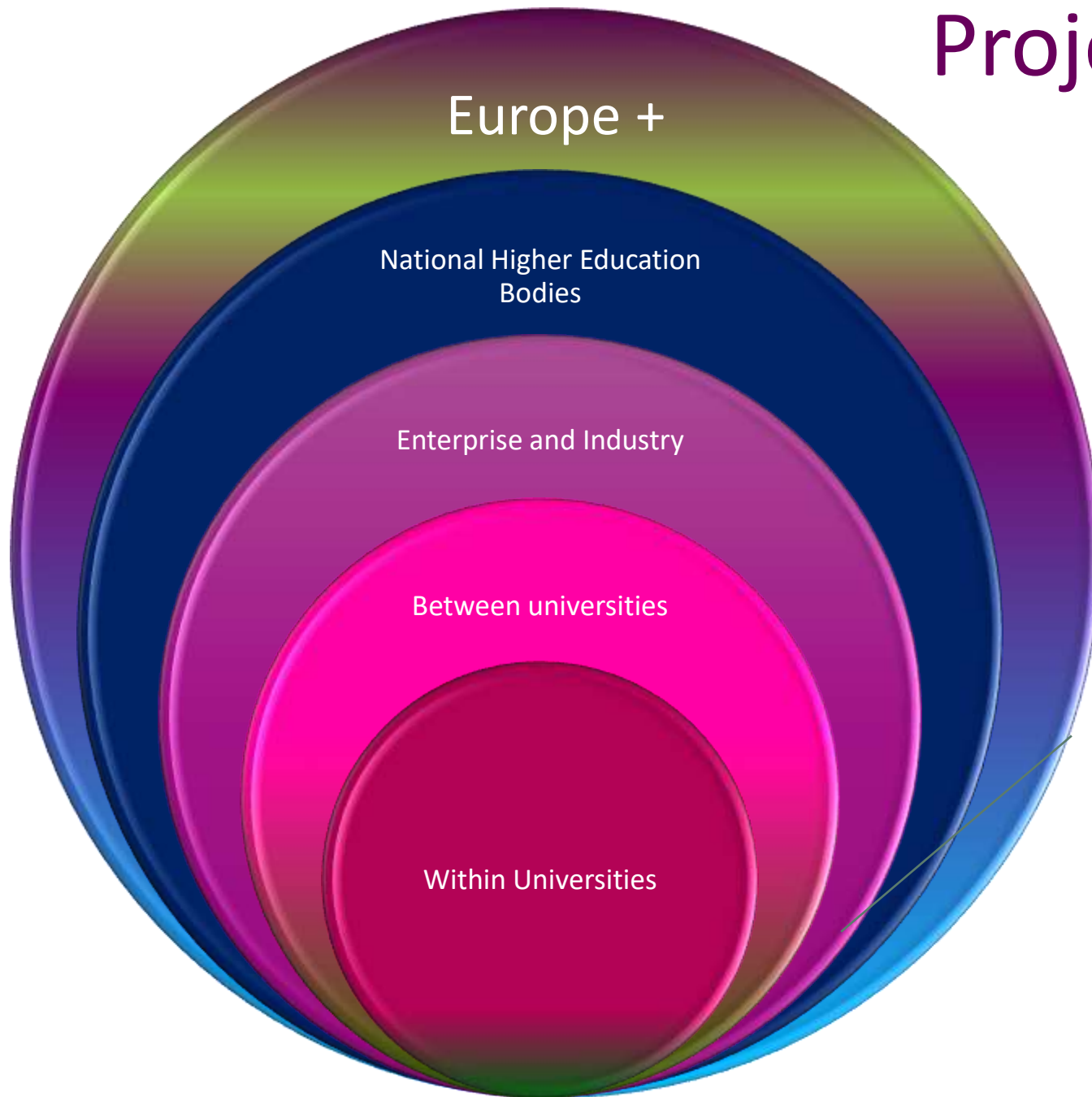
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Benefits of Micro-Credentials for Enterprise

- ✓ Close skills gaps and improve enterprise productivity
- ✓ Meet emerging enterprise needs and trends
- ✓ Aid career development and progression for employees
- ✓ Expand existing training/professional development programmes
- ✓ Enhance staff retention and improve recruitment
- ✓ Address pandemic related job impacts or other socio-economic shifts



Project Collaboration



- Other providers
- National skills architecture
- Quality and qualifications agencies

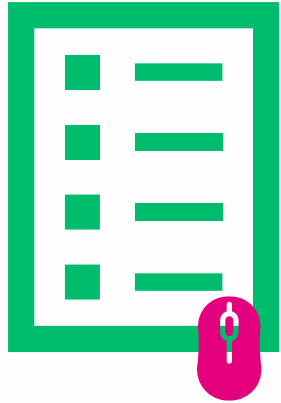
- Registry and Quality Assurance
- Academics – Colleges and Schools
- Teaching and Learning
- Research Centres
- ICT Systems



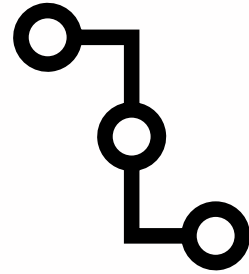
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Strand 3 Discovery Platform

Discovery Platform



**Access to all
Micro-
credentials**



**Link learner to
individual
university to
apply**



**Data link
with
Europass**



**Allow for
future
universities
to add on**

**MICRO
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Platform Microcreds.ie



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iua
IRISH
UNIVERSITIES
ASSOCIATION

MICRO
CREDS



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Accreditation

Proposed Awards Framework

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Level 7 – 9
ECT's 5-30
Potential Special
Purpose Award:
(Certificate or Diploma)



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Micro-credentials at University of Galway

University
ofGalway.ie



University of Galway Project Overview

MicroCred concept development – Change management & embedding concept

Developing MicroCred module layout/ structure & templates

Enterprise/ Industry engagement

Academic linking and onboarding

Marketing and promotion of MicroCreds

Targets

0-5 MC's
2020/2021

6-16 MC's
2022/2024

17-30 MC's
2024/ 2025



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Adult Learning And Professional
Development

College Of Arts, Social Sciences, &
Celtic Studies

College Of Business, Public Policy
And Law

College Of Medicine, Nursing &
Health Sciences

College Of Science And
Engineering



Colleges & Schools

University Of Galway Has Earned
International Recognition As A
Research-Led University With A
Commitment To Top Quality Teaching
Across A Range Of Key Areas Of
Expertise.

COLLEGES AND SCHOOLS



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University Level Activity



Student Digital Pathways Project



University market research



Aligning MicroCreds with strategic goals of University's Colleges



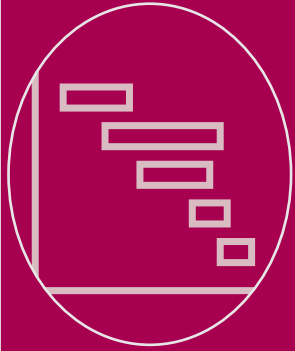
Change management



Project Level Activity



65 M.C's
developed/
repurposed



Always more
discussion/
development



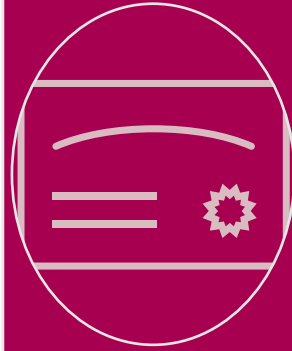
Links with
external
stakeholders
ongoing



Website &
marketing
plan
developed &
Podcast series
published



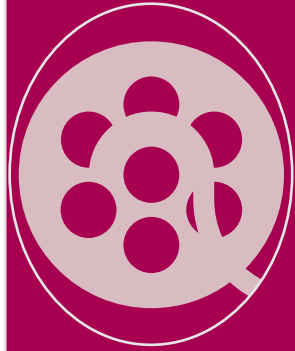
IUA discovery
portal project
MicroCreds.ie



Proposed ECT/
Award
Framework
for University
of Galway



Student
Digital
Pathway work
continues for
MicroCreds



Multi-media
content
MEDIA KIT for
academics
developed





What makes a module a *Micro-credential*?

- Self-contained
- Adult learning theory at core
- Flexible delivery
- Interactive
- Technology Enhanced
- Branded for MicroCreds
- Continuous Assessment
- Supportive documentation provided within module
- Enterprise co-created or skills needs informed

Student recruitment
system adapting

Curriculum management
system updated

65+ MicroCred
modules
repurposed or
developed new

Journey so far....

Stacking
options
ongoing

Fees structure
explored

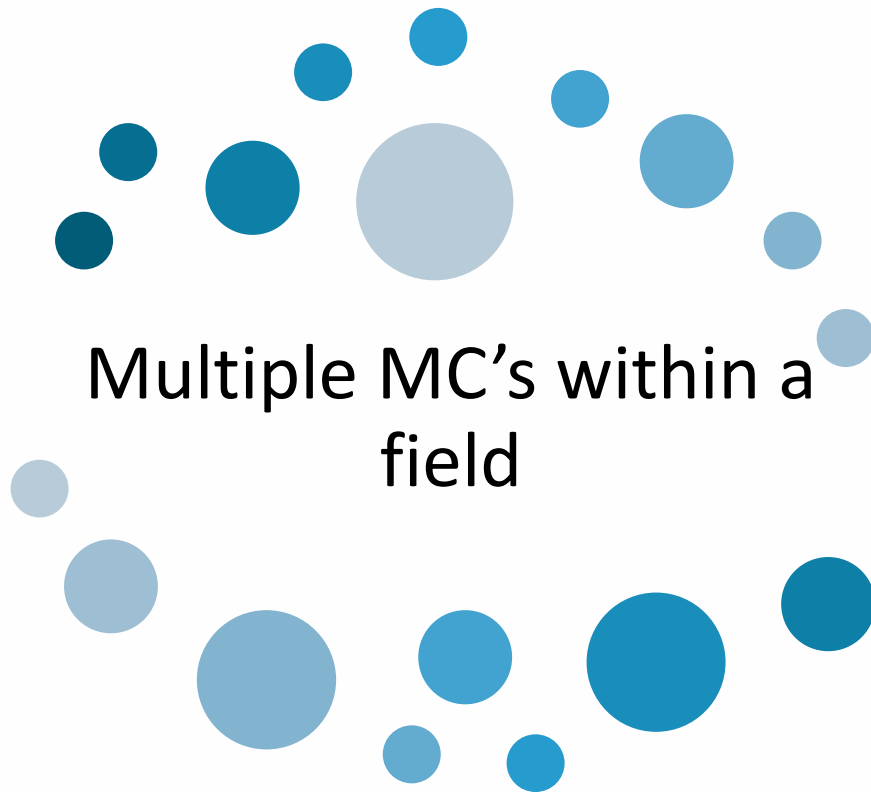


Ongoing

The
destination!



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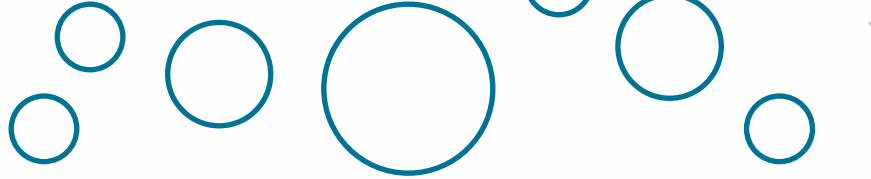
Pre-determined
by University of
Galway

Yet to be
defined

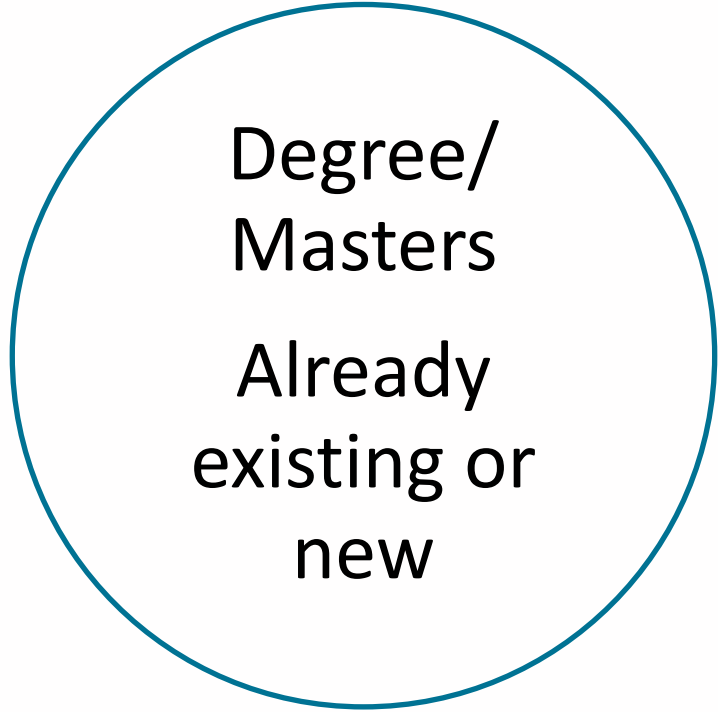
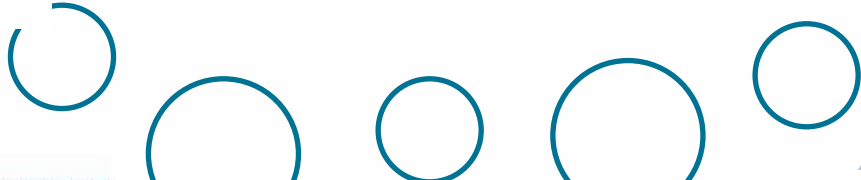


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Adult Learning &
Professional Development



Multiple MC's within a field



Pre-determined by Multiple Universities

Subject area specific



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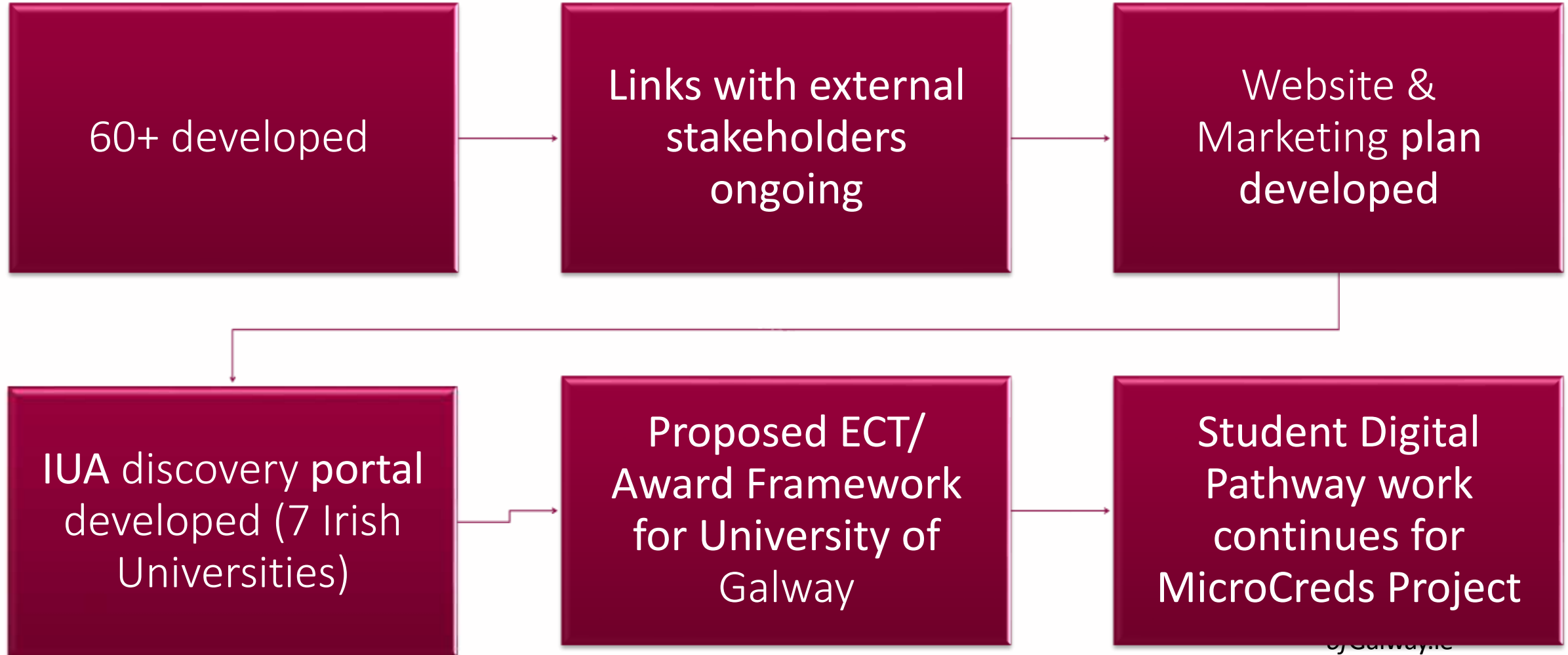
Multi-media resource

- ✓ *Video production and editing, animation,*
- ✓ *Audio and podcasting,*
- ✓ *E-glass,*
- ✓ *Design and layout, quizzes, interactivities,*
- ✓ *Customised slide decks, templates,*
- ✓ *Bespoke infographics charts, diagrams for presentations and documents*





Progress so far.....



Micro-credential Topic Areas

Lawyering, Technology and Innovation
Law and Analytics
Ethics and Law for AI

Law

Programming in Python
Data Analysis and Visualisation
Digital Competences
AI related modules
Designing and Building for online training

**Computer
Science,
AI, Digital**

Responsible Management and Leadership
Sustainability
Finance for Non-financial Managers
Regulatory Compliance
Product Development

**Business/
Startups**

Psychology of Consumer Behaviour
Scientific Arts
Languages (Irish and German)
Consent
Design your life
Education focused
Health Promotion related

**Humanities,
Languages,
Health**

Green Labs Principles and Practice
Sustainability Measurement -LCA
Environmental Management
Energy Management
Passive House Designer
Green Hydrogen

**Green /
Sustainability**

Human Anatomy and Physiology
Honey Bee Health - Apiculture
Modern Methods of Construction
Automation
Machine Design

**Science,
Engineering &
Construction**



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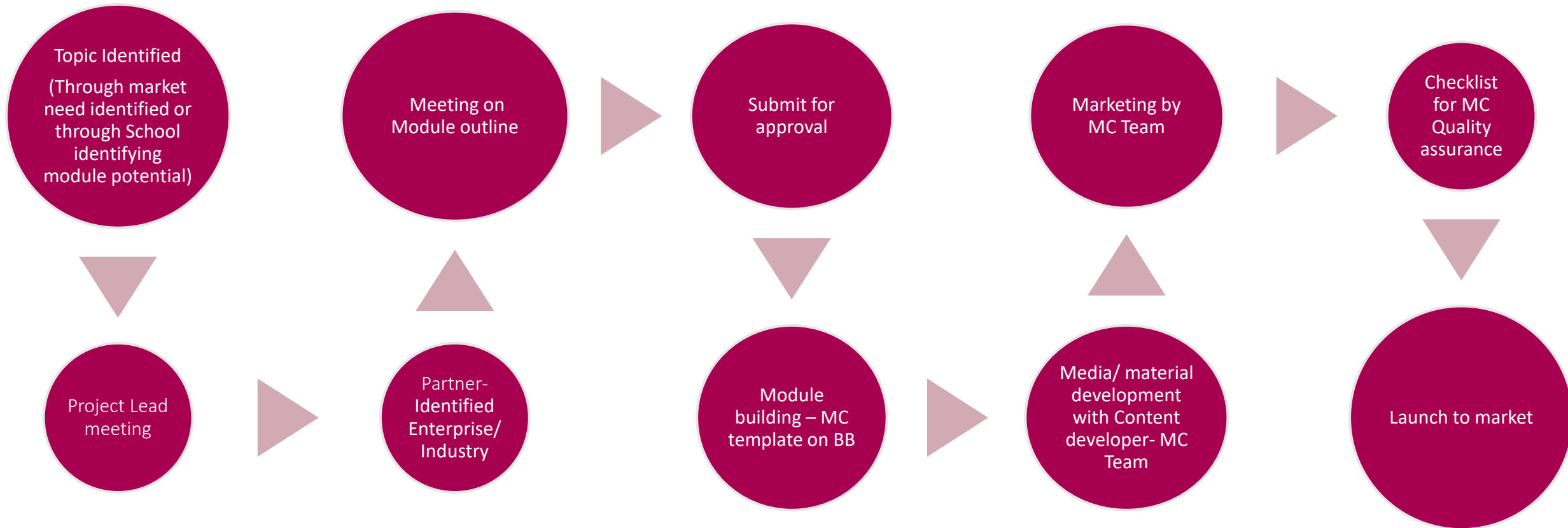
Process of Developing Micro-credentials

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MicroCred Module Development Process



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[Podcast](#)