



# European MOOC Consortium Labour Market

## *Handbook*

*D1.3 Framework for collaboration within the knowledge alliance*

*D2.2 Handbook and guidelines for exchange of MOOCs between  
platforms/universities*

*D3.3 Updated framework for MOOCs for the EU Labour Market*

*D4.3 Framework of collaboration, update of the handbook*

*D5.4 Updated framework for collaboration in the knowledge alliance*

CC BY SA 4.0

## Document details

Document title	Handbook
WP (if applicable)	WP1, WP2, WP3, WP4
Document version	0.3
Lead author	Piet Henderikx
Other authors	Francesco Iniesto
Dissemination level	
Confidentiality Status	<i>Public / Restricted / <b>Private</b></i>
Date	20 March 2022
CC License	

## Versioning and Contribution History

Revision	Date	Author	Organisation	Description
1st	8 July 2020	Matt Jenner	Futurelearn	Completions from D.1 and D1.2
All partner meetings and seminars		All partners	All partners	Discussing and validating
2nd	23 March 2022	Piet Henderikx	EADTU	Final draft that can be continuously updated after the project time

Co-funded by the  
Erasmus+ Programme  
of the European Union



The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein

## Table of contents

<b>The European MOOC Consortium and the Knowledge Alliance</b> .....	8
<b>The European MOOC consortium</b> .....	8
<b>The EMC-LM Knowledge Alliance ‘MOOCs for the European Labour Market’</b> .....	8
<b>Handbook for the EMC-LM Knowledge Alliance with a framework for collaboration</b> .....	9
<b>MOOCs and MOOC pathways</b> .....	9
<b>Quality and trust</b> .....	10
<b>MOOCs for the labour market</b> .....	10
<b>MOOC platforms as interfaces for the labour market</b> .....	11
<b>Aligning qualifications in EQF/NQFs</b> .....	12
<b>The Common Microcredential Framework (CMF)</b> .....	12
<b>CMF microcredentials pathways and mobility windows</b> .....	13
<b>The integration of CMF in a framework for continuing education in EHEA</b> .....	14
<b>Microcredentials in the EHEA</b> .....	14
<b>The impact of the European Commission's proposal to the Council of Ministers on Micro-credentials</b> .....	16
<b>The Bologna Process</b> .....	16
<b>The proposal of the European Commission</b> .....	17
<b>Impact of the proposal on the CMF framework for micro-credentials</b> .....	18
<b>Microlearning units</b> .....	19
<b>Example of an actual qualification structure: Futurelearn</b> .....	20
<b>MOOC learners</b> .....	21
<b>Expectations of learners</b> .....	21
<b>Groups of learners</b> .....	22
<b>What does the Knowledge Alliance deliver to learners?</b> .....	23
<b>Example</b> .....	23
<b>MOOC learners in FUN MOOC</b> .....	23
<b>MOOC learners in EduOpen</b> .....	24
<b>Impact mapping of the roles of MOOC platforms, universities, labour market actors, governments and the EU in the Knowledge Alliance</b> .....	25
<b>Objective</b> .....	25
<b>Who are the actors?</b> .....	25
<b>How can actors deliver a contribution to achieve the objectives of the Knowledge Alliance?</b> .....	26
<b>MOOC platforms</b> .....	28
<b>The role of MOOC platforms in the Knowledge Alliance</b> .....	28
<b>What does the Knowledge Alliance deliver to MOOC platforms to reach the objective?</b> .....	28

<b>Examples: MOOC platforms and collaboration with the labour market</b> .....	30
Futurelearn.....	30
FUN MOOC .....	31
Miriadax.....	32
EduOpen.....	33
OpenupEd.....	34
AI Campus, Stifterverband, Berlin .....	35
<b>Universities</b> .....	36
<b>The role of universities in the Knowledge Alliance</b> .....	36
<b>What does the Knowledge Alliance deliver to universities to reach the objective?</b> .....	36
<b>Example</b> .....	37
Dublin City University and Futurelearn .....	37
EduOpen and the university network .....	39
University of Côte d’Azur , ESTIA and FUN MOOC .....	40
The Open University.....	41
FUN pedagogical support and services to universities.....	42
<b>Businesses and business sectors</b> .....	44
<b>The role of businesses and business sectors in the Knowledge Alliance</b> .....	44
<b>What does the Knowledge Alliance deliver to businesses and business sectors to reach the objective?</b> .....	44
<b>Examples</b> .....	45
Company spaces Miriadax.....	45
Microcredentials in collaboration with companies: ingredients of success (OUUK) .....	45
OCAPIAT: collaboration FUN MOOC with the French food sector.....	47
<b>Public employment services</b> .....	49
<b>The role of public employment services in the Knowledge Alliance</b> .....	49
<b>What does the Knowledge Alliance deliver to public employment services to reach the objective?</b> .....	49
<b>Examples</b> .....	50
VDAB (Belgium, Flanders).....	50
Le Forem (Belgium, Wallonia) .....	51
ANPAL (Italy).....	53
<b>The joint design and development of a joint microcredential course and a microlearning unit</b> .....	54
<b>Guidelines</b> .....	55
<b>Example</b> .....	56
Futurelearn pedagogies.....	56

<b>Assessment and recognition of MOOC courses and MOOC pathways</b> .....	58
<b>Fulfil CMF microcredential definition</b> .....	58
<b>Microcredential</b> .....	58
<b>Course</b> .....	58
<b>Study time &amp; workload</b> .....	58
<b>Assessment and recognition</b> .....	59
<b>ID verification</b> .....	59
<b>Assessment</b> .....	59
<b>Accreditation and recognition</b> .....	60
<b>Quality Assurance framework</b> .....	60
<b>Framework for assessment and recognition of microcredentials</b> .....	60
<b>Review “Fulfil CMF microcredential definition”</b> .....	61
<b>Review “Assessment and recognition”</b> .....	62
<b>Definition of terms</b> .....	63
<b>Example</b> .....	64
The Knowledge Alliance Compendium on Good practices in e-Assessment and Recognition .....	64
<b>The continuous assessment of the needs on the labour market</b> .....	66
<b>Survey tool</b> .....	66
<b>Marketing strategy and plan</b> .....	66
<b>The MOOCs4U Portal</b> .....	68
<b>Policy recommendations from the LMC-LM Knowledge Alliance (14122021)</b> .....	70
<b>Objectives</b> .....	70
<b>Recommendations at the level of MOOC platforms</b> .....	70
<b>Recommendations at the level of universities</b> .....	71
<b>Recommendations at the level of sectors and enterprises</b> .....	72
<b>Recommendations at the level of public employment services</b> .....	72
<b>Recommendations at the government level</b> .....	73
<b>Recommendations at the European level</b> .....	73
<b>Foundations for further collaboration in the Knowledge Alliance</b> .....	74
Contribution of the MOOC platforms .....	74
Contribution of universities.....	74
Contribution of the sectoral organisations and companies:.....	75
Contribution of the public employment agencies:.....	75
<b>Annex 1: the European stakeholder survey for assessing needs and attitudes regarding MOOCs and microcredentials for the labour market</b> .....	77
<b>ANNEX 2: Guidelines for awarding mechanical qualifications</b> .....	83

**Annex 3: Impact mapping Knowledge Alliance partners and stakeholders..... 86**

# The European MOOC Consortium and the Knowledge Alliance

## The European MOOC consortium

The European MOOC Consortium (EMC) was founded in 2017 and consists of the main European MOOC platforms: Futurelearn (OUUK); France Université Numérique, FUN-MOOC ; Miriadax (Telefonica, Spain), EduOpen (Italy) and the OpenupEd portal (EADTU). In 2022, the Consortium expanded to iMooX (Austria), NAU (Portugal) and AI Campus (Stifterverband Forum Hochschuldigitalisierung, Germany). They participated already in the activities of the Knowledge Alliance. The secretariat is at EADTU. The platforms in the European MOOC Consortium have served approximately 25 million students. More than 400 universities and expert partners such as the British Library, who offer some 4000 MOOCs, are connected to these platforms.

## The EMC-LM Knowledge Alliance ‘MOOCs for the European Labour Market’

In 2019, the Knowledge Alliance “MOOCs for the European Labor Market (EMC-LM)” was launched to establish structural cooperation between partners in the field of MOOCs and MOOC-based programmes.

Partners in the Knowledge Alliance to address the learning needs of the European labor market are:

- MOOC platforms and portal: EduOpen (Italy); France Université Numérique (FUN-MOOCs) (France); Futurelearn (UK); Miriadax (SP); OpenupEd (EADTU)
- Universities: the Open University, the University of Foggia and universities lined to the respective platforms
- public employment services: ANPAL (Italy), VDAB (Flanders)
- sectoral organisations: Ocapiat (FR) embracing the French food sector with a diversity of SMEs and foodtech companies.

Within the Knowledge Alliance, collaboration and synergies between all partners are organized in order to make the provisions of credited MOOCs and MOOC-based programmes as effective as possible for educating the labour market.

The ambition of the knowledge alliance is:

- Offer new online learning opportunities and MOOCs at scale to the labour market in cooperation with companies and employment services developing new provisions for employees and employers;
- Develop a structural approach to the European labour market involving main labour market stakeholders and organisations, i.e. individual learners, public employment services, businesses and business sectors, training agencies, elevating national offerings to a European level and generating win-win-win situations;
- Support regional, governmental and the EU policies for employment, innovation and entrepreneurship.



## Handbook for the EMC-LM Knowledge Alliance with a framework for collaboration

A Handbook for the Knowledge Alliance with a framework for collaboration is developed:

- Aligning concepts on continuing education (CE), continuing professional development (CPD) and vocational training CVT), and MOOCs
- Mapping the roles of EMC partners, universities, employment services, companies/sectoral organisations and possible collaborations between partners in the field of MOOCs for the EU labour market, based on the conclusions and recommendations of two series of seminars, the PLA, three annual conventions and the Policy Forum., and on studies on assessment and recognition and a marketing strategy.

As a result the handbook is focusing on different aspects to make the knowledge alliance work:

- A description of the European MOOC consortium and the EMC-LM knowledge alliance;
- The concept of MOOCs and MOOC pathways for the labor market;
- MOOC platforms as educational interfaces for the labor market (platforms, universities, labour market organizations);
- Aligning qualifications for continuing education in EQF/NQFs (CMF and a wider qualification structure);
- Impact mapping on the roles of the MOOC platforms, universities, labour market organizations and governments in the provision of MOOCs and microcredentials for the European workforce;
- MOOC learner archetypes;
- The (co-)design and (co-)development of MOOC and MOOC micro-credentials for the labour market;
- The continuous assessment of the needs on the labor market;
- Strategies for an annual marketing plan;
- Policy recommendations for MOOC platforms, universities, sectors, and enterprises, public employment services, governments and the EU.

### MOOCs and MOOC pathways

#### *MOOCs*

A MOOC is a massive open online course aimed at unlimited participation, promoted by an open and free access over the internet for anyone who is interested. Many MOOCs offer interactive units with user forums or social media discussions, as well as instant feedback on quizzes and assignments.

MOOCs are a recent development in distance learning that was first introduced in 2008 and emerged as a popular way of learning in 2012. MOOCs are easily accessible, flexible, scalable and of high quality.

While MOOCs are free, in most cases platforms use a freemium business model, e.g. for students taking a test for a credit or when a MOOC is part of a series of online courses (MOOC tracks, MOOC-based programs)

#### *MOOC pathways*

Since about five years, MOOC platforms and universities have started to offer MOOC-based programmes or specific MOOC pathways, in some cases for groups of learners in companies, regions or other identities. In the latter case, also specific MOOCs for these entities or SPOCs can be developed. Such MOOC pathways deliver a qualification, such as a MicroMaster, nanodegree, microdegree, etc..

MOOC-based programmes or pathways are often aimed at continuing education or professional development.

In many universities, these qualifications are stackable to broader certified programmes or even to degree programmes. In other cases, they are standalone courses in their own right, which can be recognized by procedures for prior learning.

As practices are very diffuse, harmonization is needed in a consistent qualification framework for continuing education and professional development within EQF.

## Quality and trust

For the development of MOOCs, the MOOC platforms collaborate with accredited universities and sometimes with leading research and innovation institutes. Platforms have strict requirements, as MOOCs are not just online courses. They are designed for independent learning by large numbers of students, often in a social learning context and with bite-sized learning units and learning assignments. The design of the course is often supported by the MOOC platform. Quality control points ensure that quality is achieved in each of the design steps. In many cases, a formal assessment/exam organized with the universities can be taken by students for which ECTS credits can be awarded. This means that the universities monitor academic quality.

More and more MOOCs are also professionally oriented and are developed in collaboration with external stakeholders such as companies, sectors or professional associations. These stakeholders can endorse the MOOC and even award a specific professional credit on top of the academic credit, often useful for professional accreditation over the course of a career

## MOOCs for the labour market

The Knowledge Alliance is focusing on enhancing the quality and the strength of the European workforce in terms of employability, innovation and entrepreneurship.

As they are suitable for up-skilling and re-skilling at the individual level, MOOCs can address identified competency shortages. They can serve specific needs in businesses/business sectors or regional and local needs (e.g. in smart specialisation regions or regions with low employment).

Many MOOC offerings which are relevant to the labour market are already available for free and to everybody on the European MOOC platforms as can be seen on the respective MOOC platforms.

Recently, MOOC platforms have started specific collaborations with sectoral organisations and companies, offering MOOCs for the labour market, e.g. by “white label platforms” with agreed

MOOC-based programmes for a specific sector or region, dedicated “company spaces” or “group subscriptions” for education and training of staff.

These collaborations are possibly funded by companies, sectoral funds, regions, sometimes using personal learning accounts, which are made available to individual learners for business sectors in some countries (e.g. France, the Netherlands). the European Commission has published a proposal 4 recommendation to the Council of Ministers on individual learning accounts (<https://eur-lex.europa.eu/legal-content/CS/TXT/?uri=CELEX:52021DC0773>)

## MOOC platforms as interfaces for the labour market

These developments show that MOOC platforms are not just providers of MOOCs, but they increasingly deliver services as an interface between universities and the labour market (companies, public employment services, competence centres, knowledge and innovation communities, professional networks).

In some sectors (e.g. the food sector in France, served by OCAPIAT in collaboration with FUN-MOOC, platforms contribute to building a complete training system in which MOOCs and MOOC-based programmes play an important role, by which companies and SMEs can be reached with a high quality, flexibility and accessibility to online (and blended) education and training programmes.

## Aligning qualifications in EQF/NQFs

It becomes increasingly important that credits and qualifications awarded after completion of a MOOC or a MOOC-based programme are recognized in academia (as they are provided by a university) and employers or professional associations (as they are contributing to re-skilling and up-skilling the workforce).

In this recognition, two layers are to be considered:

- Microcredential qualifications after a MOOC should be unambiguously defined across platforms;
- Microcredentials should be positioned in the offerings for (online) continuing higher education (EQF, the European Higher Education Area).

### The Common Microcredential Framework (CMF)

The European MOOC consortium (EMC) has taken steps for the recognition of MOOC and MOOC pathways by universities and by employers and for making MOOC microcredentials stackable to broader learning programmes and also degree programmes. In a lifelong learning context, this creates the possibility for modular learning routes. Therefore, all platforms in the European MOOC Consortium have developed a standardized Common Microcredential Framework (CMF) for use by MOOC platforms and by universities organizing going to knowing education and professional development.

The CMF framework gives MOOCs and MOOC-based programmes academic and professional value. It delivers a micro-credential as a new qualification with some core standards: a workload of 4-6 ECTS (a volume of learning of 100 to 150 hours), linked to the European Qualification Framework (level 5 to 8) and guaranteeing ESG quality criteria as applied by the platforms and the universities. In a transcript, the micro-credential is documented in terms of which learning outcomes competences are achieved by someone who completes the course successfully.

According to the long experience of the partners in the Knowledge Alliance, the workload of 100 to 150 hours (or 8 to 10 hours of study over 10 or 15 weeks) is substantial enough for the assignment of a specific qualification and feasible for learners in a context of continuing education. The learner can valorise this CMF micro-credential qualification as a recognized award when embarking on further learning paths, as a proof of competence for employment, as an accreditation award endorsed by a professional association and for personal career planning.

In principle, a CMF qualification is intended to be stackable with a broader higher education programme(s) awarding a certificate or an academic degree (bachelor, master). However, MOOCs and MOOC pathways are often developed at the request of a private or public sector (e.g. in IT, climate change, teacher education, CPD for nursing or healthcare) and too large or specific to fit structurally into such stackable programmes. In this case, a learner can still benefit from a procedure for the recognition of prior learning, at least for partial recognition in a higher education programme.

The CMF framework is also an answer to the rapidly growing online practice in MOOCs in Europe and world-wide with a major variation in credentials awarded: micromasters, nanodegrees, mastertracks and many others. This inconsistency leads to confusion. The EMC will harmonize, valorize and recognize MOOC-based qualifications.

In the course of the project, EMC universities have started developing microcredential programmes in line with CMF, awarding a standardized microcredential qualification after each coherent 4-6 ECTS learning programme. Longer programmes can consist of a series of CMF awards, leading to a further certification, for example a microdegree, a graduate certificate or a degree (bachelor, master). This will contribute to harmonizing qualifications in continuing education and CEPD.

### CMF microcredentials pathways and mobility windows

As a side-effect, online microcredential programmes will also increase the opportunities for universities to strengthen their mobility schemes. They can serve perfectly as a mobility window offering a coherent set of online courses for international exchange. In several European Universities alliances, virtual mobility will be developed and online microcredentials might offer an attractive solution for this, even more in the post-Corona-era..

CMF-microcredentials are for formal learning, but we should also pay attention to the recognition of non-formal and informal learning, which is covered by the ECTS Guide. This takes into account the recognition of prior qualifications and prior experiential learning and has been further elaborated and adopted by many countries and universities.



Fig 1 Criteria of the Common Microcredential Framework (EMC Consortium)

## The integration of CMF in a framework for continuing education in EHEA

Currently, the European and National Qualifications Frameworks (EQF/NQFs) position the different levels of higher education qualifications, broadly corresponding to learning outcomes/competences achieved after a bachelor's, master's or doctoral programme.

They still do not allow for micro-credentials for continuing education and continuing professional development aligned with these EQF levels. Given the increasing importance of lifelong learning and the up-skilling and re-skilling of a highly qualified workforce, the integration of qualifications for formal continuing education and continuing professional development in the EQF/NQFs is necessary (the European Higher Education Area, Bologna process).

Such framework should allow that:

- learners find recognition for even small steps in continuing education / professional development by awarding a qualification after successful completion;
- learners are triggered to start learning trajectories throughout their lives towards a next milestone;
- maximum of flexibility is offered in combining learning with the workplace;
- qualifications are standardized and therefore endorsed by academia and employers

### Microcredentials in the EHEA

With regard to MOOCs and MOOC pathways, successive levels of provision are possible, in accordance with EHEA tools such as the EQF/NQFs, ECTS, DS and ESG. Table 1 is based on the dimensions volume of learning (ECTS) and competence level (EQF):

- a MOOC is delivered as an online course of less than 1 ECTS, awarded with a badge of attendance. The MOOC can eventually serve as a *learning unit* in a credited course or as a *micro-learning unit* in corporate training programmes;
- a MOOC is delivered as a *credited online course* after a valid and reliable assessment;
- a MOOC is delivered as an online course or in a coherent pathway of 4-6 ECTS awarded with a *CMF qualification*. This qualification can be stacked up to a broader programme;
- A set of MOOCs is delivered as a micro-degree programme of 20-40 ECTS and awarded with an *undergraduate or postgraduate certificate*. The certificate can also be awarded after a sequence of modular CMF qualifications;
- A set of MOOCs is delivered as a programme with a bachelor or master degree. This qualification can eventually be awarded after a modular sequence of CMF or micro-degree qualifications.

In current practice at European universities and even within universities, these awards are given different names at all the levels mentioned. This adds to the complexity of recognizing continuing education and professional development in the EHEA.

From learning unit to degree programme	Volume (ECTS)	Level	Award
learning unit/micro-learning	Less than 1 ECTS	undergraduate EQF level 5, 6 postgraduate EQF level 7,8	a badge/proof of attendance (can be part of a course or stackable to a course)
a single course a micro-credential course a single MOOC with credits	Number of ECTS credits awarded to the course	undergraduate EQF level 5, 6 postgraduate EQF level 7,8	ECTS course credits (stackable to a programme)
<b>CMF- micro-credential programme MOOC pathway</b>	<b>4-6 ECTS</b>	undergraduate EQF level 5, 6 postgraduate EQF level 7,8	<b>CMF micro-credential gradeo (stackable in a micro-credential programme or a degree programme)</b>
amicro-credential programme micro-degree programme MOOC-based programme	<b>20-40 ECTS</b>	undergraduate EQF level 5, 6 postgraduate EQF level 7,8	<b>under/postgraduate certificate microdegree microtitulo specialisation certificate expert certificate certified professional programme focus diploma MicroMaster nanodegree diploma .... (stackable to a degree)</b>

degree programme (bachelor/master/doctorate)	180 ECTS	undergraduate	short cycle graduate
	60-90-120 ECTS	EQF level 5, 6	bachelor/master degree
	240 (180) ECTS	postgraduate EQF level 7,8	doctorate degree

Table 1: Spectrum of (stackable) provisions in (online) continuing education (In bold = microcredential programmes)

## The impact of the European Commission's proposal to the Council of Ministers on Micro-credentials

### The Bologna Process

Ministers for Education of the European Higher Education Area committed in the Rome Communiqué of the inter-governmental Bologna process to help their higher education institutions to:

- (i) diversify their learning offering; and
- (ii) innovate in educational content and modes of delivery.

In addition to full degree programmes, many higher education institutions offer or plan to offer smaller units of learning. These smaller units will enable learners to develop or update their cultural, professional, and transversal skills and competences at various stages in their lives.

Cooperation within the Bologna Process will explore how and to what extent these smaller, flexible units of learning- including those leading to micro-credentials - can be defined, developed, implemented and recognised by using common tools.

The Microbol project brought together the members of the Bologna Process to explore how micro-credentials fit into the framework of the European Higher Education Area (EHEA) and linked micro-credentials to the main commitments of the Bologna Process. In their definition, a micro-credential is “designed to provide the learner with specific knowledge/skills/competences that meet societal, personal, cultural or employability needs. Micro-credentials are subject to a quality assurance assessment in accordance with the ESG (Standards and Guidelines for Quality Assurance in the European Higher Education Area). They have an explicit reference to defined learning outcomes at a specific EQF-EHEA/NQF (European/National Qualifications Framework in the European Higher Education Area) level that will be achieved, the workload, expressed in ECTS, and to the assessment methods and criteria used”. So, the Bologna tools are used. See: Cirland, E. & Loukkola, T., 2020) *Micredentials linked to the Bologna key commitments*. EUA. Retrieved from: <https://eua.eu/resources/publications/940:micro-credentials-linked-to-the-bologna-key-commitments.html>



## The proposal of the European Commission

The development of micro-credentials in a lifelong learning perspective is now a top priority of the European Commission, as expressed in Digital Education Action Plan. In the meantime, the European Commission has launched a proposal for a Recommendation to the Council of Ministers on Micro-credentials (10/12/2021):

[Proposal for a COUNCIL RECOMMENDATION on a European approach to micro-credentials for lifelong learning and employability.](#)

[Brussels, 10.12.2021 COM\(2021\) 770 final, 2021/0402 \(NLE\)](#)

### *Definition of the micro-credentials by the European Commission*

Micro-credential' means 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. Courses leading to micro-credentials are designed to provide the learner with specific knowledge, skills and competences that respond to societal, personal, cultural or labour market needs. Micro-credentials are owned by the learner, can be shared and are portable. They may be standalone or combined into larger credentials. They are underpinned by quality assurance following agreed standards in the relevant sector or area of activity.

In the preparatory documents of the European Commission's Micro-credentials in Higher Education Consultation Group, the offer of microcredentials can vary in learning volume from 1 ECTS to any volume smaller than a degree at the same EQF level.

### *Elements in the European Commission's definition*

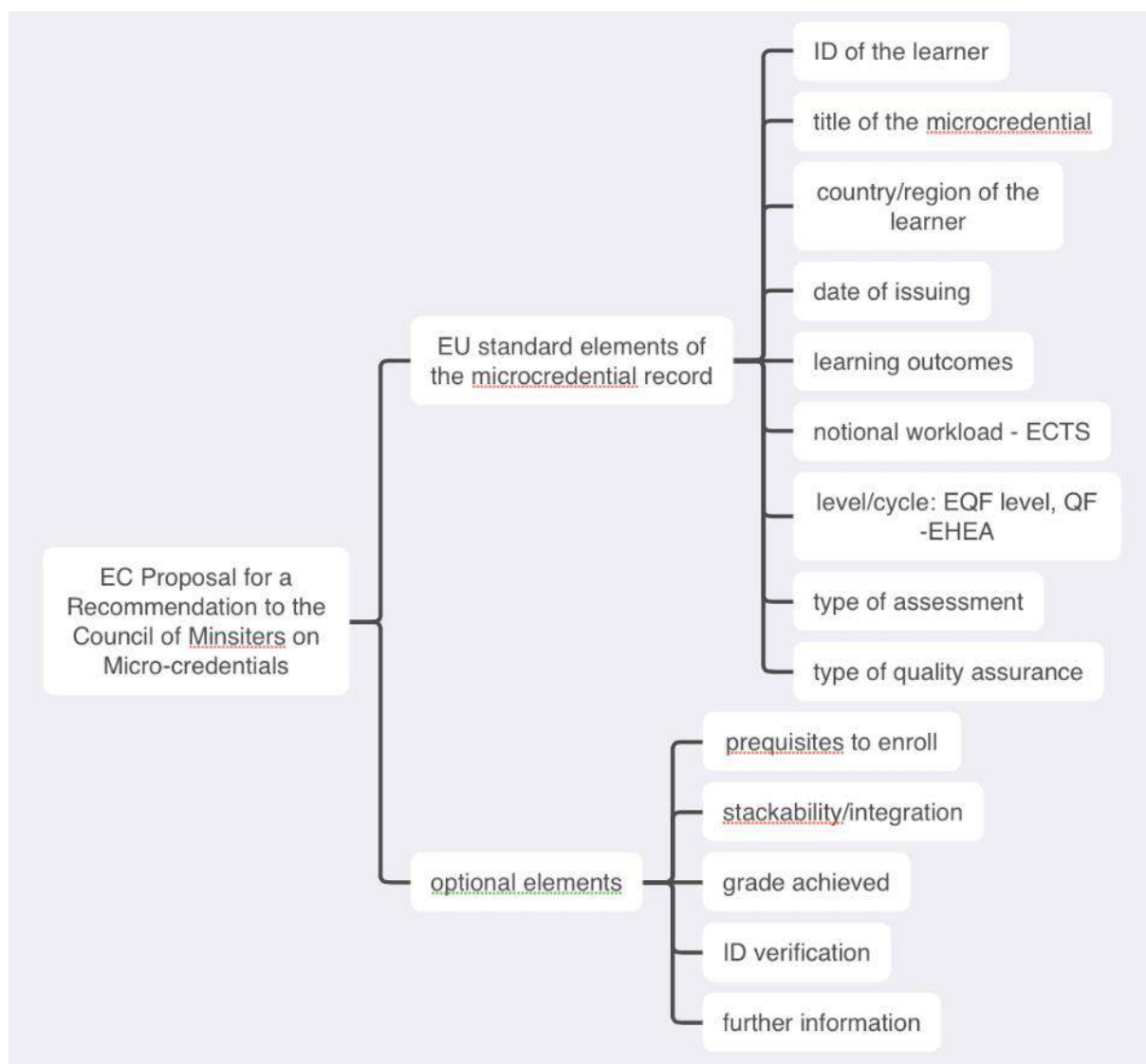


Fig.2 Elements of the Proposal of the European Commission to the Council of Ministers on Microcredentials

### Planning

Member States should implement this Recommendation as soon as possible and submit a plan by (insert date 12 months after adoption by Council) setting out the corresponding measures to be taken at national level to support the achievement of the objectives of the Recommendation by 2025.

### Impact of the proposal on the CMF framework for micro-credentials

The European Commission's proposal confirms the EMC options taken when designing the Common Microcredential Framework features. All elements were already adopted in CMF. In its considerations, the European Commission adds the important dimension of credential portability as foreseen in Europass.

In the further discussion of the Knowledge Alliance on MOOC-based micro-credentials and qualifications to be awarded, the Commission's proposal provides a clear framework and guidelines.

In this discussion, the Knowledge Alliance will work together to develop a qualifications structure for continuing education and professional development in dialogue with national governments and other stakeholders, and the EU.

## Microlearning units

In addition to micro-credentials, which cover complex competences in a specific area, there is a demand for corporate training through very short learning experiences or microlearning units, suitable for workplace training. For example, these microlearning units range from a learning volume of 8 hours to less than 30 hours/1 ECTS (see table 1) and are usually designed in close collaboration with an employer or professional association. These microlearning units provide a bite-sized learning experience for a very specific knowledge or skill. The focus can also be on 21<sup>st</sup> Century Skills development on the workplace.

These microlearning units can be designed as a MOOC.

These microlearning units do not have the same functionality as online micro-credential courses and programmes as they are too short to address the more complex competencies required in the labor market to be addressed by a micro-credential. Sometimes they are used as preparation for a more complex online micro-credential course or programme, or as an addition to a micro-credential course or programme afterwards.

Because there is a need for flexibility for use in the workplace or anywhere, microlearning units must be suitable for use on mobile devices.

There are at least two alternative avenues for the development of microlearning units: breaking down microlearning units out of existing courses or course units, or (co-)creating a new microlearning unit in its own right

### *Breaking down microlearning units out of existing courses or course units*

As a first alternative for developing microlearning units, it may be appropriate to split an existing course or course component into modular, stand-alone microlearning units suitable for workplace learning. Here, existing course content is used as it is broken down in several small parts for on-the-job training in corporate training environments.

The advantage of this approach is that these microlearning units share the credibility of an existing microcredential, which possibly is (part of) a credited course or programme.

The pitfall of using existing course material is that it is not entirely suitable for learning in a corporate environment. When taking it to a corporate environment, at least some adaptations are necessary.

### *Creating a microlearning unit in its own right*

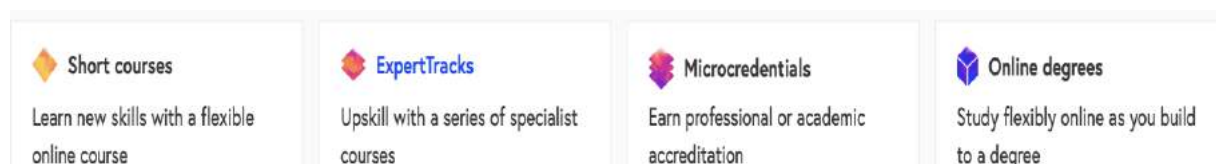
The second alternative is to create a new microlearning unit in its own right, possibly in co-creation with employers, a sector or a professional association. The co-design of such microlearning units needs the underpins the professional approval or recognition of the unit. Universities in this case provide content, based on research and innovation. During the process it can be decided that a microlearning unit is stackable up to a micro-credential course, possibly in combination with other units.

In this second alternative approach, it may be more difficult to gain recognition for such microlearning units in an academic setting, if they possibly will not be integrated in a course. A procedure for the recognition of prior learning may be necessary to gain access to academic courses.

#### *Give an award to micro-learning units*

Micro-learning learning units are usually awarded with a badge of attendance, participation or completion. They are too short to deliver ECTS points.

### Example of an actual qualification structure: Futurelearn



*Fig. 3 Qualifications awarded by Futurelearn*

A brief overview of Futurelearn's full coverage of products:

- Short course: 4-24 learning hours, start learning for free, pay for ongoing access, test and certificate, price from free upgrade ;
- ExpertTrack: 40-50 learning hours, monthly subscription, 7-day free trial, pay for access to content after 7 days, assessments and certificates, 39 £ per month;
- Professional certificate: 20-150 learning hours, paid access, endorsed or certified by at least one industry partner or professional body, price from 99 to 500 £
- Microcredential: developed within MCF, 100-150 learning hours, paid access, credit awarded and endorsed by at least one industry partner, prices from 450 to 1000 £.

## MOOC learners

Learners are the ultimate customers for EMC platforms. The platforms in EMC have served about 25 million students.

For MOOC platforms it is important to know the learner and then to find/develop the appropriate course for him.

### Expectations of learners

Futurelearn has categorized MOOC learners in four archetypes: they “work and study” learners, the “personal life” learners, and the “leisure” learners.

Written the category of “work and study learners”, they found three subcategories<sup>1</sup>:

#### 1. **Advancers**

Advancers are on their chosen career path. They’re ambitious and self-motivated to do better, progress and not stagnate. They are likely to be employed full-time and a greater proportion are from the 26-35 age group. The highest representation of Advancers was found in Asia (36%), Europe (30%) and Africa (18%). Advancers made up the highest purchasers of upgrades on the FutureLearn Platform

*What do Advancers want from FutureLearn?*

- Work -related courses with clear outcomes;
- Up to date information and on trend topics;
- Pathways to specialize further;
- Certificates and accreditation;

#### 2. **Explorers**

Explorers are evaluating their options and want to inform their decisions about what to do next. They might be looking to change career, find a better life balance or decide where to start their working lives. They were more likely to come from the 26-35 age group and like Advancers, the highest representation of Explorers was found in Asia (38%), Europe (34%) and Africa (15%). Explorers had the lowest purchase rate of work and study related groups, but still higher than personal life and leisure groups.

*What do Explorers want from FutureLearn?*

- Engaging courses, with cutting-edge, work-related topics;
- Ways to build confidence in themselves, their knowledge and abilities;
- Reassurance about the viability of their chosen path;
- Pathways to more advanced courses;

#### 3. **Preparers**

---

<sup>1</sup> Niam O’Grady (2018), *Who are our learners: Part 2: the “work and study” archetypes*, <https://www.futurelearn.com/info/press/research-insights/learners-part-2-work-study-archetypes>

Preparers tend to be starting out in jobs, careers or related study, having already chosen what they want to do. They have specific career or study goals and learn in order to improve their chances of success, improve their career prospects, stand out from the crowd, and increase their confidence. Explorers were mostly in the 19-35 age group and the largest group came from Asia (47%). This group of learners also had the highest proportion of student learners than any other archetype. Preparers had the second highest purchase rate of all archetypes

*What do Preparers want from FutureLearn?*

- Courses in up-to-date, job-relevant topics;
- Interactive and engaging learning tools;
- Ways to build confidence in knowledge/skills, e.g., tests;
- Support for non-native English speakers;
- Increasingly advanced courses and learning pathways;
- Certificates and accreditation.

Understanding more about who the learners are and what they want from their platform helped Futurelearn inform their strategy. Through this research, they were able to focus on the needs of the learners and, alongside their partners, build a portfolio of courses to target those learners. But all of their learners don't fit into this group of archetypes. FutureLearn tries to help the learner in their journey of picking the right courses. They use the archetypes for identifying their learners and see how they can help them best.

## Groups of learners

In the Knowledge Alliance, the focus is not only on individual learners, but also on groups of learners in enterprises (in-company training), SMEs, sectoral organisations, public employment services, professional organizations / networks (including alumni), knowledge and innovation networks (e.g.EIT). The provisions to be delivered must be high quality, relevant and (cost-) effective.

The Knowledge Alliance partners have experienced the power of online MOOC provisions for upskilling and retraining, both individual MOOCs and MOOC pathways. They have seen collaborations develop between MOOC platforms, creating specific learning spaces for individual companies or for an entire private or public sector. In particular, MOOC pathways awarded with a CMF qualification are considered an asset to continuing education and professional development as they combine high academic credibility with a professional orientation.

At the same time, there was a new dynamic in the labor market. Well-qualified personnel could easily be exchanged or lent between companies in times of crisis. In this way, high-level competences were kept in use, provided a short training course only.

There was also a need not only for some MOOCs or CMF pathways, but also very short microlearning units, ranging from 8 hours to less than 30 hours, which provide a bite-sized learning experience for a very specific skill. These microlearning units do not have the same functionality as larger online courses and programmes as they cannot address the more complex competencies needed in the job market.

This need is also confirmed by the public employment services.

Within the knowledge alliance, collaboration and synergies between all partners are encouraged in order to make credited MOOCs and MOOC-based programmes delivering online learning

opportunities at scale to meet the needs of learners European-wide. The question was raised if they also have to offer small learning experiences by microlearning units.

## What does the Knowledge Alliance deliver to learners?

In the knowledge Alliance, all partner organizations play a specific role to meet the needs and expectations of learners:

- MOOC platforms develop a huge MOOC offering for flexible and independent learning, open to all learners or to specific groups of learners in universities and public or private companies/business sectors (SPOCs). In collaboration with the latter, they develop MOOC pathways consisting of a set of MOOCs aimed at specific competences. They create educational structures and partnerships with business/business sectors to reach learners in the workplace. They support learners by giving them advice and guidance when following a MOOC or following a MOOC trajectory. The Knowledge Alliance jointly makes a wide range of MOOCs available for learners on the labour market through mutual cooperation and by making these MOOCs accessible to learners via a joint portal;
- Universities and European Universities Initiatives (EUI) are becoming increasingly aware of their task in the field of lifelong learning and professional development as part of their third mission. Academia gives credibility to MOOCs, more than the industry can do alone. Frontrunner universities develop strategies and provisions for continuing education and professional development to prepare learners for the regional, national and international labour market. Several universities create continuing education centers or extension schools integrating services to learners. MOOC platforms work together with universities as an interface with the labour market to make this happen. The Knowledge Alliance will strengthen this movement and stimulate collaboration to achieve a diversified and European coverage of learner needs
- By adopting the Common Micro-credential Framework, MOOC platforms and universities provide learners a micro-credential qualification for MOOC pathways of 4-6 ECTS, by which the efforts of learners are recognised by academia and employers. Because these micro-credentials are stackable, learners are triggered to follow further courses to get even broader qualifications (undergraduate or postgraduate qualifications, specialisations, etc.) or even a degree. This creates a new context for lifelong learning;
- By the collaboration with public employment services in each European country, individual learners and business/business sectors find MOOCs for re- and up-skilling as well as for career development in a lifelong learning perspective;
- The Knowledge Alliance partners assure a direct connection of learners with their socio-economic environment; e.g. HR departments of companies, sectoral funds and personal learning account systems.

## Example

MOOC learners in FUN MOOC

Most of the learners in FUN MOOC have a job and many follow a MOOC to improve their professional competencies.

75% learners have a job

- 72% of them use MOOCs with an identified career goal
- 53% wish to increase their skills on a professional topic
- 30% wish to train for a new job by developing a new expertise
- 78% report they have developed their knowledge and expertise
- 30% claims to have won self-confidence thanks to the MOOCs
- 36% feel they have benefited professionally

Among the job seekers:

- 45 % report they made progress professionally
- 12% claim have found or refund employment

FUN MOOC after the COVID crisis:

x3 number of MOOCs

x4 new learners

x3,6 new enrolments

x2 traffic

MOOC learners in EduOpen

- Mean age: 38
- 54% had stable work, 22.6% were occasional workers
- 59% had a tertiary educational qualification
- 31% were working towards Bachelor's, master's or doctoral degrees
- 38% teachers
- 25% employees
- 10% professionals



# Impact mapping of the roles of MOOC platforms, universities, labour market actors, governments and the EU in the Knowledge Alliance

## Objective

*The core objective of the Knowledge Alliance is to strengthen MOOC platforms and universities to provide high-quality MOOCs and MOOC pathways for lifelong learning and career development for the EU labour market.*

Therefore, it creates a framework for structural collaboration with labour market actors and national and EU governments on the development, delivery and use of MOOCs.

All partners in the knowledge alliance and actors they represent play different roles in the development and outreach of MOOCs. These roles are described after analysis based on an impact mapping<sup>2</sup>.

This impact mapping is based on the conclusions and recommendations of the seminars, a peer learning activity and the conventions/general assemblies organized by the Knowledge Alliance during the project:

- Three seminars with the leadership and staff of the EMC MOOC platforms;
- Three seminars with leadership and staff of EMC MOOC platforms, universities and labour market organisations (public employment services, sectoral organisations);
- Three conventions with a broader network of stakeholders, including all mentioned plus public authorities (national, European Commission);
- A peer learning activity with experts from all stakeholders and the European Commission

In the impact mapping, three questions have been answered (see the mindmap in annex):

- Who are the actors?
- How can actors deliver a contribution to achieve this objective above?
- What does the Knowledge Alliance deliver in order to achieve this objective?

## Who are the actors?

Actors are:

### *MOOC platforms and universities*

- The main *European MOOC platforms*, members of EMC: Futurelearn, FUN-MOOC, Miriadax, EduOpen, OpenupEd. Now also iMooX, AI Campus and NAU.
- *Accredited European universities* linked to these MOOC platforms for developing and delivering MOOCs.

### *Labour market*

- *Individual learners* having free access to MOOCs on the MOOC platforms and being awarded credits after successful (paid) assessment (freemium model);

---

<sup>2</sup> <https://www.impactmapping.org>

- *Public employment services*: official agencies in each of the 27 EU members states with tasks related to national employment needs (incl. statistics and analysis of vacancies), training and CPD and career development in the European work force. Joint governance by ministries of employment and social partners (employers and employees). The European Network of Public Employment Services (ENPES) is based at the European Commission;
- *Businesses*: large companies with HR and training departments, SMEs increasingly looking for online training solutions;
- *Business sectors* associating large companies and SMEs, governance of collective training funds by social partners (employers and employees and Ministry of Employment - as part of the social security system. In some countries, this is (partially) operated by personal learning accounts (France, the Netherlands);
- *Training organisations*: public and private training organisations promoting employment, and entrepreneurship, supporting individual learners, companies or public administrations.

### Governments

- *Regions*: in most European countries, at least part of the competence for employment policy is given to the regions, closely to the personal needs of citizens, education and the economy;
- *Governments*: with regard to education and training for the labour market, a close collaboration between the ministries of education and employment, and subordinate organisations and agencies is needed. Social partners are involved;
- *EU*: At the level of the European Commission a strong collaboration between DGs EAC, Innovation and Employment is needed. European funds of different sources are key for a successful European approach to continuing education for the European workforce and for building a European knowledge infrastructure.

## How can actors deliver a contribution to achieve the objectives of the Knowledge Alliance?

How can actors make a significant contribution to achieving the objective of increasing the reach of MOOCs and online learning opportunities for continuing education, professional and career development in the EU labor market?

Therefore, an impact mapping is made involving all actors in the labor market and shown in the impact map in Fig. 1.

The following sections and this document explain this impact mapping in detail. The analysis shows how the alliance can contribute to strengthening the reach-out of MOOCs in the labour market. Not all actions of this conceptual framework can be realized within this project.

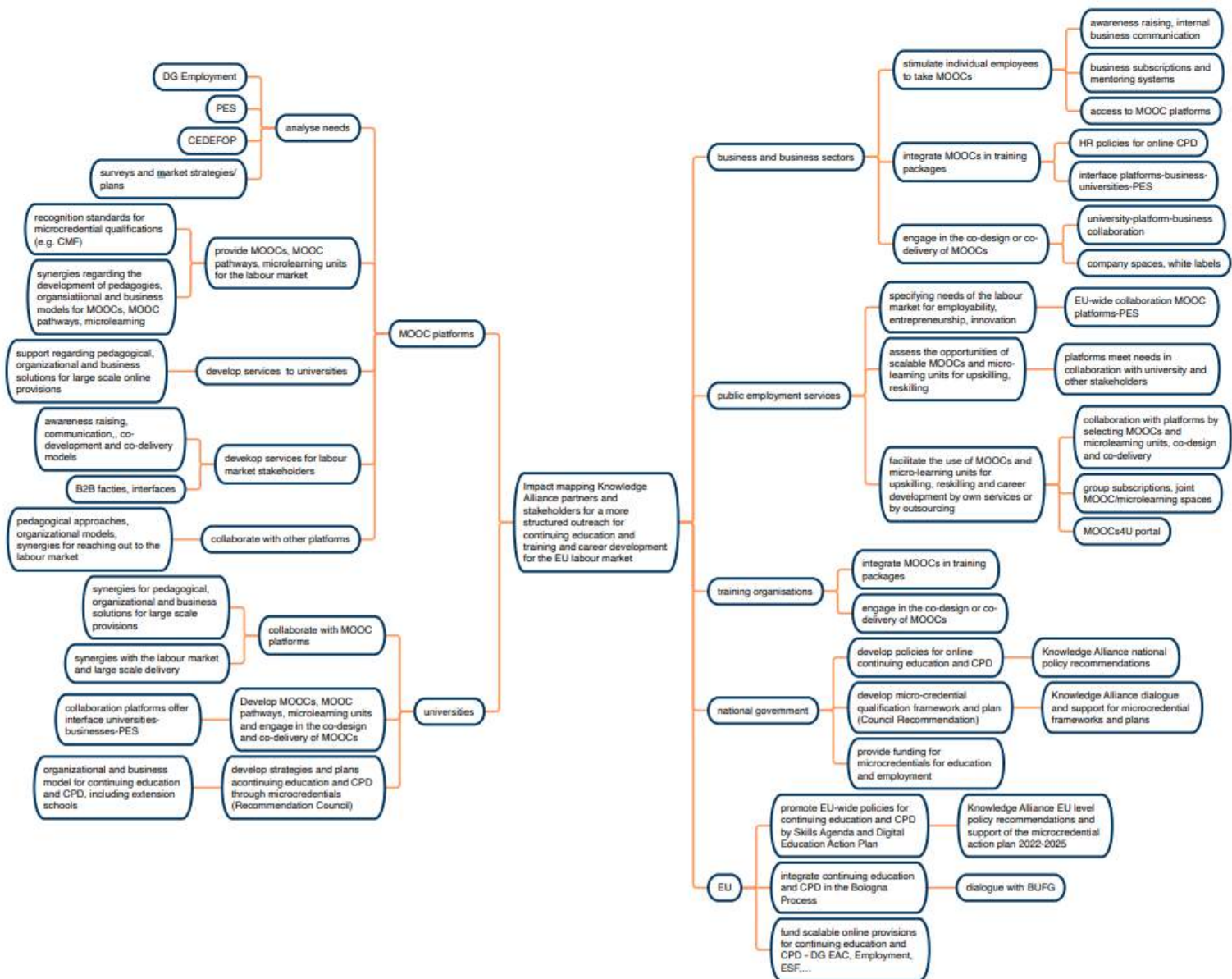


Fig.4 Impact mapping Knowledge Alliance partners and stakeholders

## MOOC platforms

### The role of MOOC platforms in the Knowledge Alliance

MOOC Platforms are central actors in the Knowledge alliance as they are key in the development and delivery of MOOCs:

- The core role of platforms is *to provide MOOCs and MOOC pathways to learners*, meeting the needs of society and the economy. For individual learners, they create a complete learning environment, following up students from a first information contact to the award of a badge or qualification after completion of a course and triggering students for next studies;
- MOOC platforms *organize services to universities*: they organize pedagogical services to universities for the development of courses. They deliver MOOCs to individual learners and to collectivities of learners in close collaboration with universities, including (organizational) services related to the assessment of learners and to awarding badges, credits and formal qualifications;
- MOOC platforms *organize services to labour market actors*: businesses, business sectors and public employment services. They operate as an interface with the universities delivering the best courses and programmes for qualified workforce who need training for their current job or their further career. They can involve companies in co-designing and co-delivering courses and create a specific learning environment for a company, sector or public employment service;
- MOOC platforms can deliver *services to regions* in collaboration with regional authorities to attain goals of smart specialization.

### What does the Knowledge Alliance deliver to MOOC platforms to reach the objective?

- Within the Knowledge Alliance, *platforms work together* to optimize their business operations, increase the quality of their offerings and achieve economies of scale. The exchange of expertise and experience between platforms will lead to better pedagogical, organizational and business models shared with their universities. This will consolidate and upgrade each of them and strengthen their position in the world of higher education, nationally and internationally.
- The platforms also exchange expertise and practice in developing *synergies with the labour market* by creating B2B facilities for a structured and tailor-made offer of MOOCs and MOOC pathways by specific corporate spaces, white label facilities, corporate subscriptions, etc.
- The Knowledge Alliance has led to the joint validation and implementation of a new qualification after a MOOC pathway of 4-6 ECTS as developed in the *Common Microcredential Framework* (see above). This facilitates recognition of MOOCs and MOOC pathways for the labour market by academia, employers and governments. It supports the European and worldwide outreach of MOOCs on the labour market.

- The Knowledge Alliance strengthens the platforms with awareness and communication activities towards the *labour market European-wide* about the opportunities of MOOCs and online learning opportunities offered, especially after the COVID19 crisis;
- *Universities in the Knowledge Alliance* are the main partners of MOOC platforms as they are the main developers of MOOCs. They will further develop innovative strategies and models for online continuing education and continuing professional development. In general, universities are expected to scale continuing education through online learning and MOOCs. New structures, integrating services to students and to the labour market, such as institutional centres for continuing education extension schools will support this movement. Online learning offerings and MOOC pathways in the broader framework of university curricula are at the heart of such provisions. This will have a major impact on the work of MOOC platforms.
- The growth of *European Universities Initiatives (EUIs)* is also an important factor in the development of continuing education and online learning opportunities in general. As partner universities in the Knowledge Alliance belong to a European University alliance, platforms will consider new services to alliances to develop with them continuing education and professional development for the European workforce.
- *Public employment services* support MOOC platforms with the assessment of national and European-wide needs for online education and training in the respective countries, next to data provided by their own surveys, DG Employment, CEDEFOP and others. They provide a European-wide network for training and career development for the European work force. They can integrate MOOCs and online training provisions in their regional and national offerings as they are high quality, scalable and flexible, accessible and cost-effective. They can also outsource the delivery of MOOCs and MOOC pathways to specialized regional training organisations.
- A EU-wide *collaboration between MOOC platforms (EMC) and the European Network of Employment Services (ENPES)* would promote the outreach of MOOCs and online learning opportunities all over Europe.
- *Businesses and business sectors* are in need for flexible and scalable online learning opportunities, MOOCs and MOOC pathways in order to up-skill and re-skill their workforce. Businesses are about to develop innovative HR and online training models in which MOOCs can play a major role because of their flexibility, quality and cost-effectiveness. Business sectors offer to platforms an environment for cooperation, supported by sectoral funds and personal learning account schemes. Businesses and business sectors have also the expertise to collaborate with platforms in the co-design and co-delivery of courses. Business and business sectors are also important for awareness raising of the workforce on the opportunities of online learning and MOOCs.
- *National Governments* develop new strategies and frameworks for continuing education in which MOOC platforms operate. It also expected that they will recognize microcredentials in their National Qualification Framework in line with the EHEA and forthcoming Bologna Process. National governments will fund higher education provisions for continuing education. In the framework of policies for employment, entrepreneurship and innovation.

Ministries of Labour will fund public employment services and incentives for learners and career development in a dialogue with social partners..

- The EU is developing policies which are relevant for MOOC platforms and universities, e.g. the new Skills Agenda, Europass and the new Digital Education Action Plan. Commissioner Maryia Gabriel prepares a main policy document on the University of the Future.. The Bologna Follow-Up Group with representatives of the national ministries has prepared a report on the application of Bologna tools on micro-credential qualifications (Microbol: <https://microcredentials.eu/about-2/microbol/> the European Commission has made up a proposal for a Recommendation to the Council of Ministers on Micro-credentials
- . On its turn, the Knowledge Alliance will prepare recommendations for EU level policies (see section on policy recommendations)

## Examples: MOOC platforms and collaboration with the labour market

### Futurelearn

#### **(Kate Sandars, 1st Staff and Leadership seminar)**

FutureLearn was set up by the Open university UK and is now joined by SEEK, an Australian partner, focusing on the labour market. Futurelearn has become a global player with a threefold purpose:

- To help people live more fulfilling and productive working lives and help organisations
- To open education for all
- To transform access to education at a global scale

More than 10 million learners signed up for Futurelearn. 60% of FutureLearn learners are female, 24% under 26 years, 47% between 26 and 45 years, 21% between 46 and 65 years.

Around a quarter of the world's top 200 universities are partners. In total, they work with 170 high quality universities and institutions, delivering 2.400 unique courses.

The majority of courses is covering major skills gaps: business and management, digital skills, health care and teaching.

Futurelearn offering now consists of a range of stackable credentials and learning pathways:

- Short courses: 1000s of courses for millions of learners, 24 learning hours, start learning for free, pay for ongoing access, test and certificate;
- ExpertTrack: 40-50 learning hours, monthly subscription, 7-day free trial (pay for access to content after 7 days), assessments and certificates, 39 £ per month;
- Professional certificate: 20-150 learning hours, paid access, endorsed or certified by at least one industry partner or professional body, price from 99 to 500 £
- Microcredentials: developed within MCF, 100-150 learning hours (4-6 ECTS), paid access, credit awarded and endorsed by at least one industry partner, prices from 450 to 1000 £. Stackable micro-credentials aimed for continuing education/professional development, LLL; up to 200 mc's in 2023
- Degrees and qualifications for universities and networks

Futurelearn has adopted the Microcredential Framework (CMF). It has not yet a brand name for microcredentials. They now use a 'M' in the middle of a sentence and the word 'Microcredentials'.

## FUN MOOC

**(Catherine Mongenet, 1st staff and leadership seminar)**

**(Gilles Bensaid, 2<sup>nd</sup> staff and leadership seminar)**

In 2014, the first MOOCs were launched. Courses on FUN have mainly a francophone audience, with a global outreach (19% in Africa). Some courses are in English. FUN serves more than 12 million enrollments (3 million learners) for 720 courses with 140 partners. FUN had 1300 runs of MOOCs since the beginning of the platform. It delivers certificates through proctored examinations awarded with ECTS.

FUN is a community of practice with 6.000 representatives, a team to support MOOC producers, training sessions, collaborative tools to share practice and editorial/communication services.

FUN has international partnerships, like a partnership with Morocco to help the country with the growing number of students. Both public universities and private partners create MOOCs.

It encourages also new methodologies such as SPOCs (specialized online courses) for continuing education and professional development, designed for specific groups of learners. FUN delivers also collections/series of courses (pathways consisting of a set of MOOCs), which form coherent programmes of study.

FUN has partnerships with the socio-economic world (sectoral funds), start-ups (R&D), as well as K12 education for the orientation to higher education. In this framework, MOOCs or SPOCs are designed on specific topics after a call for tenders to universities to create MOOCs.

*White label platforms* are specialized platforms (using Open edX) co-designed with stakeholders who train groups of learners (e.g. employees or employers). A white label platform entails that the other party is responsible for the editorial design, but the backend is the same as the FUN platform. They have been created for:

- The National Centre for Lifelong Learning for Civil Servants (CNFPT)
- ADEME (National Agency for Environment and Energy)
- Inter-professional sectors
- The Chamber of Commerce of Luxembourg

In white label platforms, FUN is cooperating with public organisations in France in order to organise professional development, eg the National Centre for Lifelong Learning of Civil Servants (CNFPT) and the national agency for environment and energy (ADEME).

The national centre for lifelong learning for civil servants is the public organisation in charge of continuing education for all public servants in any administration in France.

ADEME is providing courses on the FUN white label platform. The white label platform with ADEME is dedicated to sustainable development in building construction sector. The platform is providing courses for this sector and the sector creates itself also training courses.

In our white label platforms, public organisations sectors can have their own editorial strategy, publishing additionally their own articles or newsletters, whatever they want. They are in a specific environment where they have their own rules. Moreover, the courses on this platform are not all



created by higher education institutions. Many are created by their own professional organisations. FUN doesn't want to have everything on the same general platform. White label platforms have the freedom to advertise and to communicate on their platform. This would not fit on the general FUN platform as the white label platform serve different purposes close to the public organisation collaborating with FUN.

Recently, *FUN-Parténaires* was established for collaborations with the corporate sector: businesses and sectoral organisations- It is established in order to organise continuing education/professional development in the framework of the new French law on vocational/professional training (sept.2019), which makes it easy to organise online training.

A new team is set up with a department for sales and one for training engineering. Training plans are made for big enterprises (>50) and for small enterprises (<50). Currently, funds for training are raised.

To meet the needs, SPOCs will developed made from MOOCs with or without tutoring. SPOCs can also be developed ex nihilo.

Main features are: a continued public service, collaborating with institutions with a good reputation in the field. Benefits are shared: 70% for the university, 30% for FUN.

By the law, learners will receive a training account of 500€ per year for free training with a max. of 5000€ for each individual. Fees are only repaid to the learners at the end of a course with a proven accreditation seal.

FUN does this, because on the general FUN platform a lot of courses are very professionally-oriented and hence of interest for companies to take these courses for the internal training of employees. Universities put their efforts on the FUN Corporate platform for companies which are interested in a course or course pathway and want to buy it for training their employees right in time. An increasing number of universities and higher education institutions are joining FUN Corporate and enlarge the catalogue of professionally oriented courses on this platform (now 70 courses, 2020).

The FUN Corporate platform is a marketplace for the higher education institution partners to showcase their courses that they have created, first for free on the general FUN MOOC platform, but now also on FUN Corporate to be used by companies eventually a broader MOOC pathway.

The platforms are different, but built on the same technology and we run all this in collaboration

[Miriadax](#)

**(Matthew Hodges, 1st staff and leadership seminar**

**(Francesco Calvache, 3th Empowering Seminar)**

Miriadax is the number one platform with 6,5 million enrolments. It is organised by Telefonica (originally with Santander Bank and Universia, 2011), is mainly covering Spanish and Portuguese countries. It is also providing English taught courses.

Miriadax offers more than 1000 courses with more than 100 universities (3700 teachers). More than 6,6 million students have been enrolled on its courses. Course subjects are varied but technology is predominant. 50% of the content is technology-related and feedback has confirmed that students



are looking for courses which increase their employability. A series of certificates are provided from prestigious universities and institutions.

Two years ago, they launched private *company spaces* as a new service to companies. In a company space, companies have their own personalised private space on the Miriadax platform, targeting their own employees. This is promoted as a way of saving money and is growing in popularity. A space is provided to promote the value of developing talent within a company, in addition to managing, monitoring and certifying the training of employees. With MOOCs, the cost of training will be reduced to enable a greater impact on staff in companies. As a side note, the Telefonica Foundation has a high profile project (Conecta Empleo) for reskilling and upskilling the Spanish labour market.

Companies pay an annual fee for have a number of pre-selected MOOCs from Miriadax in their space, entailing the running of private editions.

With MOOCs, the cost of training will be reduced to enable a greater impact on staff in companies.

Recently, Miriadax adopted a new approach to up-skilling and re-skilling:

- re-qualification: facilitating the up-skilling and re-skilling with training content on the main topics of digital transformation demanded in the market
- lifelong learning: facing constantly changing training needs and motivating students to self-develop skills
- educational Innovation: through collaborative knowledge and generating learning communities within the Ibero-American environment
- enhancement of Spanish: Miriadax offers an alternative to online training in English with quality content and prestigious partners
- 

This new approach had an impact:

- +400 new courses in the context of upskilling and reskilling in digital transformation aimed at improving employability
- New highly demanded categories such as Cybersecurity or Big Data, very much in line with the market needs
- +30 Corporate clients, both public/government and private, training hundreds of employees on Miriadax courses

Microcredentials are offered as a new credited provision by universities.

## EduOpen

**(Sara Perella & Rosana Perez, Anna Dipace)**

EduOpen is the result of a European project in the spirit of the ET2020 objectives, making LLL and ubiquitous learning a reality, promoting equity and social cohesion, enhancing innovation and entrepreneurship.

It covers 26 universities (260 teachers) spread over all Italian regions, offering currently 278 courses and 32 MOOC pathways (MOOC-based programmes) to 61.998 students. It issued 38759 certificates.

Through eduGAIN, student and staff of European universities and from all over the world have access to EduOpen. The CINECA network provides technical support and the NICE test centres for proctored examinations.

EduOpen MOOCs can also be blended. Everything is possible, depending of the design of the course.

At the end of a course, an open badge is issued. Optionally, proctored certificates are issued.

Besides single MOOCs, EduOpen pathways (a sequence of related courses) are offered. A certification is given after each course and for the whole pathway. A number of pathways can lead to a specialisation programme and even a master degree. In this case, examination takes place on-site and has a start and end date.

EduOpen collaborates as well with the Ministry of Education for teacher training.

Courses are in Italian or in English. Many students request courses in English, e.g. in health care. The number of courses in English will increase.

Many students in EduOpen have already a university degree.

EduOpen is trying to design microcredential courses that can particularly address the increasing need for reskilling and upskilling:

- re-skilling to keep one's level of employability or adapt to changing requirements, especially people with skills that are no-more marketable. Learning new sets of competencies to transition to a completely new role.
- up-skilling to create or improve career opportunities by upgrading and extending skills. Learning new competencies to stay in current role, due to the change in skills required, or adding certain competencies for career progression.

They develop a model according to the EduOpen standard (course pathways, nano-masters) adapted to the design of a microcredential programme. Micro-credentials are seen as a promising format in the context of lifelong learning and to overcome the existing skills gap. Digital technologies are making learning increasingly accessible, flexible and cheaper, and the field of educational technology is booming.

The ambition of EduOpen is to create a new education and training ecosystem in which institutions, employers and individuals work together in a completely new way, fully collaborating according to principles of lifelong learning. This means that pedagogies / teaching methods need to be refreshed to address the audience of the microcredential course. Microcredentials are developed when there is a demand in a company, sector or region.

Each university in EduOpen pays a contribution for the maintenance of the common MOOC platform and the server costs, which is hosted by Edunova in Reggio Emilia, which is a spinoff of University of Reggio Emilia.

## OpenupEd

(George Ubachs, 1st Staff and Leadership Seminar)

OpenupEd is not a MOOC platform, but a portal that was launched in 2014 for bringing together MOOCs meeting a set of eight quality criteria. It connected with the opening up education policy of the European Commission at that moment.

Currently, 423 MOOCs are on the OpenUp portal. Also, an instrument for assessing the quality of MOOCs was created in collaboration with the Open University UK; based on dimensions in the Excellence quality assessment tool for blended education.

From January 2020, OpenupEd in new strategy is in place: the portal needs a repositioning, after major European platforms and the European MOOC Consortium were established. The revision will take into account emerging challenges in the European MOOC landscape. Many universities are not connected to MOOC platforms and publish on their own LMS. They need support and visibility. OpenupEd acts also as a go-between between universities and the EMC platforms.

AI Campus, Stifterverband, Berlin  
**(Florian Rampelt, PLA)**

In Germany, the Hochschulforum Digitalisierung started the *AI Campus* at the Stifterverband in Berlin, building MOOCs in Artificial Intelligence in diverse domains of application, freely accessible to all. These MOOCs are made to be useful for companies all over Germany as AI is developed in all sectors. AI Campus is thinking about MOOCs in connection with open educational resources in these areas, published using a creative commons licence.

They wonder if smaller artefacts, pieces of MOOCs, can be used as OER in other courses or learning situations, notably also in companies. This depends on the universities involved as they own the courses.

AI Campus tries to use a creative commons licence for all MOOCs on its platform, as they are mainly produced by public funding. An open licence makes the property issue perhaps more difficult, but the educational resource more open.

(AI Campus became a member of EMC in 2022)

# Universities

## The role of universities in the Knowledge Alliance

Together with the MOOC platforms, universities play a key role in the development and delivery of MOOCs:

- They develop and deliver MOOCs and MOOC-based programmes in collaboration with the platforms, supported by their teaching and learning and IT-services;
- They award learners with badges, credits and micro-credential qualifications after completion of a MOOC or a MOOC-programme, organizationally supported by a platform.
- Front-runner universities embed MOOCs and online learning opportunities in a wider, innovative policy for continuing education and professional development at scale. The development of scalable business models is a condition for universities to succeed in this;
- Universities guarantee the quality of MOOCs by internal quality assurance procedures, eventually in close collaboration with the MOOC platforms. This adds to the credibility of MOOCs.
- Universities offer the research and innovation nexus for the development of MOOCs;
- Universities possibly engage with labour market organisations (professional networks, research institutes, companies, sectors, ngos, regions, governments) for the co-design and co-delivery of courses in collaboration with a platform;
- European Universities Initiatives (EUIs) develop synergies to develop MOOCs and online learning opportunities for continuing education and professional development in a European context.

## What does the Knowledge Alliance deliver to universities to reach the objective?

- *MOOC platforms* offer to universities pedagogical, organizational and business models for the development and delivery of MOOCs. They offer an international learning environment, accessible by everyone, designed according to principles of independent, interactive and flexible learning involving massive numbers of students from everywhere around the world.

Some platforms create also provisions for groups of learners from a specific company, sector or region, for which also specific MOOCs can be designed (SPOCs).

Such provisions can be extended to European University alliances for developing a joint continuing education policy and for organizing blended and online mobility within the alliance and with international universities. Platforms have an international marketing machine in place, which can't be organized by individual universities and even not by EUIs.

By all this, MOOC platforms act as an interface between universities and third parties such as companies, business sectors, employment agencies, sectors, regions and international universities around the globe, enabling them to upscale their activities.

- *Public employment services* map regional and national educational and training needs on which universities can focus in their continuing education and professional development offerings. As public employment services gradually increase services for re-skilling and up-skilling a highly qualified workforce and for career development in a lifelong learning

perspective, they will become trustworthy partners for universities, supported by the social dialogue with employers and employees.

- *Business and business sectors* are already involved in a continuous dialogue with universities related to knowledge transfer and innovation. Increasingly, continuing higher education becomes part of the knowledge infrastructure of a university. MOOCs can be integrated in the educational strategies to be developed in this respect.

In some sectors, this goes also through *professional associations and networks*, like in health care, engineering, law, psychology, etc. Universities are part of interface created by MOOC platforms dealing with needs and future MOOC offerings.

- *National governments* will promote continuing education and professional development in a lifelong learning context, in which universities play an important role. National framework for continuing higher education should provide funding schemes to sustain universities in their continuing education provisions. Possibly, this requires synergies between the Ministries of Education, the Ministries of Labour, involving sectoral funds. Policies should also benefit individual learners who are not employed or who want to develop new careers.
- The *European Commission* is promoting continuing education and professional development in the new documents mentioned above. Especially, attention should be paid to recent discussions on the University of the Future. At the European level, EUA is supporting the continuing education agenda of the universities (Teaching and Learning Forum, Bilbao, 2021) and the Bologna Follow-up Group has prepared recommendations on continuing education, positioning lifelong learning in the EHEA.

## Example

### Dublin City University and Futurelearn (Mairead Nic Giolla Mhichil, 2<sup>nd</sup> Empowering Seminar)

Dublin City University has recently started the development of micro credentials. Microcredentials were not developed within the usual capacity of the university, but maybe “in vitro” outside of the normal ecosystem. The title of the contribution is therefore: “Microcredentials, co-construction, quality and industry”.

As part of its mission and strategy, DCU is re-imagining its curricula and engaging in contemporary curriculum reform. They want to develop an innovative, globally-focused curriculum architecture. This underpins the degree programs, which they want to be based on stacking online microcredentials.

DCU wants to meet the growing international demand for postgraduate awards through innovative models for online and transnational delivery. They want to change the modality of delivery of continuing professional development for upskilling people in key areas of social and economic growth, supporting an enlarged number of lifelong learners in Ireland consistent with the EU targets.

In this context the notion of employability is important as well with as a consequence industry involvement. Employability should not only be understood in the economic sense, but second it also as providing people with the capability to upskill every skill. They have embraced a notion of employability that's quite large.

DCU has developed and implemented a series of master level qualifications in conjunction with the industry. They have based this on a stackable approach and at present on closed cohorts. They used the Common Microcredential Framework and ECTS as major tools. They constructed programmes at the master level in Finance, Artificial Intelligence and Blockchain.

Course modules are stackable as individual microcredentials. This is challenging both for traditional modes of delivering and workplace training and skills development for new groups of learners.

The MSc in Computing for AI, they will deliver fully on-line with synchronous and asynchronous formats. Modules are all developed as microcredentials (CMF, ECTS ).

In DCU's perspective, microcredentials have some important features. Accessibility is very important. Therefore, microcredentials in the Common Microcredential Framework are 100% online, allowing learners to get a professional credential without ever needing to set a foot on campus.

Microcredentials are prestigious as they are built by academic and industry experts. They have also a global value as learners can quickly and affordably earn professional accreditation whilst learning as part of a worldwide community. Microcredentials are specialised as they offer specialised training in areas that will benefit learners and their chosen profession. Microcredentials are also fast as you can earn academic credits with a microcredential in a matter of weeks and if you want to carry on learning, the academic credit you earn can be used towards further higher education in the future.

The FinTech course available on Futurelearn is based on such course and learning design fundamentals. Modules included an introduction to financial innovation, crowdfunding and P2P lending, blockchain and cryptocurrencies, and banking and payments. Modules can be taken separately as well. Fundamentals included:

- a focus on academic excellence and industry relevance;
- online delivery with both synchronous and asynchronous elements;
- a flexible learning design;
- applied and career-oriented, industry-informed and co constructed;
- delivery through the Futurelearn platform and implementing CMF.
- 

With the Fintech financial innovation course, leading academics of the Business School have been working and piloting on this with industry in a collaborative approach, co-constructing the course. They had to take into account all ranges of companies, from massive organisations to smaller companies.

#### *Wider perspective*

Microcredentials in this space are a key part of the Digital Education Action Plan of the European Commission. They are now related to the Bologna tools such as ECTS and the European Qualification Framework. EADTU is involved in the Microbol project, where this is finetuned so that academics and employers will understand what these new qualifications really mean. The European Commission has its own consultancy group.

Nevertheless, some form of awareness building is still needed about the added value for higher education and for training for employment and innovation.

Including the broader employer, trade union and societal stakeholders in this would enrich the development. Lots of initiatives have been taken in Ireland and at a European level as well.

#### EduOpen and the university network

**(Pierpaolo Limone, Anna Dipace, 1<sup>st</sup> Staff and Leadership Seminar)**

EduOpen is a network founded by Italian public universities. It has now 21 universities on board and it is organizing 115 MOOCs and 33 MOOC pathways. The network has 85.000 students and it has delivered already more than 57.000 certificates. It is supported by 260 teachers and tutors.

EduOpen started the network because it felt the need to generate an Italian solution for the provision of MOOCs. At the initial stages of the project, the goal was to focus on courses involving students of partner universities. So, most of the courses were targeted to own students in order to share content and online experience between universities.

Soonly, they realized that they had to pursue another goal in order to match the needs of enterprises by MOOCs. EduOpen is now running several projects in the context of the platform. Areas of MOOC provision are medicine and health, technology and design, social sciences, science, IT and data management and human sciences. Learners are teachers, unemployed people, people with a casual job and people with a stable job.

#### *Teacher training*

One of the MOOC programmes is focusing on teachers, eg the course on “Innovazione didattica e CLIL” (content and language integrated learning, teachers teach a subject in a foreign language, eg English). The programme consists of an itinerary of several MOOCs leading to a nanomaster. Three nanomasters were created with nine teachers for sixteen 16 subjects and 623 hours of study. Teaching languages were Italian and English but mainly English. 2645 students participated of whom 332 followed the whole master and the others the nanomasters only.

The first nanocourse was for B2 level English language training, the second one was about the methodology of cooperative learning and the third one on the content and language integrated learning (CLIL).

The course on cooperative learning focuses on learning theories, socio-cultural constructivism, evidence on cooperative learning and learning design and assessment. This nanomaster was articulated into four courses on these subjects. The language in this case was Italian. The course had a duration of 84 hours and the completion rate was high: 87% and 83%.

The CLIL nanomaster (content and language integrated learning) was divided into 6 courses: language learning theories and processes; teaching and learning processes in CLIL classrooms; principles of good teaching practice in the CLIL classroom, teaching by skills; principles and objectives of evaluation, criteria for evaluation, planning evaluation in CLIL; teaching scientific and technical subjects with CLIL; and a capstone course on CLIL. The duration was 116 hrs. 212 students participated and the completion rate was 89%.

So, people who started the course completed it, maybe because the methodology of CLIL is very much requested by Minister of Education in Italy and maybe because the pathway was very innovative. This content of the MOOC-pathway is still available but it's not possible to get a certificate at this moment as because the course is finished now.

### *Wider applications*

In these examples, basically the idea of these nanomaster pathways was to offer a set of small courses or microcredentials that students could combine to a master course of up to 60 credits.

The courses were co-designed with the Ministry of Education in order to offer teachers a qualification which they needed in order to teach according to this kind of methodology in schools.

So, this was an experience of a co-design of a course with a public administration matching with current needs in Italy.

The same kind of co-design could be developed with an enterprise in the business sector or in a similar context.

### University of Côte d'Azur , ESTIA and FUN MOOC

In the Common Microcredential Framework, the name of Gradeo is given to the CMF qualification of 4-6 ECTS in France (also in Spain and Italy). The University of Cote d'Azur and FUN MOOC are launching a gradeo in artificial intelligence and big data had another one on Object SQL programming. Both are related to master degrees in computer science. These programmes exist both face to face and online and the FUN MOOC platform is used. They are now in English but it will be translated in French next year for the African market. The gradeos are inferred from these master programmes.

The examples of the University of Côte d'Azur and ESTIA are different, but complementary to these given by the University of Dublin.

They started from needs on the market (bottom-up approach) and worked closely with industry as well. In the curriculum, part is coming from the academics and part from the industry (50%-50%). They did this first for the master degree, which is supposed to be one of the best master degrees in computer science in France. They have been working for 20-25 years now in this way and in order to keep strongly in phase with industry, students are developing every year within the curriculum proof of concepts with industry people. Every year, part of the curriculum is designed and implemented working with industry.

Starting from this vision, master degrees are built. The first year in computer science is more generic, the second year is more oriented on big data and artificial intelligence. The online version includes online courses which are available on the FUN MOOC platform.

For this online master degree, they have a strong partnership with Oracle in order to get practical online cloud tools. This entails also collaboration with other universities, for example with the University of Siena, with EMU in Cyprus and ESATIC in Ivory Coast. An Erasmus Mundus program will



be implemented from February 2021 with the universities of Lyon, Siena, and Bilbao. A micromaster was developed in October 2020 on “big data and artificial intelligence”.

This is exactly the same approach as what they are doing in the face to face version at the university. The academic provider is teaching concepts and methods and the tools are provided by the industry.

One of the reasons of course to do so is related to the high investment cost: a complete master or twelve courses/MOOCs online is a huge investment. It is cheaper to do this with a partner for the practical courses which are fully certified. The online master will have two major tracks: “big data management and artificial intelligence” and “web and mobile programming” (including cloud programming), each consisting of different subjects (see ppt). Every course was developed in collaboration with Oracle.

From the master curriculum, they will infer 5 gradeos, skills which correspond to jobs on demand on the market:

- “Big data and artificial intelligence fundamentals”
- “Object SQL programming and database fundamentals”
- “Cloud programming and cybersecurity”
- “Cloud programming and cybersecurity” (Android and iOS)
- Native mobile ING native mobile programming around new technologies and (NFC, AR, LIFI, blockchain, ...)

These five Gradeos correspond to new jobs in the industry such as data engineer, data scientist, cloud and big data architect, or web and mobile developer.

There is a strong demand in continuous education for people who already got a master degree. Any computer scientists may look at these gradeos. What we do with gradeos is going much beyond offering a master online. This is definitely continuous education

The Gradeo on “Object SQL programming and database fundamentals” consists of two courses: an academic course and a course from Oracle University. Learners get a double certification: the academic certification in terms of the ECTS (as a part of the academic master degree) and a professional certification from Oracle. The SQL programming course is a prerequisite for those who do not have this background.

The Gradeo on Artificial Intelligence is delivered in collaboration with the University of Siena (Marco Gori and Stefano Malachi), which is supposed to be one of the most important research groups in artificial intelligence in Europe.

The Open University

**(Rebecca Ferguson, 2nd Empowering Seminar)**

The OU insight team is working closely with the insight team at FutureLearn and SEEK, to combine market insight data for identifying priority subject areas.

The following subjects are areas of focus, given the combined insight activity:

1. Business and Management

2. Data and Technology
3. Environment and Sustainability
4. Education and Learning
5. Equality, Diversity, and Inclusion
6. Health and Social Care.

These include subject areas with the highest career-based demand in the marketplace and also areas where OU strategic priorities, based on our mission, and areas of specialist expertise at the OU, are backed by a strong level of demand.

A number of 'learner pathways' across the six priority subject themes have now been identified and designed to move learners through the OU's offer on the FutureLearn platform across free resources, ExpertTracks and on to microcredentials.

FUN pedagogical support and services to universities

**(Margie Rosero, 2<sup>nd</sup> staff and leadership seminar)**

A [PowerPoint](#) shows the team structure and explains FUN's three main missions; boosting the FUN community, encouraging new practices and fostering partnerships. The three main services (hosting, supporting and offering tools) are described here:

- Hosting:

Their hosting service consists of the [FUN Campus](#), that hosts only SPOCs for students. It is mainly used for flipped classrooms and blended learning practices. Most of the SPOCs in this platform are re-used for academic purposes. The second hosting service is [FUN Corporate](#) that hosts SPOCs for lifelong learning and for unemployed people. Lastly, they also create customised platforms for institutions that wish to have their own platform, using Open edX technology.

- Support:

FUN offers basic and advanced on-demand training to teachers, this can take place either face-to-face, online or blended. Most of the training sessions are carried out by the FUN office. In addition, they offer pedagogical support to a network of teachers who need advice on e.g. how to use the peer evaluation functionality, how to organise content etc. FUN also organises webinars, seminars and workshops. They have a yearly seminar in which all their members can participate to share their knowledge and experiences in thematic workshops. Moreover, they are just about to launch a series of webinars in which teachers can share their knowledge and experience with the platform.

Another service is communication, consisting of a newsletter for MOOC producers to communicate information about the FUN services and a second newsletter for students with information about new courses. They also communicate the MOOC of the day via their different social media platforms and have a press release on specific projects.

FUN also provides a technical service and three help centres; One dedicated to teachers, which is called Réseau FUN, the second dedicated to partners (FUN services) and the third dedicated to students, called Support FUN. For students they also have a special help desk.

- Offer of tools:

FUN provides various services to their partners. They offer proctored exams, verified certificates and three videoconferencing tools (Glowbl, Jitsi and BigBlueButton). They also provide common surveys that they integrate at the beginning and end of each MOOC, helping teachers to consolidate the results of all MOOCs and to easily analyse the results of the MOOC.

The FUN department 'Advices & Projects' consists of seven project managers and three service desk representatives. The institutions choose an intermediary with whom the project managers communicate. They assist teachers in setting up courses, advise teaching teams on managing the platform, write technical documentation about the use of the platform, organise trainings, workshops and webinars, provide technical and pedagogical support to teachers and participate in many projects. FUN does not produce MOOCs or integrate content on their platform.

FUN has a quality charter that must be adhered to by all MOOC producers. The syllabus must all have the same corporate identity and contain all the required sections. In addition, all teasers should last a maximum of two minutes, must have subtitles and must contain the FUN and organisation's logo. All MOOC must integrate the common surveys at the beginning and end of the MOOC. Lastly, there must be a facilitator for the forums and all MOOC resources must be uploaded onto the platform in order to favour the students learning experience.

## Businesses and business sectors

### The role of businesses and business sectors in the Knowledge Alliance

With the COVID19 crisis, businesses and business sectors are even more confronted with new challenges for education and training:

- Because of health measures (telework, social distancing), businesses and business sectors needed more online learning opportunities such as online courses and MOOCs for employees, to be integrated in the internal or external training packages.
- As the workforce becomes increasingly highly-qualified, a structural collaboration with MOOC platforms and universities is suitable. In this respect, awareness raising within businesses and sectors should be followed by specific MOOC and MOOC pathway provisions, ranging from group subscriptions to specific SPOCs and company/sector spaces on MOOC platforms with restricted access
- Therefore, businesses and business sectors should be involved in interfaces with MOOC platforms and universities, in which also the co-design and co-delivery of MOOCs can be discussed.

### What does the Knowledge Alliance deliver to businesses and business sectors to reach the objective?

- *European MOOC platforms* organize already hundreds of courses relevant for businesses, which are accessible for individual learners, related to IT, management, innovation and other scientific content. Platforms customize provisions to groups of learners in individual businesses or business sectors through group subscriptions, company spaces, white label platforms and similar structures. They make also mentoring systems available following-up individual learners. Some platforms organize a wide range of specific services for developing online training in companies. In this way, they organise an interface with universities and businesses;
- *Universities* are key for developing MOOCs and online learning opportunities which are relevant for businesses, connecting with recent research and innovation. The collaboration with universities (research, innovation, education) makes these courses highly relevant and credible for strengthening the workforce;
- *Public employment services* have a close link with companies and offer opportunities for training unemployed work force preparing them for entering the labour market. They also support the training of employees in house for re-skilling and up-skilling. Beyond this, they increasingly offer education and training opportunities for career development for a workforce already on the job market. Offerings relate to microlearning units, online courses/MOOCs and certified programmes. A dialogue between businesses, MOOC platforms and universities are needed for closer collaboration and outsourcing of training activities.
- *Ministries of Labour* support continuing education and professional development in businesses and business sectors, eventually supported by sectoral funds and installing a

personal learning account. Funds of the European Recovery Plan can be used for this purpose.

- In the European Commission, DG Employment has developed a set of instruments to facilitate and recognise training of the workforce (Europass; portal of learning opportunities; inventory of competences,...) with which also MOOC platforms connect.

## Examples

### Company spaces Miriadax

#### **(Matthew Hodges, Miriadax (2<sup>nd</sup> empower seminar)**

Company spaces are a way for a company to personalise/customise a specific area on the Miriadax platform which includes the logo and the corporate graphic design of the company and where they can invite employees to these training offerings. At the moment, these are almost courses or course itineraries/pathways pulled from the general Miriadax database: courses of greatest interest/relevance for employees, which can be assigned individually, by group or massively. Companies can identify courses according to their interests, covering relevant topics for their employees. They can either automatically enrol them for a mandatory training or they can allow their employees to choose the most appropriate or interesting courses for them. So, there are different ways of working with company spaces.

Once employees have finished the course, they can download a certificate for free, since the company has already bought coupons or discount vouchers from Miriadax. The biggest client at the moment is Telefonica itself it has 29000 employees around the world having access to this. Many of these self-training courses are obviously relevant for other companies and are offered according to different models of company spaces worldwide. They can take also advantage of all the MOOCs developed.

Miriadax has a huge variety of courses on technological topics on the platform, possibly helping people to shift jobs or to upskill competences within a company, but plenty of different types of courses are also relevant for job seekers. Courses can be at entry level or advanced level. They can cover for example topics like big data, SQL, lean programming, project management, but also on leadership change.

### *MOOC platforms as extensions of continuing education in universities*

*i*

MOOC platforms can also be seen as an extension of universities and add expertise in online continuing education that is not present in all universities. They play also an intermediate function between universities and the labour market.

### Microcredentials in collaboration with companies: ingredients of success (OUUK)

#### **Futurelearn (Kate Sandars, 2<sup>nd</sup> Empowering seminar)**

Futurelearn has adopted the Common Microcredential Framework (CMF) that we've worked out together. We launched our microcredential courses earlier this year (beginning of 2020), just before the COVID situation accelerated. We now have around 30 microcredentials on the platform which do meet the standards of the CMF.

Here are examples of some of the ingredients that make up Futurelearn's most successful micro credentials, notably the ones which have the most learners or sales. *The most successful are the ones that are really working with industry and employers to address skills gaps. The most successful ones on our platform are the courses that are in high demand subject areas and where the university is typically working with an industry body.*

So, in some instances we have companies working with the higher education institution to co-create content. In other cases, the industry body has endorsed the course in some way and particularly had an input into the syllabus at the early stages of design. Or they reviewed the content later on in the course design process to give feedback before the course is more widely rolled out on the platform.

These are some of the ingredients that we see as successful when it comes to having high volume of learners on the micro credentials. We also have some microcredentials which have large cohorts on them which have been sponsored in some way by the government. For example, we have microcredentials produced by Australian institutions, where regional Australian governments sponsored cohorts to go through these micro credentials alongside the public learners.

#### *Examples of short courses*

Here are three different examples of short courses on the Futurelearn platform which in their different ways are seeking to meet the skills gaps. These are just three individual courses representing use cases.

#### *Cognitive behaviour skills to treat back pain; public course; university-led*

In the first example, we have an open course which is led by the University of Exeter and involving also academics from the University of Oxford. So, it's a co-created course, developed by academic experts. It is focusing on a specialised way on cognitive behavioural skills to treat back pain. It is quite a new course on Futurelearn, six weeks in length and running throughout the year on a kind of self-paced model (non-facilitated). The key thing about this course is that it's been approved by the British Psychological Society for continuing professional development. So, this Society has been involved in reviewing the contents of this course to make sure that it meets their standards. The Society then will award continuing professional development points to the participants. So, it really has professional relevance for physiotherapists, occupational therapists and other healthcare professionals, also including students, but very much aimed at working professionals to make sure that their skills are up to date with new techniques and new thinking. Actually, this course is also used by a large group of physiotherapists in Canada and is also approved by the regulating body in Canada. So, it's really international in its reach.

#### *A suite of 8 free, bite-size digital courses, public course, industry-led*

The second example is another public course and this example is led by industry. So, alongside nearly 200 university partners, Futurelearn also has a large number of corporate partners. They offer a collection of completely free courses on digital subjects which are aimed at helping people to develop digital confidence and skills. These courses have an introductory entry level, they're not the kind of high-tech courses that we also want to

produce. These ones are really aimed at young people entering the workforce, and also people who are maybe unemployed or underemployed. They help them in their next stages of job seeking or job progression. These courses have been running for a few years now and are completely free to access right through to completion including certification. Thousands of people have completed this course worldwide and especially in the UK (500.000 enrolments globally), where we've been promoting this course quite heavily.

#### *German automotive company leadership course, private course*

The third example is a completely private course from a German car company. We have on Futurelearn a number of completely private courses for different use cases. Universities can recognise private courses as well.

In this case, it's an employer who has created a private course for their employees. This has been running about two or three years. They wanted to use the Futurelearn platform to introduce a course for leadership skills and cultural change/transformational experience among their global workforce. They decided to use Futurelearn as the platform since this is built on social learning pedagogy and so it's a great place for global learners to discuss together the different issues affecting their business. This course has been taken by over 13,000 employees globally and it has created a kind of global and company-wide conversation. The company hoped to reach maybe 10 to 20% of the workforce and actually they've reached over 50% of the workforce. There was a high social engagement on this course with over 14,000 comments. The course had high satisfaction rates as well (70%).

These examples show we have courses from universities, employers and also industry, really demonstrating how it works perfectly in collaboration.

#### *OCAPIAT: collaboration FUN MOOC with the French food sector (Irène Azar, 2<sup>nd</sup> Empowering Seminar)*

OCAPIAT is the French skills operator for agriculture, fisheries, food industries and territories. It is a partner in the knowledge alliance (more than 16000 enterprises). It covers 16218 companies and more than 400000 employees. More than 4300 jobs are created in 2019.

Skills challenges are at the core of OCAPIAT's mission:

- To support small and medium-sized companies in the French food sector in developing skills (98% of companies with less than 50 employees);
- To respond to the skill needs of the food sector by promoting skill partnerships such as with the FUN MOOC platform;
- To promote the digital transformation and vocational training of companies in the food sector by supporting their training organizations and strengthening their training offerings in order to meet the needs of the labour market.

In the French food sector, there is quite a wide range of jobs varying from lowly to highly qualified workforce. As a consequence of the variety of companies, human resources are led according to very heterogeneous levels of maturity. There are various training offerings, but very unequal in quality and sometimes with a low attractiveness.

In such a heterogeneous environment, it's also difficult to recruit learners. The food sector is a business in economic difficulties. Hence, there is a colossal training market and the question is how

to respond to this in an efficient way. Very important is the need to respond to skill challenges related to digital impacts on work.

In general, companies in the sector are used to of face-to-face training and apprenticeship training in work situations (tutoring, coaching), which they still prefer. They are not yet familiar with digital training methods such as the provision of educational content, blended learning and digital learning.

The goal of a Ocapiat is to make training more effective in view of this particular sector. It's important to offer a multiple approach to skills development and a plurality of teaching methods must be available

Due to the Covid-19 crisis, digital solutions have been accelerated. As a consequence, a new generation of services raised. Digital solutions for training made sense and skills partnerships such as with a MOOC platform allowed them to do it better and faster. Ocapiat created a campus numérique with the support of the European Social Fund. "CAMP'NUM" is a collaborative e-learning platform powered by Ocapiat for the needs of its sectors. With the help of FUN MOOC, Ocapiat is improving everyday its platform. Since March 2020, the platform was upgraded with many functionalities and it now hosts various digital services as "l'entreprise virtuelle" et "DIAG'NUM"

The "virtual enterprise" or "ENTREPRISE VIRTUELLE" is a collaborative e-learning platform also powered by Ocapiat, based on virtual reality technology. "DIAG'NUM" is a digital maturity self-diagnosis instrument to assess a company's digital skills needs.

The MOOC partnership with FUN MOOC for training and developing skills is very important to Ocapiat. The objective is to train and develop competencies for innovation, raising employability. Pilot projects have been implemented in collaboration with the University of Caen. FUN MOOC is in charge of the evaluation of our platforms CN, EV and diagnum

During the COVID-19 crisis, support measures for training providers have been put in place. Ocapiat supports training organizations in the sector, thanks to its solution of online training CAMP'NUM. Face to face trainings have become virtual during the lockdown. The platform it is open for everyone in the sector.

So, Ocapiat has now a new device: together let's develop a world of digital learning. Realize your distance trainings through CAMP'NUM. Stay at home while learning.

[www.campnum.com](http://www.campnum.com)

Further information: [campnum@ocapiat.fr](mailto:campnum@ocapiat.fr)



## Public employment services

### The role of public employment services in the Knowledge Alliance

Public employment services play a pivotal role in the Knowledge Alliance as they are the official organizations for training the unemployed and employed workforce in collaboration with the social partners and the Ministries of Labour. Gradually, they become also centres for career development accommodating talents and competences to new challenges on the labour market. At the European level they are organized as a network (ENPES) associating PES in all European countries. Roles of public employment services are:

- Mapping the needs on the labour market by daily statistics, the analysis of vacancies and surveys on future needs, feeding national and European statistics and taking into account evidence, methodologies and instruments from CEDEFOP and the European Commission as well as from universities;
- Organising training of unemployed and employed work force in a dialogue with the social partners. Programmes of different size and level are organized, including microlearning, online courses/MOOCs, online certified programmes. As the number of highly qualified workforce is growing, continuing higher education and professional development is increasingly organized. PES become also centres for career development anticipating on needs in the economy and enhancing the talents of learners.  
In many cases, PES support internal training offerings of businesses and business sectors. When they don't organise trainings themselves, they also outsource some training provisions to universities or private training organisations.
- The network of public employment services can collaborate with MOOCX platforms to develop a European-wide offer of MOOCs, MOOC pathways and online learning opportunities, meeting regional and national needs for employment and career development.

### What does the Knowledge Alliance deliver to public employment services to reach the objective?

- MOOC platforms deliver MOOCs and MOOC-based programmes to public employment services in all scientific domains, relevant for the labour market. They can involve PES in the co-design and co-development of courses. MOOCs can also be integrated in the training packages of PES. EMC and ENPES can develop joint policies, strategies and approaches for meeting the needs of the European economy in collaboration with governments.
- *Universities* collaborate with PES for developing continuing higher education and professional development, meeting the needs of the labour market, connected with research and innovation;
- For employers in *businesses and business sectors*, the recruitment and the retention of talent has become a top priority as after the COVID19 crisis, the digitalization of many business activities has been accelerated. This demand creates new opportunities for the collaboration businesses and PES;
- For *regional and national authorities*, PES are an instrument for employment policies and strategies, even more related to the rapidly changing economy after the crisis;
- The new Skills agenda and the Digital Education Plan of *the European Commission* are supporting the acceleration of training of complex skills for the European economy.

Structural funds can upscale continuing higher education European-wide in which (EN)PES EMC, universities and business sectors can join forces.

## Examples

VDAB (Belgium, Flanders)

### **(Carl Callewaert, 2<sup>nd</sup> empowering seminar)**

VDAB is the public employment service of the Flemish government in Belgium. Its mission is “to make the Flemish Community strong for work together”, meaning that they are looking for cooperation with everybody who could bring something to the labour market. Of course, universities and university colleges offering MOOCs could be a partner.

VDAB supports employers with different kinds of activities. During Corona, the agency has to realize this in a bit different way. Lots of training activities are implemented in a rather virtual way for the moment, but the main thing is that VDAB tries to sustain the development of competences in the companies by offering as well online as offline training. Last year, a campaign was set up, called “keep learning”. On a specific website, citizens find a lot of information on all kinds of digital training courses which eventually can be combined with workplace learning

<https://www.vdab.be/opleidingen/aanbod>

Examples of VDAB online learning areas include:

- PC training and computer science
- Languages, also Dutch spelling and Dutch verbs
- Bookkeeping and secretariat
- Soft skills such as time management, presentation, leadership
- Personal skills: applying for jobs, learning to learn
- Technical training: construction, metal, automation

People can find support for professional orientation, eg by job descriptions or job sheets. VDAB has a big online learning platform, not yet containing MOOCs in the classical sense of the word, but they call them open online micro-courses, which are very important for the organization. This is going in the direction of micro credentials, but they don't offer real credentials. They try to offer to unemployed or working people away to gain competences in fields which are wanted on the labor market for the moment.

We are already 20 years in the 21st century, so maybe we should find a new name for the 21st century skills. The nine 21<sup>st</sup> century skills are really essential for employers, eg digital information literacy or adaptability play a big role. These skills are:

- Creativity
- Critical thinking
- Collaboration
- Communication
- Information literacy
- Adaptability
- Leadership
- Social skills
- Productivity

This is an important role MOOCs could have on the labour market. MOOCs are a great way to learn these competences.

In this project, we could find ways to connect companies and the academic world in a better way and that companies really can value what is offered, but also that the academic world learns something on what is important for the world of business.

What we expect in the next year is that there will be a huge emphasis on competence development. The Flemish government also has given an extra budget to VDAB to provide more open and online courses on our own platform but also through new initiatives. Maybe this is a way we could cooperate with universities and university colleges.

Le Forem (Belgium, Wallonia)

**(Christine Piret, Yves Magnan, 2<sup>nd</sup> Empowering Seminar)**

The main responsibilities of the public employment service for Wallonia is coaching job seekers and supporting businesses, SMEs as well as large businesses, with the recruitment and training of workers. FOREM has now about 57 training centers all around Wallonia. It has a training capacity of 40,000 to 45,000 people yearly. A main issue is that job seekers or not always motivated for taking a training course. Therefore, we have to make vocational training more attractive and maybe distance learning and MOOCs could help here.

In Wallonia, there are about 200.000 job seekers. About 25% are young people of less than 25 years old and quite lowly qualified. At the other hand, businesses have about 125.000 open vacancies and miss candidates. This is a main challenge and FOREM tries to adapt training offerings to this situation.

Therefore, FOREM is going for *hybrid/blended training pathways*, where in the past they organized classical face to face vocational training mainly. In the triangle between learner, businesses and training, they go more and more for mix of pedagogies and modalities of training. They opt also for pathways which lead to a *certification*.

FOREM is developing *new models for distance and blended learning*. The COVID-period has helped to do this "on the spot".

Distance Learning is not an end in itself. Distance training pathways have to lead learners to objectives which correspond with expectations and the skills demanded by businesses, mixing different modalities of learning in an optimal way, also including learning on the workplace as well. Distance education is a different pedagogical approach and is more than sending powerpoint slides, videos, printed content and quizzes to learners.

When organizing distance education, it's also important to take care if the *social inclusion* aspect. Some learners do not have devices or they do not have an internet-connection. Not all learners are equally equipped.

A real challenge is that trainers do not yet integrate enough online distance learning in their daily pedagogical practices. The *training of trainers* is an issue: how can we help trainers to use ICT tools and new learning approaches. Most of them are technical experts. As a consequence, the pedagogical resources used now are not always state of the art quality. Trainers have to become pedagogical experts as well.

There is also the issue of *multiple learning platforms*, which are not always inter-operable. There is only few mutualization between operators. A learner should be able to go from one operator to another in a flexible and smooth way and not always being obliged to learn how to use a new platform.

Also, the *recognition of learning outcomes* must be organized.

FOREM has developing a specific *action plan* (ongoing):

- Setting up WiFi connections within 169 locations in Wallonia in order to offer connection services to jobseekers when they come into our premises;
- Now (re)-defining a coherent digital learning strategy for the coming years
  - The development of a hybrid/blended training strategy?
  - Training contents: do we have to make them ourselves or do we have to buy them?
  - Learning platforms (LMS,...) and learning tools: what do we develop ourselves?
  - The training of trainers: a training centre for distance/blended learning to be deployed
  - Learning outcomes recognition?
  - How to get all actors on board, incl. employers, with the same vision

With colleagues of different European countries, blended and distance education for vocational training was discussed a few months ago. Some of the conclusions are

- Internet access should be part of fundamental rights ;
- All citizens should have access to the internet whatever their social situation. Some job seekers don't have enough resources to pay for Internet or a GSM subscription;
- Learning devices should be put at the disposal of the learners by the education systems and training operators. Many learners don't have a portable at home;
- Internet access should be accompanied by an efficient guidance system, supporting and training basic digital skills;
- Teachers and trainers should develop their digital skills and adapt their pedagogical tools and practices in CPD according to DigiComp
- Mutualization of pedagogical resources and learning platforms between operators should be increased.

*A MOOC in soft skills: a first experience*

“Savoir faire comportementaux” (SFC4) (See: <http://mooc-forem-sfc.eu>) is a MOOC developed in a European project which started two years ago together with colleagues from 5 countries and 7 institutions, public and private. The aim was equipping those involved in education, training or socio-professional guidance to work on soft-skills.

There is a huge need for training soft skills as also was mentioned by the colleague of VDAB.

A methodology is developed to identify, to observe and to develop soft skills. With sectoral partners and companies, it is discussed what are the expected soft skills for a specific job.

A MOOC contains educational resources, discussion fora, collaborative activities and videos.

Some 2500 thousand people have been following the MOOC which is quite a success and we launched a new addition to the training course.

The development of soft skills in a MOOC course works well.

The platform used for the MOOC delivery was from a small French agency, the MOOC Agency.

ANPAL (Italy)

**(Alessandra Biancolini, 2<sup>nd</sup> Empowering Seminar )**

ANPAL (Agenzia Nazionale Politische Attive del Lavoro - National Agency for Active Labour Policies) has some different features compared with other countries. ANPAL is a governmental agency created in 2017. It promotes people's right to work, training and professional growth. It coordinates employment policies for job seekers and the relocation of unemployed people, including vocational and professional training.

ANPAL coordinates the national network of employment services, and it is responsible for information and communication about the labor market. It collaborates with public and private operators in the labor market.

ANPAL is also responsible for monitoring and evaluating vocational and professional training for the labour market.

#### *National and regional competences for organizing training*

The active labor policy in Italy defines by law the standards and minimum employment services to be delivered to citizens to be guaranteed at the national level, but the regions have the responsibility to execute and manage these policies and services. ANPAL is by law coordinating this in *a national network with national, regional and sub-regional stakeholders and institutions*. Stakeholders are diversified by target and main part of this network are of course the public employment services, but also other employment actors, for example universities and private training organisations.

#### *e-Learning*

ANPAL is also in charge of developing and diffusing models and best practices aimed at increasing the quality of the services offered to citizens seeking a job and of learning opportunities for upskilling or reskilling. This is the reason why it has adopted a national plan for strengthening the competences of staff of public employment services and of the national network in general. This plan entails targeted training modules and courses for PES staff. These e-learning modules are also available on the national ANPAL online learning platform for private training companies and citizens that need to register for it.

#### *MOOCs and microcredentials*

ANPAL did not experiment with MOOCs so far, even though they have delivered a lot of e-learning modules for which they issue for example open badges, eg for employees that need a kind of recognition within their career development or continuous training plan.

ANPAL is interested in the co-design and co-delivery of MOOCs, because they would like to make stakeholders aware of their advantages. Not only the way of delivery, but also the certification of competences is innovative. The idea of linking courses available on the national ANPAL portal to a microcredential framework would be an advantage. The approach of recognizing small units or parts of learning achievement would offer perspectives to individual career development. Also in a more systemic vision, it offers a new perspective strengthening the connection between learning outcomes and national frameworks and the European Qualification Framework.

Microcredential policies might provide more flexible and also more diffused lifelong learning opportunities to promote the active participation in the economy and in the society.

## The joint design and development of a joint microcredential course and a microlearning unit

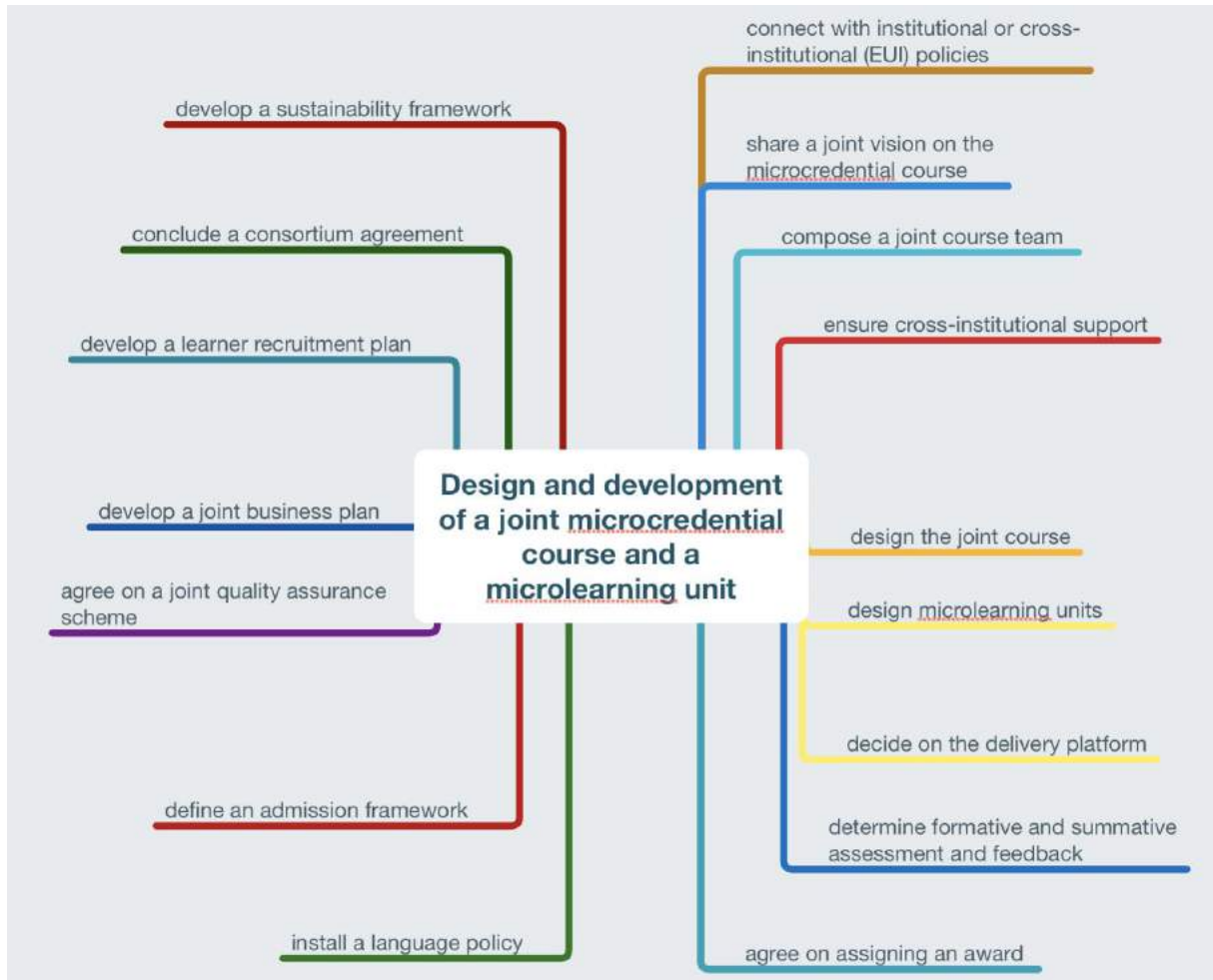


Fig. 5: The design and development of a joint micro-credential course and microlearning unit, applicable on MOOCs

MOOC and MOOC-based programmes are a specific form of micro-credentials. Joint MOOCs and MOOC-programmes are designed and developed by two or more universities, for which design and development models and guidelines are developed. Microlearning units are smaller than a microcredential, less than 1 ECTS) and are often integrated in MOOCs or other online courses (see section on qualifications above).

Here is an overview of the guidelines<sup>3</sup>, which can be used by the Knowledge Alliance in case of joint development of MOOCs:

<sup>3</sup> For the complete guidelines, see: Henderikx, P., Ubachs, G., Truyen, F., Kananen, P., Curto, M, Gmelch, N., Caforio, A., Oliveira, C., Antonaci (2022), *Models and Guidelines for the design and development of microcredential courses and microlearning units* (to be published on the BLOOM hub, OpenU project).

## Guidelines

Because of the involvement of different universities, designing and developing a joint MOOC or or micro-credential course is a complex activity, consisting of several steps as illustrated in fig.2.

Partners involved:

- connect with institutional and cross-institutional policies and strategies on MOOC provisions, more specifically related to continuing education and professional development. In the case of the European Universities Initiative or another network, they rely on joint policies of the alliance;
- share a joint vision on the MOOC to be developed, defining the macro-objectives, based on a needs analysis and learner characteristics; developing an academic and professional profile and determining specific course settings for meeting the living and working conditions of lifelong learners; defining a unique selling point; developing synergies with other universities for a higher quality and making the MOOC internationally attractive.
- compose a joint course team, led by a course team leader with scientific and educational authority. sharing leadership with key teaching staff of the respective institutions and involving them in the design and development of the course;
- ensure (cross-)institutional professional support through teaching and learning, internationalisation, and ICT for education services and the student administration. All are needed in the design and development phase of the joint MOOC;
- design the joint MOOC according to current pedagogical principles so that it can be successfully developed and implemented: defining learning outcomes or competences; developing a course plan with MOOC units, and distributing the design and development tasks across the partnership; designing and sequencing learning activities; improving the student's learning experience; designing course interactions; selecting and aligning media and tools; designing space for flexibility; determining the study load; and making the course inclusive;
- decide with the partners on the delivery platform for the joint MOOC;
- agree on a coherent approach on formative and summative assessment and feedback. Determine joint exam regulations, if exams are envisaged;
- justify and agree on a joint award to be granted, for example a badge of attendance or a credit after an examination, aligned with the institutional and national qualification structures for continuing education and professional development. It is expected that these structures will be further developed following the Proposal for a Recommendation of the European Commission to the Council of Ministers on Micro-credentials (2022-2025);
- install a language policy in line with the international ambitions for the course;
- develop a student recruitment plan, including multi-segment recruitment campaigns;
- make agreements on quality assurance, linked to institutional frameworks and based on ESG and the Guidelines for E-learning;
- develop a joint business plan (in case of freemium model with examination and credits), balancing public and private funding and tuition fees within broader institutional frameworks for continuing education;



- develop a sustainability framework with a multi-year commitment from universities to ensure basic sustainability, a regular review and improvement plan;
- conclude a partner agreement in which responsibilities and tasks are laid down.

### *Observations*

- The MOOC platforms in the European MOOC Consortium and the universities linked to them are developing MOOC pathways and have agreed on micro-credential standards according to the Common Micro-credential Framework (CMF). These micro-credentials of 4 to 6 ECTS are stackable into broader micro-credential and degree programmes;
- Universities in the EUI alliances cooperate in many areas for continuing education and professional development, providing a natural environment for joint MOOCs micro-credential course development;
- Efforts for (online) continuing education and professional development are being strengthened and streamlined in leading universities, for example by creating “extension schools” or centres for continuing education;
- There is growing demand for MOOCs and micro-credential courses and programmes, which are stackable to larger microdegree and degree programmes. At the same time, there is demand for small and very small microlearning units (less than 1 ECTS), e.g. for work place learning;

### **Example**

Futurelearn pedagogies

**(Katherine Weber, Kate Sandars, 2<sup>nd</sup> staff and leadership seminar)**

#### *Objectives*

The objective of Futurelearn is to provide:

- A delightful, simple user experience delivering high quality video, audio, articles and interactive exercises to tell engaging stories;
- A unique social learning approach provoking 49% of active learners to engage in conversation and collaboration with their peers;
- Learners can learn in bite-sized steps at their own pace, whenever and wherever they need to.

The unique selling point for Futurelearn is an enjoyable social learning experience: telling stories, provoking conversation, developing skills, celebrating progress (Katy Weber’s [PowerPoint](#)). Courses should be enjoyable, social, flexible and are all quality assured

#### *A mobile-first platform*

Futurelearn is a mobile-first-platform, the content needs to be mobile friendly as at least 50% of their users use mobile phones for their learning. Accessibility is also part of their Quality Assurance process, as it is an essential part of their mission. They have a text checker to help teachers make their courses easy to comprehend. In addition, all videos have subtitles, all images alt. text and all interactive content has accessible fallbacks.

#### *Course design and development: guidance*



FutureLearn has a team of course development managers who work with the educators to provide direct feedback on all of the main quality aspects (pedagogy, technical, and business). The design of a course includes **70 major quality check points**. For every check point, there is a green, amber or red level (traffic light system). If a course gets too many 'reds' the course will be postponed until it can be fixed. Partners are contractually obliged to adhere to this.

In FL'S pedagogy, there is a balance of formative and summative assessment. FutureLearn partner universities do their own tutoring.

Futurelearn has no self-paced courses like Coursera. It works with cohorts of students for basically 6 weeks. Universities do the tutoring. An external team is checking the moderation.

Each team of course development managers also has a partnership manager, who do a workshop with new partners to make sure they are familiar with all of the guidance. Partners joining FutureLearn can look into the [openly accessible partnership website](#) that includes more information on the criteria, how to design courses etc. Partners joining FutureLearn are also invited to do a MOOC on how to teach online. They also have access to the weekly learning design drop-in sessions. There is also a partners' forum and different focus groups. Lastly, The FutureLearn Academic Network reflects on the FutureLearn platform. It is not led by FutureLearn, but by researchers that work with FutureLearn.

#### *Revenue*

Futurelearn has a 50-50 revenue share with the universities. From May 2019, an annual subscription system is installed for students who want to take courses on a regular basis, expiring after one year. This gives them the right to access all courses and assessments for certificates (£150). It is working well. Futurelearn is now looking if this can be a model for businesses.

#### *Services to employers*

Kate Sandars was presenting how Futurelearn is dealing with MOOCs for workplace learning. They are focussing on the portfolio of the individual learner and the role of MOOC pathways leading to microcredentials. The learner pays around 40 to 90 pounds for a certified microcredential course having continued access to the course and to tests (in the free mode a learner loses access after two weeks).

Futurelearn has also a *Learning Manager* for which companies have to pay per person on the system. Companies can blend a course with specific support with their own use cases and their own mentors: they make their own version of a course (a SPOC).

Futurelearn is not actively pushing this, but rather focusing on the individual, not so much on businesses. The learner is the centre of the marketplace to which universities offer courses responding to a demand.

The CMF helps to tailor courses. Futurelearn encourages universities to think about the workplace too.

## Assessment and recognition of MOOC courses and MOOC pathways

This section provides a framework for assessment and recognition of courses offered on MOOC platforms. It is based on an extensive report produced by the Knowledge Alliance: Iniesto, F. (2021) *Models and Guidelines for Assessment and Recognition of MOOCs and microcredentials*. EMC-LM Project. CC-BY 4.0. and on: Habib, M. and Sanzgiri, J. (2020). *Compendium on good practices in assessment and recognition of MOOCs for the EU labour market*. EMC-LM Project. CC-BY 4.0. See both on: <https://emc.eadtu.eu/emc-lm/results-menu>

Both reports consider three important elements of assessment and recognition in the context of MOOC platforms: identity verification (ID verification), summative assessment processes and categories for microcredential recognition.

This section is applicable to all layers of qualifications (see section on qualifications). As EMC has developed standards for the CMF qualification, it is focusing on this. For example, a microdegree can be considered instead.

### Fulfils CMF microcredential definition

#### Microcredential

Microcredentials aim for small units of study that meet the desired outcomes. Lay foundations for a new qualification to address the needs of employers and learners looking for small units of study that meet their career goals and/or to develop higher education-level skills. Enable Courses produced to the CMF to be recognised towards Formal Qualifications, as they will be designed in accordance with recognised national qualification frameworks. Finally, enable Courses produced to the CMF to be stackable between different higher education institutions in Europe and beyond to support personalisation of learning.

#### Course

The course is defined by CMF as a plan of study which includes a Summative Assessment created and evaluated by a nationally recognised university under its national quality assurance framework. Course content is aimed at employees and should combine a mix of theory and practice to ensure it has direct relevance to the workplace.

According to the CMF, a microcredential should award a transcript that sets out the course content, learning outcomes, total study hours, EQF level and number of credit points (ECTS) earned. It should be designed for those studying at university level – anywhere from first-year undergraduate (EQF Level 5) to doctoral standard (EQF Level 8).

#### Study time & workload

The CMF indicates the total study time including assessment is 100 to 150 hours which translates to 4-6 in the European Credit Transfer and Accumulation System (ECTS). The expectations of a course are that it is designed so that the number of hours of study per week are suited to learners who will need to fit study around full-time work and familial responsibilities.

## Assessment and recognition

### ID verification

The CMF specifies that the course should deploy a reliable method of ID verification at the point of the summative assessment. This should comply with the provider's policies and/or be a method that is widely adopted across platforms. The Compendium defined three levels depending on their reliability: "basic", "good" and "better". Methods marked as "basic" should be accompanied by another method marked as "good" or "better" to grant verification. The following ID verification methods are recommended for microcredentials:

- Platform ID Verification. Basic. Match learner's own photo via a selfie or a webcam with an ID
- Provider Registration. Basic. Learners complete a registration process with the provider.
- Interviews.
  - Basic – On-site oral interview. An interview at the provider's premises
  - Good – Online interview. A short online interview to verify student identity and work
- Recorded presentations. Better. Recording a presentation as part of a capstone project

As reported in the BizMOOC project it is important to consider the accessibility and be compliant with W3C accessibility guidelines<sup>7</sup> and WCAG 2.0 according to the European Commission.

### Assessment

The CMF indicates a microcredential must employ a rigorous summative assessment method that allows the award of academic credit. This credit can be achieved either directly following successful completion of the course or via recognition of prior learning upon enrolment as a student on the provider's course of study. The Compendium identified several types of assessment and their combinations. The following types of assessment are recommended for microcredentials although all, as noted above, have some limitations:

- Computer-graded assessment. This could take the form of a final exam, or quizzes based on case studies or projects
- Teacher-graded assessment. Teacher-graded assessments are often associated with essays and capstone projects
- Multi-type assessment. Mixture of computer-graded assessment and teacher-graded assessment.

Assessment types should as well consider their accessibility.

## Accreditation and recognition

The CMF suggests the course should provide a transcript (certificate supplement) that sets out the course content, learning outcomes, total study hours, EQF9 level and number of credit points (ECTS)<sup>10</sup> earned. In addition, a credible industry backer for a microcredential might endorse its relevance for employment purposes. Endorsement is not always necessary, especially if the university's brand or the course subject would not benefit from a non-university endorsement.

The Compendium has identified several methods for recognition:

- Academic Credit. Offering transferable academic credit which is flexible and offers convenience for students. This can be done by awarding ECTS or by making agreements with universities that they will accept the credits (Transferable).
- Professional Credit. Awarding professional credit hours or credits from formal professional accreditation bodies (Formal). The professional certificate is backed by a business leader to enhance its credibility and offer more work relevance (Endorsement).
- Combined: Offering academic and professional credits in the same programme. This offers more opportunities for learners than offering only one form of credit.

MICROBOL and MicroHE projects identify microcredentials should be awarded in a digital and signed format, for example, the identified Europass Digital Credentials (EDC)<sup>11</sup>. As well as the need to have a strategy that addresses recognition of microcredentials.

OEPASS and ECCOE project indicate the transcript should be issued in a widely spoken language or an easy-to-read graphical format, in a standardised form, according to standardised processes.

## Quality Assurance framework

The CMF suggests the ENQA Guidelines (ESG) should be the reference framework used<sup>12</sup>. Every microcredential must be associated with the award of credit, either directly or via recognition of prior learning. In that regard, the quality is assured by providers confirming that the microcredential passes the provider's standard quality assurance processes. Providers are responsible for ensuring that their internal quality assurance mechanisms follow strict Internal quality criteria and procedures, in line with national quality standards, creating a guarantee for quality.

## Framework for assessment and recognition of microcredentials

This framework maps the elements of assessment and recognition, allowing MOOC platforms, universities and employment services to place microcredentials and similar courses in context. The EMC-LM project is piloting this framework on different courses and platforms in autumn 2021 so that the framework can form the basis for assessment and recognition between MOOC platforms in Europe.

The two checklists below can be used to check:

- that a course is a microcredential, according to the Common Microcredential Framework<sup>13</sup> and
- that it is following current best practices for assessment and recognition.

Apply the following two checklists to the microcredential considering the explanation of terms from the "Models and guidelines for assessment and recognition of MOOCs" based on CMF and the

“Compendium on good practices in assessment and recognition of MOOCs” included at the end. The checklists are designed to be used at the planning and design stages of microcredentials, to allow check if the best assessment and recognition approaches are in place, allowing reflection.

Each of the criteria has information to help the evaluator to know what to evaluate and how to proceed to the test. Space for comments has been added for each of the criteria to allow to add any comment that can enrich the evaluation. The rating method for each of the criteria is as follows:

**No.** The feature to test is not correctly addressed:

- **NA (Not achieved):** The feature to test is missing.
- **PA (Partially achieved):** The feature to test is available but not integrated.

**Yes.** The feature to test is correctly addressed:

- **LA (Largely achieved):** The feature to test is available and partially integrated.
- **FA (Fully achieved):** The feature to test is available and fully integrated.

If the criterion is not applicable none of the previous options is selected, comments should be added.

### Review “Fulfil CMF microcredential definition”

Levels: NA (Not achieved); PA (Partially achieved); LA (Largely achieved); FA (Fully achieved)

Dimension	Criteria	Fulfil microcredential definition			
		NA	PA	LA	FA
1.1 Microcredential	The course defines units of study which do one or more of the following: <ul style="list-style-type: none"> <li>• lay the foundations for learners to gain a new qualification that will enhance their employability</li> <li>• are designed to meet the career goals of learners</li> <li>• develop higher-education level skills</li> </ul>				
	<i>Comments:</i>				
	The course defines units of study which enable the course to be counted towards formal qualifications issued in line with recognised national qualification frameworks				
	<i>Comments:</i>				
	The course defines units that can be combined with those at other higher education institutions				
1.2 Course	<i>Comments:</i>				
	The course includes a plan of study which includes a summative assessment created and evaluated by a nationally recognised provider under its national quality assurance framework				
	<i>Comments:</i>				
	The course combines theory and practice that are directly relevant to the workplace.				
	<i>Comments:</i>				
1.3 Study-time & Workload	The course is levelled at Level 4 - 8 in the EQF or the equivalent levels in the provider’s national qualification framework considering a combination with ECTS (doctorate, bachelor, master, undergraduate level).				
	<i>Comments:</i>				
	The course has a total study time, including completion of the summative assessment of 100-150 hours				
	<i>Comments:</i>				
	The course is designed so that the number of hours of study per week is suited to learners who will need to fit study around full-time work and/or familial responsibilities				
<i>Comments:</i>					

## Review “Assessment and recognition”

Levels: NA (Not achieved); PA (Partially achieved); LA (Largely achieved); FA (Fully achieved)

Dimension	Criteria	Assessment and recognition			
		NA	PA	LA	FA
2.1 ID verification	The course operates a reliable method of ID verification at the point of assessment that complies with the recognised University’s policies or is widely adopted across platforms using (more than one could be used). Methods defined as “basic” should be accompanied by another method marked as “good” or “better” to grant verification for full achievement:				
	<ul style="list-style-type: none"> <li>• Platform ID Verification. (Basic)</li> <li>• Provider Registration. (Basic)</li> <li>• Interviews. <ul style="list-style-type: none"> <li>○ On-site oral interviews (Basic)</li> <li>○ Online interviews (Good)</li> </ul> </li> <li>• Recorded presentations (Better)</li> </ul>				
	<i>Comments:</i>				
	The ID verification method has been checked as accessible for participants with accessibility needs.				
2.2 Assessment	The course provides a summative assessment to enable the award of academic credit via recognition of prior learning upon enrolment for specified qualifications offered by the course provider				
	<i>Comments:</i>				
	The course provides a summative assessment that enables the award of academic credit via completion of the course using:				
	<ul style="list-style-type: none"> <li>• Computer-graded assessment</li> <li>• or Teacher-graded assessment</li> <li>• or a mixture of Computer-graded assessment and Teacher-graded assessment</li> </ul>				
	<i>Comments:</i>				
2.3 Accreditation and recognition	The summative assessment (s) has been checked as accessible for participants with accessibility needs.				
	<i>Comments:</i>				
	The course provides at least a method for recognition:				
	<ul style="list-style-type: none"> <li>• Academic Credit: Formal and transferable.</li> <li>• Professional Credit: Formal and endorsement</li> <li>• Combined: Academic and professional</li> </ul>				
	<i>Comments:</i>				
	The course should be awarded in a digital and signed format, for example, the identified Europass Digital Credentials (EDC).				
<i>Comments:</i>					
2.4 QA framework	The course provider has a strategy that addresses the recognition of microcredentials.				
	<i>Comments:</i>				
	The transcript is issued in a widely spoken language or an easy-to-read graphical format, in a standardised form, according to standardised processes.				
	<i>Comments:</i>				
2.4 QA framework	The quality is assured by passing the normal provider quality assurance processes:				

	<ul style="list-style-type: none"> <li>• The course offers academic credit and is quality assured using the same procedures that are used for other courses for academic credit offered by the institution.</li> <li>• The course offers professional credit and is quality assured using the same procedures that are used for other courses offering similar professional credit</li> </ul>				
	Comments:				
	The provider of the course applies internal quality assurance mechanisms following internal quality criteria and procedures.				
	Comments:				

Table 2: Reviews on “fulfilling CMF requirements” and on “assessment and recognition”

## Definition of terms

- “Accessible”. For both ID verification and summative assessment in case, they include web content it needs to comply with WCAG<sup>14</sup> accessibility guidelines. Videos need to include subtitles and transcription and participants can download, store, and use resources through the process without an internet connection
- “Accreditation and recognition”. Methods for recognition for microcredentials are:
  - **Academic Credit.** Offering transferrable academic credit which is more flexible and offer more convenience for students. This happens either through awarding ECTS or through agreeing with a list of universities to accept the credits (**Transferable**).
  - **Professional Credit.** Awarding professional credit hours or credits from professional accreditation bodies (**Formal**). The professional certificate is backed by a business leader to enhance its credibility and offer more work relevance (**Endorsement**).
  - **Combined:** Offering academic and professional credits in the same programme. It offers more opportunities for learners.
- “ID verification”. The course deploys a reliable method of identity verification (ID verification) at the point of the summative assessment. that complies with the provider’s policies and/or is widely adopted across the Platforms. Three levels depending on their reliability are defined: “basic”, “good” and “better”. Methods marked as “basic” should be accompanied by another method marker as “good” or “better” to grant verification. The following ID verification methods are recommended for microcredentials:
  - **Platform ID Verification. Basic.** Match learner’s photo via a selfie or a webcam with an ID
  - **Provider Registration. Basic.** Learners complete a registration process within the provider.
  - **Interviews.**
    - *Basic.* Conducting an interview at the provider premises (On-site oral interviews)
    - *Good.* Conducting a short online interview to verify student identity and work (Online interviews)
  - **Recorded presentations. Better.** Recording a presentation as part of a capstone project (Recorded presentations)
- “ECTS”. The European Credit Transfer and Accumulation System<sup>15</sup>. The ECTS is a tool of the European Higher Education Area for making studies and courses more transparent.

- “EDC”. Europass Digital Credentials (EDC)<sup>16</sup>. A Europass Digital Credential is a digital file, issued by the institution where you studied. It describes your qualification, and can also include information on your classes, grades, projects and other achievements.
- “EQF”. The European Qualifications Framework (EQF)<sup>17</sup> is a common European reference framework whose purpose is to make qualifications more readable and understandable across different countries and systems.
- “Formal Qualifications”. Qualifications are defined within a national qualification framework and regulated by the relevant Quality Assurance authority.
- “Quality Assurance Framework”. Every Microcredential must be able to award credit, either directly or via recognition of prior learning. In that regard, the quality is assured by participants to pass the normal provider quality assurance processes. ENQA Guidelines (ESG) should be the reference framework used<sup>18</sup>.
- “Recognised Provider”. An institution with degree awarding powers, which is regulated by the relevant applicable national education quality assurance authority.
- “Recognition of Prior Learning”. The policy is operated by a Recognised Provider for the identification, assessment and formal acknowledgement of past learning and achievement, which is considered when admitting a student to a formal qualification.
- “Summative Assessment”. An activity that evaluates what a learner has achieved after a period of study, relative to the learning aims and in accordance with a national qualification framework. A microcredential must employ a rigorous summative assessment method that allows the award of academic credit. That is achieved either directly following successful completion of the course or via recognition of prior learning upon enrolment as a student on the provider’s course of study. The following types of assessment, considering their limitations, are recommended for microcredentials:
  - **Computer-graded assessment**. These assessments could be a final proctored exam or quizzes based on case studies and coding projects
  - **Teacher-graded assessment**. Teacher-graded assessments are often observed with essays and capstone projects
  - **Multi-type assessment**. A mixture of computer-graded assessment and teacher-graded assessment.
- “Workload”. A measure expressed in hours of all learning activities that may feasibly be required for the achievement of the learning outcomes.

## Example

The Knowledge Alliance Compendium on Good practices in e-Assessment and Recognition

In the Knowledge Alliance, an up-date *Compendium on good practices in assessment and recognition of MOOCs for the EU labour market* is published in an unvaluable overview:

Habib, M. and Sanzgiri, J. (2020). *Compendium on good practices in assessment and recognition of MOOCs for the EU labour market (EMC-LM deliverable 4.1)*. EMC-LM Project. CC-BY 4.0.

[https://emc.eadtu.eu/images/publications\\_and\\_outputs/EMC-LM\\_Compndium\\_on\\_good\\_practices\\_final.pdf](https://emc.eadtu.eu/images/publications_and_outputs/EMC-LM_Compndium_on_good_practices_final.pdf)

This Compendium summarises good practices in ID verification systems, approaches to recognition, and summative assessment. This involved:



- conducting desktop research within MOOC platforms to identify good practice and collecting current good practices on the EMC platforms;
- collecting good practices and evidence in other MOOC projects to gather examples;
- categorising these examples of good practices.

Main parts of the compendium or on:

- ID verification systems
- 
- Methods of academic and professional recognition, including quality assurance aspects
- Single-type and multi-type summative assessments

# The continuous assessment of the needs on the labour market

## Survey tool

The Knowledge Alliance developed a survey for the annual assessment of the needs of stakeholders on the European labor market. The survey is translated in different languages: French, Spanish, Dutch and Italian.

Stakeholders are categorized into several groups: large companies and medium/small companies (SMEs), public agencies and governmental departments, NGOs. The overall objective is assessing the degree of interest in:

- valuing courses offered on MOOC platforms, including MOOCs and microcredentials, awarded with recognized qualifications for existing employees or job seekers;
- participating in /contributing to content for MOOCs and microcredentials for their sector.

Together, the survey questions collect the most relevant information regarding the needs of these stakeholders with regard to education and training on the labour market.

These annual surveys help the EMC-LM Knowledge Alliance define how to market courses from the MOOC platforms as new, certified 'products' that can boost professional development, promote life-long-learning or increase jobseekers' chances of finding work.

The key is to match stakeholders' perceived needs/issues to the use of microcredentials and MOOCs as a (part/whole) solution for their organization, can support and reinforce their training system.

The data have an impact on the development of marketing plan of the Knowledge Alliance and on the functionalities of the MOOCs4U portal, designed to provide information and direct stakeholders to the various partner MOOC platforms to sign up for these courses.

The survey tool was three times administered in the course of the Knowledge Alliance project

---

You will find the survey in the annex of this Handbook.

## Marketing strategy and plan

during the three years of the project, the Knowledge Alliance developed iteratively a marketing strategy to develop annual marketing plans, starting from the current marketing strategies, that each partner platform currently applies to MOOCs related to the labour market and/or MOOCs which award a micro-credential. Some strategies are replicated and others created as to develop a joint marketing plan which incorporates all platform strategies in the knowledge alliance space, which may be coordinated under one umbrella with all partners sharing duties and responsibilities.

Having a joint marketing plan allows for a more homogeneous monitoring of the impact of the partners' actions. On the other hand, partners have their own plans in the context of their own geographical space, the structure of their offerings and the target groups and organizations they want to reach.

The e-learning market is becoming increasingly fragmented, with huge and aggressive competition from more and more course and content providers with high budgets for marketing and user engagement. Therefore, to ensure the success of EMC content, it is key to have differentiating elements that stand out from the current offer.

In the plan a situational analysis (SWOT, industry, EMC context, customer analysis) are included and a positioning with regard to the target markets. Furthermore, the marketing strategy delivers approaches to the positioning of MOOC platforms on a competitive market, a product strategy, a price strategy, and a promotional and distribution strategy.

While the price (making it accessible to all audiences) or the subject matter (as closely as possible to the market needs identified through the surveys) may be important factors, the most differentiating factors are the new framework developed by the EMC Consortium, the Common Microcredential Framework (CMF)<sup>i</sup> that aims to encourage the development of qualifications that will better meet the needs of modern learners and combine an academic and a professional profile. It is using the Bologna tools, completely in line with the proposal of the European Commission for a Council Recommendation on Micro-credentials. This has an added value on the market, also for tech companies such as Microsoft, Cisco, etc..

Moreover, this document encompasses a dissemination strategy and implementation plan. The final version of the marketing plan is internally available on the Teams-site of the Knowledge Alliance.

## The MOOCs4U Portal

One of the main outcomes of the Knowledge Alliance is the MOOCs4U portal of MOOC offerings and other online microcredentials for the labour market. Continuation of MOOCs4U portal is foreseen under the European MOOC Consortium (EMC). The membership organisation EMC has the portal maintenance and extension of offerings as one of its core-businesses. EMC extended its membership with iMooX (Austria), NAU (Portugal), and AI Campus (Germany).

The MOOCs4U portal (<https://moocs4you.eadtu.eu>) has been designed in WordPress. The design and implementation have been coordinated by EADTU and the WP leader Telefonica. The portal contains the MOOCs offerings relevant for the labour market coming from each EU MOOC platform provider in the partnership: FutureLearn, FUN MOOC, Miriadax, EduOpen, iMooX, NAU and AI Campus. In the portal are also available the MOOC offerings relevant for the labour market, provided by Higher Educational Institutions (HEIs) which are part of the OpenupEd community.

The MOOC offerings in the portal are automatically updated thanks to an 'agent' and an API, also after the project has finished. The agent, developed by the Telefonica team, takes care of gathering all the info from each MOOCs platform website and transforms it in a format (json) compatible with the API. The API reads the info provided by the agent and displays it correctly on the portal MOOCs4U. This API, back-end and front-end of the portal, has been developed and deployed by a subcontracted developer company called Humance. More technical information on the 'agent' and the API can be found on the file ECM-LM API Based Course Integration under WP5 - "Increased visibility and accessibility" List of Needs for the Online Portal

By visiting the portal, the user can look for a MOOC in at least 3 different ways:

- a- by using a keyword that needs to be inserted in the search box at the top left of the home page
- b- by clicking on a category of interest (all the MOOCs are organized in thematic categories that can be accessed from the home page-middle/central part of the page) these Categories & subcategories for programmes and MOOCs (STRUCTURE) are in line with ISCED: <http://uis.unesco.org/sites/default/files/documents/isced-fields-of-education-and-training-2013-en.pdf> p.18
- c- by accessing the provider page accessible on the bottom of the home page. The provider page visualises an intro/description of the provider and the complete list of the MOOCs offerings that are available on the portal from that provider.

The portal also contains a dedicated page that explains the origins of the portal and the connection with the Knowledge Alliance "European MOOC Consortium for the Labour Market". It is also explained why it is relevant for the stakeholders (learners, companies, governmental bodies, public employment services, universities and sector organizations). <https://moocs4you.eadtu.eu/who-are-we/>

Another important feature available on the portal is a chat box, that appears in the right- bottom corner, after a few minutes the user is accessing the website. Moderation is covered after the project ending by the EMC-Secretariat that continues to operate on a membership (-fee) basis.



## Policy recommendations from the LMC-LM Knowledge Alliance (14122021)

At the end of the project, policies recommendations are developed based on results of the Knowledge Alliance project. The recommendations are focusing on policies and strategies for each of the stakeholders in the Knowledge Alliance. The recommendations are discussed in the final Policy Forum.

### Objectives

Policy recommendations are developed:

- To promote the collaboration between MOOC platforms, universities and labour market organisations;
- To promote the offering of MOOCs and microcredentials for the labour market, meeting the needs for flexible and scalable education and training;
- To promote sustainable interfaces between MOOC platforms, universities and the labour market for matching needs and provisions;
- To support the recognition of microcredentials and microcredential qualifications;
- To create a continuous dialogue on MOOCs and microcredentials with all stakeholders, governments and the EU.

Based on seminars of MOOC platforms, universities, enterprises and public employment services, the EMC-LM Policy Forum has developed policy recommendations at the level of each of the stakeholder organizations (14/12/2021);

:

### Recommendations at the level of MOOC platforms

1. **Develop a medium- and long-term strategic plan for MOOCs and microcredentials in cooperation with universities and external stakeholders such as enterprises and social partners**, for meeting the needs of society, regions and the economy.
2. **Support universities in the development of scalable and flexible continuing education** by creating an **interface between universities and the labor market** in order to understand the needs for professional development and to (co-)create initiatives and **dedicated MOOC and microcredential spaces** for sectors and enterprises in the private and public sector.
3. **Build a consistent framework for awards and qualifications for microcredentials in collaboration with the universities**, supporting continuing education and professional development. (see table 1).
4. Introduce the **creation of bite-sized microlearning units** ranging from 1h to less than 30 hrs (1 ECTS) for the development of very specific skills to respond to the demand of labour market and employment services.
5. Make MOOC and microcredential courses and programmes **stackable by modularization** where possible

6. **Facilitate fluid credential evaluation of MOOCs and microcredentials** by academia and employers by issuing awards and qualifications accompanied with a transcript describing at least: 1. The logo of the institutions involved; the ID of the learner; 2. learning outcomes and content; 3. The EQF/NQF level; 4. The workload (ECTS); 5. the assessment method; 6. the academic credits (ECTS, certificate) and possibly the professional credits awarded; 7. quality indicators.  
Use the Bologna tools facilitating recognition and credential evaluation.
7. **Position MOOC platforms in the European Commission's concept for the University of the Future 2030** and lifelong learning, continuing education and professional development, capitalizing on major policy lines of discussions start at the European Commission

## Recommendations at the level of universities

1. **Collaborate with a MOOC platform to enable flexible and large-scale delivery of MOOCs and microcredentials** in partnership with public and private sectors and professional organizations to optimize content and organizational capabilities.
2. **Develop a medium- and long-term strategic plan for MOOCs and microcredentials in cooperation with your MOOC platform and external partners**, for meeting the needs of society, the regions and the economy.
3. **Develop pedagogical guidelines for the design and development of MOOCs and microcredentials** in collaboration with your MOOC platform and taking into account the specific features of learners at different stages in their career and the needs of society and the economy.
4. **Build a consistent institutional qualification structure for continuing education and professional development** (see annex)
5. **Stimulate multilateral agreements among institutions in networks and EUI alliances on common qualification structures for continuing education and professional development**, which will assure the mutual recognition of MOOCs and microcredentials.
6. **Make MOOCs and microcredentials stackable** to larger programmes by modularization, where possible.
7. **Facilitate fluid credential evaluation of MOOCs and microcredentials** by academia and employers by issuing awards and qualifications accompanied with a transcript describing at least: 1. The logo of the institutions involved; the ID of the learner; 2. learning outcomes and content; 3. The EQF/NQF level; 4. The workload (ECTS); 5. the assessment method; 6. academic credits (ECTS, certificate) and possibly professional credits awarded; 7. quality indicators.  
Use the Bologna tools facilitating recognition and credential evaluation.
8. **Use MOOCs and microcredentials as mobility windows** in collaborative programmes and digital mobility schemes.

9. **Develop business models for continuing education and professional development** based on a combination of public funding, possible contributions of sectors and professional organizations and student fees.
10. **Develop an institutional concept for the University of the Future 2030** and for the position of continuing education and professional development, building on current policies and discussions at the European Commission.

### Recommendations at the level of sectors and enterprises

1. **Integrate MOOCs and online microcredentials in the human resources policies of sectors and enterprises** in order to make education and training flexible, scalable and accessible by all, integrating education and training in successive stages of the workforce's career development.
2. **Make leadership and staff of human resources departments familiar with diverse forms of digital education and training** in order to make HR-strategies more efficient and effective.
3. **Collaborate with MOOC platforms and universities to co-create MOOCs and microcredentials** for innovation in sectors and enterprises based on up-to-date knowledge and research.
4. **Collaborate with MOOC platforms and universities to develop sector-specific microcredentials and learning spaces** for both SMEs and large companies.
5. **Extend sectoral funds for education and training to the full spectrum of the workforce**, from low-skilled to highly skilled, as it evolves rapidly through the development of knowledge and innovation.

### Recommendations at the level of public employment services

1. **Inform MOOC platforms and universities on the national and regional needs** for competence development and skills gaps in the economy.
2. **Collaborate with MOOC platforms and universities in the development of education and training provisions** in order to match supply and demand the labour market.
3. **Promote activities of training organisations and services that support competencies and career development** for the complete range of lowly and highly schooled people as the economy is evolving to complex innovations.
4. **Create collaborations between e-learning centers of the public employment services and MOOC platforms**, especially at levels 5,6,7 of EQF and for the development of 21st century skills, in priority sectors of the economy,.
5. **Create a dialogue with MOOC platforms and universities on a differentiation of MOOCs and digital learning offerings**, ranging from micro-learning units to microcredential programmes which can be integrated in corporate training offerings.



6. **Co-create with MOOC platforms and universities micro-learning units, MOOCs and microcredential courses and programmes.**
7. **Organize training of trainers for staff of public employment services** In order to optimize the design, development and delivery of digital learning.

### Recommendations at the government level

1. **Collaborate with MOOC platforms, higher education institutions and stakeholder groups to develop policies for building a national ecosystem for lifelong learning** by which citizens are facilitated to participate massively to continuing education and professional development during the course of their lives.
2. **Create a dialogue with MOOC platforms and higher education institutions** on a consistent implementation of the European Commission's Recommendation on microcredentials in higher education in the national higher education system
3. **Improve the funding of MOOCs and microcredentials** in order to meet the needs of the economy and society related to priority areas such as digitalization, health care, education and training, climate change and others.

### Recommendations at the European level

1. **Integrate and recognize continuing education and professional development through microcredentials in the Bologna process**, next to degree education, as part of formal education linked to the European Qualification Framework and delivering ECTS. Microcredential qualifications ensure harmonization in continuing education awards, which is important for the recognition by academia and employers.
2. **Promote MOOCs and microcredentials** in order to make continuing education and professional development flexible, scalable and accessible by all to meet the needs of the European labour market.
3. **For making this happen, use the Bologna tools for defining microcredential qualifications**, notably ECTS credits, the microcredential transcript and levels 5 to 8 of the European Qualification Framework. This will promote the stackability of these qualifications for continuing education in degree programmes.
4. **Create a permanent dialogue in order to involve all stakeholders for continuing education and professional development**, notably educational and social partners and governments, for the development of continuing education at scale in all EU members states and for increasing the relevance of continuing education for employability and entrepreneurship.
5. **Collaborate with university networks and stakeholders to recognize microcredentials as formal parts of the European Education Area**, in order to harmonize and upscale continuing education and professional development in national provisions of higher education
6. **Develop policies for the large-scale development** of continuing education and professional development as a primary area of provision in European universities next to degree education.

## Foundations for further collaboration in the Knowledge Alliance

### Contribution of the MOOC platforms:

MOOC platforms and universities collaborate with private and public labour market organisations: sectors, enterprises, ministries and public agencies.

They deliver and co-create with these organisations MOOCs and MOOCs pathways for employment and innovation which after assessment are awarded with CMF microcredential. These are stackable to wider certified programmes and academic degrees. Due to the crisis, more and more people have to change from a particular sector to another branch or business. Microcredentials can facilitate this by retraining people.

They are able to deliver comprehensive services for the organisation of high quality continuous professional development of their workforce in sectors, companies and public services, reducing the cost by flexibility and scalability. This can include a specific training platform for a company or a sector, eg a dedicated company space, a white label platform or other specific arrangements.

### Contribution of universities

Universities are rethinking policies and strategies for higher education for continuing education and professional development for which online solutions are needed to increase accessibility (flexibility and scalability). This responds to the needs for continuing education and professional development in society. In the framework of these new developments, microcredentials will stimulate the modularisation of continuing education and will make this better accessible for learners.

Microcredentials will be stackable to wider short learning and degree programs. In some universities, also academic master programs will be organised in a modular way offering academic microcredentials with a professional orientation for alumni already at work.

In this process, universities increasingly collaborate with companies and sectors for the co-creation under many modalities, e.g. needs analysis offering internships or the co-creation of content.

University alliances and other university networks have started with new initiatives for continuing education and professional development using online learning opportunities and MOOCs. This new development will lead to innovative new educational formats and pedagogies. Collaboration will also improve quality and a better coverage of a European-wide market.

Governments are developing strategic plans for continuing education and professional development in which both the ministries of education and labour are involved. However, in most European countries this process is going slowly.

Also because of the COVID crisis a sense of urgency is increasing and governments foresee specific funding for professional development and vocational training. Part of this funding is coming from the European Union's Recovery Plan.

Governments should introduce a dialogue between all stakeholders: universities, sectors and companies, public employment services. This dialogue should be extended to the social partners. All should be aware of the potential of online learning opportunities and MOOCs because of their quality, flexibility and scalability.

The European Union is promoting education and training for the labour market by innovation in higher education, Smart specialisation, university-business cooperation initiatives, enhancing LM relevance and outcomes of HE.

#### Contribution of the sectoral organisations and companies:

Public and private sectors have created sectoral funds for education and training by which all companies (SMEs and large businesses) can find training initiatives for their workforce. They serve a large variety of learners from the lowly qualified to the highly qualified. Companies are not yet familiar with digital training. Therefore, a multiple approach is needed combining digital and face-to-face learning. Some sectors develop digital learning platforms for enterprises integrating all learning initiatives of the sector. In some countries, also the public sector is cooperating with MOOC platforms, for example for the in-service training of teachers or for training civil servants in their administration, reaching out to massive numbers of learners.

Next to a general platform with free courses, MOOC platforms provide as well specific company spaces, white label platforms or voucher systems for individual private companies. By doing this, they create a new learning environment facilitating the update of learning pathways by employees. They can select MOOCs pathways for their company at a reduced cost which can be awarded by CMF microcredentials. Guiding learners and offering structured learning pathways awarded with (micro-)credentials will support the motivation of learners and avoid drop-out. Social learning is also important to support motivation and for constructing knowledge.

#### Contribution of the public employment agencies:

In EU countries, public employment services (PES) are the authorities that connect jobseekers with employers. Although structured differently in each country, all PES help match supply and demand on the labour market through information, placement and active support services at local, national and European level.

Public employment agencies organise a network of regional and sub-regional competence and training centres for employment, innovation and career guidance. They host as well e-learning centers where learners can find courses at all levels. In many cases, they cooperate with the private sector.

So far, public employment services have only a limited experience with MOOCs, However, MOOCs are attractive to them because of their quality, flexibility, scalability and costs. For the target groups of PES, it is important that MOOCs have a modular structure consisting of small learning units to be affordable for learners at work. Learners at work need sometimes bite-sized pieces of learning

Also, awarding microcredentials is important, although not all learners request a qualification.

MOOCs might faster learn in particular areas or sectors, which is really needed, eg regarding digitalization. In COVID-times, rapid responses have to be given, for example in teacher training and healthcare/nursing.

MOOCs are also useful for training transversal 21<sup>st</sup> century skills.

From the point of view of public employment services, there is a need for a comprehensive approach to blended and online learning opportunities which includes pedagogical, organisational and technological aspects. There are no European solutions or references for such an approach, which could be implemented at the national or regional level. Such an approach would also include the training of trainers. Next to other providers, MOOC platforms and higher education institutions could have a role in this.

## Annex 1: the European stakeholder survey for assessing needs and attitudes regarding MOOCs and microcredentials for the labour market

### **Welcome to the European MOOC Consortium European Labour Market Survey**

We need your help in shaping the future of microcredentials and Massive Open Online Courses (MOOCs) for employability, innovation and entrepreneurship in Europe.

Our survey will take only 10-15 minutes and your participation will influence how microcredentials and MOOCs could transform the future of professional training and skills.

#### **Who are we?**

The European MOOC Consortium (EMC) is a partnership of Europe's largest MOOC platforms; FutureLearn (UK), FUN (France), Miriadax (Spain and Ibero-America), EduOpen (Italy), iMOOX (AU) and OpenupEd / the European Association of Distance Teaching Universities (Netherlands). These partners represent most of the MOOC development work in Europe in terms of learners and number of MOOCs, by offering more than 40 microcredentials and almost a thousand MOOCs between them. Together, they represent a large network of 250 higher education institutions (HEIs) working in a variety of European languages, including English, French, Spanish, Portuguese and Italian.

#### **What are MOOCs and microcredentials?**

A MOOC (or Massive Open Online Course) is a web-based distance learning course, (often free) that is designed for the participation of large numbers of geographically dispersed students. The European MOOC Consortium offers such courses, which are enjoyed by millions of people around the world.

A microcredential is a small volume of learning certified by a credential. It can be offered by higher education institutions or recognised by them using recognition procedures in line with the Lisbon Recognition Convention or recognition of prior learning, where applicable. A micro-credential is designed to provide the learner with specific knowledge, skills or competences that respond to societal, personal, cultural or labour market needs. Microcredentials have explicitly defined learning outcomes, an indication of associated workload in terms of European Credit Transfer and Accumulation System (ECTS) credits, assessment methods and criteria, and are subject to quality assurance in line with environmental, social and governance (ESG) measures.

#### **What are we trying to do?**

As part of an EU-funded project, the EMC is currently carrying out research to **explore how key European stakeholders including companies, public services, agencies and governmental departments view the use of MOOCs and microcredentials as officially recognized qualifications to deliver training content targeting the labour market.** The objective is to offer a flexible approach to (re)train jobseekers in those skills in high demand by companies, while allowing those in employment to continue improving and updating their skills with high quality MOOC and microcredential content produced and accredited by European universities.

#### **What do we need from you?**

Your views! As a decision maker with regard to hiring or training, as an important part of our ambitious project, we need your opinions and insights related to a series of topics on MOOCs and their use.

The results of this annual survey will be analyzed and used to shape how our project evolves and to gauge the level of interest that exists with respect to certifiable and recognized MOOCs and microcredentials for the labour market in Europe.

**What information do we collect and how?** This survey collects information related to the opinions and perceptions of relevant stakeholders who are invited to participate. The type of information that will be collected will be anonymous and no personal data such as name or contact details will be required.

**Why do we collect data?** The purpose of this online survey is to gather information and learn more from our network of partners and stakeholders concerning the use of MOOCs and microcredentials to gain officially recognized qualifications within the European labour market.

**How long will we keep your data?**

Collected data will be retained for the duration of the project (ending on 31 December 2021) and will be archived for two years after that.

**How secure is your data in our possession?**

Please go to our partner's website to understand how secure your data is; [https://www.telefonica.com/en/web/about\\_telefonica/privacy-centre/privacy](https://www.telefonica.com/en/web/about_telefonica/privacy-centre/privacy)

The following link also outlines the personal data protection policy that is being used for this survey: [https://www.telefonica.com/en/web/shareholders-investors/personal-data-protection\\_](https://www.telefonica.com/en/web/shareholders-investors/personal-data-protection_)

**Your rights**

In accordance with the GDPR you have

- The right to access, view, and edit your own information in a timely manner
- The right to be forgotten, which means being deleted from our survey results
- The right to be able to opt out of participation in future surveys

**Who to contact for further information**

For further questions or clarifications, please contact our Data Protection officer [DPO\\_telefonicasa@telefonica.com](mailto:DPO_telefonicasa@telefonica.com).

---

START SURVEY

**Thank you for agreeing to take part in our Survey. This questionnaire will take you between 5 and 10 minutes and you will not be asked for any personal data.**

**START SURVEY**

**1. You or your organization is headquartered in;**

- France
- UK
- Spain
- Netherlands
- Italy
- Belgium
- Austria
- Other, please state

**2. You are:**

- A. A company
  - SME (including Start Up)
  - Large Corporation
- B. A public employment service (PES)
- C. A public institution/agency/government department
- D. A non-governmental organization (NGO)

**3. Your role in your company is;**

---

**4. What is the size of your organization?**

- Less than 11 employees
- From 11 to 49 employees
- From 50 to 249 employees
- 250 to 2,000 employees
- More than 2,000 employees

**5. What is your organization's business sector?**

- Public sector, excluding Health
- Health
- Industry
- Construction or real estate
- Agriculture
- Transportation
- Retail or wholesale trade
- Education and training
- Digital
- Banking and insurance
- Other, please state

**6. Has your organization ever offered eLearning to its employees? (you can give more than one answer)**

- Yes with an internal platform
- Yes with an external platform for off-the-shelf training
- Yes, by recommending employees to complete MOOCs or microcredentials
- Yes by enrolling employees in MOOCs or microcredentials with associated paid services
- Yes by combining online and face-to-face training
- Other (please specify)
- No

Could you tell us a little about the experience of offering eLearning? What worked best? What was most challenging? How did your experience influence your current situation? *Open question with free text.*

**7. Does your organization plan to use online training in the future?**

- Yes, within next 1-3 months
- Yes, within next 4-6 months
- Yes, within next 7-12 months
- Yes, sometime in the future
- Not in the foreseeable future / Don't know

If no, please give a reason.

**8. Are MOOCs and/or microcredentials part of your organization's strategic development plan?**

- Yes
- No
- Don't know

If no, can you tell us why? *Question with free text.*

**9. Do you consider MOOCs and/or microcredentials as a relevant means of professional development within your organization?**

- Yes – they could offer the possibility of evaluating and certifying my employees' skills online
- No – I don't think they could be of value to our current employment plan
- Don't know

If your answer was no, can you tell us why? *Open question with free text.*

**10. Would you consider recognizing MOOCs and/or micro credentials as an acceptable qualification to hire someone if they were accredited by a university?**

- Yes
- No
- Don't know

Can you tell us why? *Open question with free text.*

If your answer was *no*, please tell us what would change your mind. *Open question with free text.*

**11. If you were able to choose, which of the following training scenarios would you consider to be the most useful for your organization and employees in terms of using MOOCs and/or microcredentials?**

- By providing my employees free access to MOOCs / microcredentials and the freedom to choose the most interesting
- By offering specific relevant MOOCs /microcredentials for my employees only
- By adapting existing MOOCs and/or microcredentials to my sector and offering a recognized qualification from a university for a cost (to company)
- By adapting existing MOOCs and/or microcredentials to my sector and offering a recognized qualification from University for a cost (to employee)

Please tell us of any other options that might be of interest to your company. *Question with free text*

**12. With respect to the possibility of incorporating an officially accredited MOOC or micro-credential in your company's training programme, what impact do you think this would have on employees?**

	A lot	A little	None
Improve motivation to take training	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increase employee commitment to company	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improve employee productivity and impact	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Make company more attractive for new staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Are there any other outcomes that you would foresee? *Question with free text.*

**13. If EMC were to offer MOOCs and/or microcredentials geared towards the labour market, how interesting would the following options be and how much would you think it would be reasonable to invest in them per employee?**

Scenario	Level of Interest 1-5 (5= very interesting)	Amount reasonable to pay €
Access to a relevant MOOC with a certification of completion issued by one of the EMC partner platforms		
Access to a relevant MOOC accredited by a European University		
Access to a relevant MOOC accredited by a European University and the EU		
Access to a relevant MOOC accredited by a professional organization.		



Any other comments? *Question with free text.*

**14. What is the approximate distribution of the following topics in your 2021 training plan? (leave blank if the theme is not relevant to you)**

Example: 90% management and HR, 5% foreign languages and 5% office tools

Management and HR	<i>Weight in 2021</i>
Business management	<i>Weight in 2021</i>
Law, finance and accounting	<i>Weight in 2021</i>
Communication and marketing	<i>Weight in 2021</i>
Trade, sales and customer relations	<i>Weight in 2021</i>
Foreign languages	<i>Weight in 2021</i>
Personal development	<i>Weight in 2021</i>
Scientific expertise in mathematics, physics, mechanical engineering...	<i>Weight in 2021</i>
Scientific expertise such as psychology, sociology, social scientific...	<i>Weight in 2021</i>
Health - medicine	<i>Weight in 2021</i>
Office tools (word, excel, mailing...)	<i>Weight in 2021</i>
Business software (ERP, CRM, CAD-CAM, BIM...)	<i>Weight in 2021</i>
Programming languages, web development...	<i>Weight in 2021</i>
Networks and telecoms	<i>Weight in 2021</i>
Business software (ERP, CRM, CAD-CAM, BIM...)	<i>Weight in 2021</i>
Networks and telecoms	<i>Weight in 2021</i>
Sustainable development and environmental issues	<i>Weight in 2021</i>
Mandatory training (electrical authorizations, etc.)	<i>Weight in 2021</i>

**15. For which of these topics would you prefer online or partially online training? Select all that apply;**

- Management and HR
- Business management
- Law, finance and accounting
- Communication and marketing
- Trade, sales and customer relations
- Foreign languages
- Personal development
- Social scientific expertise of the mathematical, physical, mechanical type...
- Social scientific expertise such as psychology, sociology, cultures and civilizations...
- Health - medicine
- Office tools (Word, Excel, mailing...)
- Business software (ERP, CRM, CAD-CAM, BIM...)
- Programming languages, web development....
- Networks and telecoms
- Sustainable development and environmental issues
- Mandatory training (electrical authorizations, etc.)
- All of them
- None of them

Other (please specify): *Question with free text.*

**16. How do you develop your Human Resource Development and training plans?**

**17. Would your organization be interested in contributing learning content in order to create MOOCs/microcredentials which are more related to your company/sector and so increase impact?**

Yes  
No  
Maybe

**18. Where do you look in order to fill job openings? (use more than one option if necessary)**

- Public employment service
- Social media sites such as LinkedIn
- Trade sites
- Printed press
- Personal network of your own employees
- Recruitment agency
- Other (please specify)

**19. Thank you very much for your participation in our survey. All you have to do now is click on the "Done" button to close this survey and save your answers.**

If you agree to be contacted again as part of this study for any further questions, please provide your contact details below. (Click [here](#) for more information on how we treat your data)

- Function and organization
- First and Last Name
- Email
- Telephone number

## ANNEX 2: Guidelines for awarding mechanical qualifications

### Guidelines for awarding microcredential qualifications

#### *Justify the award to be recognized*

Justify why the microcredential programme should lead to academic recognition by the partner universities and which qualification should be awarded. Take into account the content, the EQF level, the volume of the programme and the possible stackability to other programmes.

Also seek professional recognition from external stakeholders, such as professional organizations and employers, so that learners can valorise their microcredential qualification for professional development credits or accreditation by professional bodies (e.g. related to professions in psychology, IT, medicine/healthcare, accountancy, education, business sector).

#### *Align the award with the institutional qualification structures*

Higher education institutions are likely to have very different institutional qualification structures for continuing and professional development, as can be seen from the study guides. These structures are adopted autonomously by institutions and possibly align with national and evolving European frameworks.

Not all universities have developed a consistent qualification structure, and neither have governments. In fact, many institutional qualification structures are under development and in most cases not yet stable. Institutional structures might converge to the following characteristics and cases:

- a course with a size of less than 1 ECTS is delivered as a micro-learning unit, possibly provided with *an attendance badge*. The course can serve as a unit of learning in a credited course or as a micro-learning unit in a corporate training programme;
- a microcredential course comes with a reliable and valid assessment. *ECTS points* are awarded;
- a CMF microcredential programme<sup>1</sup> is delivered as a coherent track of courses with a total volume of 4-6 ECTS, which is awarded with a *CMF microcredential qualification*. This qualification can be stacked into a broader programme;
- A microdegree is delivered as a microcredential programme of 20-40 ECTS, which is awarded with a *microdegree qualification*;
- A degree is provided in the form of a *bachelor's or master's degree* (180, rep.60/90/120 ECTS). This degree qualification may be awarded following a modular series of microcredential qualifications, supplemented by a thesis.

From learning unit to degree programme	Volume of learning (ECTS)	Qualification Level	Award
Learning unit/micro-learning unit	Less than 1 ECTS	Undergraduate EQF level 5, 6	a badge/proof of attendance (can be part of a course or stackable to a course)

		Postgraduate EQF level 7,8	
A single course A microcredential course A single MOOC with credits	Number of ECTS credits awarded to the course	Undergraduate EQF level 5, 6 Postgraduate EQF level 7,8	ECTS course credits (stackable to a programme)
<b>CMF- microcredential programme CMF MOOC pathway</b>	<b>4-6 ECTS</b>	Undergraduate EQF level 5, 6 Postgraduate EQF level 7,8	<b>CMF microcredential gradeo (stackable in a microcredential programme or a degree programme)</b>
<b>Microcredential programme Microdegree programme MOOC-based programme</b>	<b>20-40 ECTS</b>	Undergraduate EQF level 5, 6 Postgraduate EQF level 7,8	<b>undergraduate/postgraduate certificate microdegree specialisation certificate expert certificate certified professional programme focus diploma MicroMaster nanodegree diploma ... (stackable to a degree programme)</b>
Degree programme (bachelor/master/doctorate)	180 ECTS 60-90-120 ECTS 240 (180) ECTS	Undergraduate EQF level 5, 6 Postgraduate EQF level 7,8	short cycle graduate bachelor/master degree doctorate degree

*Fig. Outline of possible microcredential awards, based on existing continuing education programmes*

*Define the type and name of the qualification to be awarded*

The higher education institution must define the type and name for the qualification awarded by the microcredential programme.

In the context of the European Education Area and the European Digital Education Plan, the European Commission issued a Recommendation to the Council of Ministers on microcredentials in 2021, which is expected to be implemented by Member States in 2025, for recognizing microcredential qualification.

Current microcredential practices anticipate on this recognition.

In the Common Microcredential Framework, launched by the European MOOC Consortium and the universities concerned, a microcredential qualification meets the following standard requirements, in response to the study time horizon of students who combine work and study:

- an EQF qualification level 5 to 8;
- a study load of 4 to 6 ECTS or 100 to 150 hours of study;
- a reliable and valid assessment;
- stackability to other programmes.

In France, Spain and Italy, these CMF microcredentials are called “gradeos”. CMF microcredentials. CMF microcredentials are now endorsed by other universities as well.

Current qualifications assigned to wider microcredential programmes in Europe (20-40 ECTS) have diverse names, for example: "undergraduate/postgraduate certificate", "undergraduate/postgraduate module", "expert track Certificate" "specialization in ...", "expert in ...", "professional certificate", "focus diploma".

Some short learning programmes include MOOCs or are fully MOOC-based microcredential programmes with qualifications such as "MicroMasters" and "Nanodegrees". European MOOC platforms and their universities now systematically develop such certified microcredential courses and programmes, which further can be combined to a bachelor or master degree.

In daily practice we see that there is probably a need for an additional standard for microcredential programmes with a size of 14-16 ECTS.

#### *Design a qualification supplement*

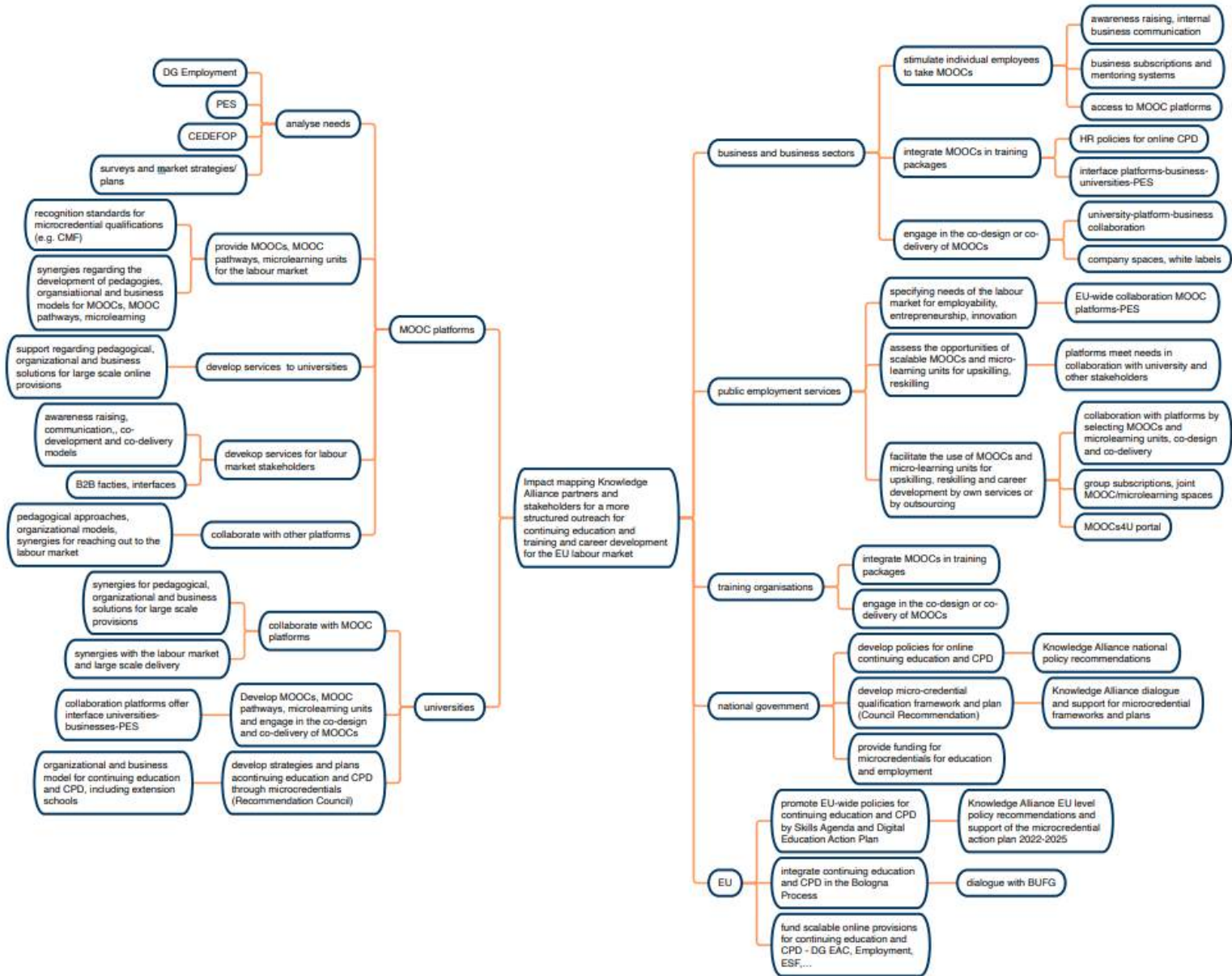
A qualification for a microcredential programme is accompanied by a qualification supplement, containing information as detailed by the ECTS Users' Guide and Europass. This is important for the valorisation of the certificate in academia and by employers. Descriptors are (See: [http://ehea.info/Upload/document/ministerial\\_declarations/EHEAParis2018\\_Communique\\_AppendixIV\\_952782.pdf](http://ehea.info/Upload/document/ministerial_declarations/EHEAParis2018_Communique_AppendixIV_952782.pdf)):

- information on the holder of the qualification;
- information identifying the qualification;
- information on the level and duration of the qualification;
- Information about the programme followed and the results achieved;
- Information about the function of the qualification (e.g. stackability)
- information on the national higher education system.

#### *Award a professional qualification*

In some cases, microcredential programmes are co-created or accredited by a professional organisation, business sector or public service (healthcare, education,...). These organizations will recognize these programs for their own continuing professional development framework. Microcredential programmes can therefore be financed by the sector or recognized for a personal learning account. In some cases, they will issue a specific professional certificate in addition to the academic award of the university.

# Annex 3: Impact mapping Knowledge Alliance partners and stakeholders



**License used:** This work is licensed under a Creative Commons Attribution Share Alike 4.0 International License: <https://creativecommons.org/licenses/by-sa/4.0/>

With this license, you are free to share copy and redistribute the material in any medium or format. You can also adapt remix, transform and build upon the material for any purpose, even commercially.

**But only Under the following terms: Attribution** — You must give [appropriate credit](#), provide a link to the license, and [indicate if changes were made](#). You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use.

**ShareAlike** — If you remix, transform, or build upon the material, you must distribute your contributions under the [same license](#) as the original.

**Disclaimer:** The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



Co-funded by the  
Erasmus+ Programme  
of the European Union



