



# EU frameworks and tools for digital competence

**Panagiotis Kampylis**

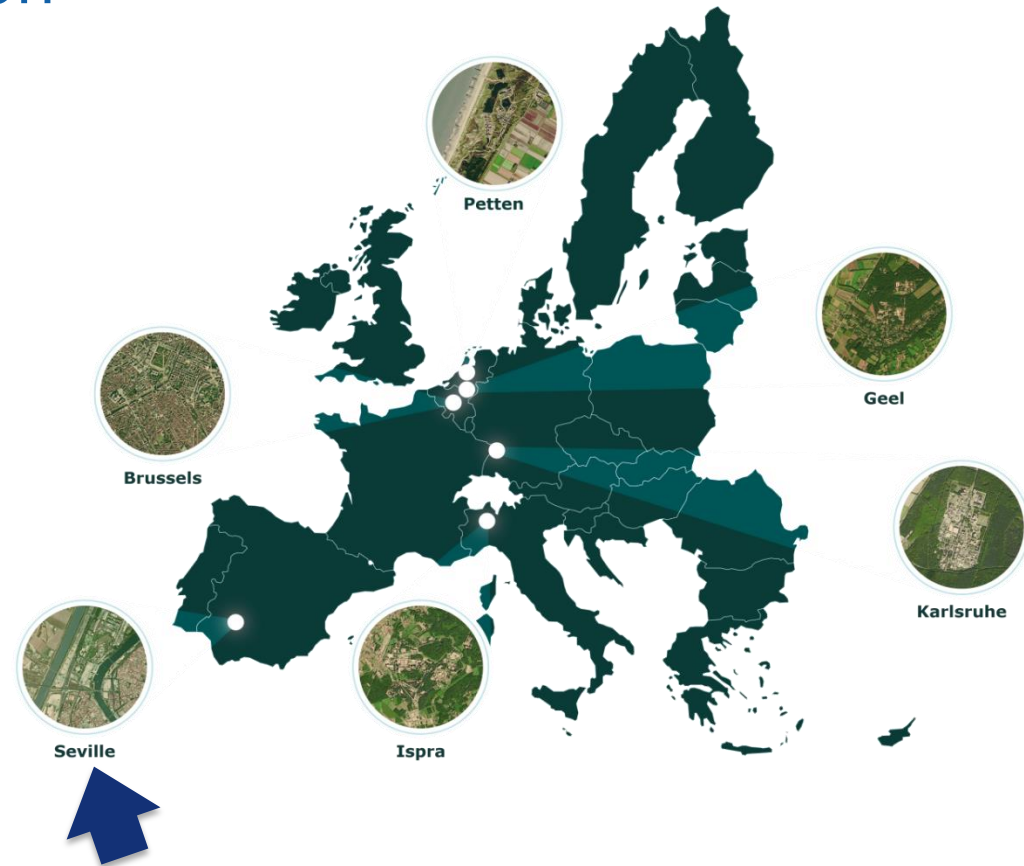
*European Commission*

*Joint Research Centre*

**@pankampylis**

# European Commission-Joint Research Centre (JRC)

- Research arm of the European Commission
- Independent of private, commercial or national interests
- No policy agenda of its own
- Focus on the priorities of the Commission
- 42 large scale research facilities
- 1500 core research staff, 83% with PhD
- 1,400+ scientific publications per year



**Human Capital and Employment Unit**



CEDEFOP | WORKSHOP  
Key competences in initial VET:  
digital, literacy and multilingual

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# What are the policy drivers



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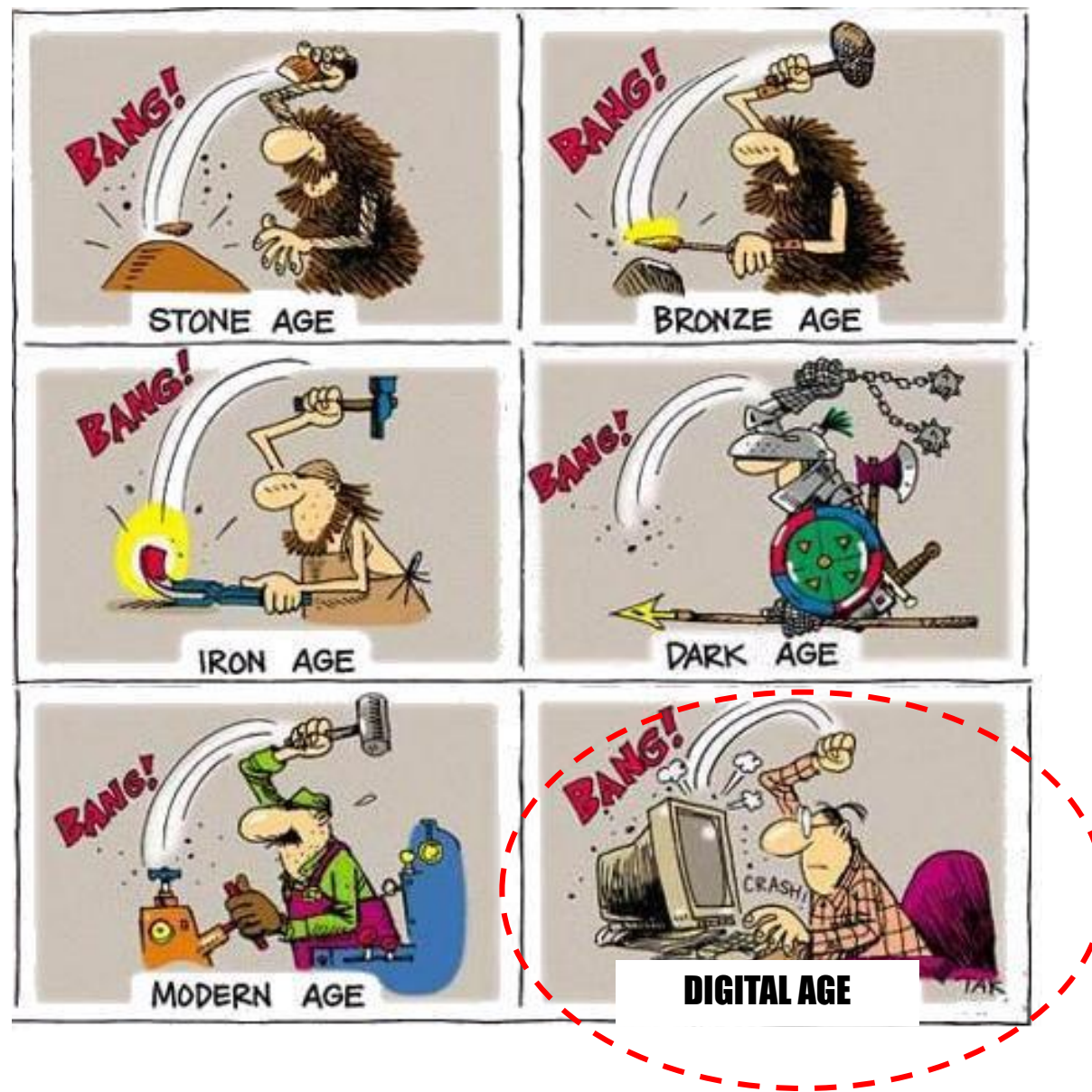
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... after centuries of  
human evolution



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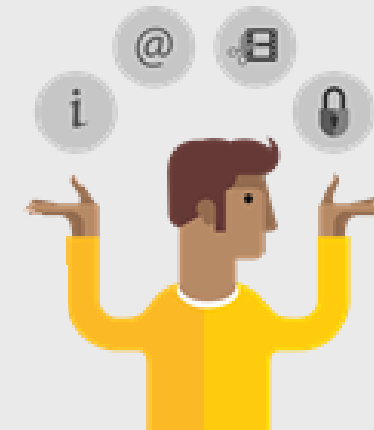
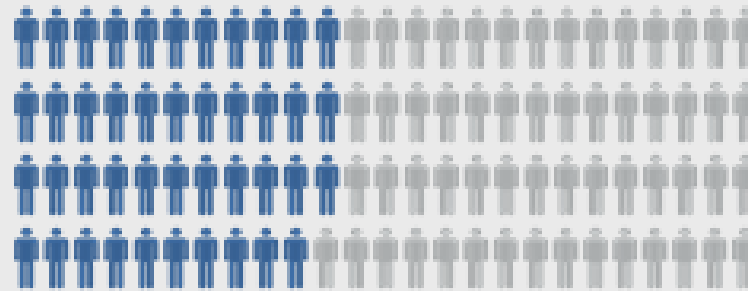


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... but we are not well prepared!

## WHY ARE DIGITAL TECHNOLOGIES IN EDUCATION IMPORTANT?

**43%** of Europeans lack basic digital skills



**90%** of future jobs will require digital skills

**Source:** [http://ec.europa.eu/information\\_society/newsroom/image/document/2018-20/2\\_desi\\_report\\_humancapital\\_B5DC055D-DD1E-51CD-229138BE55F9AE8A\\_52247.pdf](http://ec.europa.eu/information_society/newsroom/image/document/2018-20/2_desi_report_humancapital_B5DC055D-DD1E-51CD-229138BE55F9AE8A_52247.pdf)



... and in many  
cases we do not  
know it!

## The myth of digital natives



“My teacher told me to read for an hour a day.  
Do Facebook and text messages count?”

Use of technology  $\neq$  Digital competence



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# EC/JRC work on digital competence frameworks



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# EU digital competence frameworks

## A comprehensive research and policy agenda

### DigComp



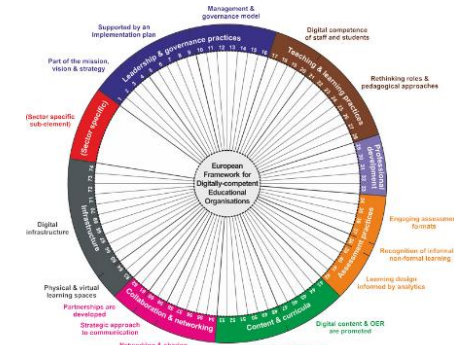
2013-17

### DigCompEdu

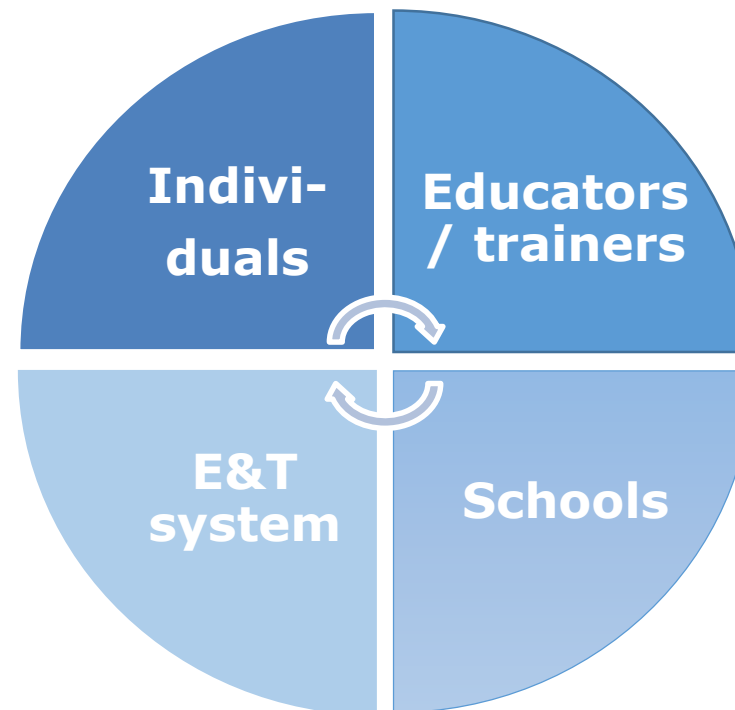


2017

### DigCompOrg



2015



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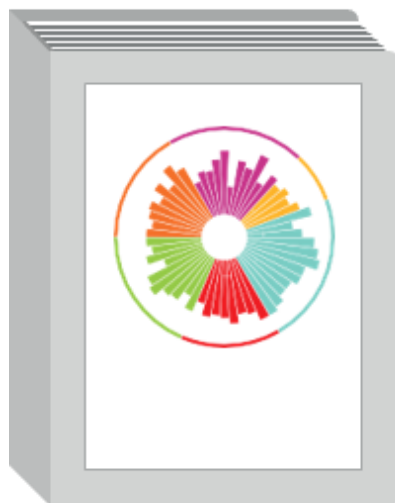


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# A three-step approach

1



Conceptual  
models

2



Self-reflection/  
assessment  
tools

3



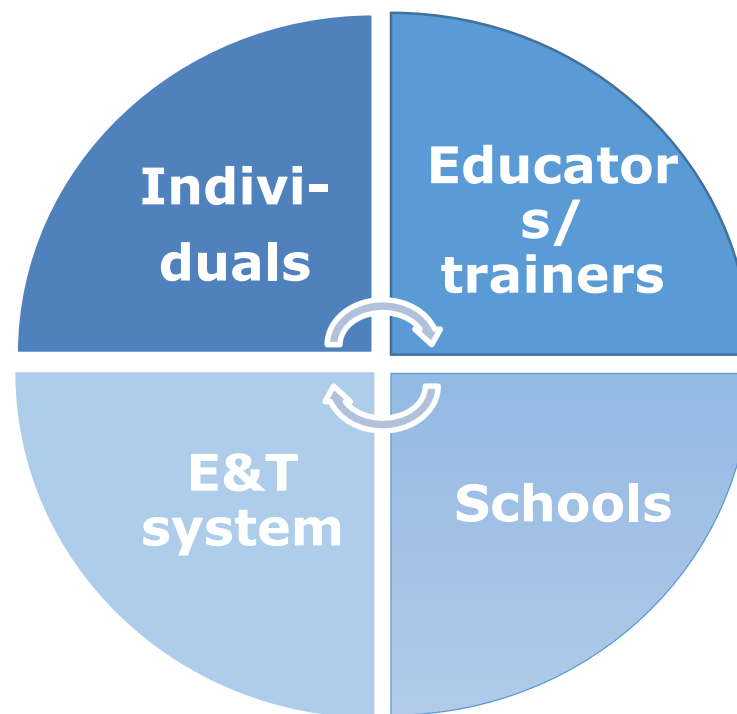
Ecosystems of digital  
transformation



# Self-reflection & self-assessment tools



DigCompSat  
Pilot by Sep  
2020



DigCompEdu  
Check-in tool  
Pilot Jan-Dec 2019



SELFIE  
for schools  
In 30 languages  
since Oct 2018



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# DigComp



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**Key competences in initial VET:  
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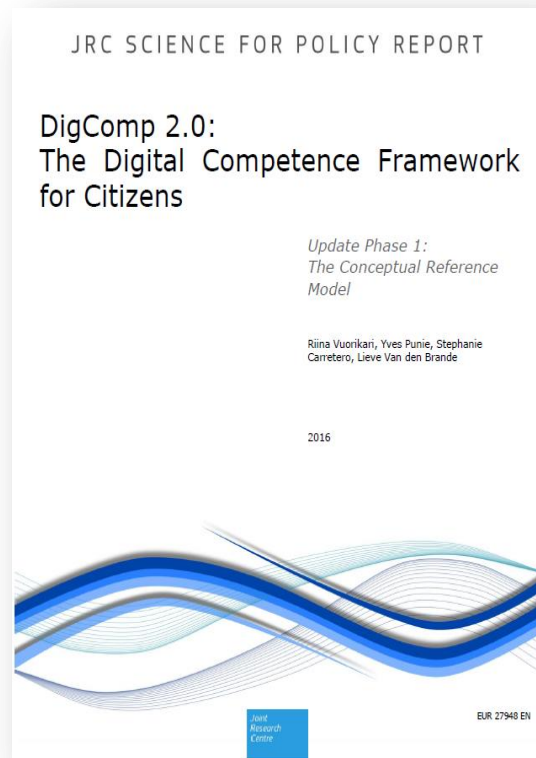


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# DigComp (JRC & DG EMPL)

Digital Competence involves **confident**, **critical** and **responsible** use of, and **engagement** with the full range of digital technologies for learning, at work, and for participation in society

(Council Recommendation on Key Competences for Lifelong Learning, 22 May 2018, ST 9009 2018 INIT)



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<https://ec.europa.eu/jrc/en/digcomp>



# 5 competence areas – 21 competences

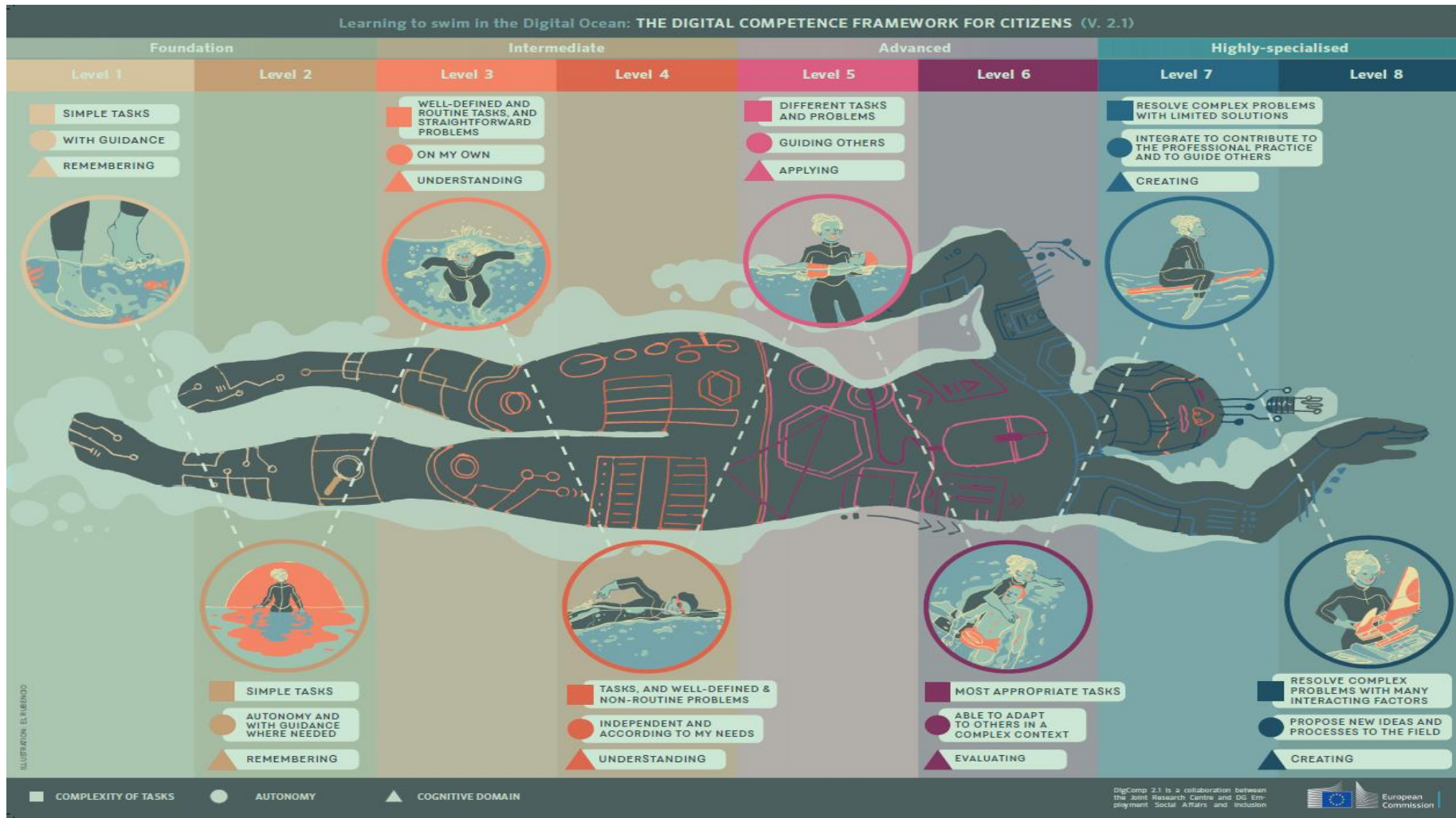


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## DigComp 2.1: 8 proficiency levels and examples of use





# DigComp into Action: get inspired



- A guide for stakeholders addressing digital skills
- It explains DigComp and how it is used
- It provides 38 examples of use, across
  - Formal education & training
  - Lifelong learning and social inclusion
  - **Employability and employment**
- An opportunity to learn from each other

**2.680** downloads June-July 2018

**38.000** DigComp downloads since 2017



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# DigComp into Action: several uses for VET and adult education



> T.23		
COUNTRY + TITLE	{ CONTENT ITEMS }	
UNITED KINGDOM ANGLIA RUSKIN UNIVERSITY: INTEGRATING DIGITAL LEARNING AND TEACHING INTO HIGHER EDUCATION		P. 78 P. 120
SPAIN IKANOS: DIGITAL COMPETENCE IN THE BASQUE COUNTRY'S DIGITAL AGENDA		P. 80 P. 121 P. 122 P. 124
SPAIN INTEP'S INITIATIVES FOR TEACHERS DIGITAL COMPETENCE IN SPAIN		P. 82 P. 126 P. 128
CROATIA E-SCHOOLS: PILOT PROJECT TOWARDS DIGITAL SCHOOLS		P. 84
BELGIUM ADULTS' EDUCATION IN FLANDERS: THE NEW ICT EDUCATION PROGRAMMES		P. 86 P. 129
BE • EL • IT • PT MU.SA: USING E-CF AND DIGCOMP FOR WORK DIGITAL TRANSFORMATION IN MUSEUMS		P. 88
POLAND ECCC DIGITAL COMPETENCE FRAMEWORK		P. 90
ITALY PRODIGEO: LEARNING PLATFORM FOR EMPLOYMENT SERVICES' STAFF		P. 92
INTERNATIONAL HAPPY ONLINE PROJECT AND TOOLKIT		P. 94 P. 130
FR • IE • IT • RO COMPASS - YOUR JOURNEY TO DIGITAL, THE UP-SKILLING PLATFORM FOR YOUNG UNEMPLOYED PEOPLE		P. 96
ES • FR • IE • IT • PT TASK: PROJECT FOR AUTHENTIC TASK BASED COMPETENCE ASSESSMENT IN SECONDARY SCHOOLS		P. 98 P. 131
FRANCE PIX: ONLINE PLATFORM FOR DIGITAL SKILLS EVALUATION AND CERTIFICATION		P. 99
ESTONIA SAMSUNG DIGI PASS FOR VOCATIONAL SCHOOL STUDENTS IN ESTONIA		P. 100
EL • IT • UK LINGUACUISINE: DEVELOPING DIGITAL SKILLS WITH DISADVANTAGED PEOPLE		P. 101

● POLICY MAKERS

● EDUCATION AND TRAINING

● THIRD SECTOR AND ENTERPRISE



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# Final remarks

- DigComp increasingly used as a reference – translated in 9 languages (see p. 61 of the guide)
- It is important for everyone (young, old, worker, ...)
- It is generic, thus requiring adaptation according to context and aims
- It is neutral (not prescriptive)
- There is a need to maintain, update and reflect upon these competences
- Link with other competence frameworks (DigCompEdu, DigCompOrg/SELFIE, EntreComp) and transversal skills



# DigCompEdu



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digital, literacy and multilingual**

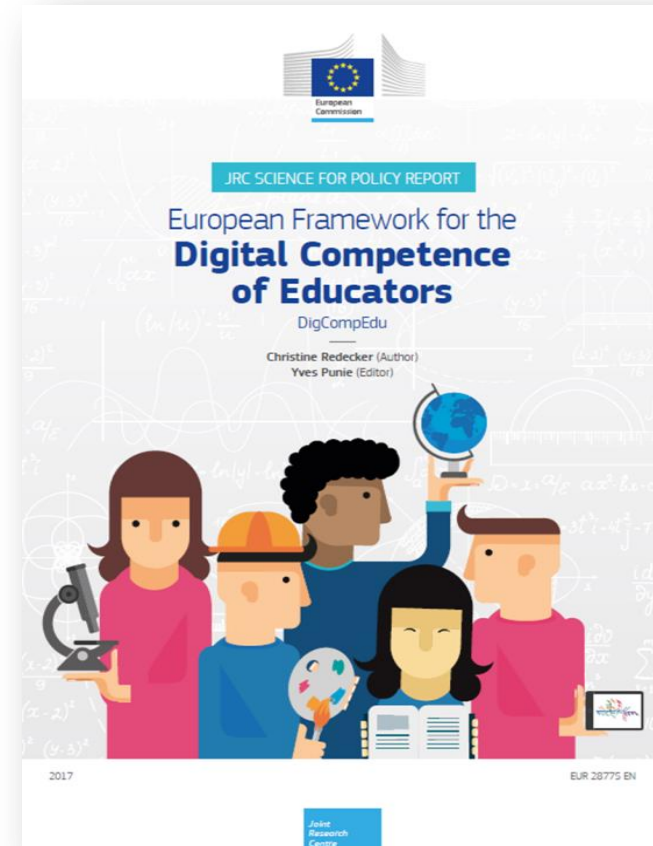
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# DigCompEdu – Digital Competence of Educators

- Describes what it means for educators to be digitally competent
- Refers to **educators at all levels**
- Spans 6 competence areas, 22 competences and covers 6 proficiency levels
- 27,000+ downloads, translated in 7 languages: CZ, DE, IT, LI, PT, SI, Basque



<https://ec.europa.eu/jrc/en/digcompedu>



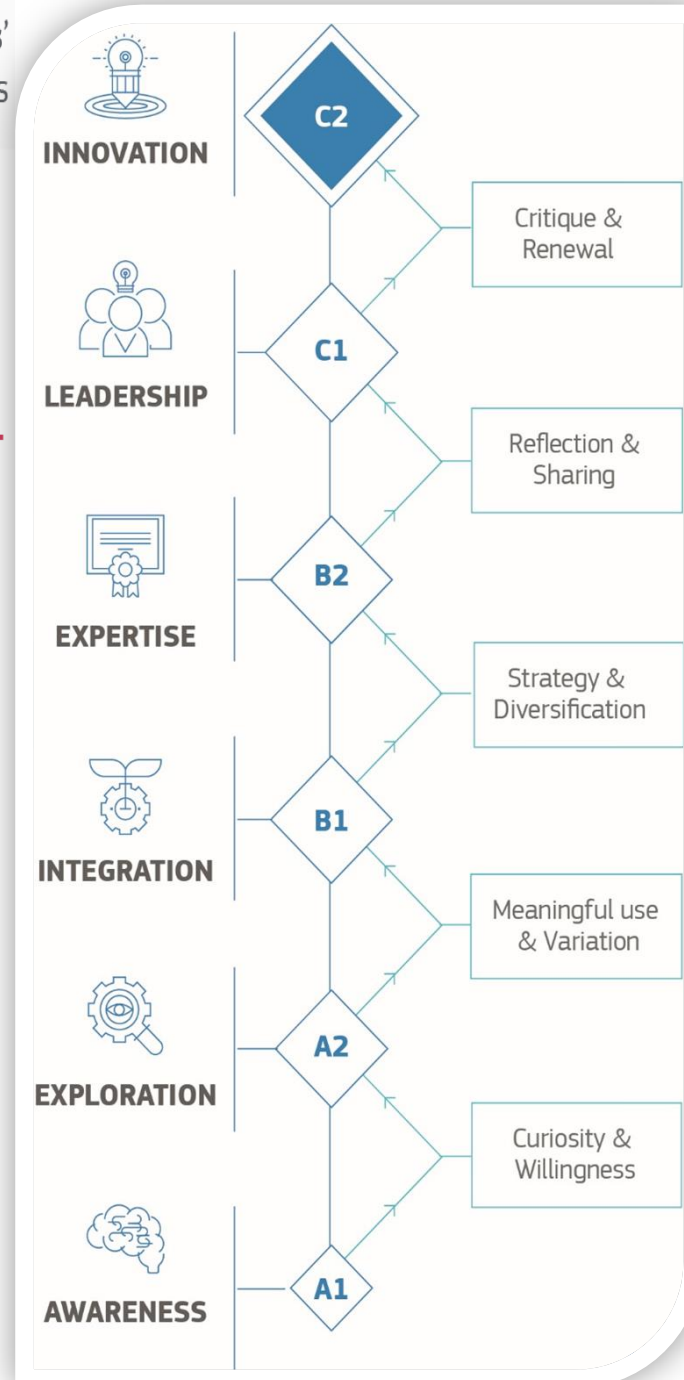
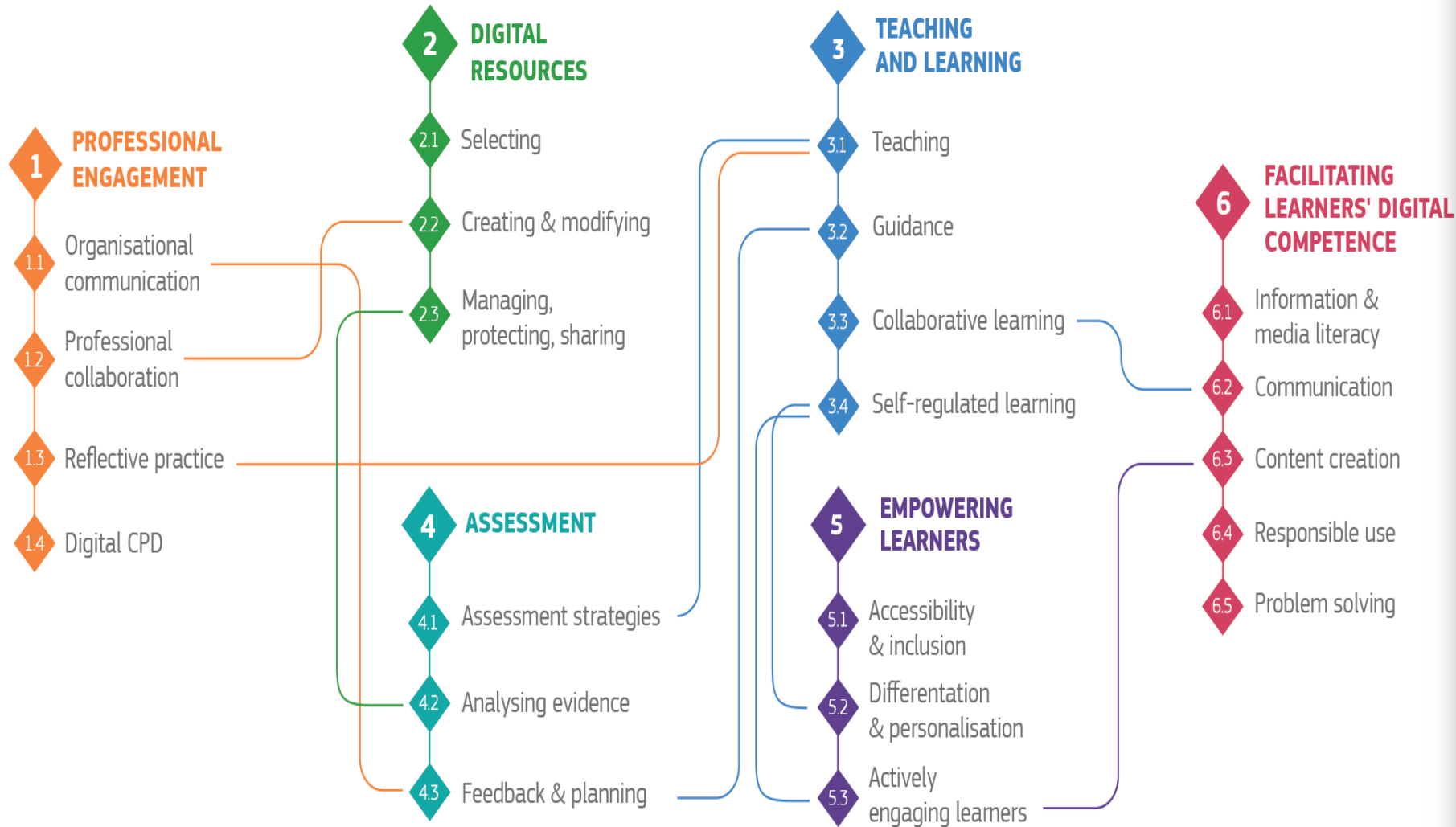
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## Educators' professional competences

## Educators' pedagogic competences

## Learners' competences



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# DigCompEdu CheckIn reflection tool

- Based on the DigCompEdu framework the CheckIn questionnaires for educators **at all levels** have been developed
- For pre-primary, primary/secondary/iVET, higher education, adult education
- Each one comprises **22 reflective questions** in 6 competence areas
- They provide a self-report/feedback to users and also prompt them on how to improve their digital competence



The screenshot displays the EU Science Hub website, specifically the DigCompEdu Self-assessment tool. The header includes the European Commission logo, the text "EU SCIENCE HUB", and a navigation bar with links like "About Us", "Research", "Knowledge", "Working With Us", "Procurement", "News & Events", and "Our Communities". The main content area features a large banner for "DigCompEdu The European Framework for the Digital Competence of Educators" with an illustration of diverse people. Below this, a "Self-assessment" section is highlighted, showing a graphic of a person's head with gears and question marks. To the right, there are sections for "Related Publications" and "News". The footer of the page includes the European Commission logo and the text "European Commission".



# DigCompEdu CheckIn tool

- Till now almost **10,000 educators** from all education sectors and in **8 different languages** (EN, DE IT, LT, ES, PT, SI, RU) have taken the questionnaire
- We are now in the process of analysing the available data, updating the progression levels and developing the new online platform
- Early next year there will be a **pilot study with Spanish Universities**

<https://ec.europa.eu/jrc/en/digcompedu/self-assessment>





# DigCompEdu self-assessment **knowledge-based tool**

- We're also in the process of developing a **Self-Assessment Tool (SAT)** for educators
- The item bank comprises of **66 questions**
- During **Autumn 2019** we're going to run a pilot study in **5 EU countries**: IT, EE, ES, PT, FI



# DigCompOrg & SELFIE



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# The theory behind SELFIE

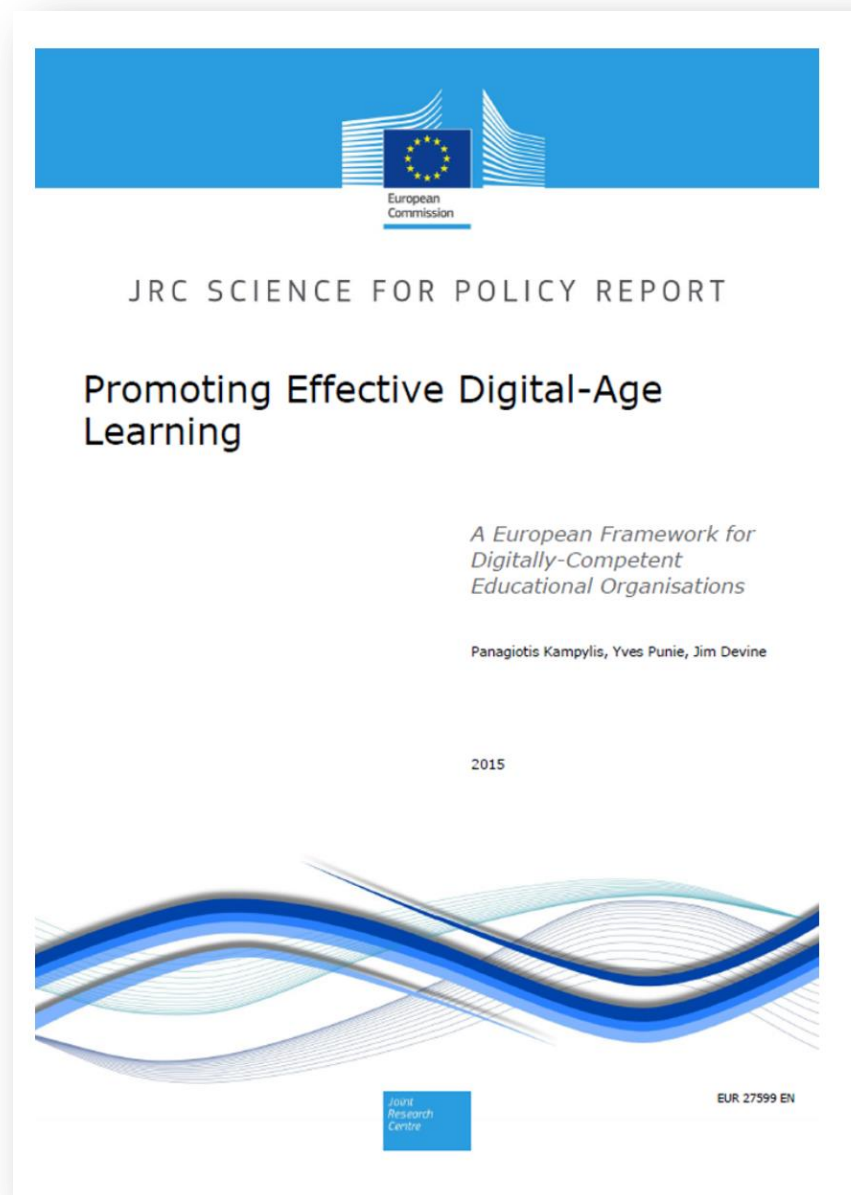
## European Framework for Digitally-Competent Educational Organisations



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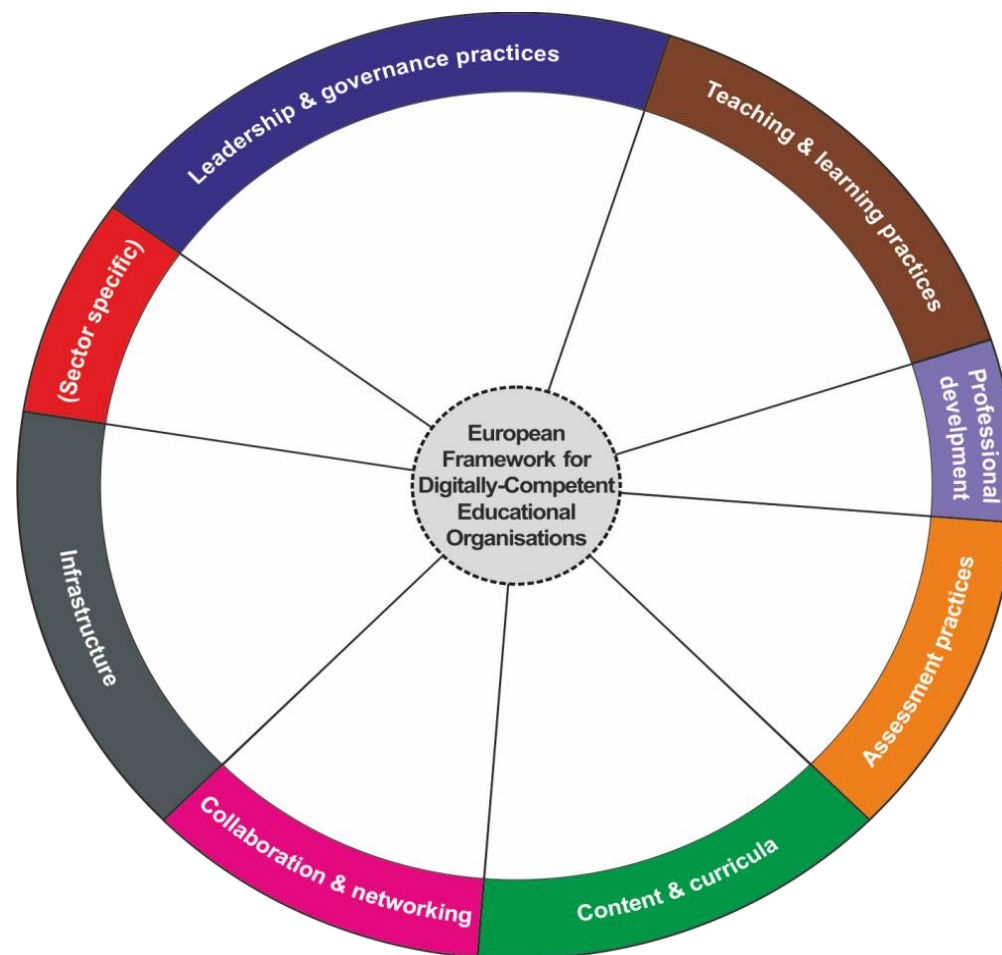
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# How can schools, colleges and universities embed technology in teaching and learning?

7 areas plus one sector specific



**Holistic approach**  
Focus on people and practices



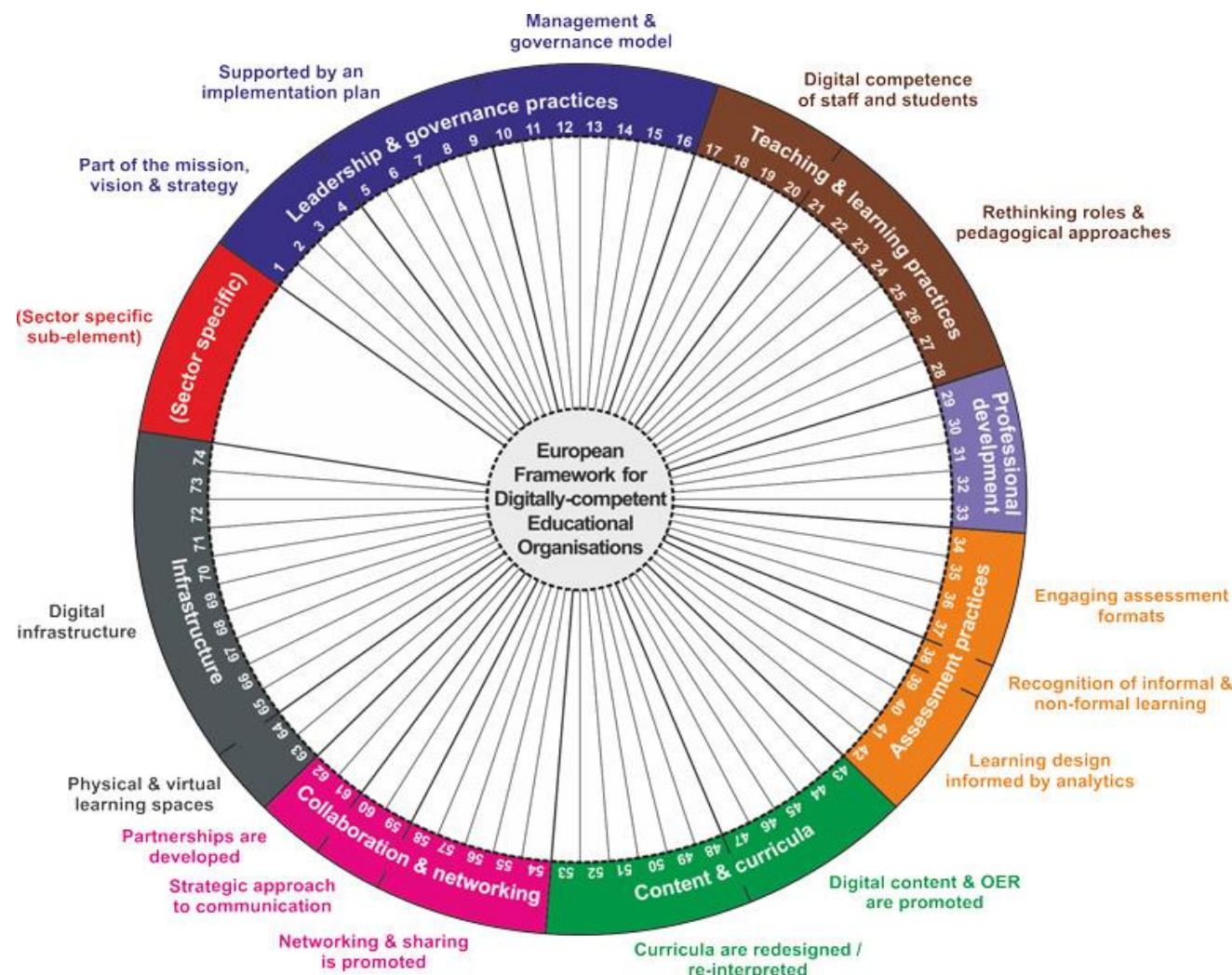
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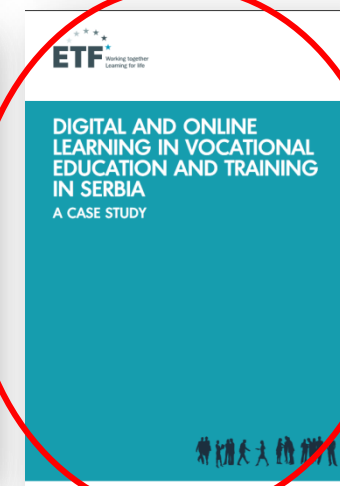


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*7 core elements*  
*+1 sector specific*  
*15 sub-elements*  
*74 descriptors*



# Uptake of DigCompOrg conceptual framework



REFERENCE MODEL FOR NATIONAL CALLS  
& TRAINING MATERIALS: ES, HU, FI, RS...

REFERENCE MODEL FOR NATIONAL TOOLS:  
EE, HR, FI...

First implementation  
in VET sector!

TRANSLATION OF DIGCOMPORG REPORT:  
EE, ES, IT, CY, LT, EL, HU, BE...

INPUT FOR NATIONAL DIGITAL STRATEGIES:  
ES, HR, HU...



# Self-reflection on Effective Learning by Fostering Innovation through Educational Technology

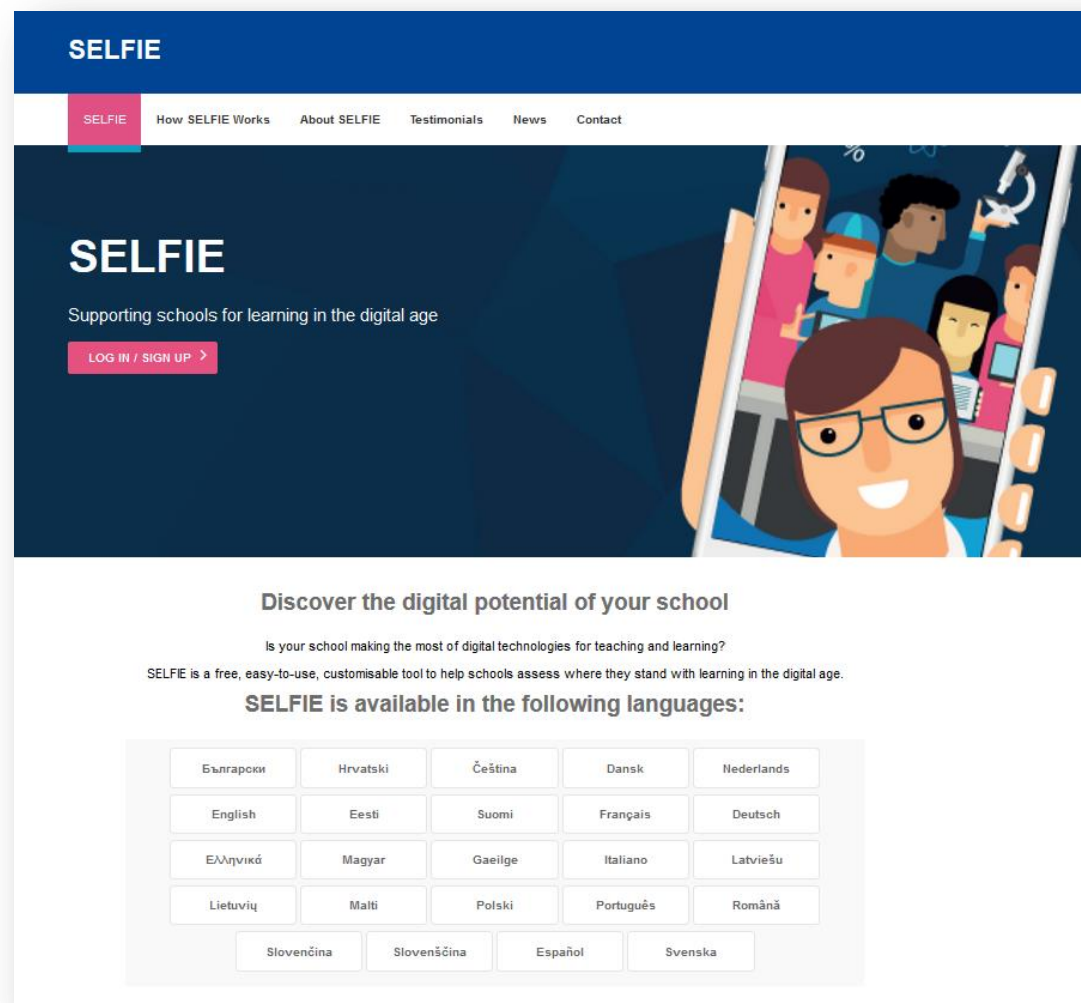
[https://ec.europa.eu/education/schools-go-digital\\_en](https://ec.europa.eu/education/schools-go-digital_en)





Open to any  
school anywhere  
to use

Free of charge



[https://ec.europa.eu/education/schools-go-digital\\_en](https://ec.europa.eu/education/schools-go-digital_en)



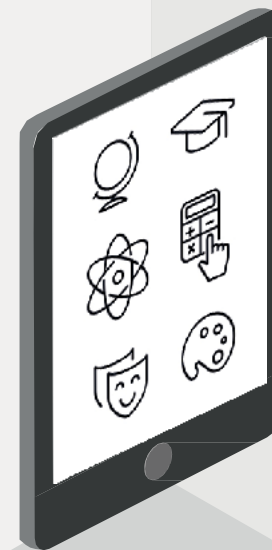
CEDEFOP | WORKSHOP  
Key competences in initial VET:  
digital, literacy and multilingual

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A practical  
tool that brings  
together  
perspectives of  
school leaders,  
teachers  
AND students



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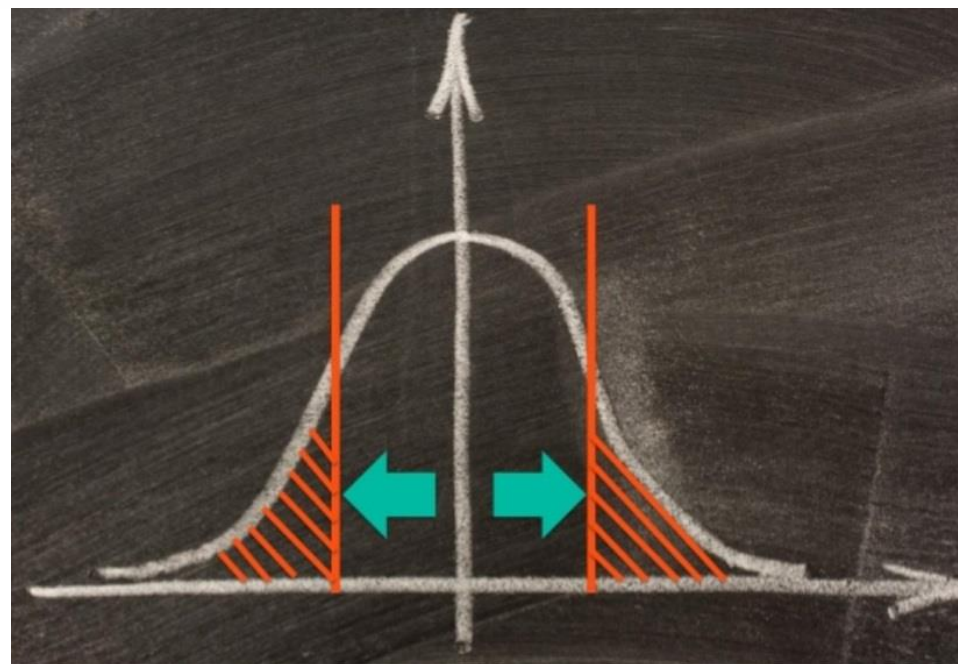
Key competences in initial VET:  
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# Design for all - not the average



# Questions can be tailored to suit the school

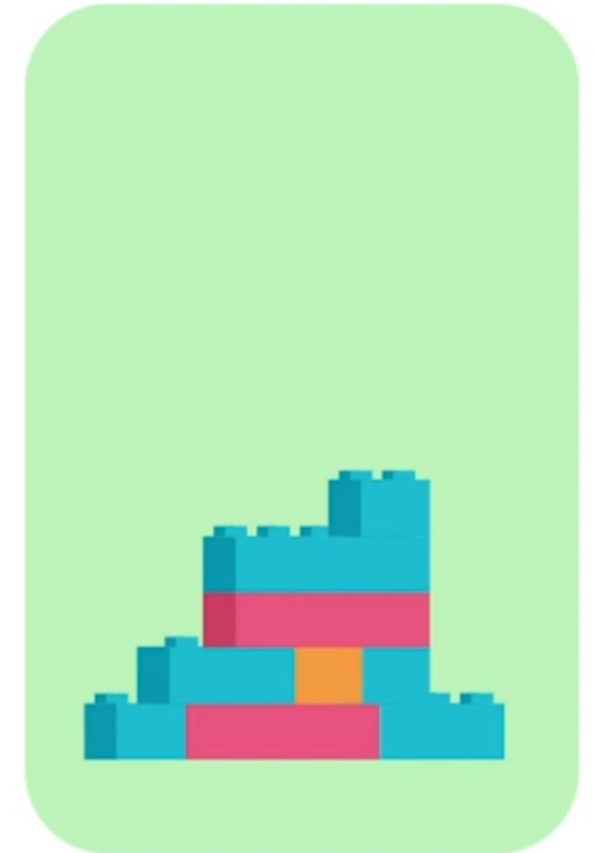
YOUR OWN  
QUESTIONS



OPTIONAL  
QUESTIONS



COMMON  
QUESTIONS



CEDEFOP | WORKSHOP

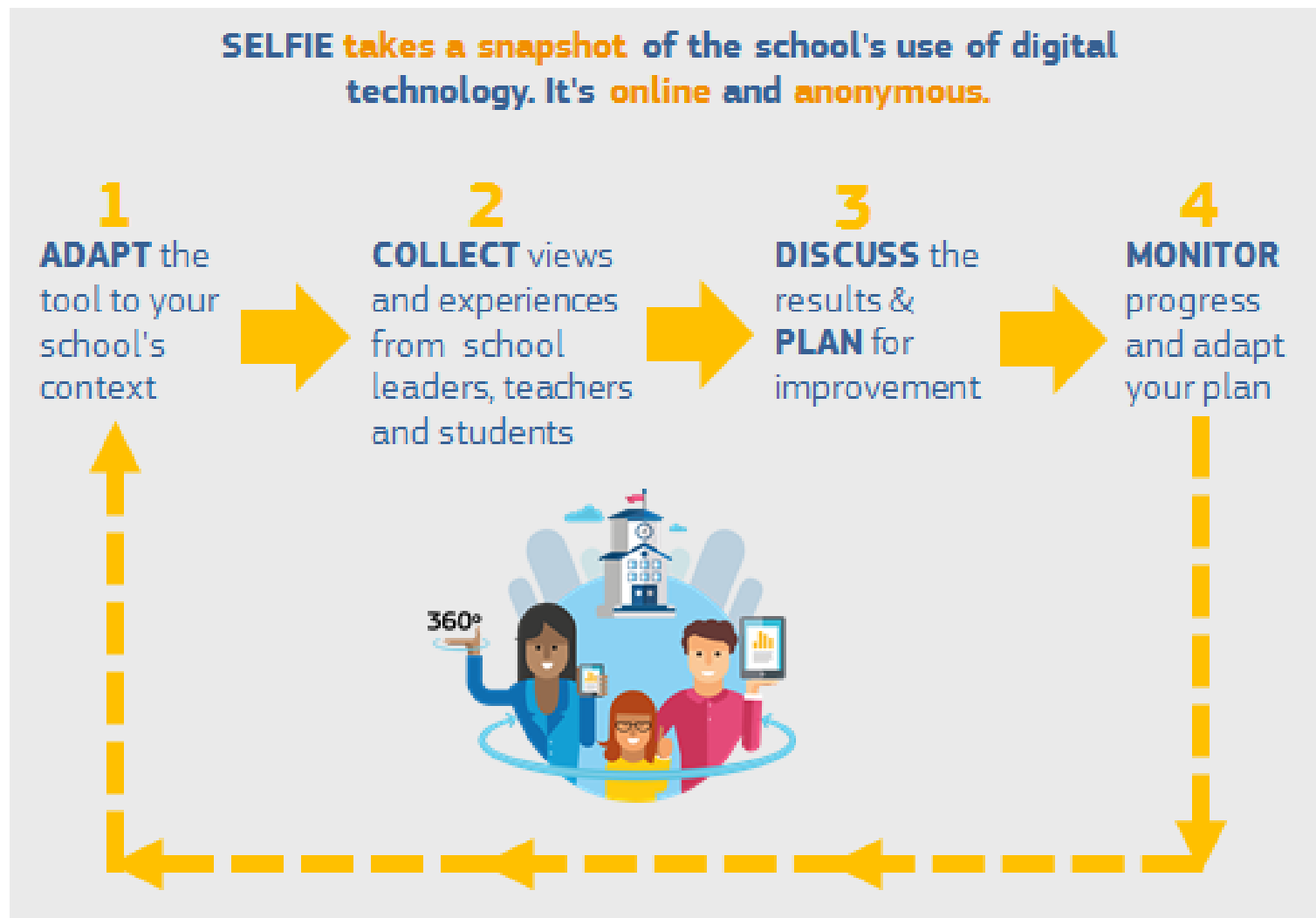
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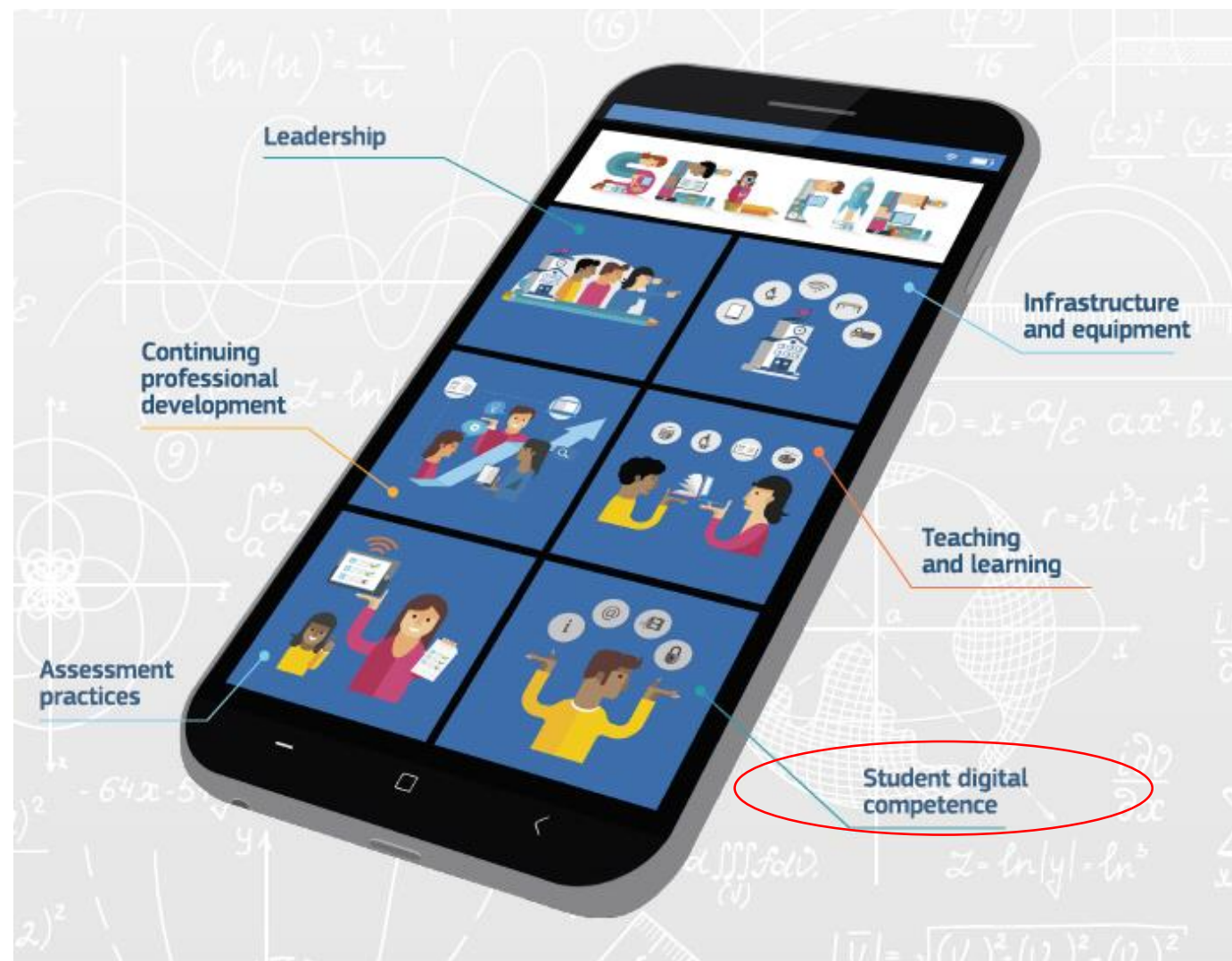


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# SELFIE in a nutshell

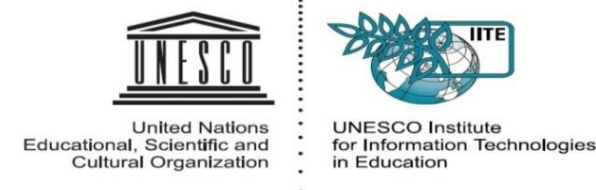
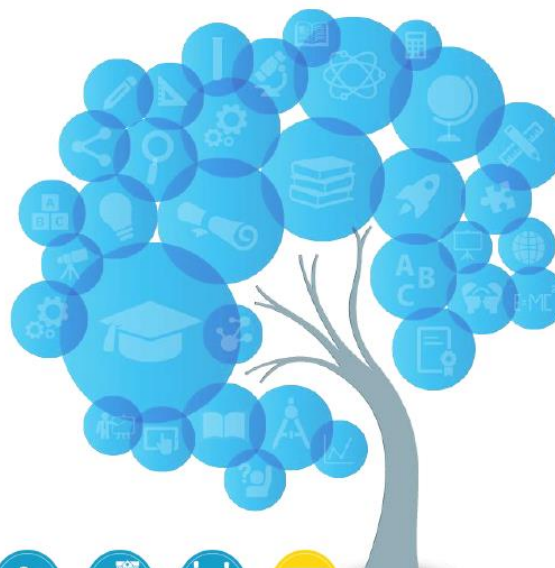


# Looking at six areas of school life and practice





European  
Commission,  
Ministries of  
Education,  
partner  
organisations...



**ET2020 Working Group**  
**Digital Education: Learning,**  
**Teaching and Assessment**



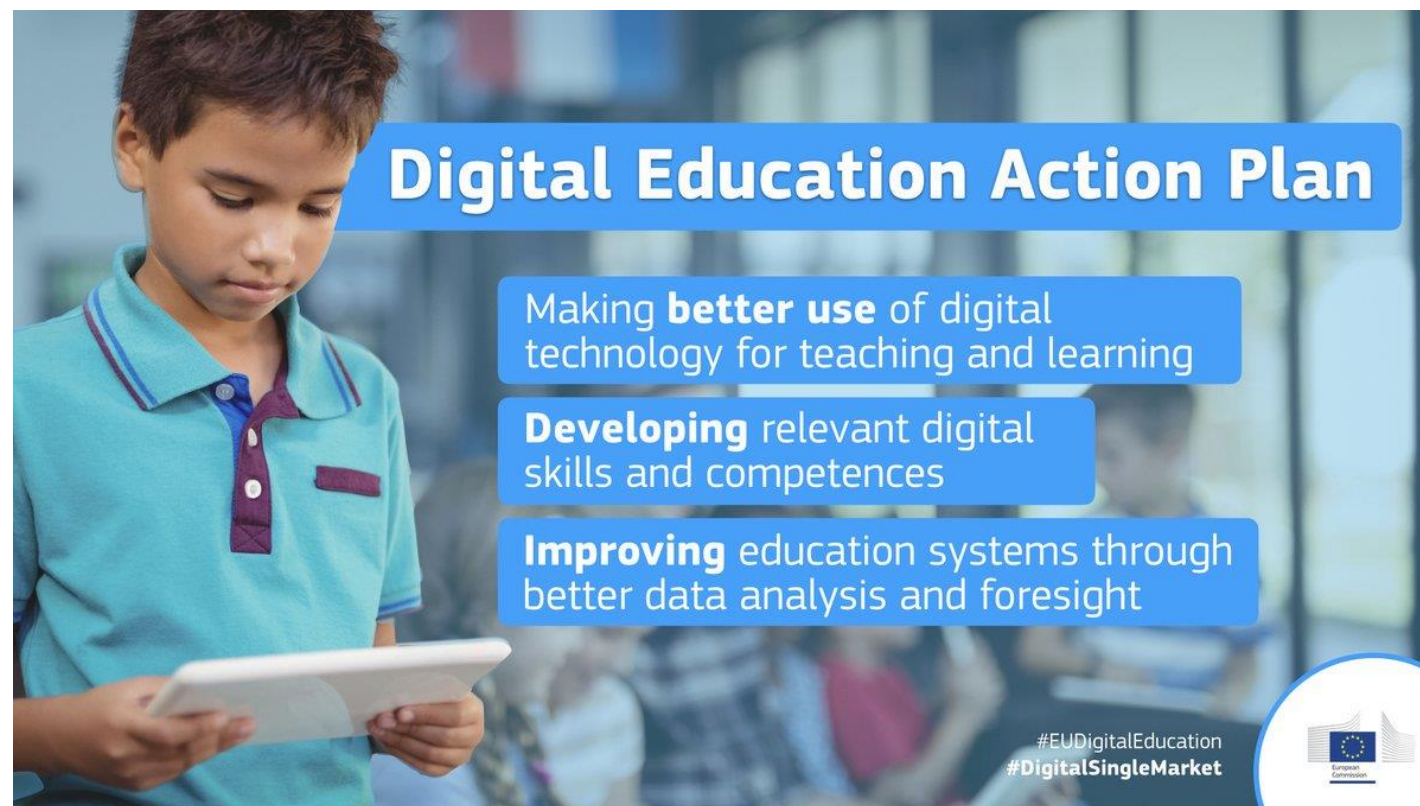
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# EU policy priority



Adopted by the Commission on 18 January 2018  
SELFIE is one of the 11 actions proposed




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# Schools using SELFIE

Oct 2018 - July 2019

 Number of  
countries

38

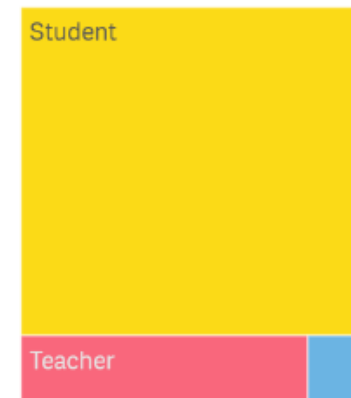
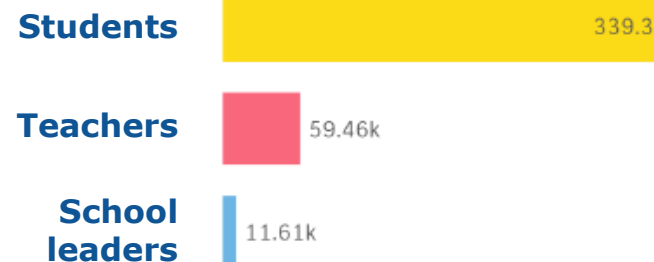
 Number  
of users

410.4k

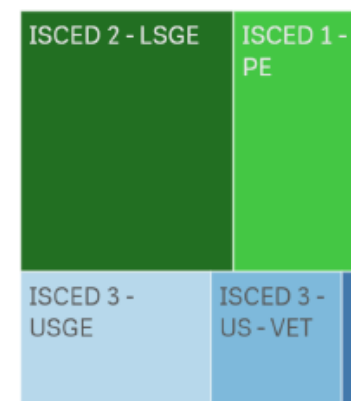
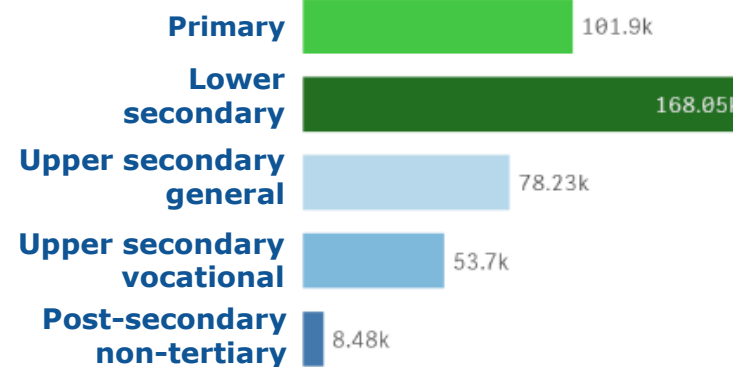
Number of  
schools 

4.23k

**Participation by user profile**  
Number of users



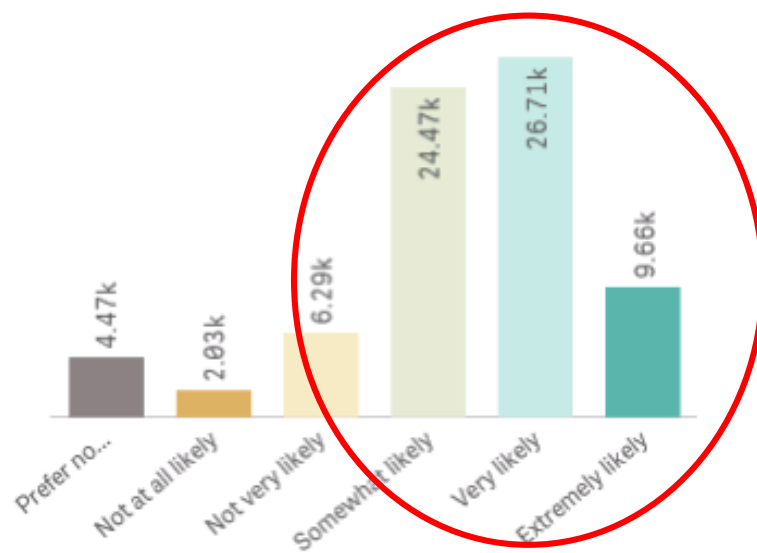
**Participation by education level**  
Number of users



# Would you recommend SELFIE to a colleague?

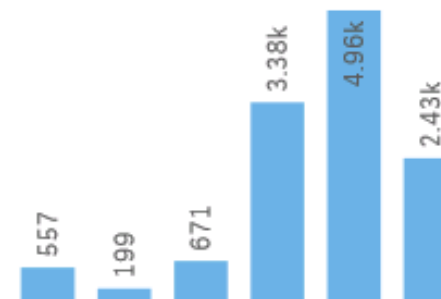
Oct 2018 - July 2019

**Frequency distribution**  
Frequency distribution

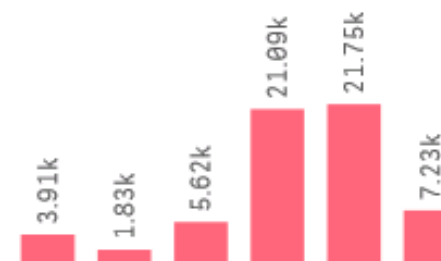


**Frequency distribution by user profile**

## School leader



## Teacher



# VET schools using SELFIE

Oct 2018 - July 2019



Number of  
countries

25



Number  
of users

53.7k



Number of  
schools

454

## Participation by user profile

Number of users



44.48k

7.78k

1.45k

Student

Teacher

School Leader

Student

Teacher



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# Examples of SELFIE questions for VET

**Leadership:** In our school, **companies we collaborate with** are involved in the development of the school's digital strategy

**Infrastructure:** In our school, students have access to a database of **in-company training providers**

**Teaching and Learning:** In our school, we use digital technologies for **career guidance**

**Assessment:** Our teachers enable students to use digital technologies to document what they have learned **relevant to their qualification**

**Students' digital competence:** In our school, students develop digital skills related to their **vocational qualification**



# SELFIE for work-based learning?

**Feasibility study** in spring 2019 by Ockham IPS (JRC and EMPL with EAC, CEDEFOP & ETF)

- ✓ Semi-structured interviews and an online survey for VET schools and companies
- ✓ To be published by the end of 2019
- ✓ **The study shows that SELFIE could also be developed for work-based learning (WBL) contexts:**
  - (Dual) apprenticeships
  - Traineeships, internships
  - Training-on-the-job

SELFIE for WBL will be developed **starting January 2020**  
(DG EMPL)





# Other DigCompOrg/ SELFIE VET activities

## Past activities:

- ✓ Implementation of DigCompOrg in VET sector in Serbia (ETF)
- ✓ ET 2020 WG on VET, Innovation and Digitalisation: Boosting High-quality VET and Higher VET
- ✓ Meeting of the expert group "Platform of European Associations of VET providers"
- ✓ UNESCO-UNEVOC TVET Leadership programme, 28 June 2019

## Upcoming:

- ✓ Skillman International Forum Florence, 10-11 October 2019
- ✓ EU Vocational Skills Week, Helsinki, 14-18 October 2019



# Takeaway: Open & online self- reflection tool

It is not a(nother) survey!  
It does not compare or benchmark schools!  
Not only for digitally-advanced schools!



- ✓ Research-based
- ✓ Easy-to-use
- ✓ Customisable
- ✓ Useful for reflection, planning...
- ✓ ...and change!



# Next steps

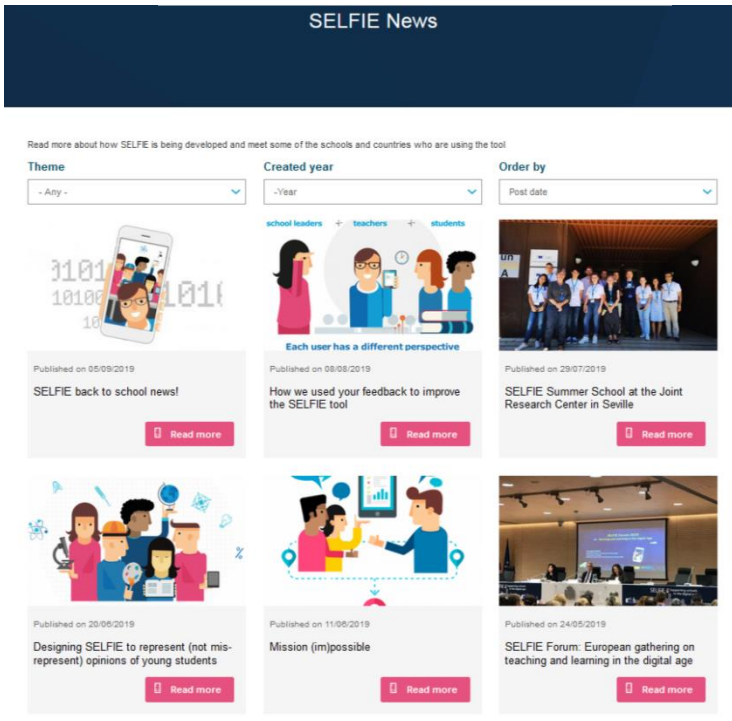
Goal: to reach 1 million users in 2020

- Making the tool better and easier to use
- New languages, better spread of countries
- **New version for work-based VET**
- Raising awareness
- Linking in with other communities
- Building the ecosystem
- **4 Erasmus+ projects (1 for HEIs)**



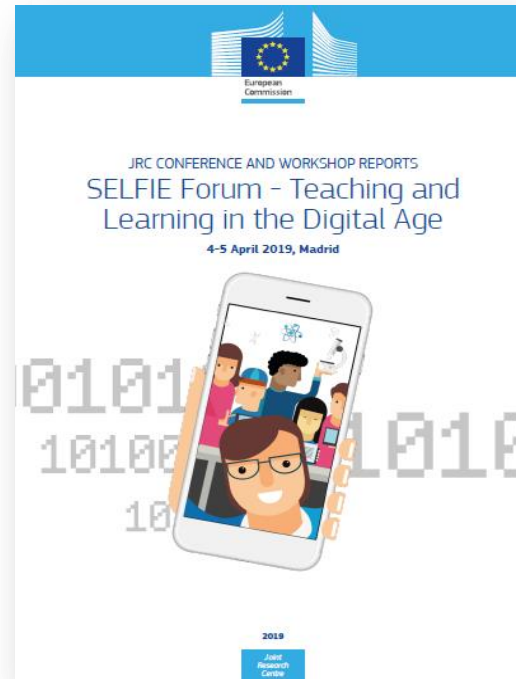
# Want to know more about SELFIE?

## SELFIE news page



[https://ec.europa.eu/education/schools-go-digital/selfie\\_news\\_en](https://ec.europa.eu/education/schools-go-digital/selfie_news_en)

## SELFIE Forum report



<http://publications.jrc.ec.europa.eu/repository/handle/JRC117482>

## SELFIE Forum video



[https://www.youtube.com/watch?v=PeKq\\_tmWTz0](https://www.youtube.com/watch?v=PeKq_tmWTz0)

## Euronews reportage



<https://www.euronews.com/2018/11/05/digital-technology-goes-back-to-school>

# #SELFIE\_EU



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# Wrap-up



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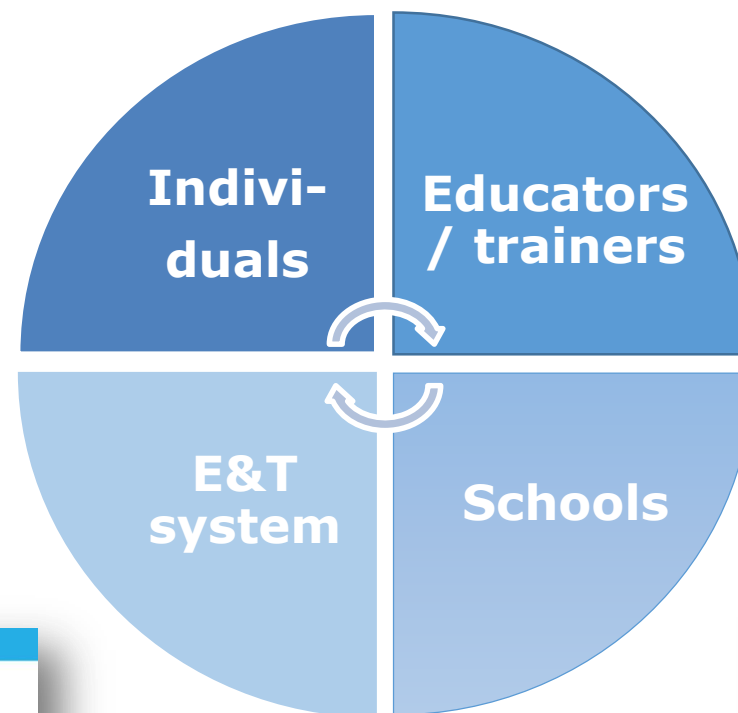


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A comprehensive  
research  
and policy agenda

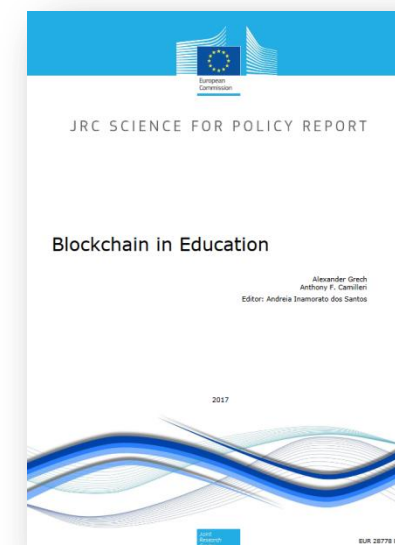
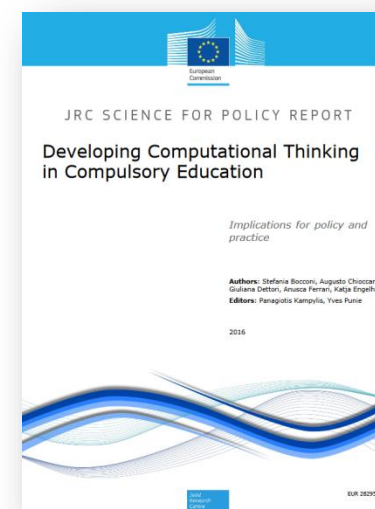
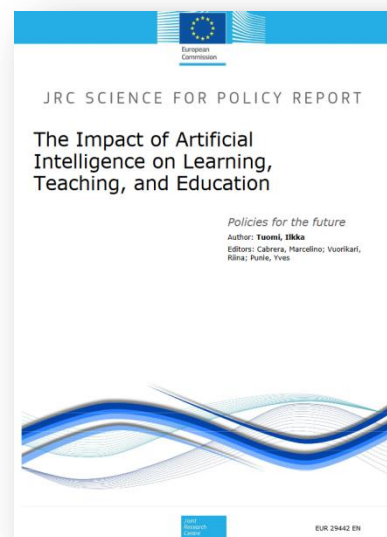
Reference  
frameworks and tools  
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**DigComp**



**DigCompEdu**

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CEDEFOP | WORKSHOP  
**Key competences in initial VET:  
digital, literacy and multilingual**

Thessaloniki, 19-20 September 2019





# Questions?

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