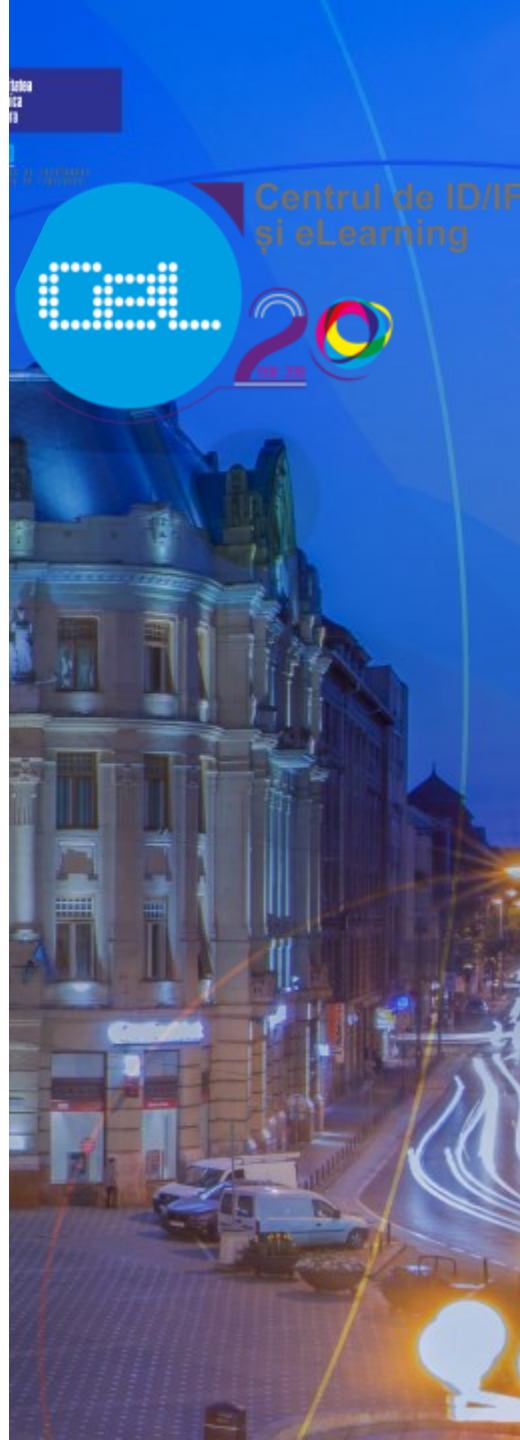
Torino 2-4 dicembre 2021

moodlemoot ITALIA 2021

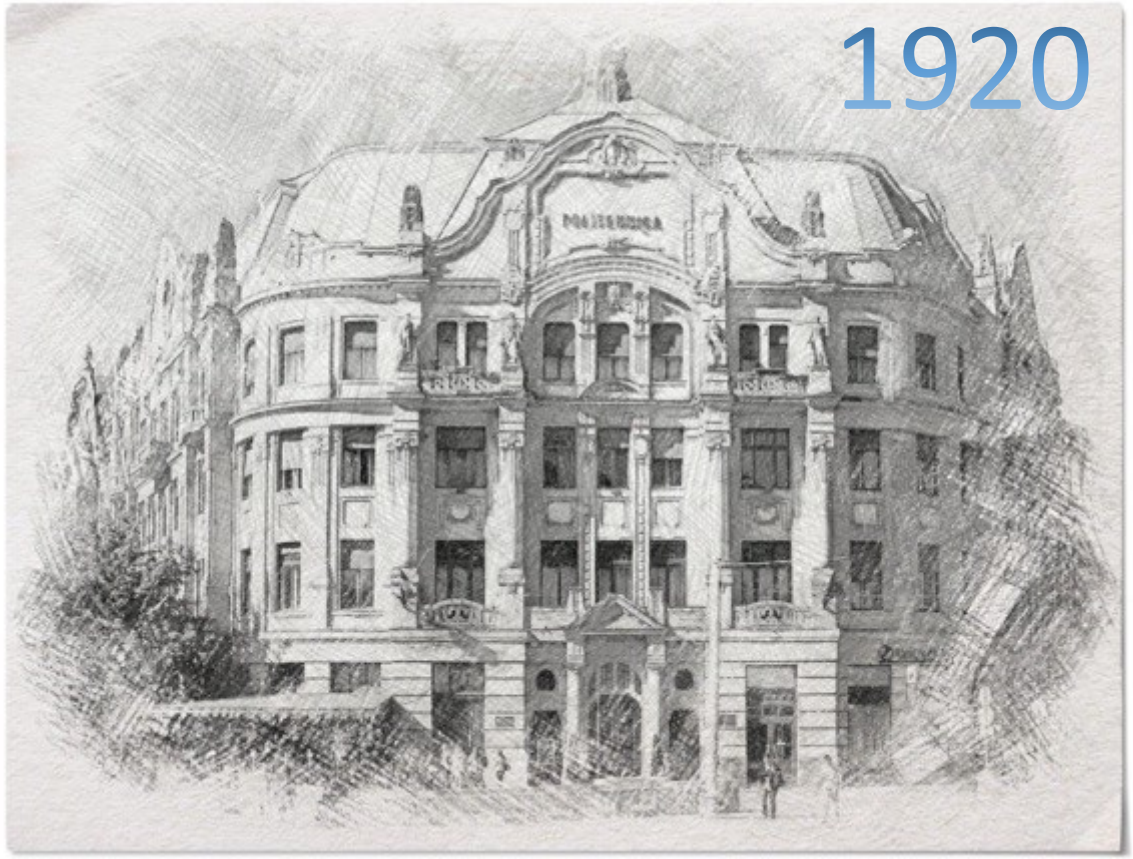
Microcredentials and Open Certificates in UPT Digital Education Ecosystem

Dr. eng. Diana ANDONE, Dr. eng. Andrei TERNAUCIUC

eLearning Center, Politehnica University of Timisoara, Romania



CC BY NC



Politehnica University of Timisoara, Romania

Universitatea Politehnica Timișoara

2020

PRIMUL VEAC DE ÎNVĂȚĂMÂNT UNIVERSITAR ÎN TIMIȘOARA

Centenarul Universității Politehnica Timișoara

1920 - 2020

11 noiembrie 2020

Centrul de ID/IFR și e-Learning

Elearning.upt.ro

Centrul de ID/IFR
și eLearning

Digitisation

Early Adopters

Digitisation

Core

UPT Virtual Campus (Unique Access point)

UniCampus - MOOCs courses

Training & Support

Centrul de ID/IFR și e-Learning

UPT Virtual Campus (Unique Access point) – Customised, scalable

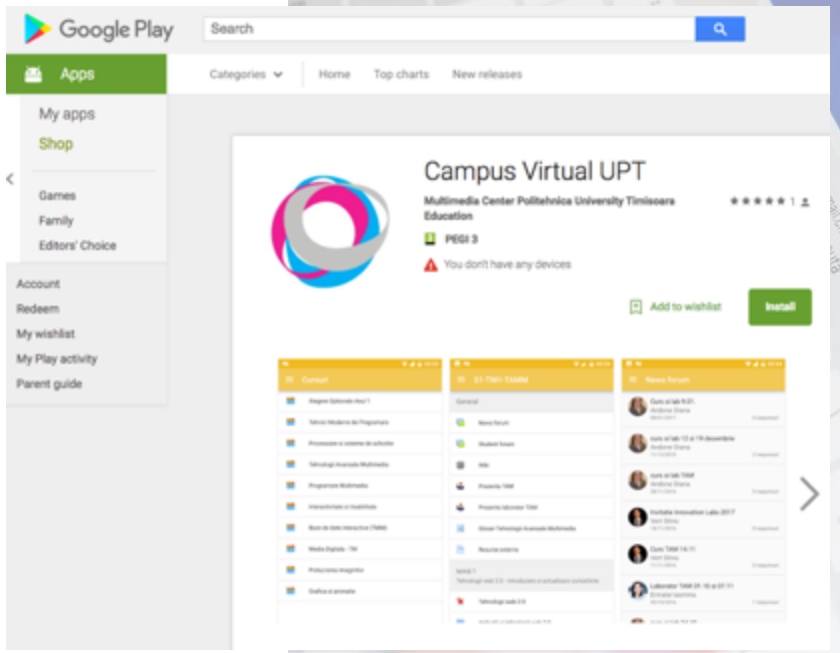
- **Moodle 3.11.3**
  - **•497 plugins**
  - **•80 additional**
  - **•11 developed by UPT**
  - **•26 since March 2020**

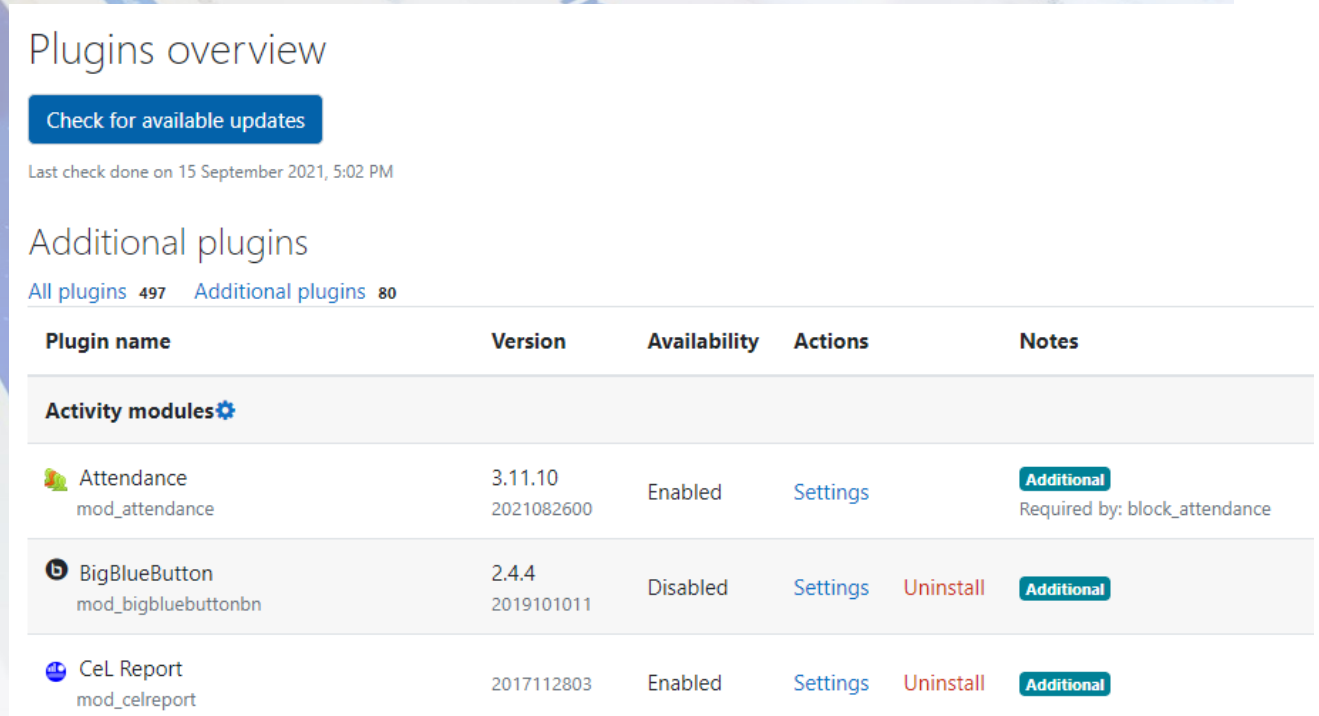
Since 2008 – open-source Moodle, customised and upgraded

Since 2015 - Mobile app CVUPT

Closed platform only for UPT students and professors

https://cv.upt.ro/





Centrul de ID/IFR și e-Learning

1Year of Pandemic in Education
11 martie 2020 - 11 martie 2021

Centrul de ID/IFR și e-Learning

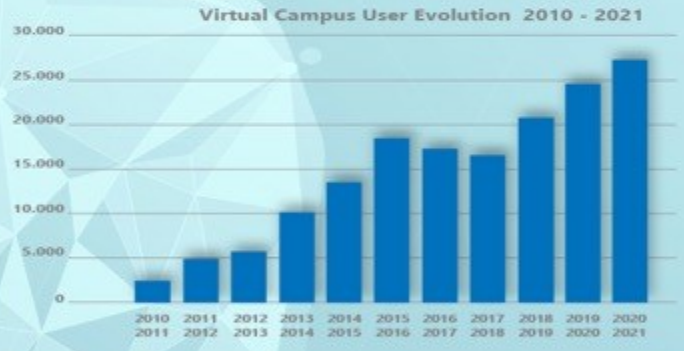
Campus Virtual[UPT]

Universitatea Politehnica Timișoara

Virtual Campus Evolution in UPT

- 4.000+ integrated courses
- 100 mil interactions
- 26 new plugins integrated
- 3.000 users by minut
- 20.000+ new interactive resources
- 8.600+ Tests
- 21.000+ working tasks

number of students / profesors



- 32 online training sessions
- 20.000+ new integrated resources
- OER
- 86 developed tutorials

- 77.105 meetings
- Chanel Zoom UPT
- 114 webinars
- 26.703 participants

- 25 editions
- 8700+ Digital Badges handed to participants
- 100+ Presentors
- 250+ Digital Badges handed to Presentors & Moderators

Împreună Online - Community

UNI CAMPUS

Acasa Cursuri Despre Contact Autentificare Inregistrare

Cele mai bune cursuri online, gratuite, din România

Ție ce ți-ar plăcea să înveți?

CAUTĂ CURSURI

Cele mai noi cursuri

www.unicampus.ro

DIGITAL culture

Cursuri DigiCulture

VEZI CURSURI

OEWEEK 2021

Open Education Week 2021

01 April
2021

VEZI CURS

Digital Skills 2019

01 July
2020

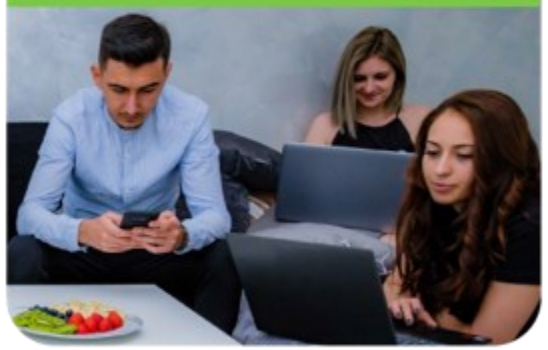
VEZI CURS

Digitalisation

Digital Education Eco-system

Collaboration

Co-creators



Enablers

Digitalisation

Digital Education Eco-system

Collaboration

Co-creators

Collaboration

Virtual mobilities

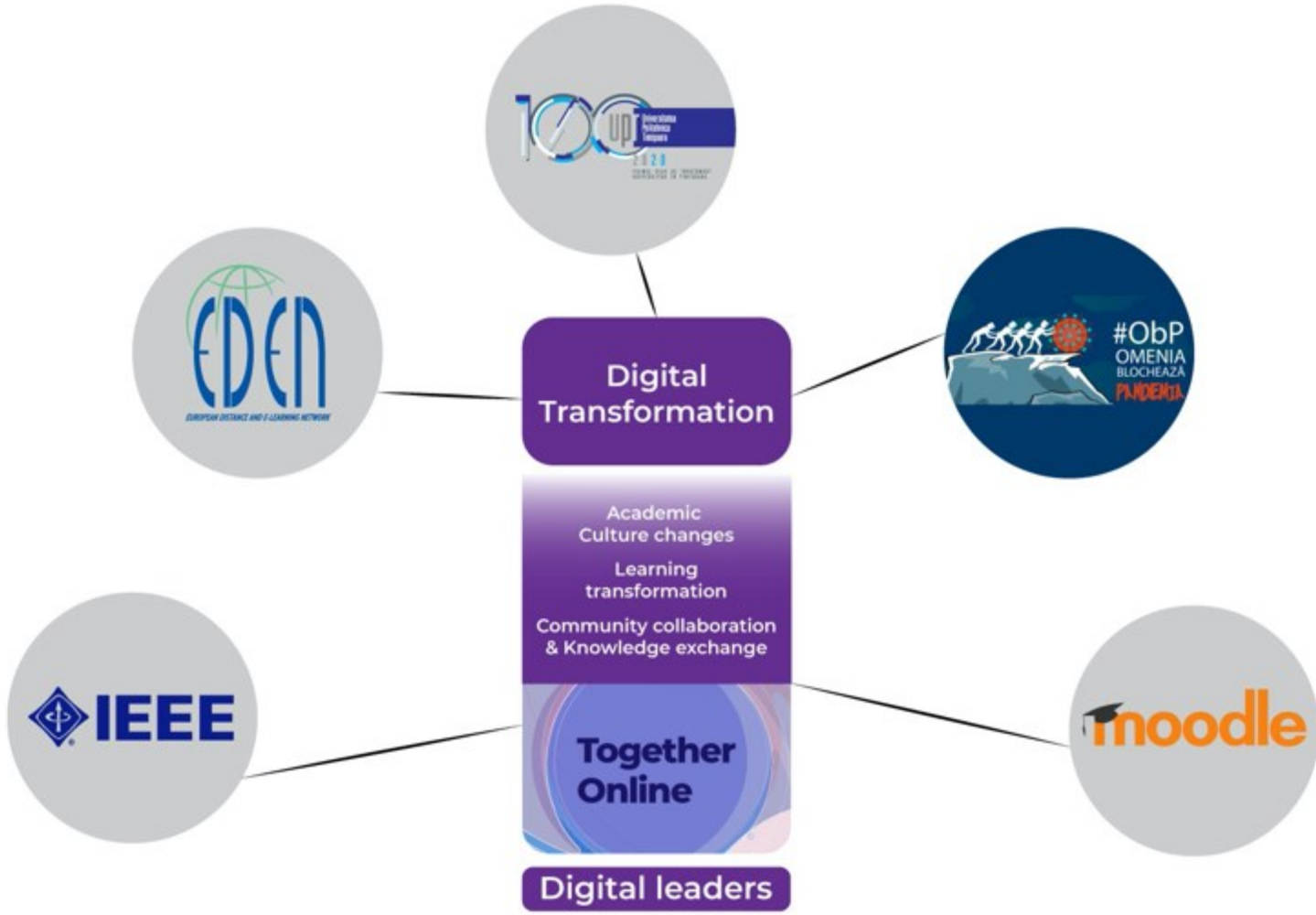
Digital Transformation

Academic Culture changes

Learning transformation

Microcredentials

Community collaboration & Knowledge exchange



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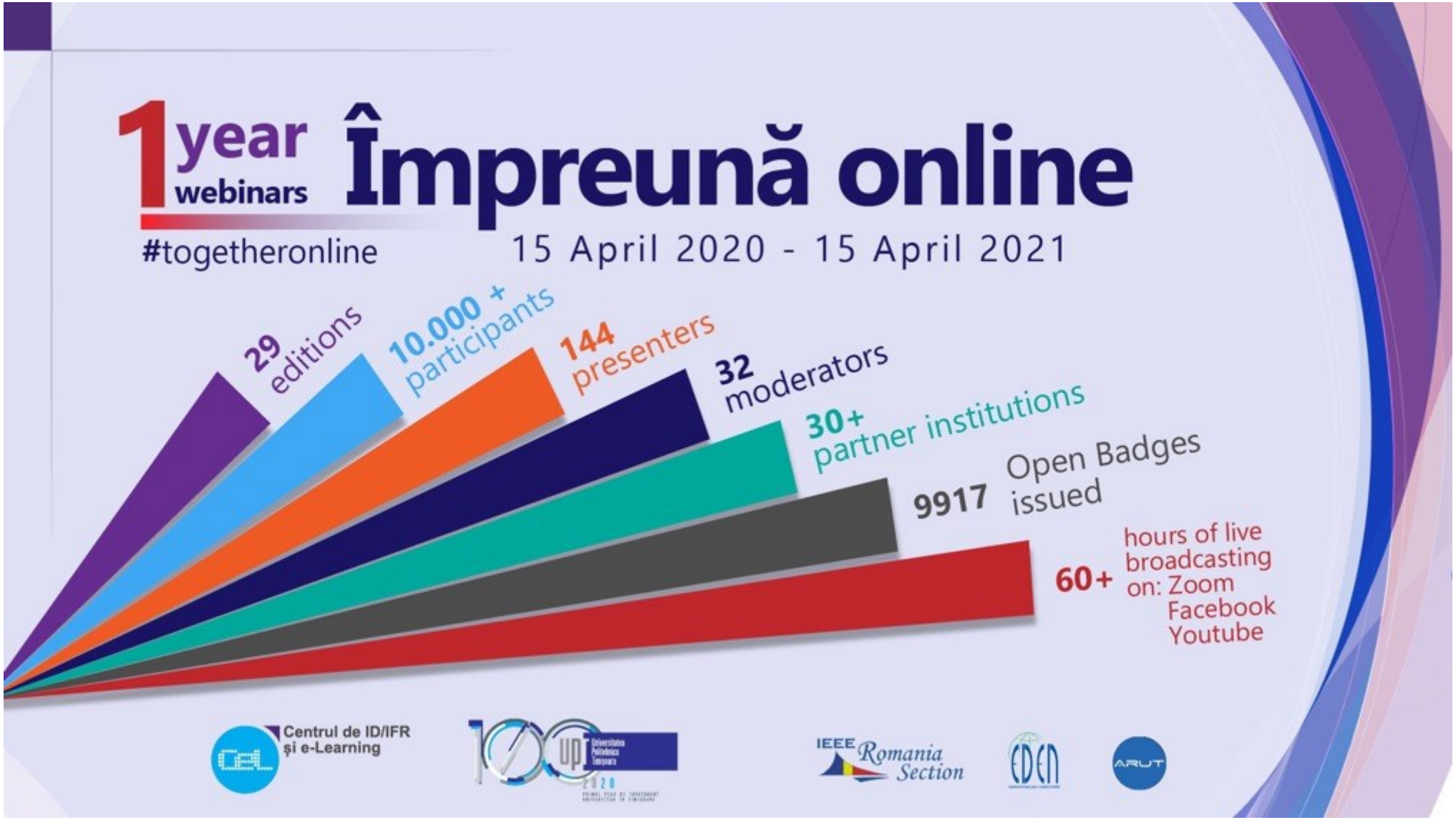
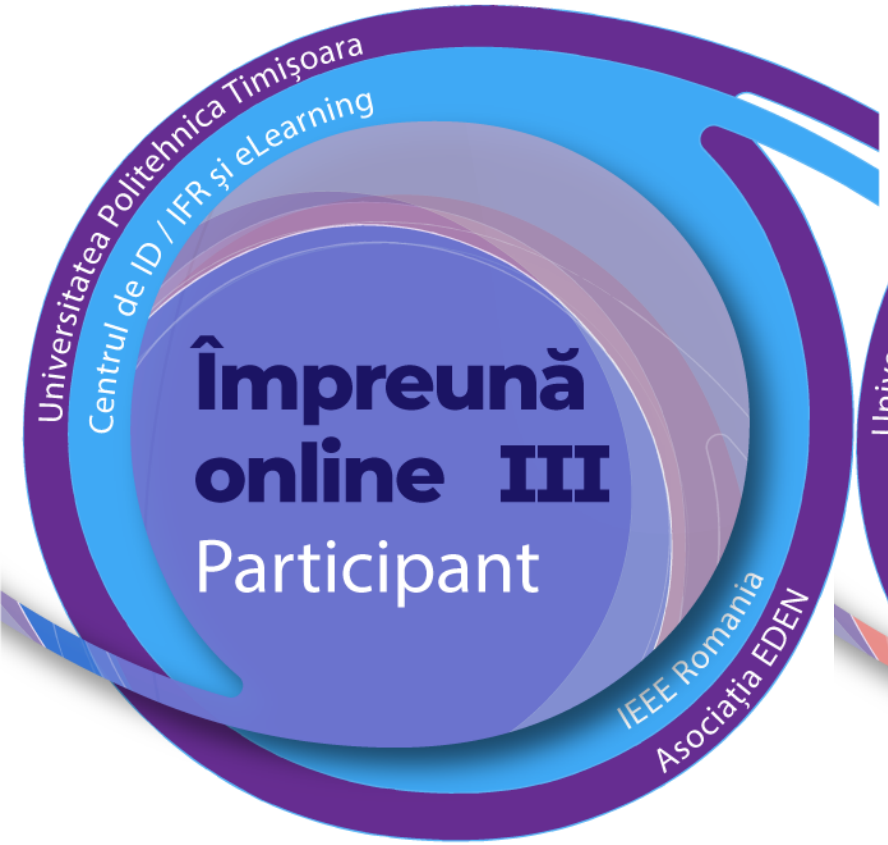
Digital Transformation



Microcredits – open badge in informal learning (webinars)



https://elearning.upt.ro/ro/impreuna-online/

Integrated with Badgr

Microcredits – open badge badge in informal learning (workshops, development)

Integrated with Badgr

Centrul de ID/IFR și e-Learning

Digital Skills for Education & Culture Workshop, December 3, 2021, online in RO & EN

https://elearning.upt.ro/en/comunitate/digital-skills-for-education-culture-workshopworkshop-competente-digitale-pentru-educatie-si-cultura/

Why microcredentials?

Formal - informal

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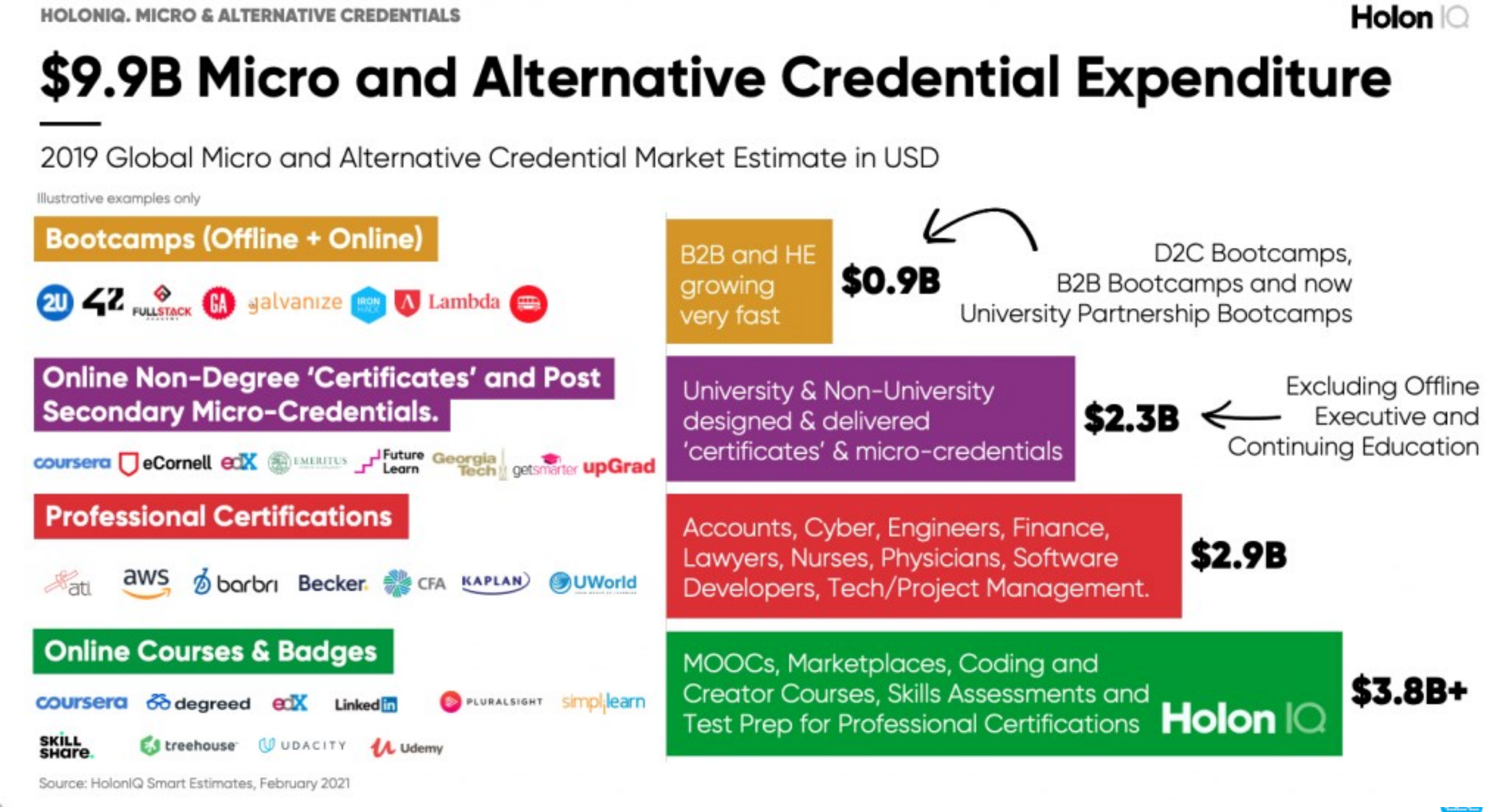


https://www.holoniq.com/notes/micro-and-alternative-credentials.-size-shape-and-scenarios-part-1/

Holon IQ

Segmenting the Post Secondary Credential Spectrum

Defining the Global Micro and Alternative Credential Spectrum, beyond government led qualification frameworks, is not straight forward. Different stakeholders bring very different perspectives, and this segmentation is by no means exhaustive.

1-10+ hours **Short Courses/Badges**	500-1000 hours **Bootcamps**	200-1000 hours **Professional Certifications & Licenses**	100-1000 hours **Non-University Issued Non-Degree 'Certificates'**	100-1000 hours **University Issued Non-Degree 'Certificates'**	1500-5000 hours **Degree Programs/ 'Accredited Programs'**
• On Demand, Online, Short Courses. • Mostly asynchronous video and resources. • Generally, no formal assessment. • 'Peer to Peer' heavy.	• 3–6 month full-time immersive programs. • Coding, Cyber, Digital Marketing, PM, UX... • Formerly offline, moving online due to COVID. Might go back	• Professional certifications and licenses. • Generally issued by industry bodies. • Dominated by Question Banks, Study Notes and Test Prep.	• 'Self-credentialled', employer or Industry backed, non-accredited programs. • Google: 'equivalent to a four-year degree'. • Industry backed MOOC Certificates	• University Branded Certificates. Delivered internally or through partners/platforms. • Increasingly credit bearing or some form of recognition/ advancement quality.	• National/Regional Qualification Framework Regulated Programs. • Government funding tied to qualification frameworks.
Examples • Degreed • LinkedIn (Lynda.com) • OpenClassrooms • Pluralsight • Skillshare • Udemy	**Examples** • 42 • General Assembly • Lambda School • Le Wagon • Thinkful • Trilogy	**Examples** • AWS, Cisco, SSCP... • Bar (Law), CFA (Fin)... • CA/CPA/CIA/CERA... • NCLEX... • PE/FE, PMP, PgMP... • USMLE, ABFM...	**Examples** • Google Certificates, Udacity Nano-Degree • MOOCs w Industry Partners eg EdX MicroMasters, Coursera 'Specializations'	**Examples** • eCornell • European Micro-credential Framework • University Learning Store • WGU Academy	**Examples** • TVET Certificates • Associate/Bachelor • Masters/Doctorate • 'Sub Bachelor' and 'PG Diploma' in most parts of the world.

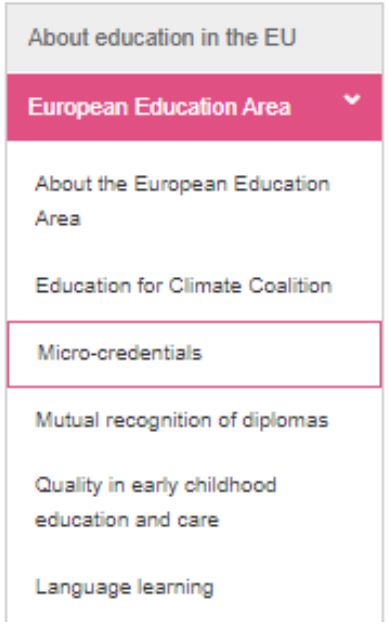
Source: HolonIQ, February 2021

https://www.holoniq.com/notes/micro-and-alternative-credentials.-size-shape-and-scenarios-part-1/

Micro-credentials

A European approach to micro-credentials

Micro-credentials offer more flexible and modular learning opportunities. Having a European approach will help widen learning opportunities and strengthen the role of higher education and vocational education and training institutions in lifelong learning.



What are micro-credentials?

A micro-credential is a proof of the learning outcomes that a learner has acquired following a short, transparently-assessed learning experience. They are awarded upon the completion of short stand-alone courses (or modules) done on-site or online (or in a blended format).

Flexible learning

Micro-credentials open education up to more people because of their flexible, short-term nature. They are open to all types of learners. They can be particularly helpful for people who

- are looking to build on their current knowledge rather than get a full degree
- want to bridge a gap between degrees or their initial formal education and emerging labour market skills
- want to upskill or reskill

Dec 14, 2020 - https://ec.europa.eu/education/education-in-the-eu/european-education-area/a-european-approach-to-micro-credentials_en

European Digital Credentials for Learning

European Digital Credentials can be used to certify formal and non-formal education.

The European Commission is developing the Europass Digital Credentials Infrastructure (EDCI) to support efficiency and security in how credentials such as qualifications and other learning achievements can be recognised across Europe.

Work is ongoing on the development of the Europass Digital Credentials Infrastructure (EDCI). The EDCI will support authentication services for any digital documents or representations of information on skills and qualifications as outlined in Article 4 (6) of the Europass Decision.

A credential is a documented statement containing claims about a person issued by an educational organisation following a learning experience.

Europass Digital Credentials describe a learning achievement. They can describe:

- activities (e.g. classes attended),
- assessments (e.g. projects),
- achievements (e.g. skills developed),
- professional entitlements (e.g. registration as a medical doctor) and
- qualifications.

https://youtu.be/foOcnD0uCyU

https://europa.eu/europass/en/news/launch-event-report-european-digital-credentials-learning

Oct 25, 2021 - https://europa.eu/europass/en/what-are-digital-credentials

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European Digital Credentials for Learning | Interoperability

EDCI Data Model is an extension of the [W3C Verifiable Credentials Data Model]
aligned with the [ELMO/EMREX Standard]
Issuer information
https://europa.eu/europass/digital-credentials/issuer/#/home

https://europa.eu/europass/en/european-digital-credentials-learning-interoperability

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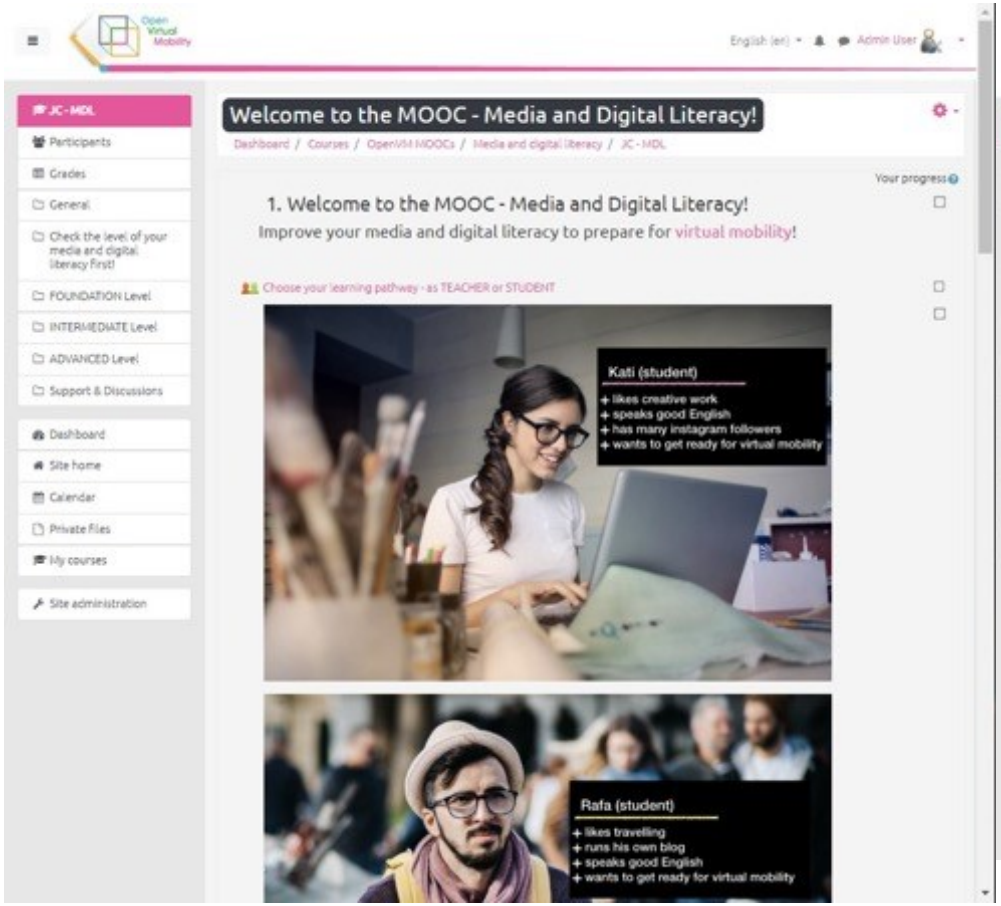
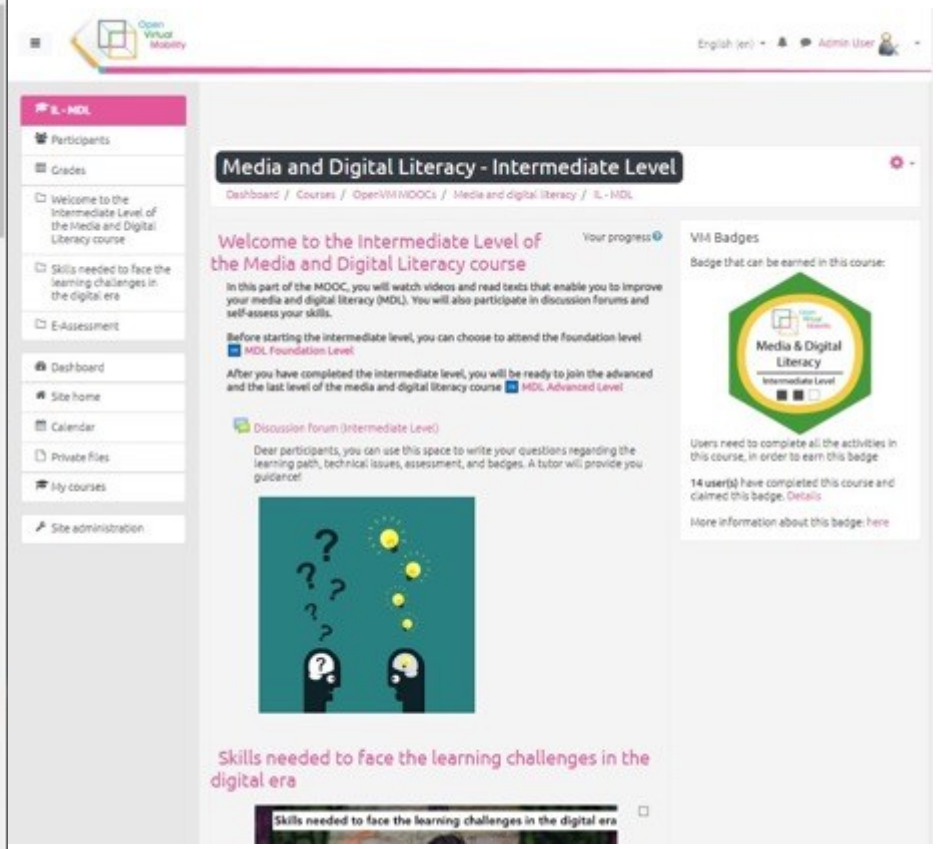
Open Virtual Mobility

Course implementation

24 courses to get ready for Virtual mobilities





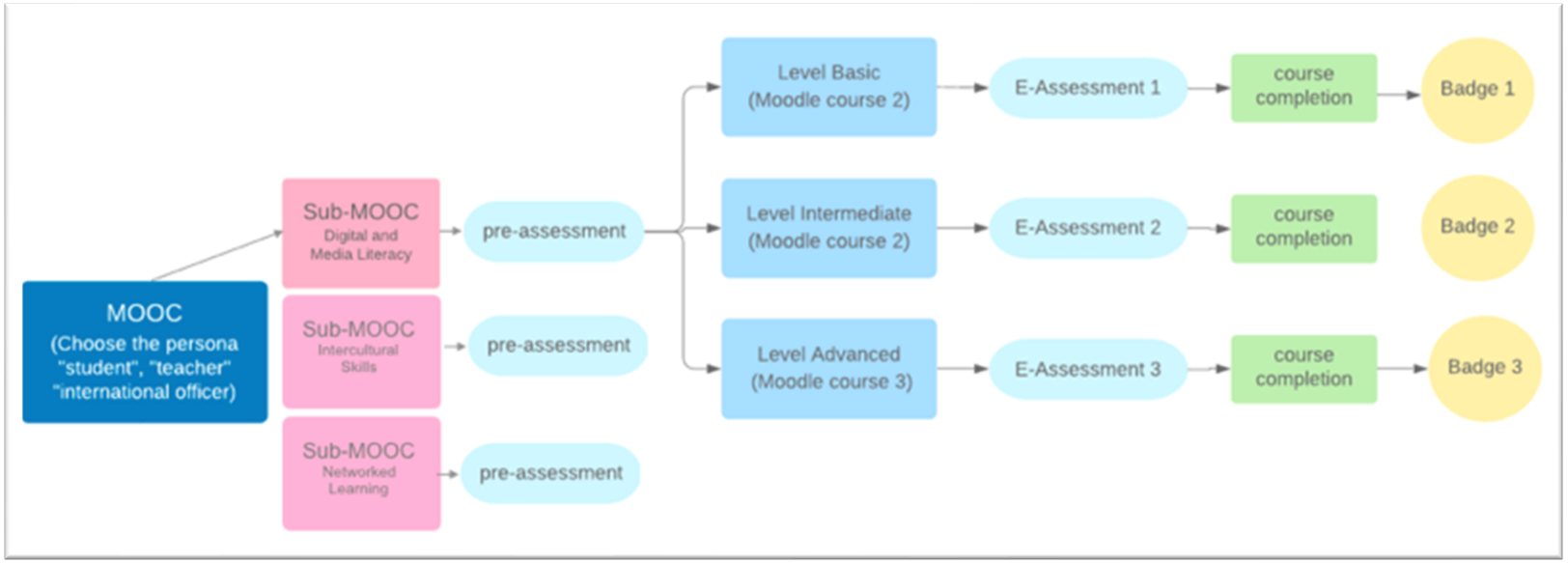
http://www.openvirtualmobility.eu

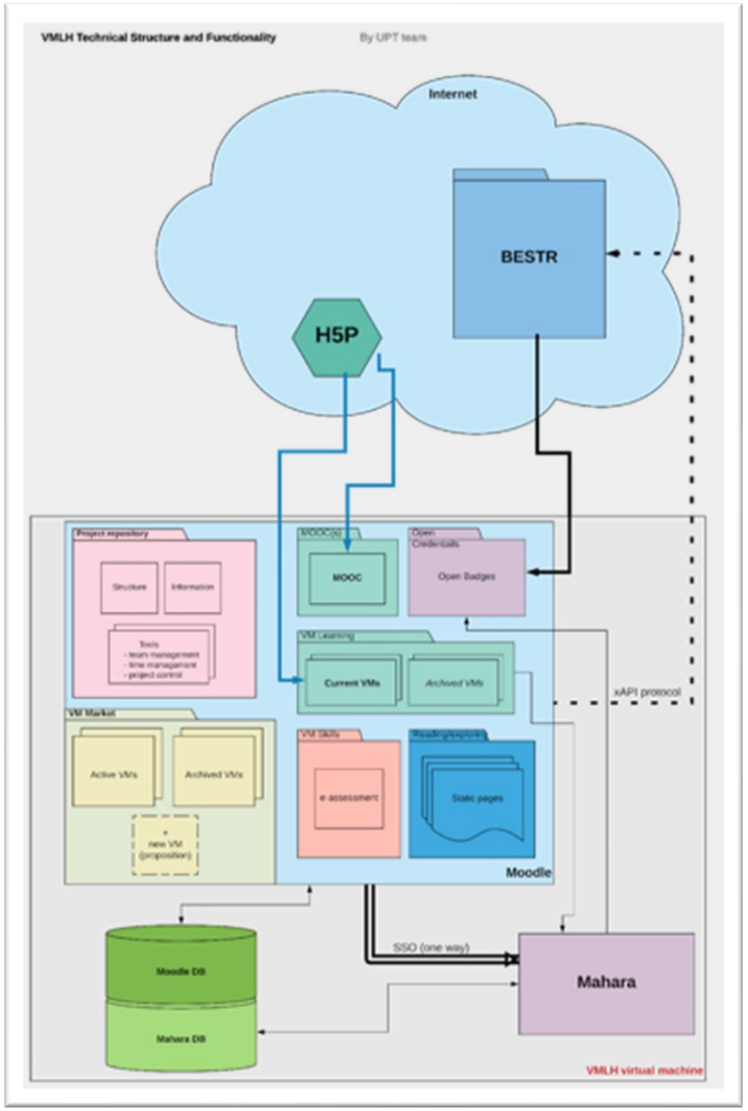
Open Virtual Mobility

Erasmus+

Centrul de ID/IFR și e-Learning

Open Virtual Mobility Learning HUB - Concept





- OpenVMLH - MOODLE-based open platform
- Bestr LRS
  - xAPI plugin
  - Custom API for displaying acquired Open Badges in the HUB

http://www.openvirtualmobility.eu

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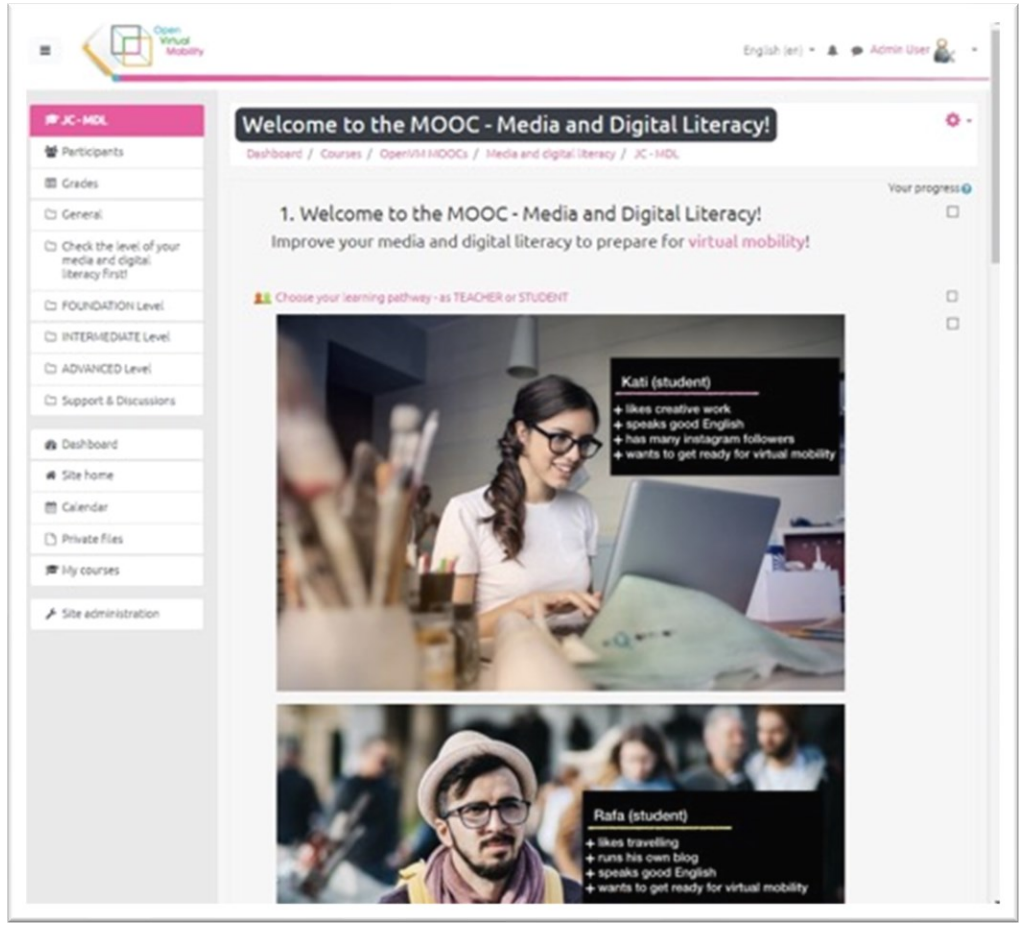
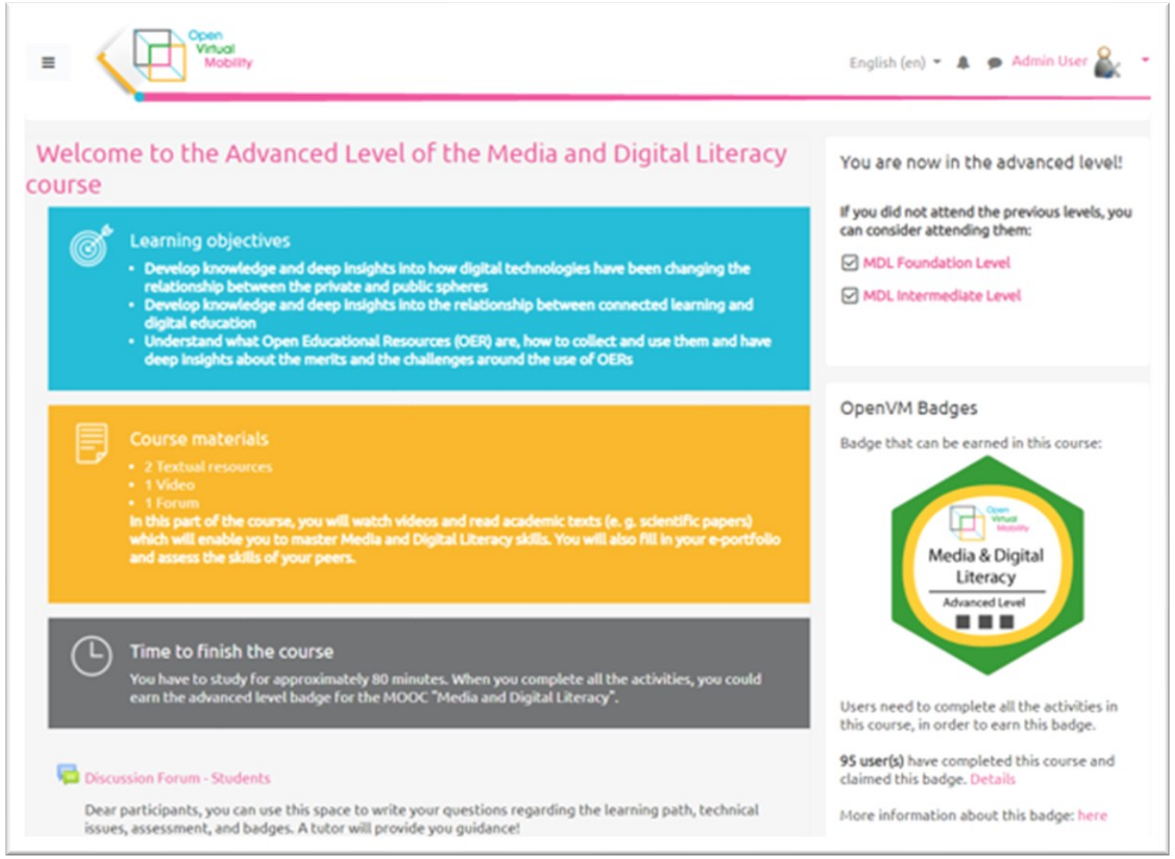
Open Virtual Mobility Learning HUB - implementation





http://www.openvirtualmobility.eu

Moodle based

Open Virtual Mobility

Open Credentials to recognise virtual mobility skills
Opening the skill recognition!

DigiCulture Courses
– online/ blended learning, free courses

1. The Internet, World Wide Web and introduction to the digital world
2. Digital Content & Publishing (including wikis)
3. Data Protection and Open Licenses
4. Digital Curation - Digital Libraries and Museums
5. Digital Safety, Security and Ethics
6. Digital Storytelling
7. Digital Audiences, Digital Analytics (Google, Facebook, Twitter, SEO)
8. Social Media for Culture
9. Augmented and Virtual Reality
10. Mobile Apps and Mobile User Experience
11. Digital Management in Culture
12. Digital Communication & Presentations
13. Online and Mobile Digital Media Tools (audio-video)

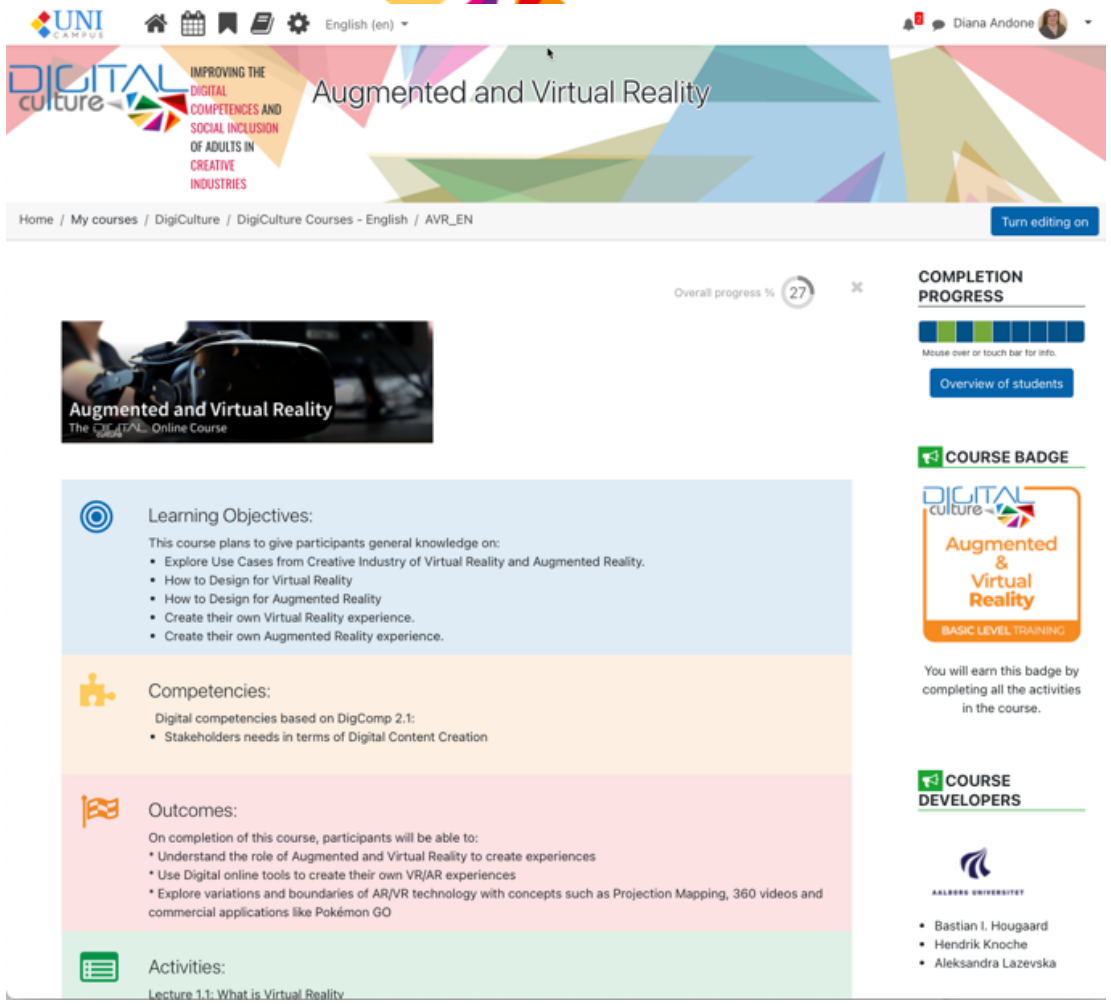
Erasmus+

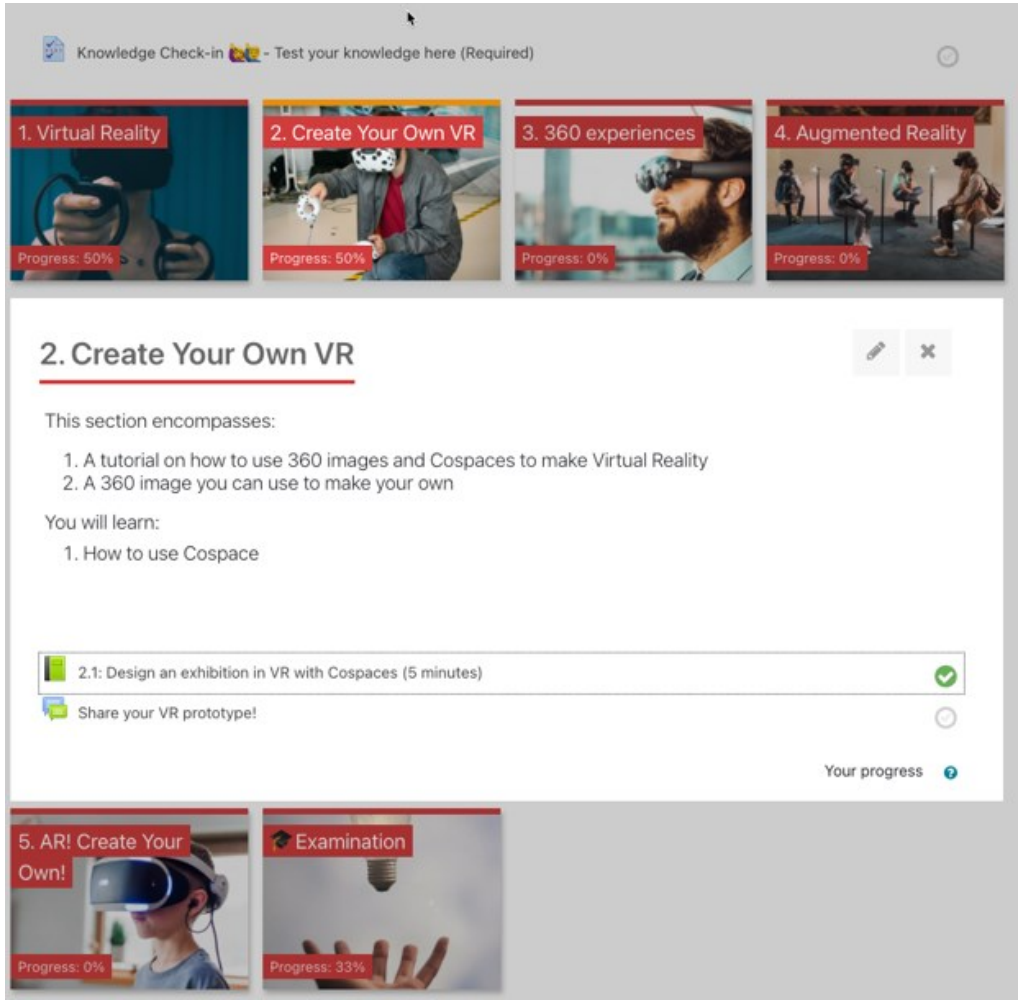
Basic Level Training

www.unicampus.ro

Centrul de ID/IFR și e-Learning

DigiCulture Courses
– online/ blended learning, free courses



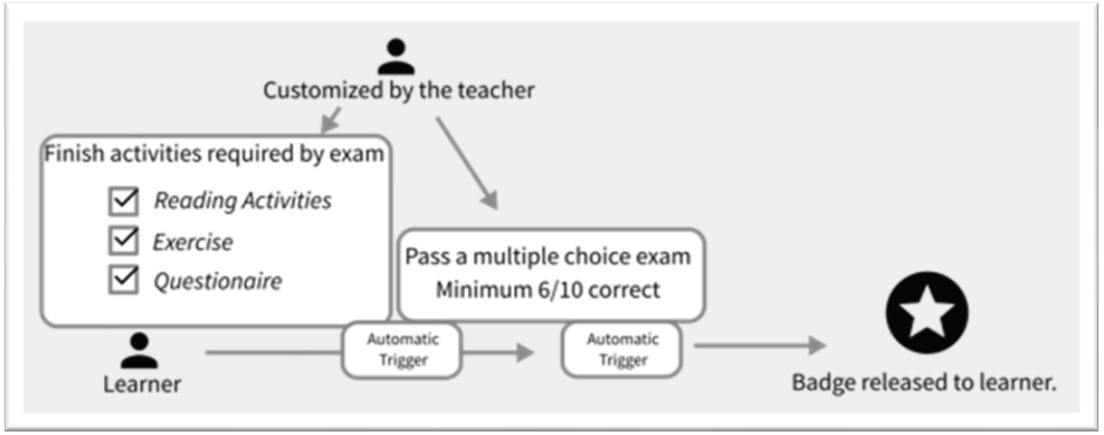


https://digiculture.eu/ Moodle based

Partners:

https://digiculture.eu/

DigiCulture – Badges Concept

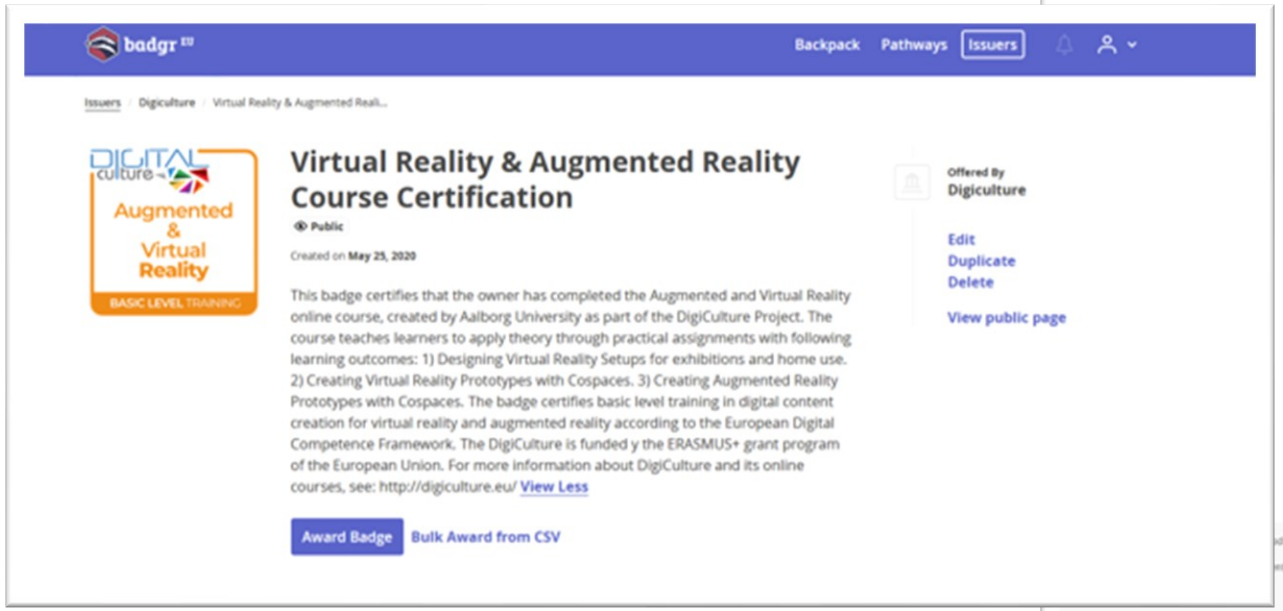


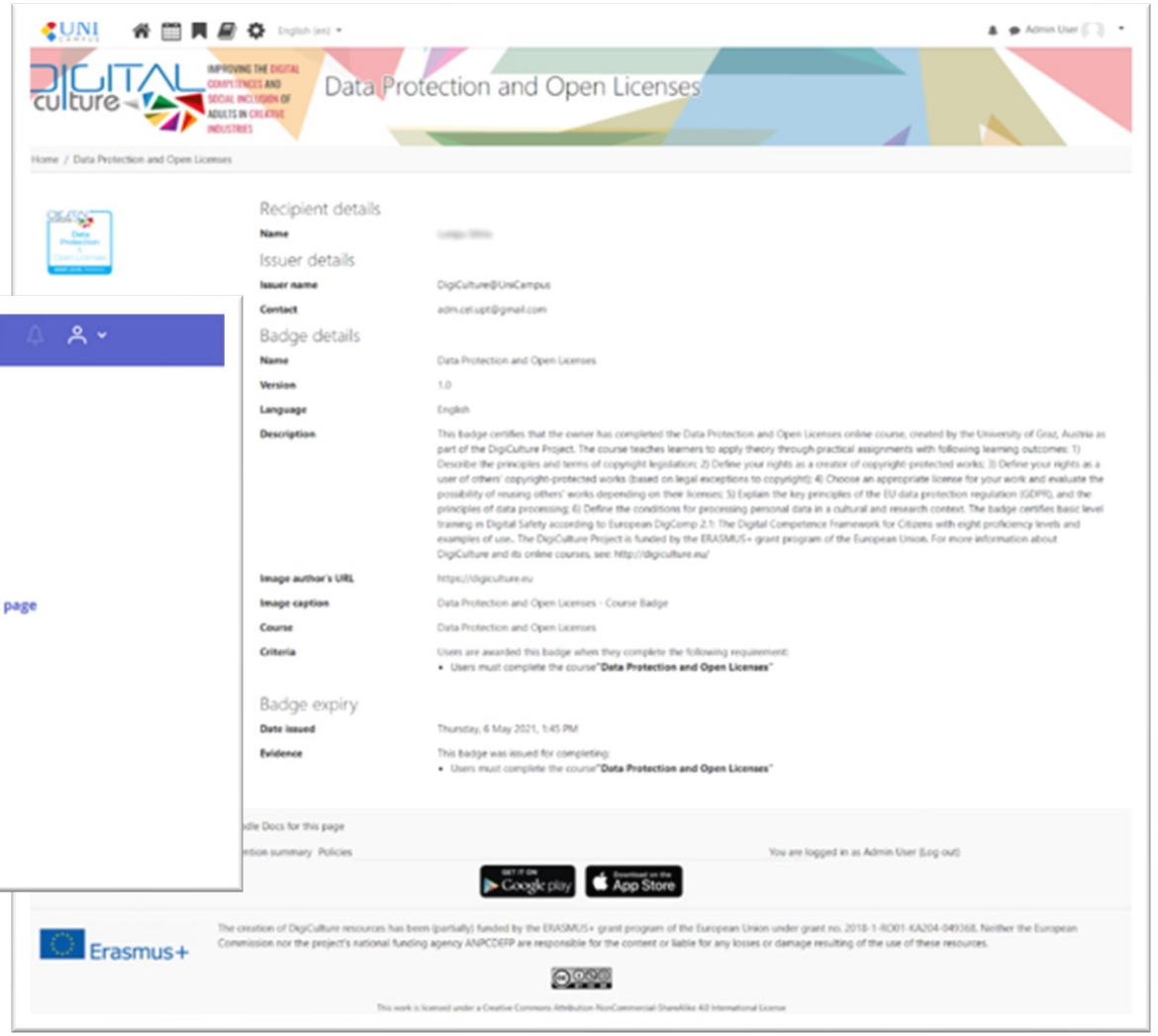
- DigiCulture - MOODLE-based open (sub)platform
- Native Badges
  - Integration with Badgr

https://digiculture.eu/

*) *https://digiculture.eu/en/publication-of-output-4-digital-skills-e-assessment-and-open-digital-badges-for-adult-education/*

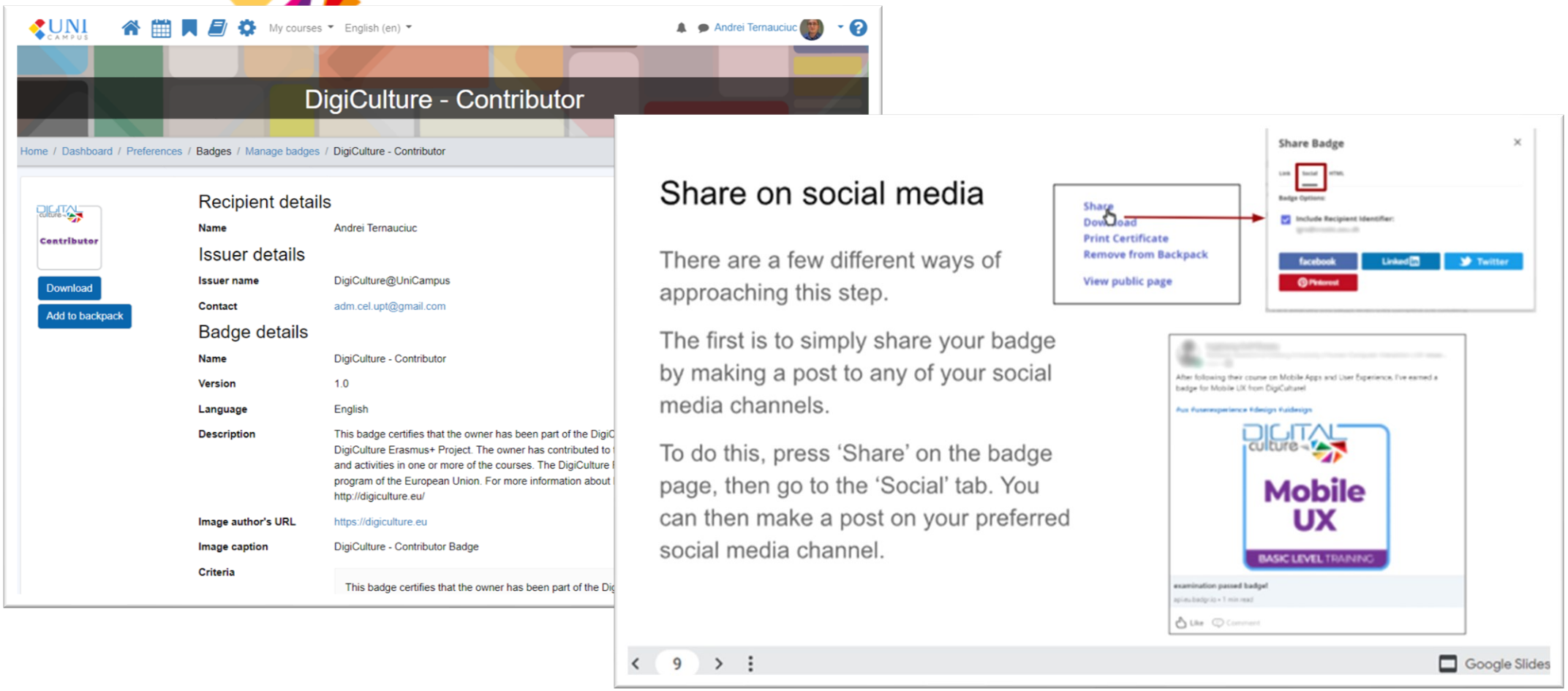
DigiCulture – Badges Implementation





https://digiculture.eu/

DigiCulture – Badges export



* https://docs.google.com/presentation/d/e/2PACX-1vRy2IPK2N6YTrNRzbu07Jr8BqiJ5QNZzv8dTdUTe-4SaSP5Jc93tsCgheRNiKKXQ61w7_XcABD8xFye

https://digiculture.eu/

DigiCulture – Course completion Certificates

- Course Certificate
- Certificate Manager
  - Part of Moodle Workplace

https://digiculture.eu/

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Acasa Cursuri Despre Contact Autentificare Inregistrare

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01 April
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VEZI CURS

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01 July
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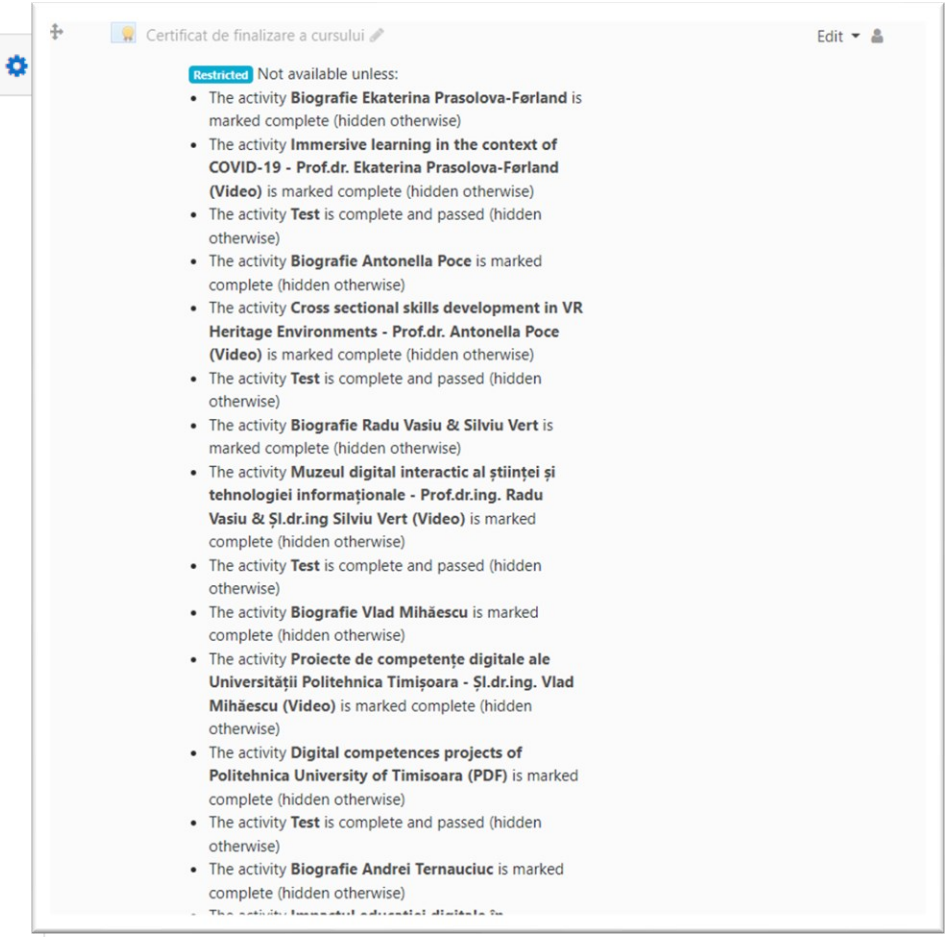
UniCampus – Course completion Certificate



www.unicampus.ro

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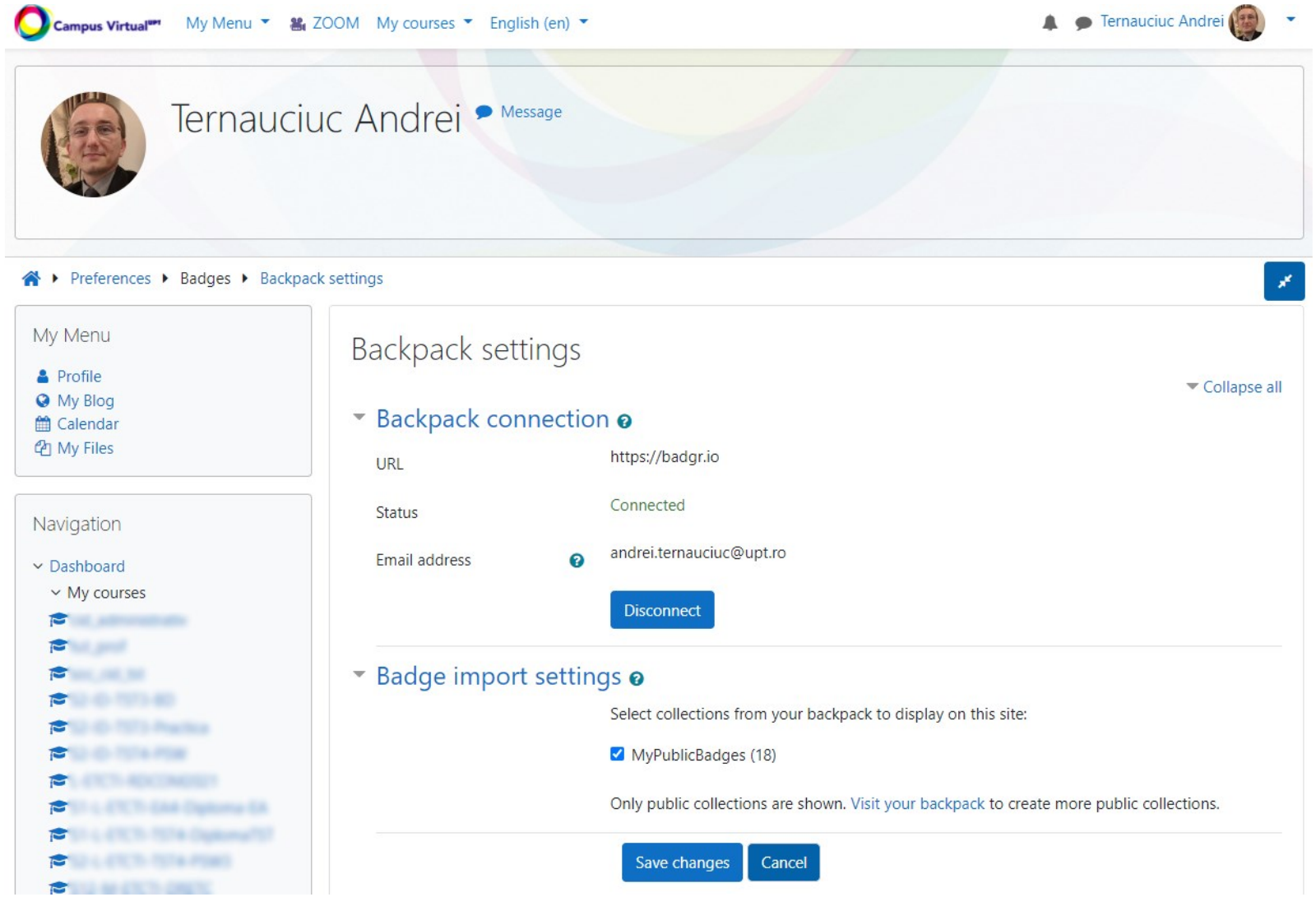
Virtual Campus of UPT – CVUPT – Badgr integration



https://cv.upt.ro/

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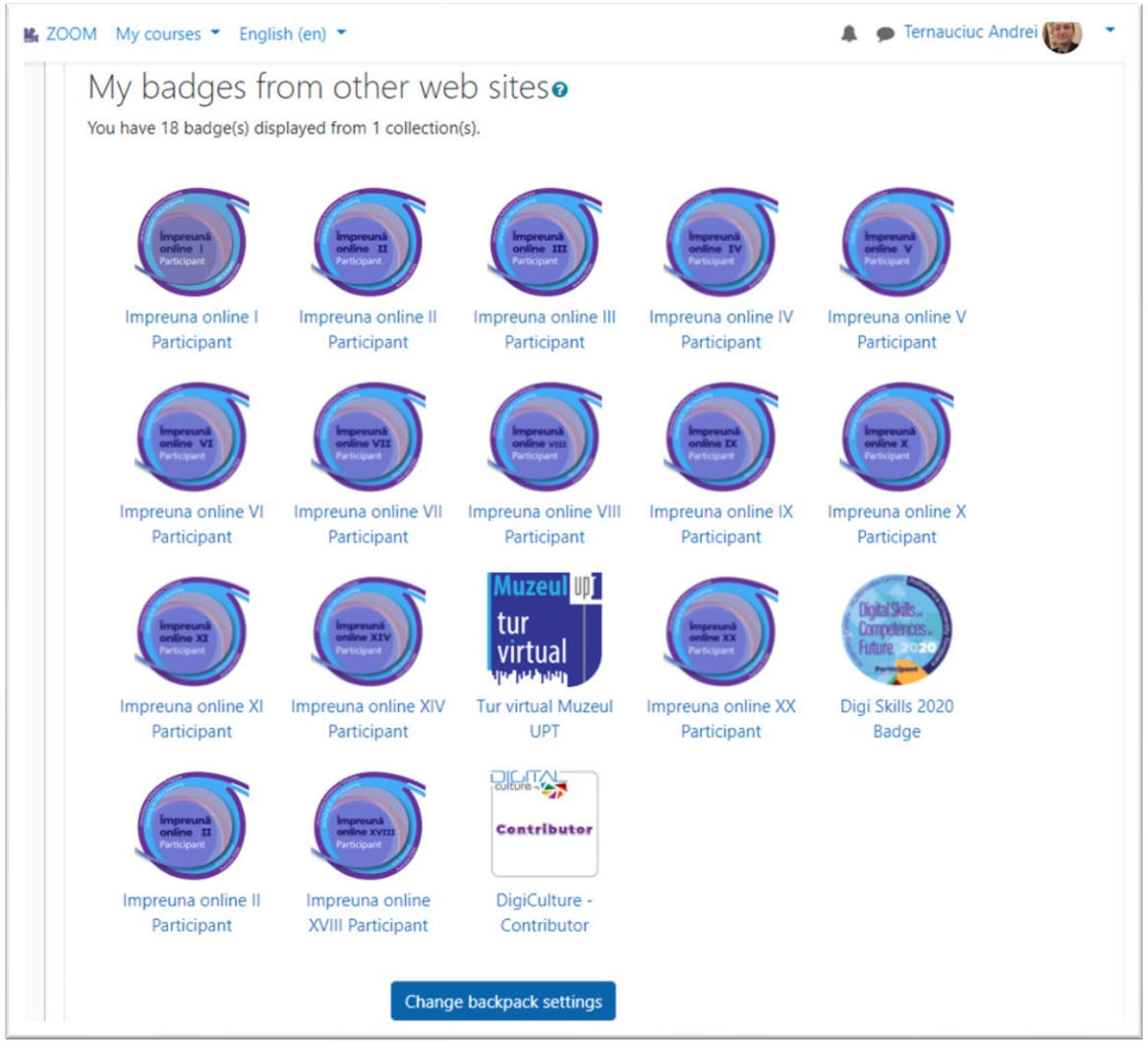


https://cv.upt.ro/

EBSI4RO Connecting Romania through Blockchain

Trusted diplomas have great potential.

Students' mobility in Europe is **a broad market**. EBSI and EuroPass are its enablers.

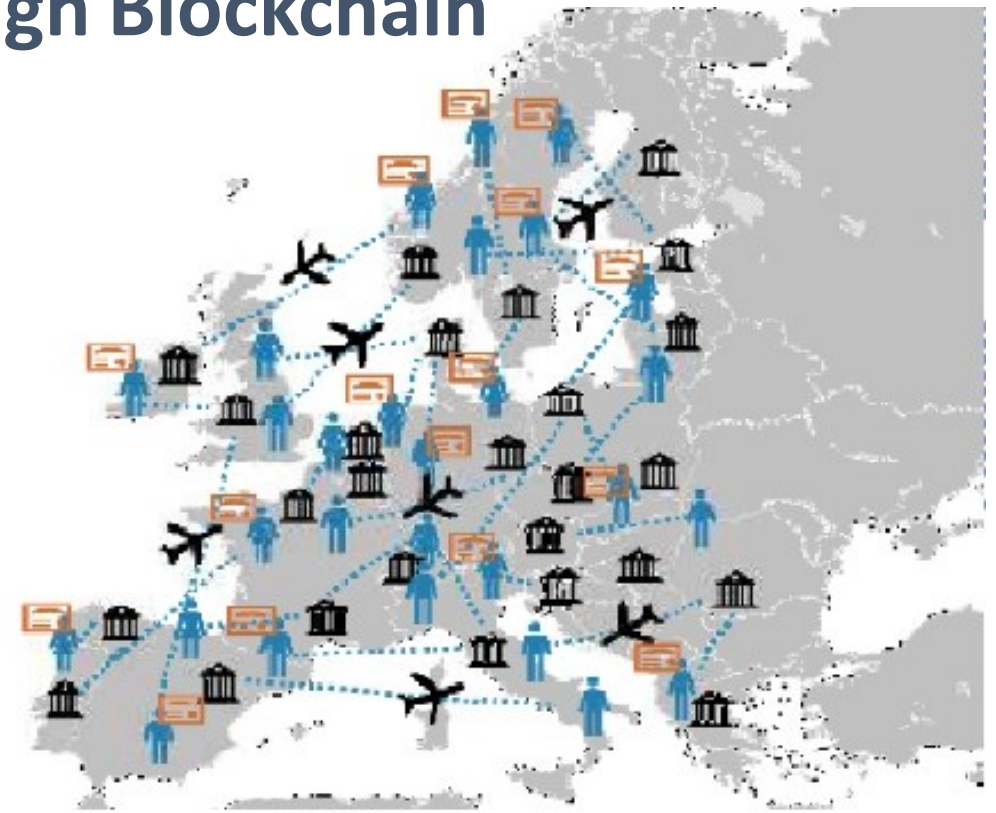
17 million
students (Bachelor, Master and PhD).

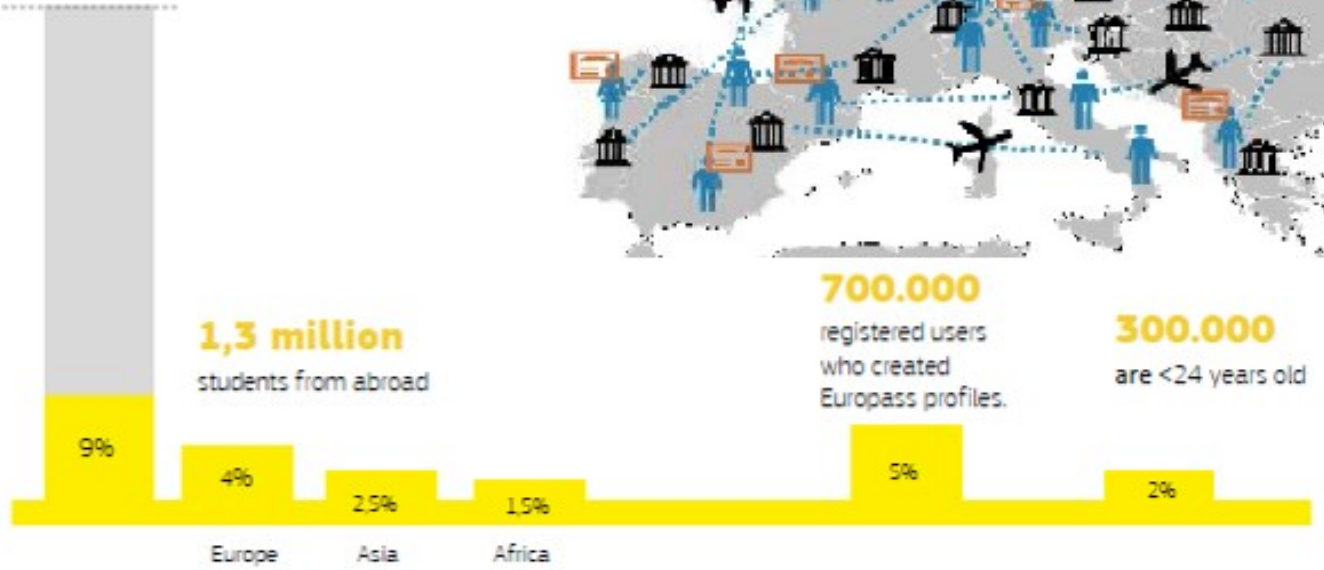
2,465
higher education institutions

27
European countries

1.35 million
teachers

4.0 million
students graduated (diplomas)





1,3 million
students from abroad

700.000
registered users who created Europass profiles.

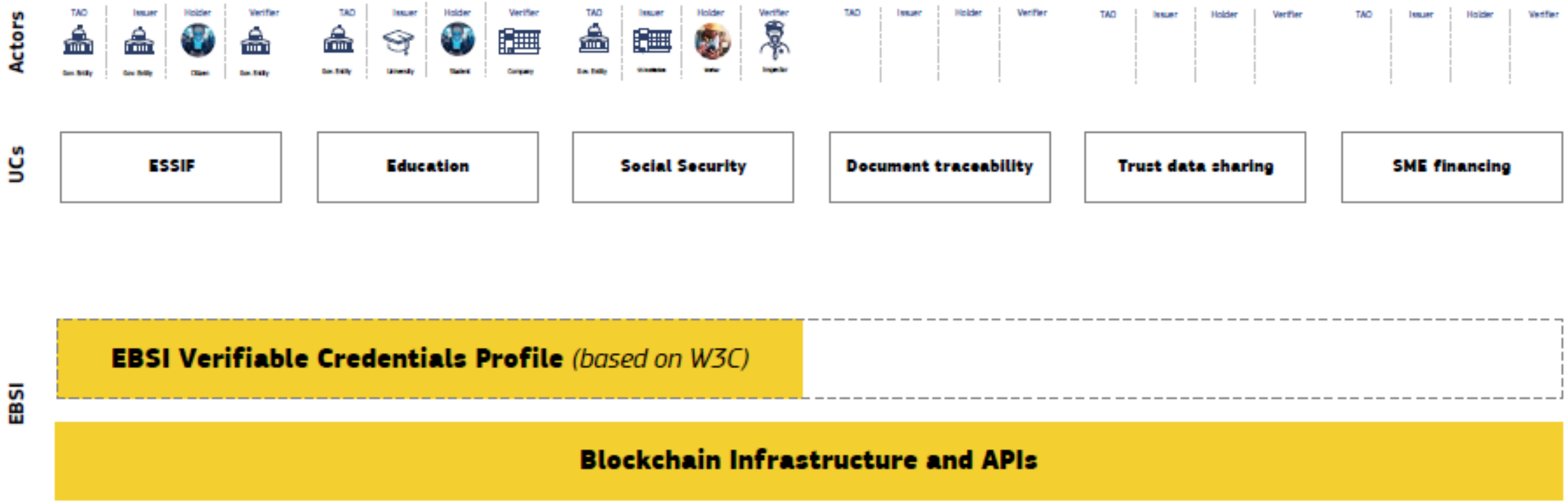
300.000
are <24 years old

From Early Adopters EBSI Programme Webinar - March 2021 -
https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/EBSI+Early+Adopters+programme+kick-off+webinar

EBSI4RO Connecting Romania through Blockchain

What is EBSI ?

EBSI is user centric, decentralised and reusable in multiple contexts and use cases. It is based on open standards to stimulate interoperability and the creation of cross-border public services



https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/EBSI

EBSI4RO Connecting Romania through Blockchain

Governments, and society, need technology to verify the authenticity of information. Having this challenge in mind, DG CNECT and DIGIT are currently developing the EBSI, in close cooperation with the EBP, to accelerate the creation of cross-border services and **putting blockchain technology at the service of public administrations for the purpose of verification of information, making the services trustworthy.**

EBSI nodes

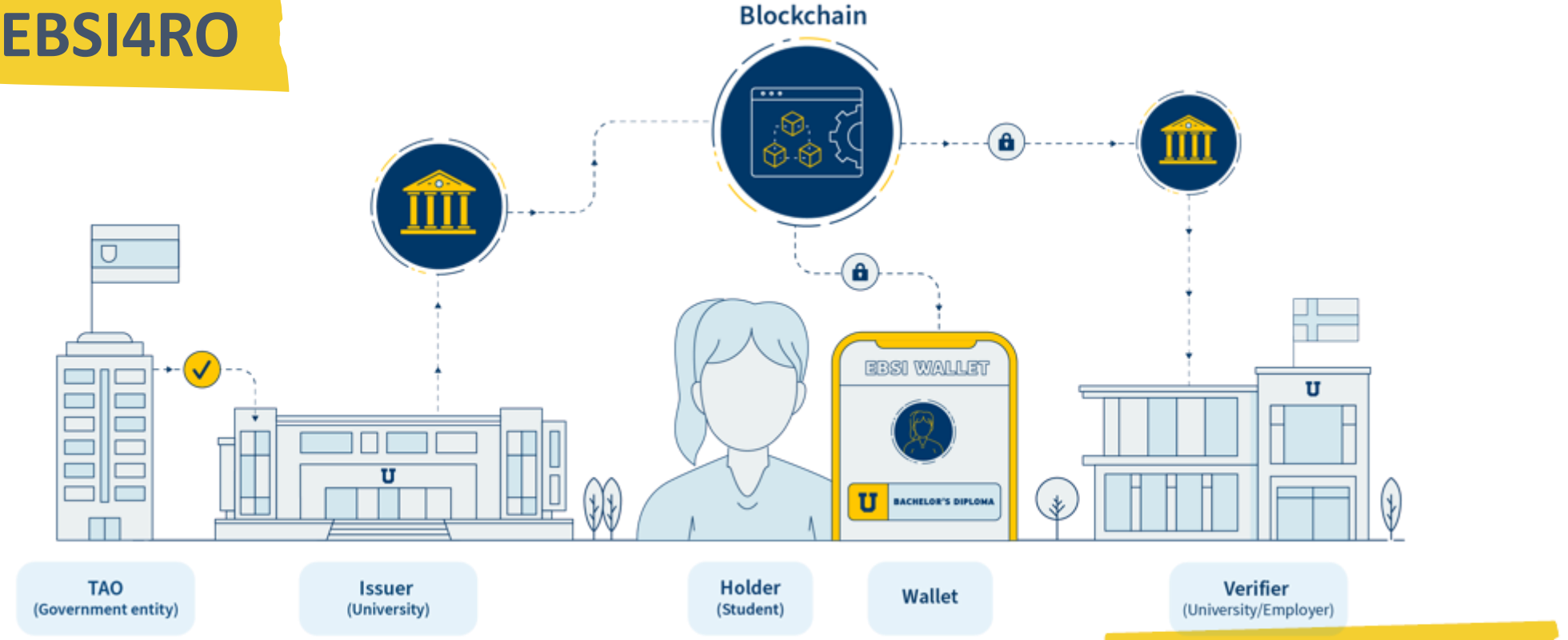
25 Live Nodes

11 Nodes in Setup phase

Centrul de ID/IFR și e-Learning

Verifiable Credentials on EBSI

EBSI4RO



Impossible to fake, easy to verify

Standards

- W3C VCs & DIDs
- OpenID Connect

- High level of certainty that the issuer is trusted alongside the time of issuance
- High level of certainty that the holder is the one that the Verifiable Credential was issued to
- The holder keeps data control and ownership

EBSI Early Adopters: Multi-University Pilot

2 European universities alliances, +18 universities from +15 countries

EBSI4RO participates in the EA Programme – July-December 2021

https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/Early+Adopters+Programme

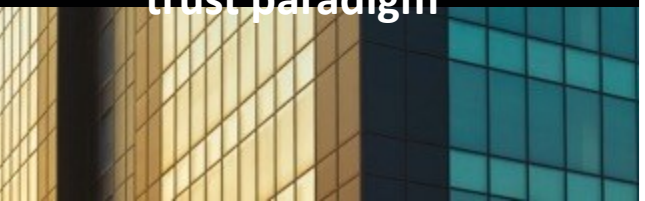
EBSI4RO Connecting Romania through Blockchain

TAO Trusted Accreditation Organisation

The ministry

Reduce friction in interactions, increase trust (transparency) and security in shared data.

Build a new trust paradigm



Issuer

The university A

Position your university as a pioneer brand, reduce friction in interactions, increase trust (transparency) and security in shared data. At scale, decrease administrative costs.

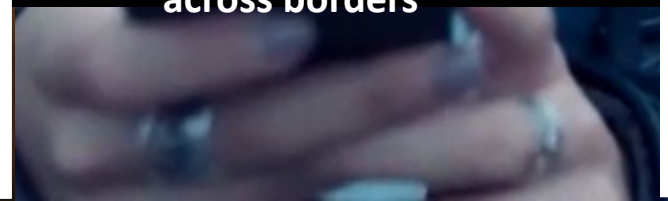
Lead the change

Holder

The student

Take control of their own data in a secure way and easily move with their own credentials across Europe.

Enjoy mobility across borders

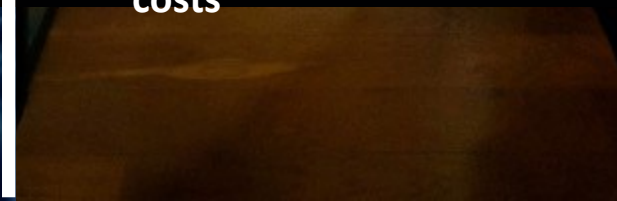


Verifier

The company / university B

Reduce mistakes and protect against fraud, effortlessly interact with government agencies as well as reduce friction and reduce verification costs.

Reduce costs



EBSI4RO Connecting Romania through Blockchain

Central scope: to create an extendable and sustainable ecosystem to facilitate and accelerate the awareness, knowledge and adoption of the Blockchain technologies and European Blockchain Services Infrastructure (EBSI) by the Romanian citizens, businesses, institutions and administration; proposals for Blockchain policies in education.

Partners:

1. **Executive Unit for Financing Higher Education, Research, Development and Innovation (UEFISCDI)**
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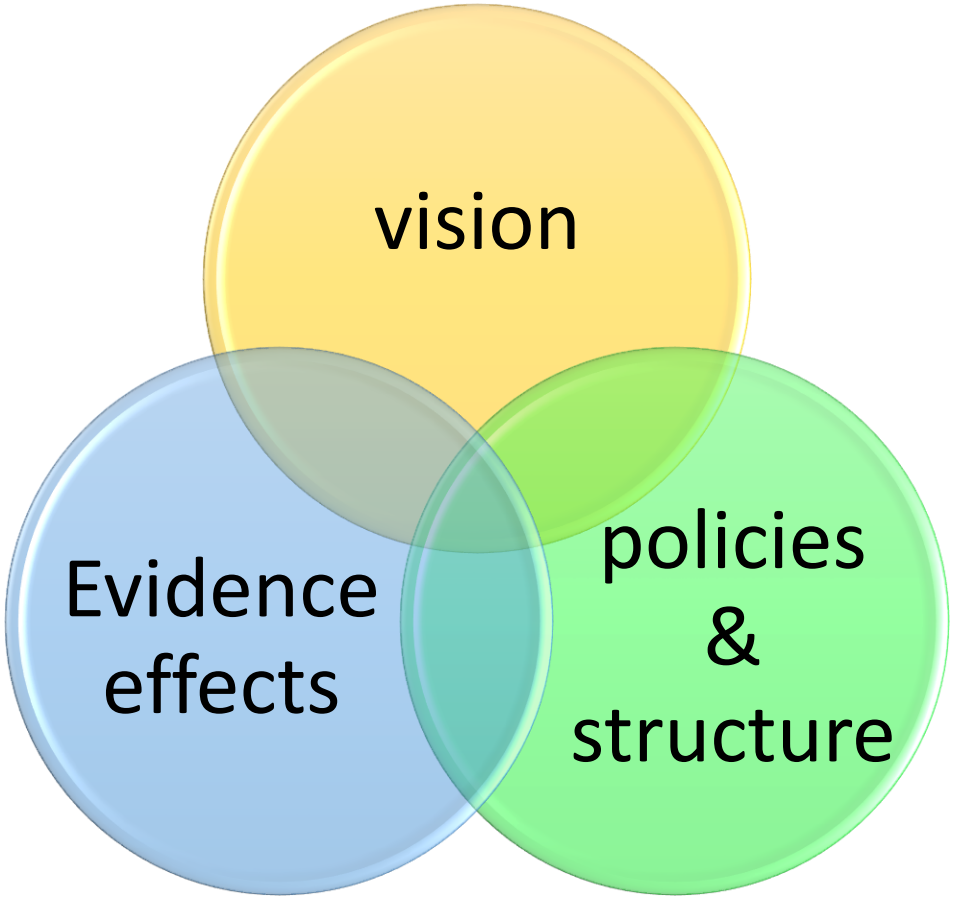
   - Elena Stefania Nicolaescu
2. **Politehnica University of Timisoara (UPT)**
   - Prof.dr.ing.Radu Vasiu
   - Dr.Diana Andone
   - Prof.dr.ing.Carmen Holotescu
   - Drd.Victor Holotescu
   - S.l.dr.Andrei Ternauciuc

April 2021 – March 2023

https://ebsi4ro.ro
https://www.facebook.com/ebsi4ro
https://twitter.com/ebsi4ro

Microcredentials – formal -& informal
Lessons learned



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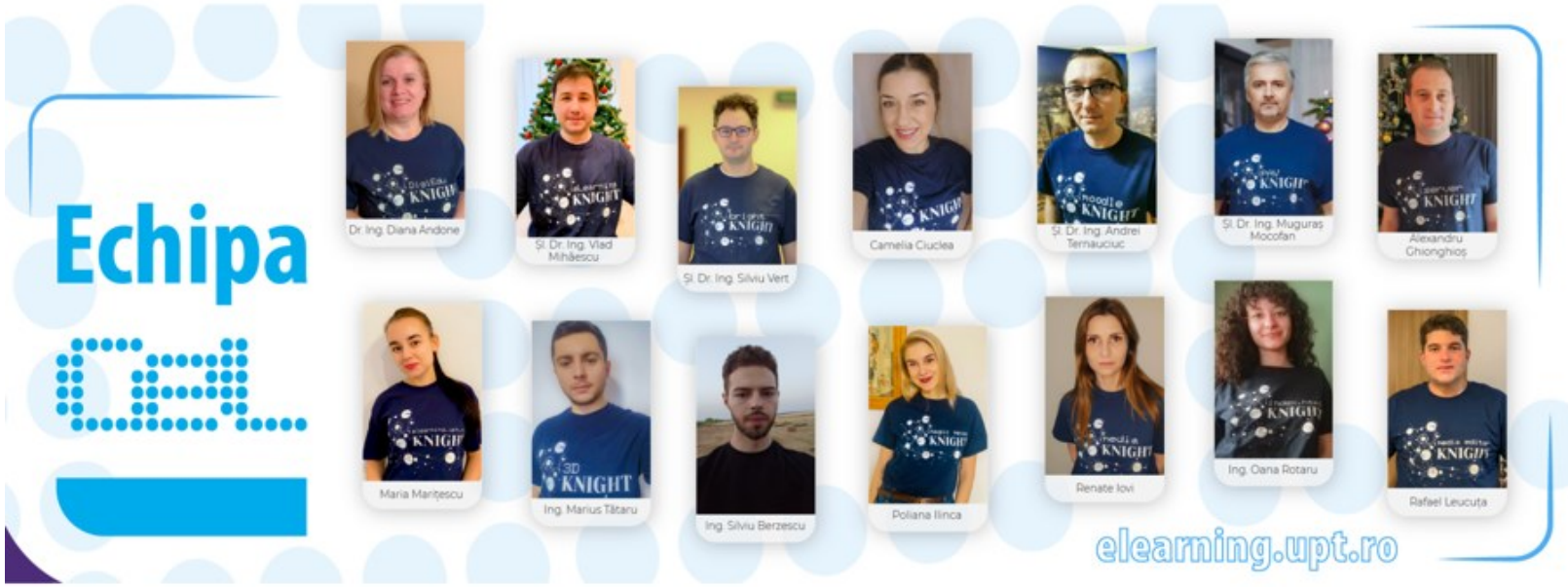

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