

Skills 4 eosC

- Skills for the European
- Open Science
- Commons

Overview of Skills4EOSC outcomes and resources

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Emma Lazzeri, CNR
Former project coordinator

Supporting

 eosC



Co-funded by
the European Union



UK Research
and Innovation



Skills 4 eosc



46 **partners**, 18 **countries**



“**Key doers**” in Open Science in their country/region/domain



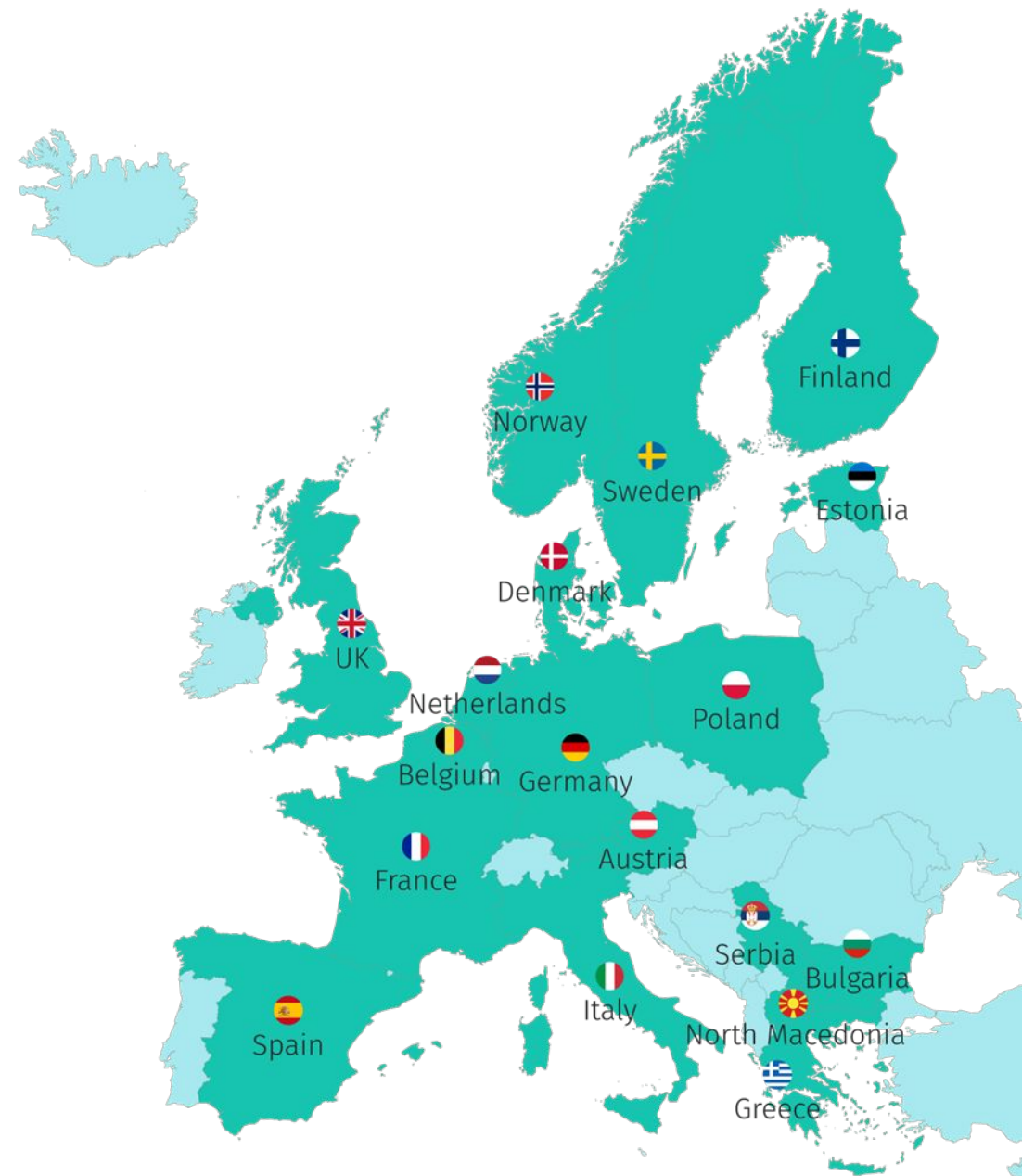
2 ESFRI **Research Infrastructure**



7 million €



September 2022 - August 2025



Skills4EOSC Main Objective

Advance Open Science skills by unifying the current training landscape into a common and trusted pan-European ecosystem, closing the three gaps identified in the **EOSC Strategic Research and Innovation Agenda 2021** in relation to Open Science competences:

- lack of **Open Science and data expertise**,
- lack of a clear definition of **data professional profiles and corresponding career paths**, and
- **fragmentation** in training resources.



Skills&Training SRIA priorities and Skills4EOSC

SRIA Priorities

Priority 1: Developing the **next generation** of Open Science and data **professionals**

Priority 2: Bridging the education gap: **coordinating and aligning curricula** for students and researchers

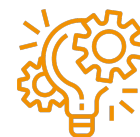
Priority 3: Building a trusted and long-lasting **knowledge hub of learning materials** and related tools

Priority 4: **Influencing** national Open Science **policy for skills** by supporting strategic leaders

Skills4EOSC contribution



Skills4EOSC Network of **Competence Centres**



Minimum Viable Skillset defined for different roles acting in the OS context



Training of Trainers and **FAIR by design** methodology for **learning materials**



Supporting **Professional Networks** for lifelong learning



Target **Science for Policy interface roles** (policy makers, knowledge/honest brokers, civil servants)



Key Concepts

- Competence Centre and network
- Minimum Viable Skillset
- FAIR-by-design methodology for learning material
- Training of Trainers
- Master trainer
- Professional Networks
- User Support Network
- Co-Creation Mechanism



Competence Centres, we are not alone!



ENRIO
European Network of
Research Integrity Offices

ENRIO brings together experts who are dealing with questions about research integrity.

More about ENRIO

**We are ENRIO.
We are all about research integrity.
Or the lack of it.**

The European Network of Research Integrity Offices (ENRIO) brings together experts who are dealing with questions about research integrity. ENRIO is an informal network and aims to enhance research integrity in a world with growing international cooperation.

31 member organisations within 23 European countries are currently joining ENRIO. Membership is open to representatives of national offices and national organisations as well as other relevant bodies or groups that support the goal of ENRIO with interests in and responsibility for matters of research integrity.

Learn more about ENRIO

<http://www.enrio.eu/>



COMPETENCE CENTRES
IN SEMICONDUCTORS

How can European Competence Centres serve the needs of semiconductor stakeholders?

Online Workshop 18 April, 2023 14:00 - 17:00 C



Bridging the skills shortage in the EU Semiconductor industry

Discuss the skills shortage affecting the EU semiconductor industry, explore its relationship with inclusion

<https://allpros.eu/events/online-workshop-competence-centres-semiconductors>
Silvana Muscella, et al. (2023). Bridging the Skills Shortage in the EU Semiconductor Industry. Zenodo.
<https://doi.org/10.5281/zenodo.8084984>



WELCOME TO EUROCC ACCESS

The National Competence Centres (NCCs) are the central points of contact for HPC and related technologies in their country.

Their missions are to:

- Develop and display a comprehensive and transparent map of HPC competences and institutions in their country
- Act as a gateway for industry and academia to providers with suitable expertise or (shown) projects, they may be national or international
- Collect HPC training offers in their country and display them in a central place to gather with international training offers collected by other NCCs
- Foster the industrial uptake of HPC



The European High Performance Computing Joint Undertaking (EuroHPC JU)

Home About Supercomputers Access to Our Supercomputers Research & Innovation News & Events Media Documents Contact

Home > National Competence Centres for High Performance Computing

CALL FOR PROPOSALS | Closed

National Competence Centres for High Performance Computing

The objective of this call is to support existing NCCs and the creation of new NCCs in the EuroHPC JU Participating States.

<https://www.eurocc-access.eu/>

Skills4EOSC Competence Centre

Skills4EOSC CC represent **a point of reference** in a specific Country/Region/Theme to find key **competences** to enable the practice of **Open Science** with adequate knowledge of standards, applications and tools and best practices for delivering, managing, re-using, sharing and analysing **FAIR** data, as well as other digital research objects.

Competences



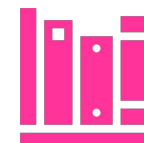
People and
Institutions



Services



Resources



Operational Tools



Link with local networks



**Skills4EOSC
Competence Centres
can be built involving
local members that
are not part of the
Consortium**

Skills4EOSC methodology for competences harmonisation



Co-creation

Key project output undergo a two step co-creation process:

- Consortium level
- Community level
 - Relevant materials are uploaded in the [Zenodo Community](#)
 - Relevant stakeholders are invited to participate to the co-creation
 - A feedback survey/questionnaire is used to collect feedback from stakeholders
 - Dedicated webinars/events are organised to allow broader discussion



Competences Definition



Skills4EOSC defines a minimum set of competences for each target in the **Minimum Viable Skillset**

Design learning paths & material



Through the **FAIR by design methodology**, learning materials for Training of Trainer programmes will be developed for various targets

Training of Trainers delivery



Training of Trainers will be delivered to Competence Centres members to multiply the specific competences inside the Skills4EOSC Network.



ResearchComp: the European Competence Framework for Researchers

- 7 Competence Areas
- 38 Competences
- All competences are equally important & interrelated
- Competences can be acquired via **dedicated training, on-the-job-training, peer-to-peer learning, coaching and mentoring**
- **Each stakeholder** can use the Framework as a starting point to address its **own needs**
- Researchers encouraged to **develop competences in all 7 areas, but should not acquire the same or the highest level of proficiency for all competences**



Minimum Viable Skillset - MVS defining skills for different roles

The **Minimum Viable Skillset** profiles:

- Address the **skills needed** for various EOSC actors considering the OS mission and planned outcomes
- Address the need to **summarise OS essentials**
- Provide **high level guidance** for curricula and trainings
- Are **adaptable** to contexts/domains
- Are intended to complement the **European Competence Framework for Researchers**



FAIR-by-design methodology

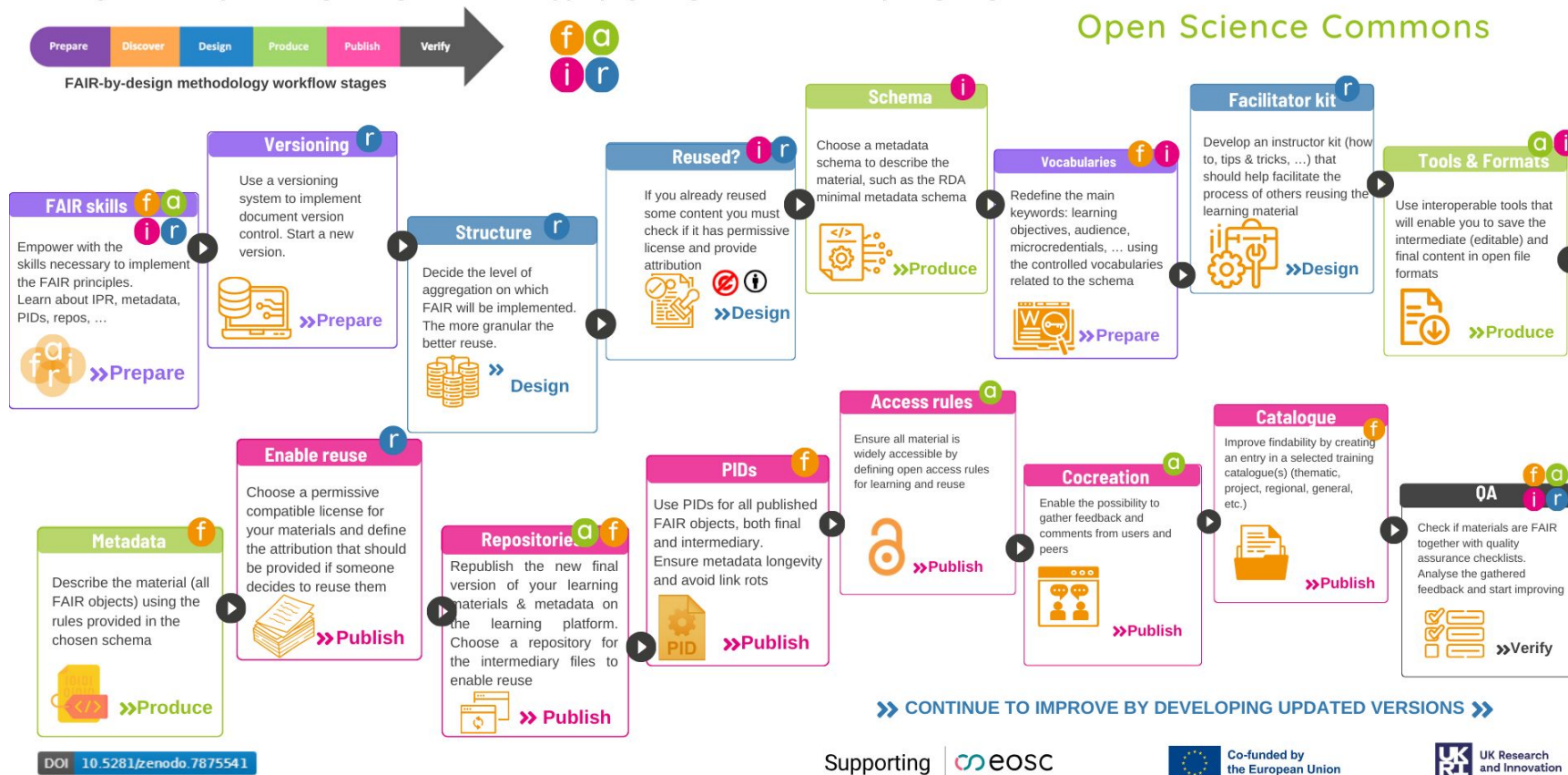


FAIR-by-design methodology

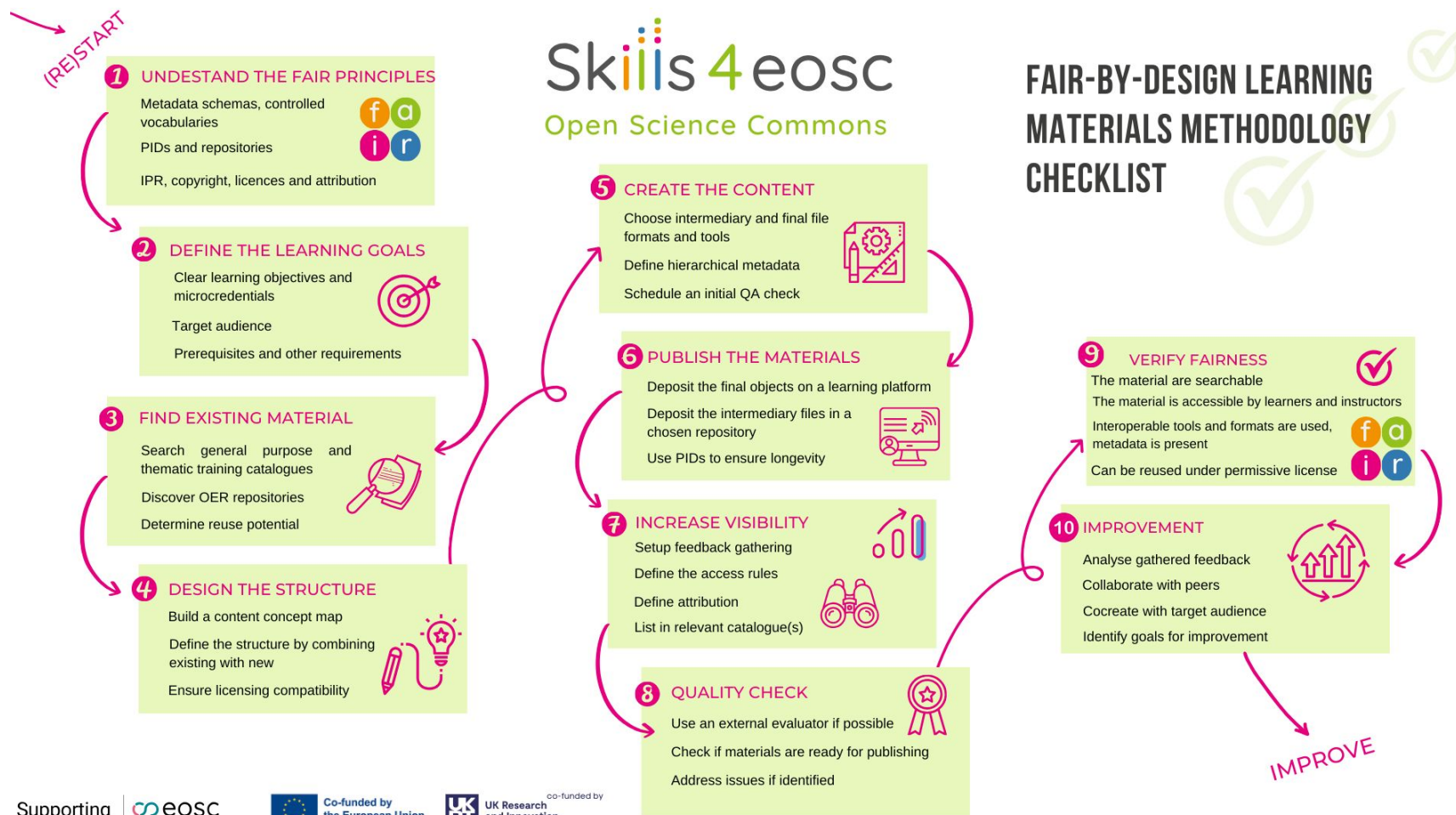
A FAIR-BY-DESIGN METHODOLOGY FOR THE FAIR-IFICATION OF EXISTING LEARNING MATERIALS

Skills 4 eosc
Open Science Commons

Use this guide to make your existing learning materials FAIR by jumping through the different FAIR-by-design stages



FAIR-by-design methodology



Supporting eosc

Co-funded by the European Union

UK Research and Innovation

Skills4EOSC

Quality assurance and Certification Framework



Skills4EOSC Recognition Framework

Skills4EOSC provides a collaborative, adaptable and inclusive framework, focusing on digital/data skills and using existing technologies for recognising competencies within the EOSC ecosystem.

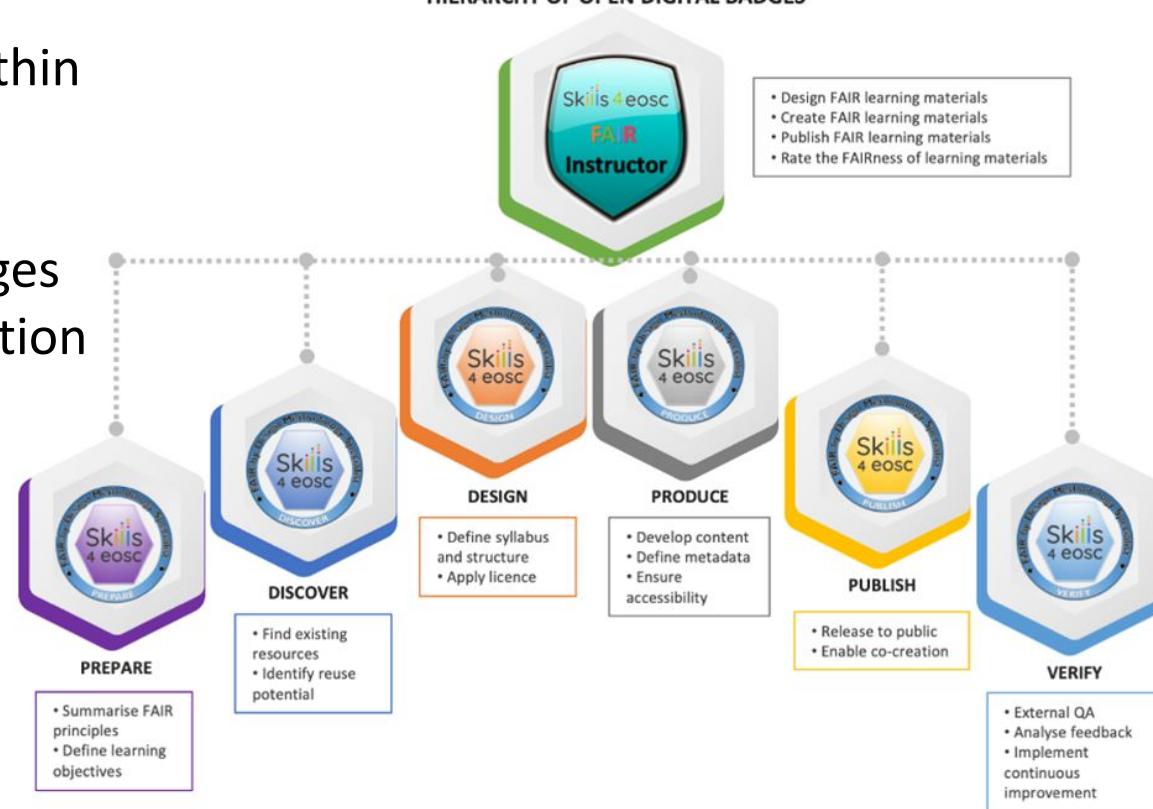
- A shared recognition framework that relies on common standards for skills recognition
- The framework is flexible and scalable by adapting to emerging skills and evolving EOSC community needs and provides cross-border skills recognition.
- The framework acknowledges a wide range of expertise and experiences and ensures inclusivity and diversity, also using digital tools like badges and verifiable credentials.



FAIR-by-design trainer accreditation

- **Structured into Six Stages.** Each stage consists of specific units.
- **Stage-Specific Open Badge.** Complete all units within a stage to earn a "FAIR-by-design Methodology Specialist" badge for that stage.
- **FAIR Instructor Badge.** Earn all stage-specific badges to certify proficiency in methodology implementation and qualify as a FAIR instructional designer.

FAIR-BY-DESIGN METHODOLOGY
HIERARCHY OF OPEN DIGITAL BADGES



Backward Instructional Design Empowered with FAIR principles

focusing on both learners and peer instructors



European Digital Credential - EDC

- Skills4EOSC Recognition Framework will fit into the **European Digital Credential for Learning**
- **EC provides EDC, an online tool for getting or issuing a digitalised version of credentials.**
- **EDCs** are standardized electronic documents verifying skills or learning outcomes.
- **EDCs linked to Europass** and can be issued by any European universities or training providers for free, securely sealed with an e-seal, and delivered via email or deposited to Europass profiles.



The screenshot shows the top part of the Europass website. At the top left is the Europass logo with the text 'europass European Union'. To the right is a language selector showing 'EN English'. Below this is a breadcrumb trail: 'Home > Europass tools > European Digital Credentials for Learning- Introduction to Digital Credentials'. A navigation bar contains links for 'europass', 'Europass tools', 'Learn in Europe', 'Work in Europe', 'About Europass', and 'Stakeholders', along with a 'Login to Europass' button. The main heading is 'European Digital Credentials for Learning' in large white text on a purple-to-blue gradient background. Below the heading is a short paragraph: 'The European Commission provides you with a tool for getting or issuing a digitalised version of your Diploma or other Credential.'



Quality Assurance Framework for learning materials

- **First Iteration published.** Focus on Open Science professional training and qualifications
- **Reference Framework.** It ensures quality of training materials and resources
- **Four key sub-frameworks:**
 - Minimum Viable Skillset
 - FAIR-by-design
 - ELSI (Ethical, Legal, and Social Issues)
 - Evaluation framework and learning resources catalogues
- **Assessment of Training Materials.** It defines attributes and questions for evaluation and it is applicable to Skills4EOSC and other Open Science resources
- **Methodology for Analysis.** Designed essential elements, best practices, and evaluation frameworks and to initiate broader stakeholder discussion

Skills4EOSC

Lifelong learning through peers

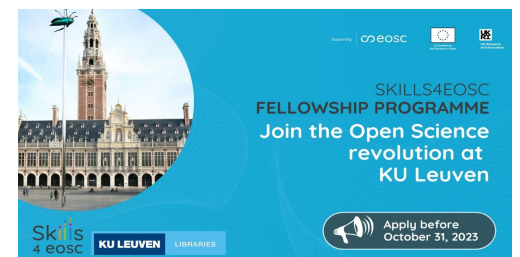
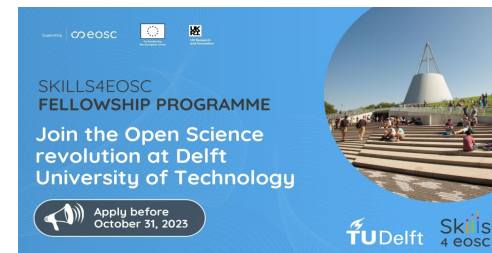
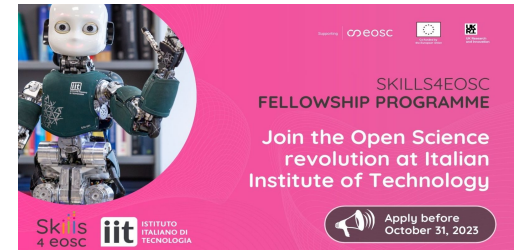


Fellowship Programme: unlocking opportunities in open science and FAIR data

Main objectives of the programme:

1. Support Life-Long Learning
2. Institutional Capacity Building
3. Knowledge Exchange
4. Strengthen Collaboration

A total of 9 fellowships were awarded by Skills4EOSC project



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Supporting



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Thank you!
Any comments or
questions?

go to: wooclap.com
code: **CCSLAUNCH**

Project coordinator office:
coordinator@skills4eosC.eu



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