



# Fostering Open Education in Europe: research from the European Commission's IPTS

UNESCO IITE  
Moscow, Oct 2014

Andreia Inamorato dos Santos  
Yves Punie

[andreia.inamorato.dos-santos@ec.europa.eu](mailto:andreia.inamorato.dos-santos@ec.europa.eu)  
@aisantos

## Open Educational Resources in Brazil: State-of-the-Art, Challenges and Prospects for Development and Innovation

978-5-905175-06-0

Full-text version [\[eng\]](#)



The book "Open Educational Resources in Brazil: State-of-the-Art, Challenges and Prospects for Development and Innovation" (author – Andreia Inamorato dos Santos) has been out of print. This is the second IITE publication within the series of case studies summarizing best practices of OER development in non-English-speaking countries. The study contains an overview of the Brazilian educational landscape, national educational policy and the strategies of ICT use in education. The author describes existing open digital content repositories with due emphasis on the copyright situation and considers several examples of successful international OER projects which involved Brazilian partners. The book is destined for those who study OER initiatives and projects on a national scale as well as promotion of OER movement worldwide.



In 2012, the Center of Studies on Information and Communication Technologies – CETIC.br – with the support of the UNESCO CI Sector translated the book into the Portuguese language and published it for distribution in Brazil and other Portuguese-speaking countries. The full-text version is available at CETIC.br website [\[pt\]](#).

### E-LIBRARY

All publications

#### Categories

Analytical Surveys

Best Practices

Policy Briefs

Theoretical Aspects

#### E-library

Digital Libraries in Education

Distance education

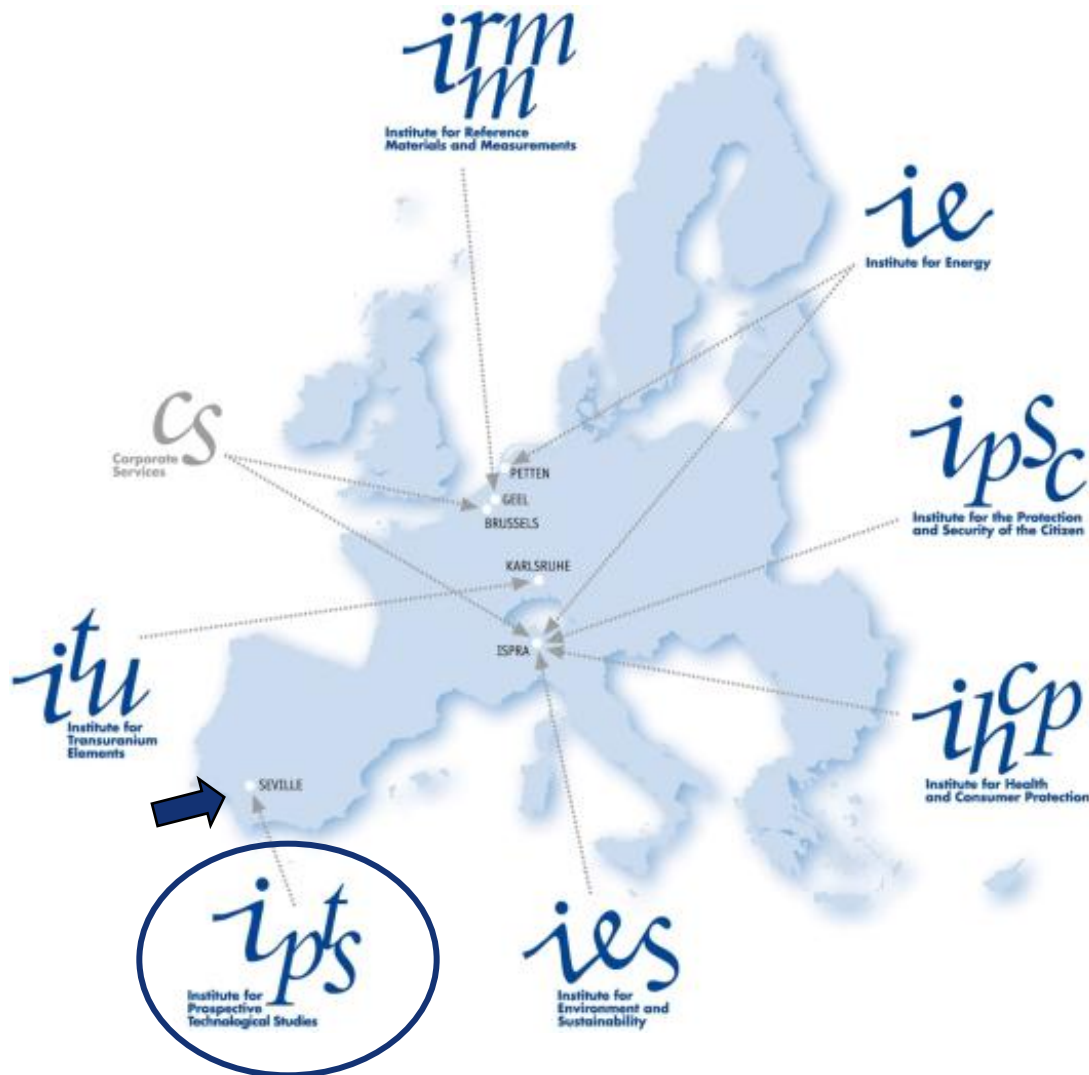
ICTs in Higher Education

ICTs in Primary Education

ICTs in Secondary Education

ICTs in Special Needs Education

<http://iite.unesco.org/publications/3214695/>



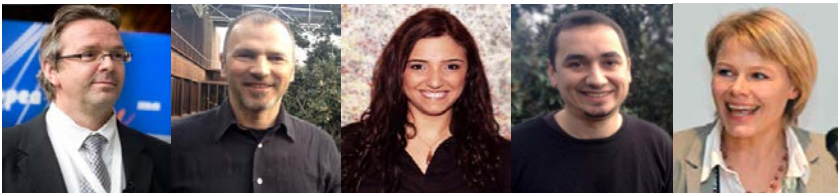
European Commission,  
Joint Research Centre

**Institute for Prospective  
Technological Studies (IPTS):**

Research institute supporting  
EU policy-making on  
socio-economic, scientific  
and/or technological issues



## Team



website

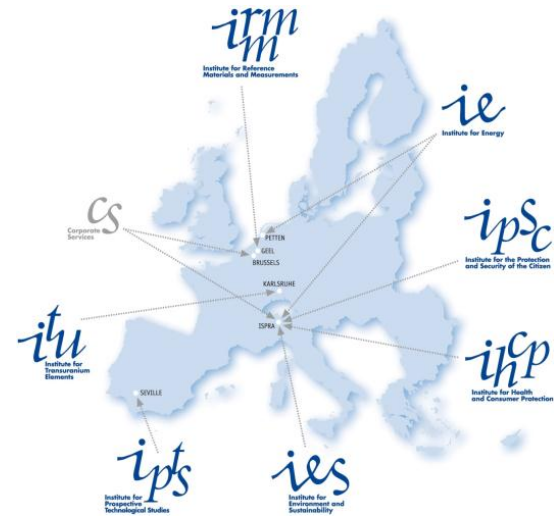
## What:

- ICT for modernising and innovating E&T in Europe
- 21<sup>st</sup> century skills for digital economy and society

Team from left:

Yves Punie: Head of research  
Panayotis Kampilys: researcher  
Andreia I. Santos: researcher  
Jonatan Castaño: researcher  
Riina Vuorikari: researcher

- >50 publications on IPTS eLearning website
- Principal client: DG Education & Culture



## Research strands

- Opening up Education, OER & Science 2.0
- Innovating Learning and Teaching
- Key Competences and 21st century skills



## Why:

- Europe is not a top performer in Education (E.g. PISA)
- ICT for learning and skills evolves fast
- Existing evidence is fragmented and not addressing EU
- Tackle MS differences in ICT use in E&T

## Policy

- 2013 COM on Opening up Education; E&T 2020; Digital Agenda; New skills and Jobs; EU Recommendation on Key Competences for LLL,...

<http://is.jrc.ec.europa.eu/pages/EAP/eLearningProjects.html>



# DIGITAL COMPETENCES FRAMEWORK



### Aim:

- Identify and describe key components of Digital Competence (DC) in terms of knowledge, skills and attitudes.

### Why:

- Many initiatives but lack of common European understanding and guidelines

### Multi-method

- Literature review, case studies, workshops, online consultation, validation by EAC WG

### Policy:

- 2013 COM on Opening up Education
- 2006 Recommendation on Key Competences for Lifelong Learning
- Digital Agenda Scoreboard

### Use:

- By Spain, Basque region, Extremadura and Flanders: curricula review and framework for teacher competences
- Eurostat 2015 module on digital skills

| <i>Dimension 1</i><br>Competence areas (5) | <i>Dimension 2</i><br>Competences (21)   |
|--|--|
| 1.<br>Information                          | 1.1 Browsing, searching, & filtering information<br>1.2 Evaluating Information<br>1.3 Storing and retrieving information   |
| 2.<br>Communication                        | 2.1 Interacting through technologies<br>2.2 Sharing information and content<br>2.3 Engaging in online citizenship<br>2.4 Collaborating through digital channels<br>2.5 Netiquette<br>2.6 Managing digital identity |
| 3.<br>Content creation                     | 3.1 Developing content<br>3.2 Integrating and re-elaborating<br>3.3 Copyright and Licences<br>3.4 Programming  |
| 4.<br>Safety                               | 4.1 Protecting devices<br>4.2 Protecting data and digital identity<br>4.3 Protecting health<br>4.4 Protecting the environment  |
| 5.<br>Problem solving                      | 5.1 Solving technical problems<br>5.2 Expressing needs & identifying technological responses<br>5.3 Innovating, creating and solving using digital tools<br>5.4 Identifying digital competence gaps                |





### Aim:

- Analysing opportunities and challenges for OE & OER in Europe

### Why:

- Massive Open Online Courses (MOOCs): "a tsunami" affecting Education
- Unesco Paris Declaration on OER (2012)

### Multi-method

- Literature review, case studies, surveys (learners, institutions), workshops, online consultation, validation by EAC WG and stakeholders

### Policy:

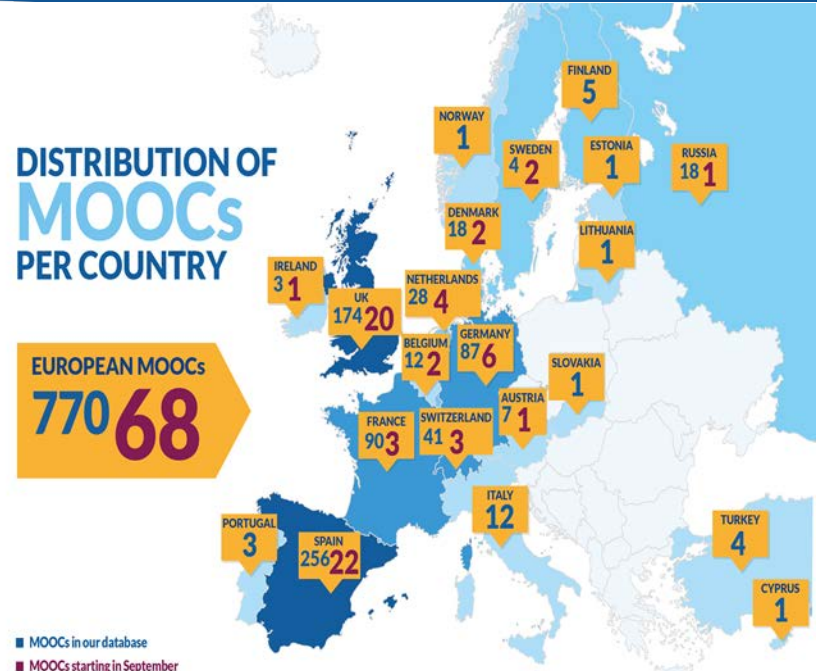
- Follow-up 2013 COM on Opening-Up Education

### What:

- Socio-economic impact assessment
- Vision OE 2030
- Framework for post-secondary institutions to "open up"
- New recognition mechanisms (E.g. Open badges)

### DISTRIBUTION OF MOOCs PER COUNTRY

EUROPEAN MOOCs  
**770** **68**



[www.openeducationeurope.eu](http://www.openeducationeurope.eu)







| JRC IPTS – DG EAC studies on iCT and Open Education |  | TIMING |
|---|--|--------|
|---|--|--------|

|   |                       |
|---|-----------------------|
| <p><b>DIGICOMP</b><br/>Anusca Ferrari, Yves Punie</p>   | 2010-2012             |
| <p><b>Scale CCR</b><br/>Panagiotis Kampylis, Barbara Brecko, Yves Punie</p>   | 2011-2013             |
| <p><b>OEREU</b><br/>Christine Redecker, Jonatan Castaño, Yves Punie</p>   | 2012-2014             |
| <p><b>OpenEdu</b><br/>Andreia Inamorato dos Santos, Jonatan Castaño, Yves Punie</p>   | 2013-2015<br>ongoing  |
| <p><i><b>OpenCred</b>: a review of recognition of non-formal learning in the EU<br/>(partner: University of Leicester, UK)</i><br/> <i><b>OpenCases</b>: a collection of in-depth case studies on OE to support evidence<br/>(University of Bath, UK)</i><br/> <i><b>OpenSurvey</b>: a survey of the state-of-the-art of open education in 5 countries</i><br/> <i><b>Moocknowledge</b>: a survey of OpenUpEd MOOCs' learners</i></p> | ongoing               |
| <p><b>COM4EDU</b><br/>Panayotis Kampylis, Riina Vuorikari, Yves Punie</p>   | 2014-2017<br>starting |

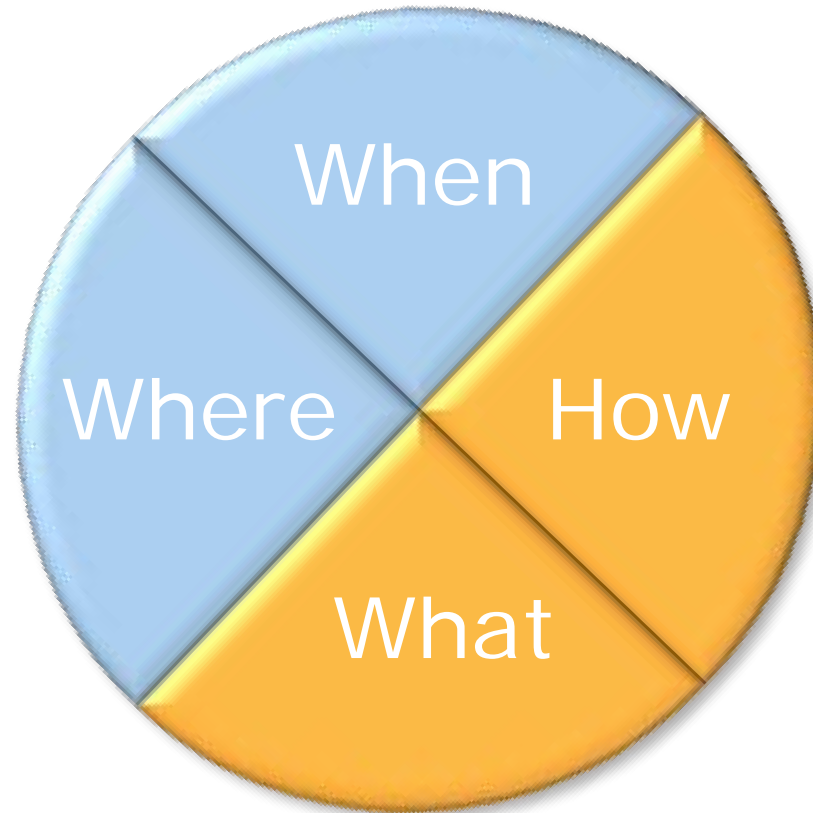


# OEREU study: foresight

Call for vision papers

Stakeholder workshops: school,  
HE, adult education

Desk research



More open, flexible, fluid but not necessarily all at the same time

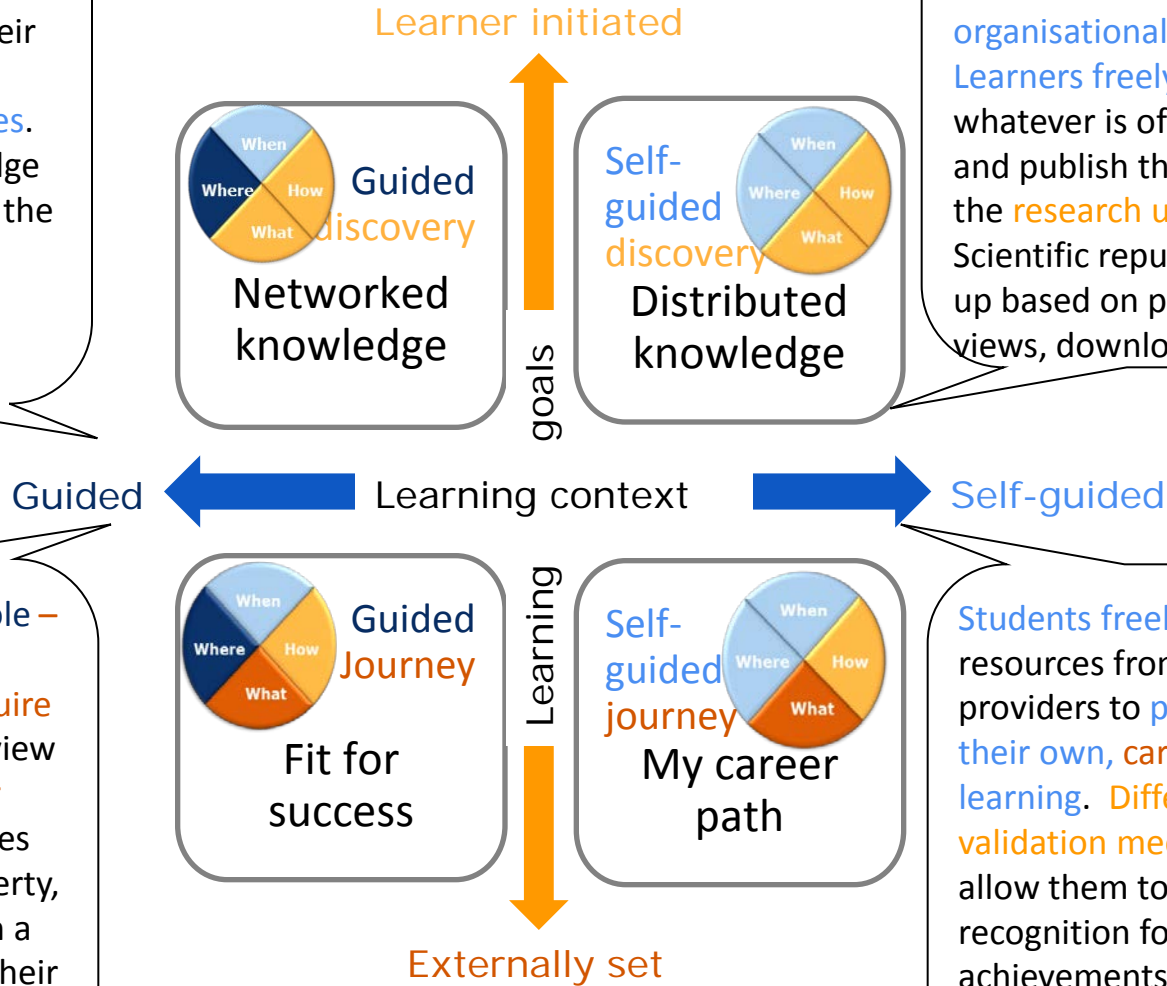


# OE 2030 scenario for Higher Education



Universities play a key role – as **research hubs**. Scientific inquiry takes place across **networks** between different research institutes, which **collaborate** and share their knowledge widely and openly to create **synergies**. Students **create** knowledge as active contributors to the network, but are offered **guidance and support** at their home university.

A **global open research arena** enables anybody to engage in research and enquiry. **Research and education** are no longer organisationally linked. **Learners freely inquire** whatever is of their interest and publish their findings in the **research universe**. Scientific reputation is build up based on peer ratings, views, downloads, citations.



Universities play a key role – as **professional training providers**. Students **acquire** knowledge and skills in view of their individual **career** aspirations. Learning takes place at the students liberty, **anywhere, anytime**, with a **range of resources**, but their home university offers targeted and personalised guidance and support.

Students **freely combine** resources from different providers to **personalise** their own, **career-oriented, learning**. **Different validation mechanisms** allow them to receive recognition for their achievements in view of an **externally set curriculum**, so that they **qualify for a professional career**.

## ***Suggested reading:***

*Imagining Open Education 2030:  
Towards a new ecosystem for Higher Education?*

*<http://is.jrc.ec.europa.eu/pages/EAP/OEREU.html>*

*Christine Redecker*

*Jonatan Castaño*

*Yves Punie*



# OPENEDU

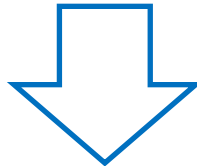
*Strategies on openness in higher education*



## **OBJECTIVES OF THE OPENEDU STUDY**

<http://is.jrc.ec.europa.eu/pages/EAP/OpenEdu.html>

- Explore and provide evidence of institutional strategies (including business models) to facilitate OE. Provide strategic guidelines for European postsecondary providers to engage in OE.
- Conceptualise & analyse different newly emerging certification and recognition mechanisms. Assess their potential for supporting OE, LLL and professional development.
- Investigate demand and supply side of OE in Europe to better understand learner's motivations and learning needs and how far different OE strategies (e.g. MOOCs) meet or fail to cover them.



*To provide European and Member States educational organisations and policymakers with evidence-based knowledge for awareness raising, understanding and strategic decision-making on OE in Europe.*

# OPENEDU DRAFT METHODOLOGY

MAINLY  
CONTRIBUTES TO :

Method

Focus

Description

WP 2 WP 3 WP 4 WP 5 WP 6

**Desk Research**

-Institutional strategies & Business models  
-Literature review on Certification: mechanisms & value  
-MOOCs, OER, OE & OE Policies

Monitoring state of the art OE developments

**Surveys**

Learners  
  
Institutions  
  
Employers

Practices & Perceptions  
(Openup Ed MOOCs)  
Other OE provisions and uses  
(Semi-informal, non-formal & formal: OCW, ALISON, Coursera partners, Open degrees)  
European Association of Universities (EUA)  
EC co-funded projects  
(EMMA, VM-PASS, OERTEST, OPENUPED)  
Practices & Perceptions (Value of Open Learning / Certificates)

**Case studies**

HE institutions  
For profit organisations  
Not for profit organisations

ALISON, FutureLearn, OpenupEd, P2PU, OERU, Coursera (EU partners), France Université Numérique

**Focus groups**

Experts, practitioners, policymakers, employers

Accreditation and certification

**Observations**

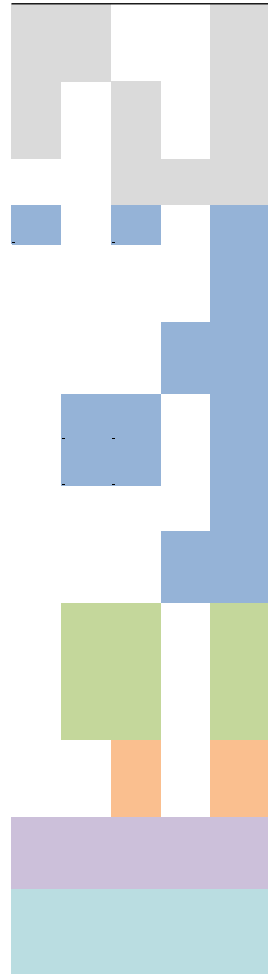
OE Practices

Continuous observations: environmental scanning

**Stakeholder Consultations**

Institutional strategies

Refine and validate strategic framework for institutions





Key Outcomes

**WP4**  
Recognition mechanisms: **OPENCRED**

**WP6**  
Strategic framework for institutions

Supporting WPs

**WP3**  
Case studies & expert interviews : **OPENCASES**

**WP5**  
Data collection based on surveys: **OPEN SURVEY**

**WP2**  
Data on MOOCs: **MOOCKNOWLEDGE**

Additional input

Desk research & literature review

Advisory Board

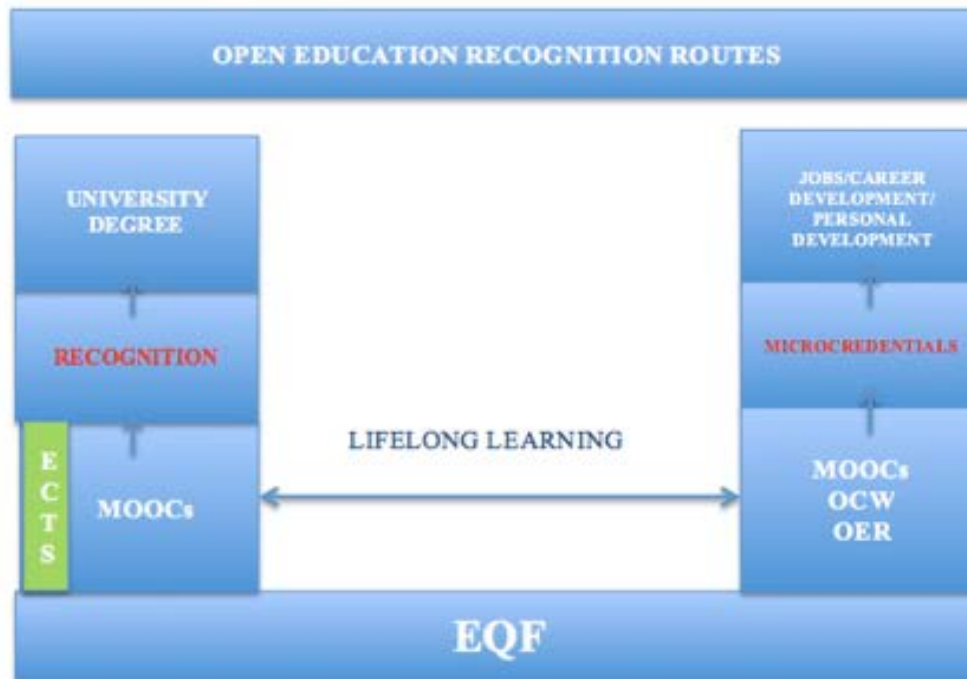
Community building (Open Education Portal)

Collaboration with EU co-funded projects

**WP7**  
Policy Support

# Open Education Recognition Routes

work in progress





## CHALLENGES

### Wicked Challenges

- › Supporting complex thinking and communication
- › Students as co-designers of learning

### Difficult challenges

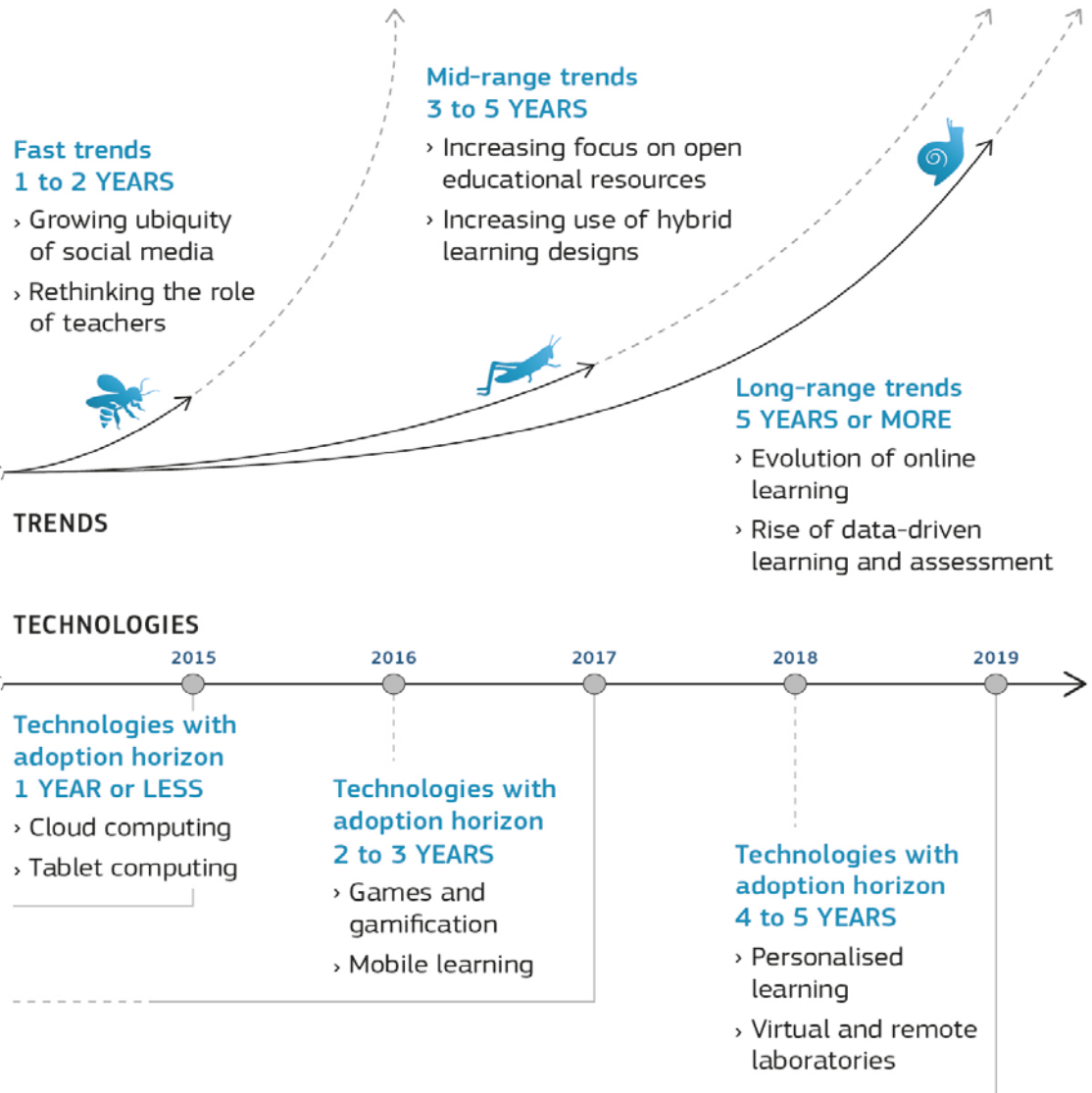
- › Creating authentic learning opportunities
- › Blending of formal and non-formal learning

### Solvable challenges

- › Integrating ICT in teacher education
- › Students' low digital competence



TRENDS, TECHNOLOGIES  
AND CHALLENGES  
FOR SCHOOLS







# Contact

[andrea.inamorato.dos-santos@ec.europa.eu](mailto:andrea.inamorato.dos-santos@ec.europa.eu)

[yves.punie@ec.europa.eu](mailto:yves.punie@ec.europa.eu)