

Spanish case

Carlos Alario Hoyos and Carlos Delgado Kloos

Universidad Carlos III de Madrid

`calario@it.uc3m.es`

`@calahoy`

Outline

1. **Current Legislation**
2. Quality assurance
3. Technological support
4. Two use cases at UC3M

2021

Real Decreto 822/2021, de 28 de septiembre, por el que se establece la organización de las enseñanzas universitarias y del procedimiento de aseguramiento de su calidad.

Publicado en: [«BOE» núm. 233, de 29/09/2021.](#)

Entrada en vigor: 19/10/2021

Departamento: Ministerio de Universidades

Referencia: [BOE-A-2021-15781](#)

Permalink ELI: <https://www.boe.es/eli/es/rd/2021/09/28/822/con>

Seleccionar redacción: Última actualización publicada el 19/10/2022



PDF



ePUB



Diccionario Panhispánico del Español Jurídico

Article 37. Lifelong Learning

8. Likewise, universities may provide their own courses of less than 15 ECTS that may or may not require a prior university degree, in the form of microcredententials or micromodules, which allow certifying learning results linked to short-term training activities. In no case may these teachings be confused with the degrees offered by the Intermediate or Higher Level Vocational Training centers.

2023

Organic Law 2/2023, of March 22, of the University System.

Published in: «BOE» number. 70, dated 03/23/2023.
Entry into force: 04/12/2023
Department: head of state
Reference: [BOE-A-2023-7500](#)
Permalink ELI: <https://www.boe.es/eli/es/lo/2023/03/22/2/con>

Select wording:



[PDF](#)



[ePUB](#)



Pan-Hispanic Dictionary of Legal Spanish

Article 7. University degrees.

5. Lifelong learning may be developed through different teaching modalities, including microcredentials, micromodules or other short-term programs.

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Short definition*

“A micro-credential is (the record of the results of) a short learning experience, the reliability of which is supported by transparent quality assurance procedures.”

Una propuesta de definición resumida

Una microcredencial es (el registro de los resultados de) una experiencia de aprendizaje breve, cuya fiabilidad está respaldada por procedimientos transparentes de aseguramiento de la calidad.

* Aligned with the EU definition



ANECA

Documento marco para el aseguramiento de la calidad de las microcredenciales

FORMACIÓN INCLUSIVA EN TODOS LOS FORMATOS Y PARA TODAS LAS EDADES

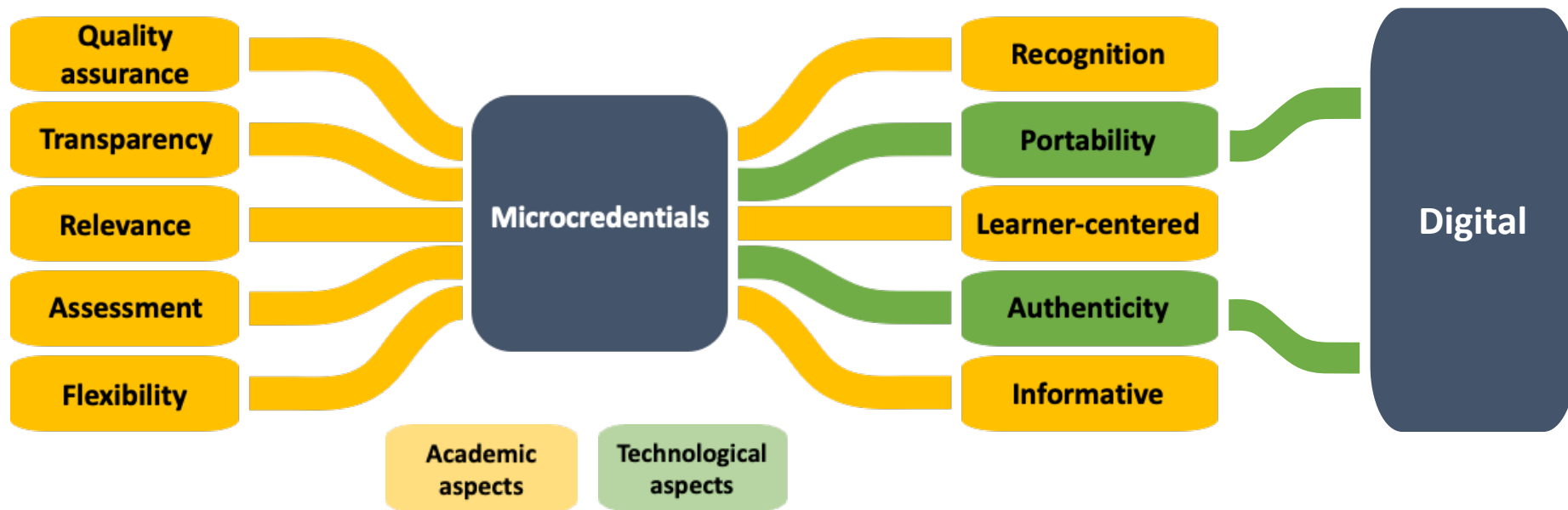
Medidas para impulsar las microcredenciales como fórmula de aprendizaje permanente, innovadora, inclusiva e interconectada

20 de julio de 2022

MI MICROCREDENCIALES

2022

Detailed definition*



* Aligned with the EU definition

Internal quality

- Based on the **effectiveness of providers' internal quality assurance procedures**, including:
 - Standards established by the EU
 - Other established principles or standards
 - Quality of the learning experience
 - Feedback from learners on the learning experience
 - Feedback from stakeholders and others on the learning experience



External quality

- Based primarily on the **assessment of providers' internal quality assurance systems**:
 - Not on the external QA of each micro-credential



ANECA

Documento marco para el aseguramiento
de la calidad de las microcredenciales

**FORMACIÓN
INCLUSIVA
EN TODOS
LOS FORMATOS
Y PARA TODAS
LAS EDADES**

Medidas para impulsar las microcredenciales
como fórmula de aprendizaje permanente,
innovadora, inclusiva e interconectada

20 de julio de 2022

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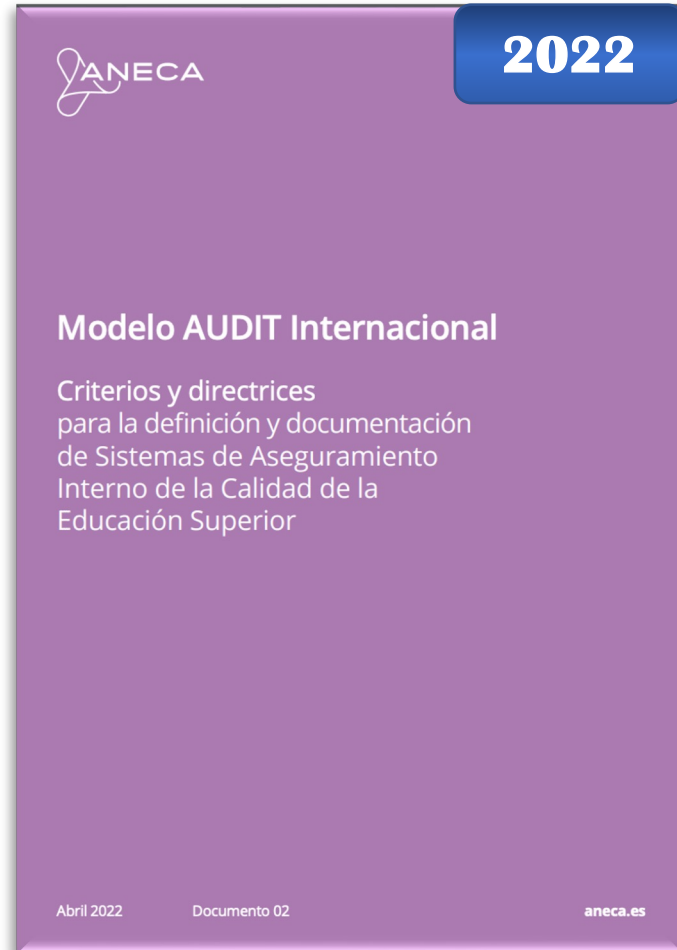
2022

Guidelines for Internal QA*

AUDIT certificate

- Applied to the **whole institution** of to **specific centers** within the institution
- Including bachelor's, master's and doctoral degrees, and, where appropriate, **lifelong learning and micro-credentials**

* *Beyond microcredentials*



The image shows the cover of a document titled "Modelo AUDIT Internacional" (International Audit Model) published by ANECA in April 2022. The cover is purple and features the ANECA logo in the top left corner. A blue banner in the top right corner displays the year "2022". The main title "Modelo AUDIT Internacional" is centered, followed by the subtitle "Criterios y directrices para la definición y documentación de Sistemas de Aseguramiento Interno de la Calidad de la Educación Superior". At the bottom, it indicates "Abril 2022" and "Documento 02". The website "aneca.es" is listed in the bottom right corner.

Potential micro-credential providers

- 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.
- Community centers.
- ...



Outline

1. Current Legislation
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4. Two use cases at UC3M

Digital Credentials (including *Micro-Credentials*)

Improvement of EU Public Technological Solutions in Spain

CertiDigital 

2022-2024

Digital Credentials (including *Micro-Credentials*)

EU Public Technology Solution: Centralized



Digital Credentials (including *Micro-Credentials*)

EU Public Technology Solution: Distributed



Diploma

The **Diploma Use Case** will demonstrate that EBSI can implement cross-border verification of educational credentials. This means that a diploma issued by Member State A can be verified by a university or third party, e.g. “employer” from Member State B.

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 - a) **Use Case I (2022): Diploma on Sustain. Applied to the Fashion Industry**
 - b) Use Case II (2023): University Digital Backpack

UC3M School of Continuing Education

- Diploma
- Blended delivery mode
- 120 hours (3 months)
- Course 2020/2021
- 9 students
- Technology: EDC

Diploma on
Sustainability
applied to the
Fashion Industry

VOGUE
ESPAÑA

uc3m

Universidad
Carlos III
de Madrid

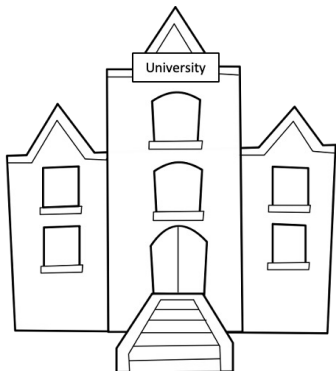
1. Issuance



2. Storage in *wallet*



3. Visualization and validation



Issuance

Prepare **eSeal** protected by PIN (FNMT)

1

+ Smart card reader (or local installation on PC)

+ Some software (NexU – Java Exec. File)

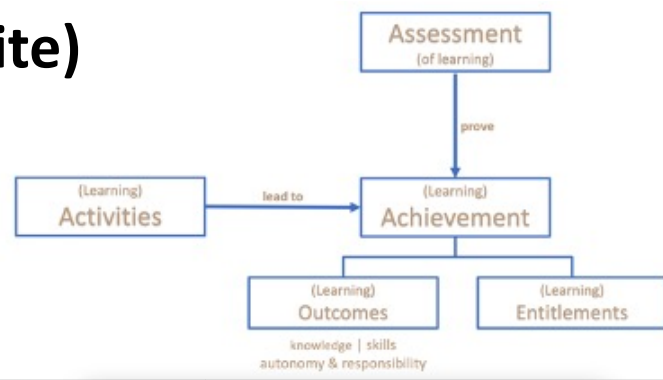
NexU : Browser Signing

Digital Trust and Interoperability
Technology leader



Issuance

Build **Online credential builder (website)**
2 **+ ELM (European Learning Model)**
+ ESCO / EQF



Credentials
Achievements
Learning Outcomes
Activities
Assessments
Organisations
Entitlements

Custom HTML Templates

This tab is where you assemble and issue your credentials. Before you proceed to creating your first template, please make sure to provide details of the issuing organisation under the **Organisations** tab. If you wish to describe a learners achievements, activities, or other relevant aspects, please enter these under the respective tabs. You will need to provide references to these entries when you build your credential.

New Credential Template

Issuance

Build Online cred. builder

2

+ ELM

+ ESCO / EQF

(Learning)
Achievement



Qualification

EQF Level ⓘ

NQF

NQF Level ⓘ

Accreditation

Partial Qualification ⓘ Is it a partial qualification? ~

Create Achievement

Title*

EN

English ▾

Achievement

Achievement Title*

Awarding Date ⓘ

 ⓘ

Awarding Body ⓘ

 +

Description ⓘ

Proven by ⓘ

 +

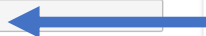
Influenced by ⓘ

 +

Entities owner to ⓘ

 +

Sub-Achievements ⓘ

 +

Issuance

Build **Online cred. builder**

2

+ ELM

+ ESCO / EQF

(Learning)
Outcomes



Create Learning Outcome

Title*

EN

English

Learning Outcome Title ⓘ*

Learning Outcome Type

Please select one option

Reusability Level

Please select one option

Description ⓘ

Related ESCO Skill(s)

Cancel

Save

Issuance

Upload

Data validation

3

+ Application of the e-seal

+ Automatically sent to learners' email and wallet (if *eulogin*)

Send

Send credentials to the recipients' mailboxes or credential wallets.

Upload Again

Maximum file size: 5 MB
Accepted file formats: XLS, XLSX, XLSM

<input checked="" type="checkbox"/>	RECIPIENT	CREDENTIAL TITLE	VALID	SEALED	SENT	RECEIVED	ACTIONS
<input checked="" type="checkbox"/>	Johanna Marie Smith	Certificate of Excellence					

Items per page: 10 1 - 1 of 1 << < > >>

Seal

Send

Lessons learned: *issuance*

01 to adapt the *internal regulation of the educational institution*

02 to *define the process and the key personnel* involved for issuing digital credentials

03 to *work closely with the academic coordinator of the short program*

04 to *take examples from several use cases* when building digital credentials

05 to *align with existing frameworks*, such as ESCO or EQF

Storage in wallet

List of digital credentials in Europass

+ CVs (with attached credentials)

+ Job offers

+ Learning opportunities

My Library

Exit

Certificates and diplomas Your wallet ID address is: europa.eu/europass/wallet/nalarica

Add

uc3m
Diploma en Sostenibilidad aplicado a la Industria de la Moda
Las competencias de Carlos III de Madrid convalida que
CARLOS ALARIO HOYOS
ha adquirido a través de su formación académica.

Diploma e...
Europass Digital Credential

CertiDigital ^{CD}
El Vice Rectorado de Estrategia y Educación Digital de la Universidad Carlos III de Madrid
Carlos Alario Hoyos
ha asistido el día 17 de Enero de 2022 a la
Reunión de arranque del proyecto CertiDigital

Reunión d...
Europass Digital Credential

CertiDigital ^{CD}
El Vice Rectorado de Estrategia y Educación Digital de la Universidad Carlos III de Madrid
Carlos Alario Hoyos
ha asistido el día 15 de Enero de 2022 a la
Reunión de arranque del proyecto CertiDigital

Reunión d...
Europass Digital Credential

CertiDigital ^{CD}
El Vice Rectorado de Estrategia y Educación Digital de la Universidad Carlos III de Madrid
Carlos Alario Hoyos
ha asistido el día 21 de junio de 2022 a la
I Jornada CertiDigital: Casos de uso de credenciales digitales universitarias

I Jornada ...
Europass Digital Credential

CertiDigital ^{CD}
El Vice Rectorado de Estrategia y Educación Digital de la Universidad Carlos III de Madrid
Carlos Alario Hoyos
asistido el día 25 de Noviembre 2022 de
Training Session "How to design a digital university badge with EDC Online Builder"

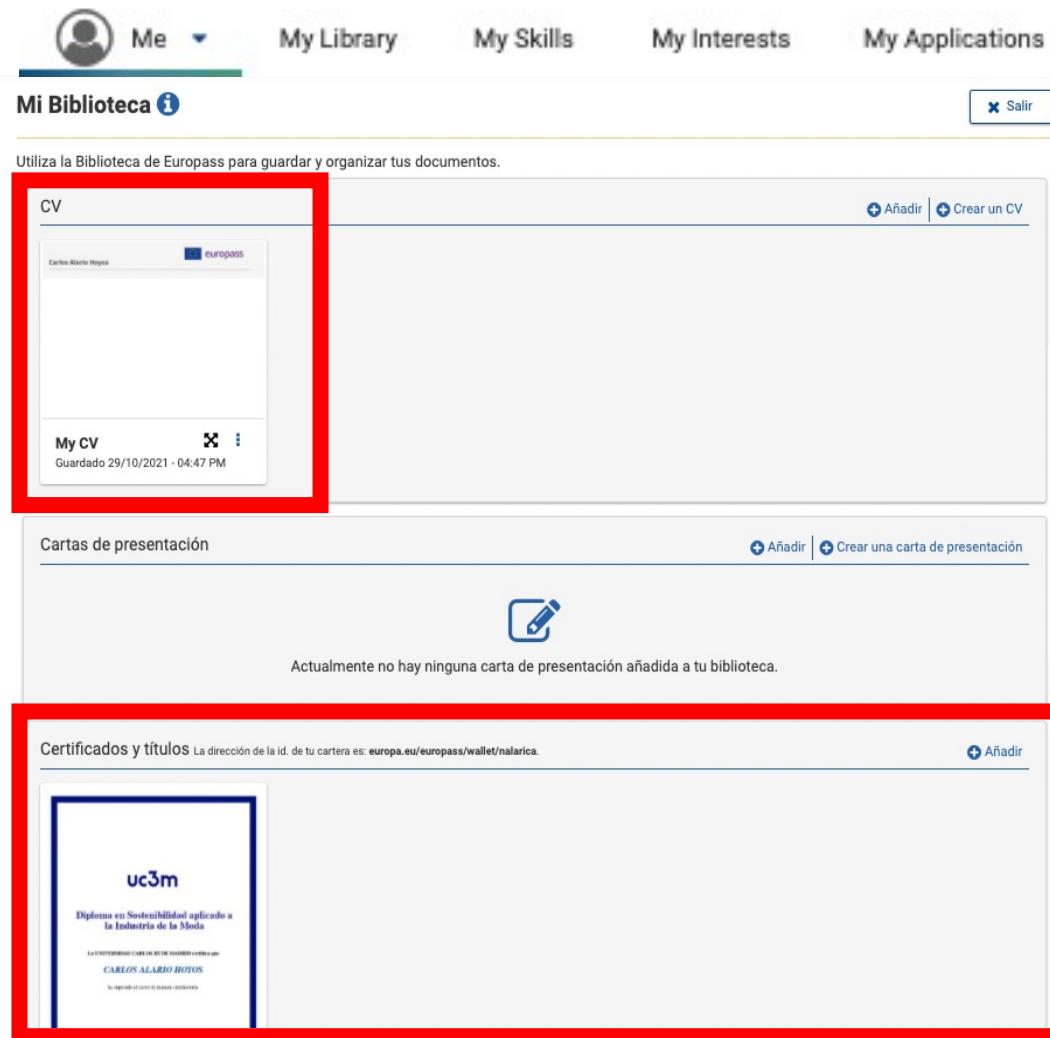
Training S...
Europass Digital Credential

CertiDigital ^{CD}
El Vice Rectorado de Estrategia y Educación Digital de la Universidad Carlos III de Madrid
Carlos Alario Hoyos
asistido el día 26 de Noviembre 2022 de
II CertiDigital Conference "The customer journey of university digital credentials"

II CertiDigi...
Europass Digital Credential

Storage in wallet

Customized CVs with the certificates in my wallet



The screenshot shows the 'Mi Biblioteca' (My Library) interface. At the top, there are navigation links: 'Me', 'My Library', 'My Skills', 'My Interests', and 'My Applications'. Below the navigation is a header 'Mi Biblioteca' with an information icon and a 'Salir' button. The main content area is titled 'Utiliza la Biblioteca de Europass para guardar y organizar tus documentos.' (Use the Europass Library to save and organize your documents.)

The interface is divided into three sections:

- CV:** This section is highlighted with a red border. It shows a card for 'My CV' with the text 'Guardado 29/10/2021 - 04:47 PM'. There are also options to 'Añadir' (Add) and 'Crear un CV' (Create a CV).
- Cartas de presentación:** This section shows a message: 'Actualmente no hay ninguna carta de presentación añadida a tu biblioteca.' (Currently, there are no presentation letters added to your library.) There are options to 'Añadir' (Add) and 'Crear una carta de presentación' (Create a presentation letter).
- Certificados y títulos:** This section is highlighted with a red border. It shows a certificate from 'uc3m' titled 'Diploma en Sostenibilidad aplicado a la Industria de la Moda' (Diploma in Sustainability applied to the Fashion Industry) awarded to 'CARLOS ALARJO HOTOS'. There is an option to 'Añadir' (Add).

Certificates in the wallet



Lessons learned: *storage in wallet*

01 to understand the *implications* of EDC from the point of view of *data protection regulations*

02 to *properly inform students* of the advantages of using EDC for the storage of digital credentials and to raise awareness about the creation of an EU Login

Visualization and validation

Viewer + Renderer

+ Share with third-parties (link) with expire date

+ Export as XML / PDF



europass Learn in Europe Work in Europe About Europass Contact us Carlos ALARIO HOYOS Logout

View Credential

Credential Details Export Upload another credential Share español

uc3m

**Diploma en Sostenibilidad
aplicado a la Industria de la Moda**

La UNIVERSIDAD CARLOS III DE MADRID certifica que

CARLOS ALARIO HOYOS

ha superado el curso de manera satisfactoria.

Emitido: 28/10/2021 14:21 GMT +0200

uc3m | Universidad
Carlos III
de Madrid

Visualization and validation

Viewer + Renderer

+ Customizable presentation (background)

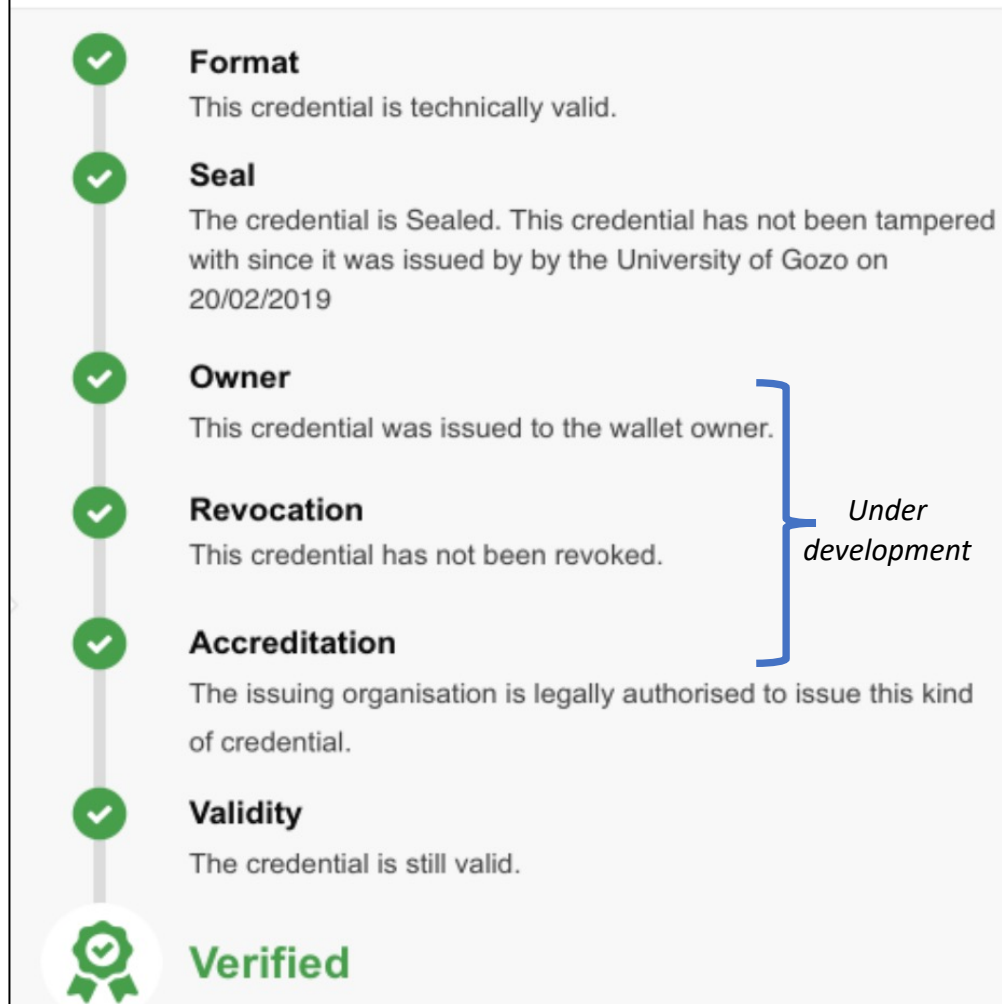


The screenshot shows the 'View Credential' page for a CertiDigital credential. The interface includes a navigation bar at the top with links for 'europass', 'Learn in Europe', 'Work in Europe', 'About Europass', and 'Contact us'. The user 'Carlos ALARIO HOYOS' is logged in. The main content area features a 'View Credential' title, a 'Credencial Details' link, and options to 'Export' or 'Upload another credential'. A 'Share' button and a language dropdown set to 'español' are also present. The credential itself is displayed within a red border and contains the following information:

- CertiDigital cD**
- Logos for 'Plan de Recuperación, Transformación y Resiliencia' and 'Financiado por la Unión Europea NextGenerationEU'.
- Carlos Alario Hoyos**
- ha asistido el día 13 de Enero de 2022 a la
- Reunión de arranque del proyecto CertiDigital**
- Text: 'CertiDigital es un proyecto nacional financiado por el Ministerio de Universidades en el marco de la iniciativa UniDigital. Su objetivo último es el despliegue de un servicio de certificación digital para el Sistema Universitario Español.'
- Fecha: 'Loganés, a fecha de firma electrónica: 04/02/2022 09:56 GMT +0100'
- Logos of participating universities: Universidad Carlos III de Madrid, UCLM (Universidad de Castilla-La Mancha), UNIVERSIDAD DE GRANADA, UNIVERSIDAD DE MURCIA, Universidad de Oviedo, and UNIVERSITAT ROVIRA I VIRGILI.

Visualization and validation

Viewer + Verified



A vertical checklist of seven verification criteria, each with a green checkmark icon in a circle. The criteria are: Format, Seal, Owner, Revocation, Accreditation, Validity, and Verified. The 'Owner', 'Revocation', and 'Accreditation' items are grouped by a blue bracket on the right side, with the text 'Under development' written next to it. The 'Verified' item is highlighted with a larger green checkmark icon and a ribbon graphic.

- Format**
This credential is technically valid.
- Seal**
The credential is Sealed. This credential has not been tampered with since it was issued by the University of Gozo on 20/02/2019
- Owner**
This credential was issued to the wallet owner.
- Revocation**
This credential has not been revoked.
- Accreditation**
The issuing organisation is legally authorised to issue this kind of credential.
- Validity**
The credential is still valid.
- Verified**

Under development

Visualization and validation

Issuing organization

Achievements

Outcomes

(ESCO skills)

Workload

CARLOS ALARIO HOYOS
UNIVERSIDAD CARLOS III DE MADRID

Diploma en Sostenibilidad aplicado a la Industria de la Moda

UNIVERSIDAD CARLOS III DE MADRID

Overall grade: 8.9

Módulo 1: El contexto sostenible

Módulo 2: Economía sostenible

Módulo 3: Marketing y comunicación sostenible

Módulo 4: Experiencia slow fashion

Módulo 1: El contexto sostenible

Módulo 2: Economía sostenible

Módulo 3: Marketing y comunicación sostenible

Módulo 4: Experiencia slow fashion

Diploma en Sostenibilidad aplicado a la Industria de la Moda

Awarding Body: UNIVERSIDAD CARLOS III DE MADRID

Proven by

Title	Grade
Overall grade	8.9

Sub-Achievements

Módulo 1: El contexto sostenible, Módulo 2: Economía sostenible, Módulo 3: Marketing y comunicación sostenible, Módulo 4: Experiencia slow fashion

Specification

Learning Outcomes:

Identify the context and history of sustainable change in Fashion Industry

Type: capacidad

Related ESCO Skills: trabajar eficientemente

Apply the concepts of circular and sustainable economy in Fashion Industry

Type: capacidad

Related ESCO Skills: mostrar voluntad de aprender

Develop good and sustainable practices and skills in marketing and communication

Explore the new challenges of slow fashion experience

Language(s) of Instruction: español

Volume of Learning: 120 hours | Maximum Duration: 6 months

ECTS Credit Points: 9

Learning Settings: Aprendizaje formal | Mode of Learning: Mixto

Learning Opportunity Type: Módulo de un programa, Programa de aprendizaje corto | Thematic Area: Programas y certificaciones genéricos sin mayor definición, Programas y certificaciones genéricos sin mayor definición

Entry Requirements: Bachelor level



Lessons learned: *visualization and validation*

01 to think *about who learners want to share each digital credential with*

02 to make employers aware of the potential of this type of digital credentials as a complement to the official academic degrees

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University Digital Backpack

- Short program for university students on digital competences



The screenshot shows the website's navigation menu with options: PROGRAMAS, ADMISIÓN, MATRÍCULA, AYUDAS, ESTUDIA EN INGLÉS, INFORMACIÓN GENERAL, and CONTACTO. The main content area features the title 'MOCHILA DIGITAL UNIVERSITARIA' and a breadcrumb trail: 'Másteres / Escuela de Formación Continua / Cursos / Mochila Digital Universitaria'. A large graphic displays 'mochila digital universitaria' with a red backpack icon on a laptop. Below this, there are two call-to-action buttons: '> ¿Qué es la mochila digital universitaria?' and '> Escuela de Formación Continua UC3M'.



The screenshot shows the 'Entidades Promotoras' page with a header image of a modern building. Below the header, there is a paragraph explaining that promoter entities are public or private universities or centers operating in the Community of Madrid that voluntarily offer courses under the Mochila Digital Universitaria program. The page then displays a grid of logos for the participating institutions: CEU Universidad San Pablo, CUNEF UNIVERSIDAD, LASALLE centro universitario, UAM Universidad Autónoma de Madrid, uc3m Universidad Carlos III de Madrid, NEBRIJA, Universidad Europea MADRID, Universidad Francisco de Vitoria UFV Madrid, POLITECNICA UNIVERSIDAD POLITÉCNICA DE MADRID, Universidad Rey Juan Carlos, and Universidad Villanueva.



University Digital Backpack: Objectives

- To increase the **employability** of university students
- To increase the **competitiveness** of our business network
- Expand the possibilities for employers to **hire the profiles in demand**
- To foster **training in digital skills and competences**
- **Promote lifelong learning** in universities



Courses

INFO

INFO1+:
Info. literacy

INFO1-:
Literacy

INFO2+:
Cybers. and
distr. comp.

INFO2-:
and
mp.

DATA

DATA1+:
Data literacy

DATA1-:
Literacy

DATA2+:
Big data

DATA2-:
Big data

COMP

COMP1+:
Program.

COMP1-:
Program.

COMP2+:
Machine
Learning

COMP2-:
Machine
Learning

EXP

Digital
Exper-
iences



1. Within the course: *badges*

Internal

External

Participation



Engagement



Transversal
competences



Specific
competences





1. Within the course: *badges*



+



Open Badges v2.0

- Moodle (v3.9-v4.2) is Open Badges v2.0 and v2.1 certified



<https://site.msglobal.org/certifications/moodle/moodle>



Lessons learned: *badges*

01 to *involve all course coordinators* so that they can define the digital badges for their courses

02 to *build a community with the course coordinators*

03 to *agree on the technology to be used (e.g., Open Badges from IMS Global and Moodle).*

04 to *associate students' traces in the with the automatic or semi-automatic awarding of badges*

05 to *consider learners' motivation on digital badges* and to inform learners appropriately



2. Per course: *micro-credentials*

- Passing a course (2-3 ECTS) means getting a micro-credential
- Following EDC (uploaded to Europass)



The screenshot shows a digital credential page on the Europass platform. The page title is "View Credential". At the top, there are navigation links for "europass", "Learn in Europe", "Work in Europe", "About Europass", and "Contact us". The user's name "Carlos Alario Hoyos" and a "Logout" link are visible in the top right corner. Below the title, there are options for "Credential Details", "Export", "Upload another credential", and a "Share" button with a language dropdown set to "español". The main content area features the "CertiDigital cD" logo, followed by logos for the "Plan de Recuperación, Transformación y Resiliencia" and "Financiado por la Unión Europea NextGenerationEU". The holder's name "Carlos Alario Hoyos" is displayed, along with the text "ha asistido el día 13 de Enero de 2022 a la" and the title "Reunión de arranque del proyecto CertiDigital". A descriptive paragraph states: "CertiDigital es un proyecto nacional financiado por el Ministerio de Universidades en el marco de la iniciativa UniDigital. Su objetivo último es el despliegue de un servicio de certificación digital para el Sistema Universitario Español." At the bottom, there is a timestamp "Llegada, a trucha de firma electrónica: 04/02/2022 09:56 GMT +0100" and a row of logos for participating institutions: uc3m Universidad Carlos III de Madrid, UCLM Universidad de Castilla-La Mancha, Universidad de Sevilla, Universidad de Granada, and Universidad Rovira i Virgili.



Lessons learned: *micro-credentials*

01 to *adapt the internal regulation of the university* to issue digital credentials with EDC

02 to *work with the course coordinators so that they understand the EDC ontology* (achievements, assessments, activities, outcomes, entitlements) and their benefits

03 to *raise awareness among students of the importance of the micro-credentials obtained*

And then ELM v.3!



More lessons learned on *micro-credentials with* ELM v3

- Some important *changes in the Online Builder*
 - Institutional template from HTML to Thymeleaf
 - Export in JSON instead of XML for EBSI compliance
- Some *bugs in the visualization of credentials with EDC*
 - Sub-achievements not shown
 - Issuance date not shown
 - ...
- Consequently, *delays in the issuance of the expected micro-credentials*



3. U. Digital Backpack. *University Diploma*

- After passing the 20 ECTS a University Diploma is obtained issued by UC3M
- Meets the requirements of the ANECA (Accreditation Agency)





Lessons learned: *University Diploma*

01 *to adapt to the legislation imposed by each country in relation to the characteristics and issuance of micro-credentials*

02 *to have a combination of digital credentials and paper-based diplomas*

Spanish case

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Universidad Carlos III de Madrid

`calario@it.uc3m.es`

`@calahoy`