OVERVIEW OF NATIONAL/REGIONAL FRAMEWORKS OF PROCTOGO PARTNERS

The ProcToGo Experience

ProctoGo

Introduction

While the EU recommendations on micro-credentials should represent common principles incorporated into each national framework, the different national/regional contexts still ask for specific requirements, set specific boundaries (e.g. the duration of the micro-credential courses) and offer specific opportunities (e.g. the availability of public funding).

With reference to the situation in 2023, here below are reported the different frameworks for micro-credentials in Higher Education as to the countries/regions where ProcToGo partners are operating, namely:

1. Flanders
2. Germany
3. Italy
4. Portugal
5. Spain

It appears that while the European recommendations provide an overarching common reference, there are major differences as to the lengths of micro-credentials, their level of formalisation and their funding.

For instance:
- in Flanders, micro-credentials are long, between 1 and 20 ECTS; in Spain, between 3 and 15 ECTS while in Germany, there are proposals to have micro-credentials even shorter than 1 ECTS
- in Spain, micro-credentials are ruled according to a Royal Decree, in Flanders by … and in Italy, a precise regulation is still missing
- in Flanders and, likely also in Germany, micro-credentials can be funded when they are part of degree programmes but not when they are longlife learning programmes.

While the focus of this report is on HEI micro-credentials, in Appendix 1 there is a focus on micro-credentials issued by non-HEI in Flanders.

01 MICRO-CREDENTIALS IN FLANDERS

Micro-credentials in Flanders built upon an awareness by Flemish universities on the importance of lifelong learning. In 2021, the universities of Antwerp, Ghent and Brussels joined forces to create an alliance for lifelong learning called Nova Academy (https://nova-academy.be/en). They created a policy framework for lifelong learning and created a central organisation and a common website where the complete LLL offer of the three universities is brought together. Two years later, KU Leuven did the same thing with their university college partners.

When Europe started promoting micro-credentials for lifelong learning and employability, Nova Academy partners realised the potential of micro-credentials as a catalyst for LLL and adopted the concept in a very early stage. In the absence of any regulations, they put up their own framework for micro-credentials, staying as close as possible to the European recommendations.

This was aided by the fact that higher education in Flanders is already highly modularized. it is possible to enrol in just one module (component or course unit) of a degree program (≥ 3 ECTS) on the basis of a credit contract. Furthermore, all programs and modules (components) are registered in a central Flemish Database: the HE Database (DHO) and the credits are stored in the Learnings and Experiences Database (LED), which we hope will lead to a central Flemish connection to the ELM and Europass implementation.

The large autonomy for Flemish HEI in terms of QA and programming of continuous education with ECTS awarded also made it possible to stay within the current regulations.

At the end of 2023, there are more than 180 micro-credentials online at Nova Academy, of which 70 are in English and 50 are totally new concepts.

Early 2023, The Flemish Ministry of Education and Training started a series of round tables with all 20 HEI under the title "Vision Roadmap for LLL in higher HE". A framework for micro-credentials was on the agenda. There is a consensus that no extra legislation should be needed and that an agreement should describe the framework for higher education institutions that want to include micro-credentials in their offerings.

The purpose of this framework is to agree on

- The use of the term micro-credential
- The position of micro-credentials in relation to the educational offering of HEIs
- The characteristics of micro-credentials
- The registration of micro-credentials
- The certification of micro-credentials
- Financing of micro-credentials

The framework only applies to higher education institutions but can be used as inspiration by other providers.

The agreement is still under construction, but here are some key ideas of the draft version (as an inspiration for other frameworks):

- Flanders work with the European definition.
- Micro-credentials aim to provide knowledge, skills and competences to students in response to social, personal, cultural and/or labour market needs.

A higher education institution decides for itself and autonomously when it wants to program a new micro-credential and when it wants to discontinue it, what designation it has, what language of instruction applies and where it is set up, as long as its content falls within a field of study for which the institution has 'teaching competence' (onderwijsbevoegdheid).

In Flanders, Micro-credentials are characterised as follows:

- The workload of a micro-credential is between 1 and 20 credits (normally between 3 and 20 credits).
- A micro-credential can be offered physically, hybrid or via distance learning.
- A micro-credential is defined by a set of learning outcomes. The content of the micro-credential is tailored to the needs of the learner, the professional field and society. These are communicated to the students in advance. The learning outcomes are graded in a level of the Flemish Qualifications Structure (VKS = EQF).
- Within a micro-credential, learning outcomes are assessed. The form of assessment is communicated to students in advance.
- A higher education institution provides appropriate guidance for students.
- Students enrolled in micro-credentials have access to the same services as graduate, bachelor's and master's students.
- Micro-credentials are qualifications and can be used within an EVC procedure (Recognition of Prior Learning) to apply for exemptions.

There are 4 types of micro-credentials:

- Type 1: Combination of one or more existing course units from graduate, bachelor's and/or master's programmes
- Type 2: Combination of one or more existing course units from graduate, bachelor's and/or master's programmes, supplemented with new offerings
- Type 3a: Existing content from graduate, bachelor and/or master programmes (i.e. not according to existing course units
- Type 3b: New content or content from existing initiatives LLL

The internal quality assurance of the lifelong learning offer is part of the institution's educational quality assurance policy. To this end, the institution considers the standards and guidelines (ESG) for quality assurance in the European Higher Education Area. Micro-credentials of universities and universities of applied sciences fall, for external quality assurance, within the scope of the institutional review.

Today, the certification of micro-credentials is not regulated. The institution issues its own certificate, which does not have to be recognised by another institution, nor is it registered in the LED database. If it is a micro-credential of type 1 or 2, the student can receive credit certificates (creditbewijzen).

It is desirable that this situation is adjusted so that the certification of a micro-credential is done according to a fixed structure, and that it can also be registered in the LED database. The legal provisions concerning a diploma and diploma supplement can be taken as a basis here.

At the moment the registration of micro-credentials in the higher education database is not possible. Only in case of a micro-credential of type 1 or 2 can an enrolment in a course unit be registered.

It is desirable to adjust this situation so that the registration of a micro-credential in the higher education database becomes possible in a uniform manner.

Today, the financing of micro-credentials is possible if it is a type 1 micro-credential, or the type 2 part that consists of course units from graduate, bachelor's and/or master's programmes, if the student registers via a credit contract. Rules on tuition fees are also applicable only in this situation. Types 3a and 3b of micro-credentials are not funded today.

This agreement could lead to two tracks of micro-credentials: a (funded) one, based on existing degree program course units and another track based on custom created courses (that can also be an adapted version of existing continuing education offers).

Both paths should be tailored towards the lifelong learner's needs, and this will be easier to realise in the case of newly created programs. Both paths are needed for building trust (internally and externally) and for a swift take-off of micro-credentials in HE.

02   MICRO-CREDENTIALS IN GERMANY

In Germany, the term microcredentials is not yet widely used or discussed. In higher education, it is more common to speak of certificate courses, i.e. short educational programmes that end with a certificate. More concrete discussions are taking place with reference to micro-degrees or badges, which are closely linked to the development of massive open online courses (MOOCs). However, in order to support universities on the topic of micro-credentials, in September 2022, the Federal Ministry of Education and Research (BMBF) and the German Rectors` Conference initiated an expert group, "Zukunftswerkstatt Micro-credentials" (Futurelab Micro-credentials). This group addresses questions like requirements and quality criteria for recognition as well as standards for the development of micro-credentials.

According to the experts, the development of the topic of micro-credentials at European level is of particular interest to German universities on two levels: On the one hand, the questions of (1) how to deal with the increase in flexible and non-university educational opportunities and (2) the associated growth in applications for recognition or credit transfer. On the other hand, the amount of opportunities for their own strategic development regarding the overall flexibilisation of studies, the continuing academic education and the internationalisation.

In addition to the general advantages (e.g. response to heterogeneous educational needs, internationalisation, etc.) and challenges (e.g. quality assurance, recognition, etc.) that micro-credentials bring for universities, universities in Germany face the following challenges:

- Different funding logics and responsibilities: Financial resources for students are provided on different bases and areas than those for continuing education. Both forms of education must be treated separately in legal terms.
- Educational policy and legal structures: In Germany, it is not the state but the individual federal states (Bundesländer) that are responsible for educational decisions, curricula, funding, etc. Without overarching political decisions, there will be several different approaches to solutions in the single federal states.
- Unclear framework conditions for quality- and recognition processes: In particular, the undefined framework of an appropriate ETCS scope for micro-credentials poses challenges for recognition processes. While ranges of 1-30 ECTS are being discussed within different European countries, smaller units are being considered in Germany.

Cedefor - Microcredentials for labour market education and training, 2023
https://www.cedefop.europa.eu/files/5589_en.pdf

The German Rectors' Conference (HRK) is the association of public and government-recognised universities in Germany. The member institutions are represented in the HRK by their executive boards and rectorates

Despite these hurdles, in particular due to the different political responsibilities described above, many universities in Germany are already creating microcredential or MC-related courses, as in the case of certificate courses (Zertifikatskurse), short programmes that end with a certificate. In general most developments are currently taking place in the area of continuing education.

Beyond HEI, micro-credentials are consistent with several learning offerings as in the case of additional qualifications (Zusatzqualifikationen) that are offered in the context of apprenticeships to supplement a particular vocational competence with additional skills and knowledge. Moreover partial qualifications (Teilqualifikationen) in adult education target low-qualified and unskilled people over 25, allowing them to earn vocational qualifications.

Robert Rentsch (2023): Microcredentials auf Hochschulniveau. Ansätze zum Umgang mit einem bildungspolitischen Trend. HRK.
https://www.hrk-modus.de/media/redaktion/Downloads/Publikationen/MODUS/Microcredentials_Studie_WEB.pdfo

03   MICRO-CREDENTIALS IN ITALY

Micro-credentials have recently been receiving growing interest from the Italian Higher Education System to respond to the increasing demand for short learning options coming from the current and future workforce for rapid upskilling or reskilling, as well as to foster higher education innovations and reverse the current trend of enrolment declines.

In the academic offerings of Italian universities, the acquisition of knowledge on one topic of study or the accomplishment of one skill already coexists with the complementary set of knowledge and skills provided by traditional degree programmes: as part of professional or curriculum development, or simply for general cultural enrichment, individuals can enrol on single-subject courses of Bachelor's or Master's degrees without having to enrol for the entire programme. Through a specific regulation, each university defines the admission requirements, enrolment procedures, deadlines, and any restrictions related to the enrolment on single subject courses. Furthermore, universities offer professional development courses (corsi di perfezionamento) that usually last a few months and are worth less than 60 ECTS. However, even without a clear regulation, the small volume of learning qualifying a micro-credential should normally be between 1 and 30 ECTS and the learning can concern knowledge, skills or responsibility and autonomy.

The first reference to the possible recognition through a certification of the achievement of a single competency or a set of competencies is included in the Decree "Disposizioni per l'adozione delle linee guida per l'interoperatività degli enti pubblici titolari del sistema nazionale di certificazione delle competenze", published on January 2021. According to such a framework, the qualifications relating to the national repertoire made up of a single skill or aggregates of skills, can be achieved through the certification of skills acquired in a formal learning context or through a certification procedure following a process of identification and validation of acquired skills in non-formal and informal learning contexts. The National Repertoire, therefore, allows public bodies in charge of public LLL systems to create repertoires organised into qualifications made up of aggregates of skills, qualifications consisting of a single competence or single skills or aggregates of skills constituting one or more qualifications.

A further step in recognising the role of micro-credentials is represented by the report "Italian Referencing Report of the Qualifications to the European Qualifications Framework," adopted in 2023 by Ministerial Decree of the Ministry of Labour and Social Policies jointly with the Ministry of Education and Merit and the Ministry of University and Research.

In this report, the word "micro qualificazioni" is used for the first time as qualifications composed of one or more skills, constitutive of broader qualifications issued within the SNCC, following short-term courses, even of flexible, personalised and modular nature. The explicit reference to the European recommendations contributes to identifying the term "micro qualificazioni" as the correspondent of micro-credentials. The report highlights that such micro-qualifications, as well as the other qualifications, must indicate the level of QNQ (National Framework of Qualifications)/EQF to foster a public lifelong learning offering, wider, more inclusive and personalised.

Even though these first steps are in the right direction, much remains to be done in defining a common approach and in regulating micro-credentials. However, universities, in their autonomy, have already started experimenting with micro-credentials.This is the case of Trento University which belongs to a European Alliance - ECIU European Consortium of Innovative Universities - that is centred on the micro-credential concept or the University of Pisa, which designs micro-credentials together with industries and regional actors to overcome specific skill gaps (as in the case of QF level 6 micro-credential in "Automotive electronics and powertrain electrification" to deal with the strategic shift to electric automobiles and the need to prepare engineers for such a new context.

Beyond HEI, in Italy, micro-qualifications (single units of one or more competencies) issued by VET Institutions are widespread and can be referenced to the NQF/EQF. They are regulated by legislative Decree No. 13 of 16 January 2013, which established the National System for the Certification of Competences (NSCC).

Ministero del Lavoro, Decreto 5 gennaio 2021 Disposizioni per l'adozione delle linee guida per l'interoperatività degli enti pubblici https://www.lavoro.gov.it/documenti-e-norme/normative/Documents/2021/DI-del-05012021.pdf

ANPAL, Rapporto italiano di referenziazione delle qualificazioni al Quadro europeo EQF, 2022 https://www.lavoro.gov.it/temi-e-priorita-orientamento-e-formazione/normativa/di-del-15062023-adozione-rapporto-eqf.pdf
Cedefor - Microcredentials for labour market education and training, 2023 https://www.cedefop.europa.eu/files/5589_en.pdf

04 MICRO-CREDENTIALS IN PORTUGAL

Microcredentials are used in Portugal within the context of the national qualifications system (SNQ). Two training offers correspond to the definition of microcredentials. The first, training units of short duration (Unidades de Formação de Curta Duração, UFCD), are included in the national catalogue of qualifications (Catalogo Nacional de Qualificações, CNQ). Each UFCD corresponds to a competence unit (UC) and represents a structured set of learning objectives with a pedagogical sequence. The second type comprises short-duration training that is not included in the CNQ. Such training can be smaller in workload than UFCDs and may be developed/designed in a different way from the CNQ approach. Nevertheless, such training is in high demand by companies (especially SMEs) and is provided by vocational training centres in response to labour market needs.

While an overall regulation is still under development, different universities are already offering micro-credentials. For instance:

- University Aveiro offers micro-credentials, framing them as small volume offers (< 12 ECTS), based on the diagnosis of the job market's needs and geared towards the development of personal and professional skills. Their flexible organisation allows for diverse audiences, including adults in the job market, to attend them successfully.

- University of Lisbon and University of Porto offer a range of short courses and microcredentials related to data science, machine learning and artificial intelligence. These programs may cover fundamental topics (such as regression, classification, clustering, and neural networks) as well as advanced topics (like deep learning and reinforcement learning). Some programs may offer hands-on experience with machine learning tools and libraries, allowing participants to work on real-world projects.

- Universidade Aberta (UAb) - the public distance education university in Portugal - is promoting the training and qualification of adults through Microcredentials as a short-term training modality, not leading to a degree, which aims to create skills and competencies, to emerging global transformations. UAb is promoting micro-credentials that will be made available in four strategic areas: Distance and Digital Education; Transition and Digital Transformation; Sustainable Development Goals; and Languages and Communication.

Several Portuguese universities are collaborating with popular online learning platforms like Coursera, edX, and Udacity to offer micro-credential programs and some of them are developing micro-credential programmes in collaboration with leading technology companies (i.e., Microsoft, Google) and industry associations.

Besides universities, various professional training centres and institutes in Portugal offer micro-credentials programs designed to accommodate working professionals, offering flexible schedules or online learning options.

In general, micro-credentials are also dealt with to the Recognition of Prior Learning. Recognition of Prior Learning in Portugal is part of the comprehensive national system for the recognition, validation and certification of competences (reconhecimento, validação e certificação de competências, RVCC) that was introduced in 2001. Within the RVCC, microcredentials, in the form of UFCD (training units of short duration or unidades de formação de curta duração) and UC (competence units) can be acquired and certified in a variety of learning contexts (formal, non-formal, and informal).

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Cedefor - Microcredentials for labour market education and training, 2023
https://www.cedefop.europa.eu/files/5589_en.pdf

05 MICRO-CREDENTIALS IN SPAIN

The document Micro-credentials. Inclusive training in every format and for every student, published in 2022 by ANECA (Spanish National Agency for Quality Assessment and Accreditation of Spain), provided a first approach to the topic in Spain. This document reminds that, according to legal statements approved in 2021, "universities may offer their own courses of less than 15 ECTS that may or may not require a previous university degree, in the form of micro-credentials or micromodules, which make it possible to certify learning results linked to short-term training activities." The goal of the document is to offer a conceptual framework for micro-credentials and to discuss some key elements of trust their quality assurance relies upon.

The internal quality focuses on procedures, including standards established by the EU, other established principles, the quality of the learning experience, the feedback from learners as well as from stakeholders and others on the learning experience. The external quality is based primarily on the assessment of providers' internal quality assurance systems, not on the external quality assurance of each micro-credential.

With regards to internal quality assurance, ANECA has developed some guidelines updated in 2022 for the AUDIT certificate. The key value of the model is that it goes beyond micro-credentials, since this is applied to the whole institution or to specific centers within the institution. AUDIT is truly comprehensive, as it includes bachelor's, master's and doctoral degrees, and, where appropriate, lifelong learning and micro-credentials as well.

What are the potential micro-credential providers that have been identified? Education and training institutions; research, development, and innovation institutions; public and private bodies; employers, companies and industries; public employment services; national, regional and local authorities; professional associations; civil society organizations; and community centers.

A major milestone in developing an actual service of digital micro-credentials in Spain is CertiDigital (https://certidigital.es/?lang=en). Funded by the Ministry of Universities under the UniDigital programme, CertiDigital is an initiative coordinated by 6 universities, led by Universidad Carlos III de Madrid (UC3M), and involving 17 other partner institutions.

CertiDigital is building a digital certification service based on a technical infrastructure that will be available to the whole Spanish University system. With the European Learning Model (ELM) as a reference, the digital credentials will be aligned with EDC (European Digital Credentials for Learning) and EBSI (European Blockchain Services Infrastructure).

UC3M has developed two pilot projects that may be highlighted as use cases. In 2022 the Diploma on Sustainability Applied to the Fashion Industry carried out an innovative experience combining issuance, storage in wallet and visualization and validation. Issuance requires first some equipment (a smart card reader) and some software to use an eSeal protected by PIN. Once accessed the EDC Online Credential builder, a description of learning achievements and outcomes is provided. The following step leads to data validation and, ultimately, to learners receiving the credential in their Europass wallet. Within Europass, students can use their credentials together with their curriculum vitae and application letters in any job selection or training processes they are participating in. The credentials can be viewed and exported to xml and PDF files including all the relevant information and therefore are able to share them with third-parties.

Another interesting experience at UC3M has been University Digital Backpack (https://www.uc3m.es/formacion-continua/diplomas-y-cursos/mochiladigital), a short program (20 ECTS) on digital competencies composed of seven courses that have between two and three ECTS each. These courses are on information literacy, data literacy and computer literacy, plus some digital experiences. Within the whole program, it is possible to earn badges based on participation and engagement within a course as well as on recognizing specific and transversal competencies acquired. Furthermore, each course is set up in such a way that students passing it receive a micro-credential that is issued based on EDC and uploaded to Europass. Finally, it is convenient to note that University Digital Backpack also provides an official diploma issued by UC3M and acknowledged by the Regional accreditation agency in the Region of Madrid.

Summing up, lessons learnt at UC3M evidence the need for a deep digital transformation at the institutional, regional, and national levels. This process must take into account that there are still a variety of multiple technologies (EDC, EBSI, badges…) and multiple formats or contents (EML, ESCO, EQF…). Multiple stakeholders (learners, institutions, accreditation agencies and employers) are also involved, and their needs must be considered as well.

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ANECA (2022). Microcredenciales. Formación inclusiva en todos los formatos y para todas las edades. https://www.aneca.es/documents/20123/49576/MICROCREDENCIALES_Informe_V3.pdf

Appendix 1 - Micro-credentials outside HEI in Flanders

On 26 October 2023, the Flemish Education Council ('Vlaamse Onderwijsraad' or VLOR) published a recommendation on micro-credentials as an instrument to stimulate lifelong and 'life-wide' learning. The VLOR is the official advisory body on the education and training policy of the Flemish Community. It represents all the different stakeholders in education and training. Together they look for ways to further improve education and training in Flanders.

In their official advice, the Flemish Education Council supports the European council's definition and standard elements, but they broaden up the scope of micro-credentials. The VLOR promotes diversity in institutions and providers of micro-credentials, broader than HEI, including VET (Vocational Education and Training), adult education and non-formal learning (but not informal learning). They plea for flexibility in concepts ("different kinds of micro-credentials…") and look upon the name micro-credential is a container concept for which no extra regulations are needed for quality assurance and transparency. This should lead to a level playing field for institutions and providers.

The VLOR recommendation does not limit the size of the micro-credentials. It stipulates that a micro-credential should be "smaller than a qualification and large enough to have meaningful learning outcomes". This implies that a small volume of learning could be as big as 60 ECTS. The recommendation actually opens the possibility for micro-credentials that do not mention ECTS, or a EQF (or NQF)-level and have quality assurance outside of ESG.

Apart from that, the Flemish Education Council is happy with the European support in terms of services and tools to support the development of MC's and the cooperation between member states and stakeholders. They appreciate the EU's support of the technical implementation by exploring the development of Europass-platform and the financing of the development and research on MC's. They acknowledge the fact that MC development is supported by European Skills development systems and that repositories and catalogues are important. Finally, they stress that the LED (Central Learnings and Experiences Database) should link to Europass.

The big challenge for Flanders is to get all levels of learners to keep on learning. If micro-credentials can stimulate learners to take up learning at all levels, they should be eagerly used to this end. HE should be very transparent in what they offer and in what their offering differs from other public or private providers.