Skills 4 eosc

- Skills for the European
- Open Science
- Commons

Skills4EOSC Training Programme

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Training Methodology

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 are developed for various targets

Training of Trainers delivery

Training of Trainers will be delivered to a group of Master Trainers to multiply the specific competences inside the Skills4EOSC Consortium

National courses training target roles

Once **Master Trainers** are equipped with adequate competences, they will organise courses to train target roles in their country/community

Training Objectives

- Support evidence-informed decision-making through Open Science (OS)
- Insights into developing and implementing OS policies
- Awareness of the OS role in addressing global challenges and future RTD
- Practical skills in OS practices and their implementation
- Application of FAIR principles in various research contexts
- Strategies for effective research data management and governance
- Understanding of Ethical, Legal, and Social Implications in OS
- Creating and nurturing Data Steward communities and networks
- Fostering collaboration among diverse OS stakeholders

Developing Paths for Different Targets

Science for policy: honest brokers, civil servants, policy makers

Institutions: undergraduate, PhD, data stewards and professionists, including data librarian and curators, legal and ethical experts

Research Infrastructures and thematic communities: designing training with and for researchers and professionists

Professional networks: lifelong learning through peer networks

COURSE AREA	TITLE OF THE COURSE
GENERAL	IMPLEMENTING FAIR-BY-DESIGN METHODOLOGY
	YAICOS (YET ANOTHER INTRODUCTORY COURSE ON OPEN SCIENCE)
SCIENCE4POLICY	OPEN SCIENCE IS THE NEW NORM
	ELSI AND DATA GOVERNANCE
	INTRODUCTION TO EVIDENCE-INFORMED DECISION-MAKING
	OPEN SCIENCE STAKEHOLDERS AND COLLABORATION STRATEGIES
	EMPOWERING THE FUTURE OF RESEARCH WITH OPEN SCIENCE
	OPEN SCIENCE POLICIES SUPPORT OPEN SCIENCE PRACTICES
	IMPLEMENTING OPEN SCIENCE POLICIES
OPEN SCIENCE READY INSTITUTIONS	OPEN LICENCES FOR DATA SOFTWARE AND CODE
	LEARNING PATH FOR ELSI PROFESSIONALS: ELSI PERSPECTIVES IN OPEN SCIENCE
	LEARNING PATH FOR (DATA) LIBRARIANS: TECHNICAL SKILLS ARE THE BRIDGE TO REPRODUCIBLE RESEARCH
	TEACHING OPEN SCIENCE AND RESEARCH DATA MANAGEMENT FOR UNDERGRADUATES
	SHAPING OPEN SCIENCE CHAMPIONS: A TRAIN-THE-TRAINERS COURSE FOR EDUCATORS OF PHD CANDIDATES
THEMATIC OPEN SCIENCE	SSH RESEARCHERS AND OS
	THE RESEARCH COMMUNITY IN SOLID EARTH SCIENCES
	OPEN SCIENCE FOR EARLY CAREER RESEARCHERS IN CLIMATE CHANGE
	OPEN SCIENCE SKILLS FOR DIGITAL COLLECTIONS CURATORS
	DATA MANAGEMENT FOR RESEARCH INFRASTRUCTURE (RI) PROFESSIONALS

General Courses

YAICOS (YET ANOTHER INTRODUCTORY COURSE ON OPEN SCIENCE)					
Description	YAICOS is Yet Another Introductory Course on Open Science: a self-paced course designed to provide a comprehensive overview of the foundations, benefits, challenges, and practical applications of Open Science (OS). Through engaging video lectures, curated resources, and self-assessment formative quizzes, learners will explore how Open Science principles are reshaping research culture across disciplines and fostering responsible, transparent, and collaborative research.			**Who should attend**	Anybody interested in "Open Science" (including, researchers at any stage of their career, doctoral students, research support staff, librarians, and educators) who are new to Open Science or seeking to strengthen their foundational knowledge. It may also benefit policymakers, scientific journalist and other stakeholders in the research ecosystem.
Level	Beginner	**Type**	Async	**Learning Platform**	**Available from August 2025**

IMPLEMENTING FAIR-BY-DESIGN METHODOLOGY					
Description	This course focuses on the practical application of the FAIR-by-Design methodology developed by Skills4EOSC. Participants will learn how to design and implement FAIR data practices in their projects.			**Who should attend**	Master Trainers, project managers, data stewards, and researchers involved in project design.
Level	Beginner	**Type**	Async	**Learning Platform**	https://learning.skills4eosc.eu/course/view.php?id=19

Science4Policy Courses

OPEN SCIENCE FOR EVIDENCE-INFORMED DECISION MAKING AND PUBLIC ADMINISTRATION					
Level	Beginner	**Type**	Async	**Who should attend**	Master trainers, Policy Actors (Decision Makers, Civil Servants, Honest Brokers).
Registration and access to the self-paced material will be available 10 days prior to the course. It is important to have studied the material before the participation in the live course. Each course provides a **specialised badge**. Complete all 7 courses of this learning path to receive the "**Open Science and Evidence-Informed Decision Making Instructor**" certification.					
Course 1	**Open Science is the new norm**				
Description	This course introduces the paradigm shift towards open science, exploring its fundamental principles and impact on society. It delves into accountability and transparency and contrasts open science practices with traditional closed science models. Participants will gain a foundational understanding of how open science promotes collaboration and innovation and the basic concepts and societal implications of open science.				
Learning Platform	**Available from August 2025**				
Course 2	**ELSI and Data Governance**				
Description	This course will cover the legal and ethical frameworks and considerations for implementing OS practices. Additionally, participants will examine the challenges and opportunities for Open Science within the EU regulatory framework, focusing on data governance and legislative strategies for FAIR (Findable, Accessible, Interoperable, Reusable) research.				
Learning Platform	**Available from August 2025**				
Course 3	**Introduction to Evidence-informed Decision-Making**				
Description	This course bridges the gap between open science and the practice of evidence-informed decision-making. It delves into the role of policy, the integration of evidence in decision-making processes, and the stakeholders involved. Participants will learn about open science outputs and tools that support decision-making, and how to interpret statistical data to derive actionable insights.				
Learning Platform	**Available from August 2025**				

Science4Policy Courses

Course 4	**Open Science Stakeholders and Collaboration Strategies**
Description	This course focuses on identifying and engaging with the diverse stakeholders involved in open science. It explores effective collaboration strategies to foster partnerships among researchers, institutions, policymakers, and the public. Participants will learn how to navigate the complex landscape of open science collaborations to maximise research impact and innovation.
Learning Platform	**Available from August 2025**
Course 5	**Empowering the Future of Research with Open Science**
Description	This course explores how open science can shape the future of research and decision-making, emphasising investment, capacity building, and integrating advanced technologies like AI. Participants will learn the importance of investing in open science, developing training programs, and leveraging AI to enhance research practices and support evidence-informed decision-making.
Learning Platform	**Available from August 2025**
Course 6	**Open Science policies support Open Science practices**
Description	This course explores how open science policies underpin and facilitate the adoption of open science practices. It examines the roles of stakeholders, the challenges and barriers to implementation, and the cultural shifts necessary for successful adoption. Participants will also learn about responsible research assessment and review successful case studies of open science policy implementation.
Learning Platform	**Available from August 2025**
Course 7	**Implementing Open Science policies**
Description	This course delves into the practical aspects of developing and implementing open science policies. It covers profiles of key policymakers, essential elements for effective policy development, the integration of open science workflows, and strategies for monitoring and evaluating the impact of these policies.
Learning Platform	**Available from August 2025**

Courses for OS Ready Institutions

OPEN LICENCES FOR DATA SOFTWARE AND CODE					
Description	This 2-hour training unit equips trainers with essential skills to teach research output licensing. It covers adapting content to local contexts, applying for licences throughout projects, complying with funder and institutional requirements, and aligning with research discipline and project aims.			**Who should attend**	Data Stewards and data professionals with basic knowledge of rights to research output.
Level	Intermediate	**Type**	Async	**Learning Platform**	1st Round https://learning.skills4eosc.eu/course/view.php?id=29 2nd Round https://learning.skills4eosc.eu/course/view.php?id=59#section-4

LEARNING PATH FOR ELSI PROFESSIONALS: ELSI PERSPECTIVES IN OPEN SCIENCE					
Description	This course introduces legal drivers and motivations behind key regulations like the AI Act and GDPR. Through practical discussions and case studies, it connects legal aspects to researchers' commitments to FAIR principles, reproducibility, and Open Science goals. It examines the implications of laws on research from both ELSI and researcher perspectives, addressing potential frictions and opportunities created by regulations like the AI Act.			**Who should attend**	ELSI professionals and researchers.
Level	Beginner	**Type**	Async	**Learning Platform**	1st Round https://learning.skills4eosc.eu/course/view.php?id=48 2nd Round https://learning.skills4eosc.eu/course/view.php?id=58

Courses for OS Ready Institutions

LEARNING PATH FOR (DATA) LIBRARIANS: TECHNICAL SKILLS ARE THE BRIDGE TO REPRODUCIBLE RESEARCH					
Description	This course focuses on technical skills as key enablers of reproducible research. It covers the distinction between reproducibility and replicability, emphasising the crucial role of technical aspects in achieving reproducibility. It explores the importance of responsible research conduct and Open Science principles concerning reproducibility. Participants will reflect on the data librarian's role in supporting reproducible research, considering various disciplinary requirements, issues, and tools. It also provides insights into technological solutions such as programming and data wrangling.			**Who should attend**	Data librarians and data curators.
Level	Beginner	**Type**	Async	**Learning Platform**	https://learning.skills4eosc.eu/course/view.php?id=47

TEACHING OPEN SCIENCE AND RESEARCH DATA MANAGEMENT FOR UNDERGRADUATES					
Description	This course is designed to prepare trainers for delivering the online course Introduction to Open Science and Research Data Management to undergraduate students. Trainers will explore the six course modules: Introduction to Open Science, Open Access, Copyright and Licensing, Introduction to Research Data Management, Research Data Management in Practice, and Research Impact and Visibility. By completing the course, trainers will become familiar with both the course content and practicalities.			**Who should attend**	Educators and trainers responsible for teaching undergraduate university students.
Level	Beginner	**Type**	Async	**Learning Platform**	https://learning.skills4eosc.eu/course/view.php?id=68

SHAPING OPEN SCIENCE CHAMPIONS: A TRAIN-THE-TRAINERS COURSE FOR EDUCATORS OF PHD CANDIDATES					
Description	This course invites educators to become mentors guiding PhD candidates towards a more open, transparent, and collaborative research landscape, giving them "a ticket 2 Open Science". Participants will navigate key Open Science stations, including open access publishing, FAIR data principles, research data management, and responsible research and innovation (RRI). Throughout this journey, trainers will not only gain foundational knowledge but also acquire practical teaching strategies to engage doctoral students as future Open Science champions.			**Who should attend**	PhD mentors, Mid-senior career researchers, and/or academic staff responsible for delivering Open Science training to doctoral students.
Level	Beginner	**Type**	Async	**Learning Platform**	**Available from August 2025**

Thematic Open Science Training

SSH RESEARCHERS AND OS

Description	The course targets SSH scholars working as active researchers at any career stage, and staff like librarians, editors or research infrastructure professionals supporting the SSH research community. SSH is characterised by a diversity of sub-disciplines and there are distinct challenges in how to manage complex topics such as data management, ethics, and publications. This training will focus specifically on the issues faced by SSH scholars and try to provide a platform and ideas for all participants to confidently deliver training in their own context.	**Who should attend**	Researchers in the Social Sciences and Humanities.
Level	Beginner / Intermediate	**Type**	Async
Learning Platform	**Available from August 2025**		

THE RESEARCH COMMUNITY IN SOLID EARTH SCIENCES

Description	The program is structured to demonstrate how Open Science and FAIR principles are concretely implemented in the EPOS (European Plate Observing System) portal. Through practical examples and case studies, participants will gain essential skills to understand the importance of Open Science in the context of Earth Sciences, apply FAIR principles in geoscientific data management, effectively use the EPOS portal for research and data sharing, and integrate Open Science practices into their research work.	**Who should attend**	Researchers, PhD students, teachers.
Level	Beginner / Intermediate	**Type**	Async
	om August 2025		

OPEN SCIENCE FOR EARLY CAREER RESEARCHERS IN CLIMATE CHANGE

Description	Participants will learn about data lifecycle, research data management, Open Science and FAIR principles, and data management planning. The course introduces major climate science infrastructural initiatives and emphasises the importance of understanding Open Science policies and practices in the climate change domain. It aims to equip junior researchers with the skills needed to conduct transparent, collaborative, and impactful climate research.	**Who should attend**	Researchers in Climate Change.
Level	Beginner / Intermediate	**Type**	Async
Learning Platform	**Available from August 2025**		

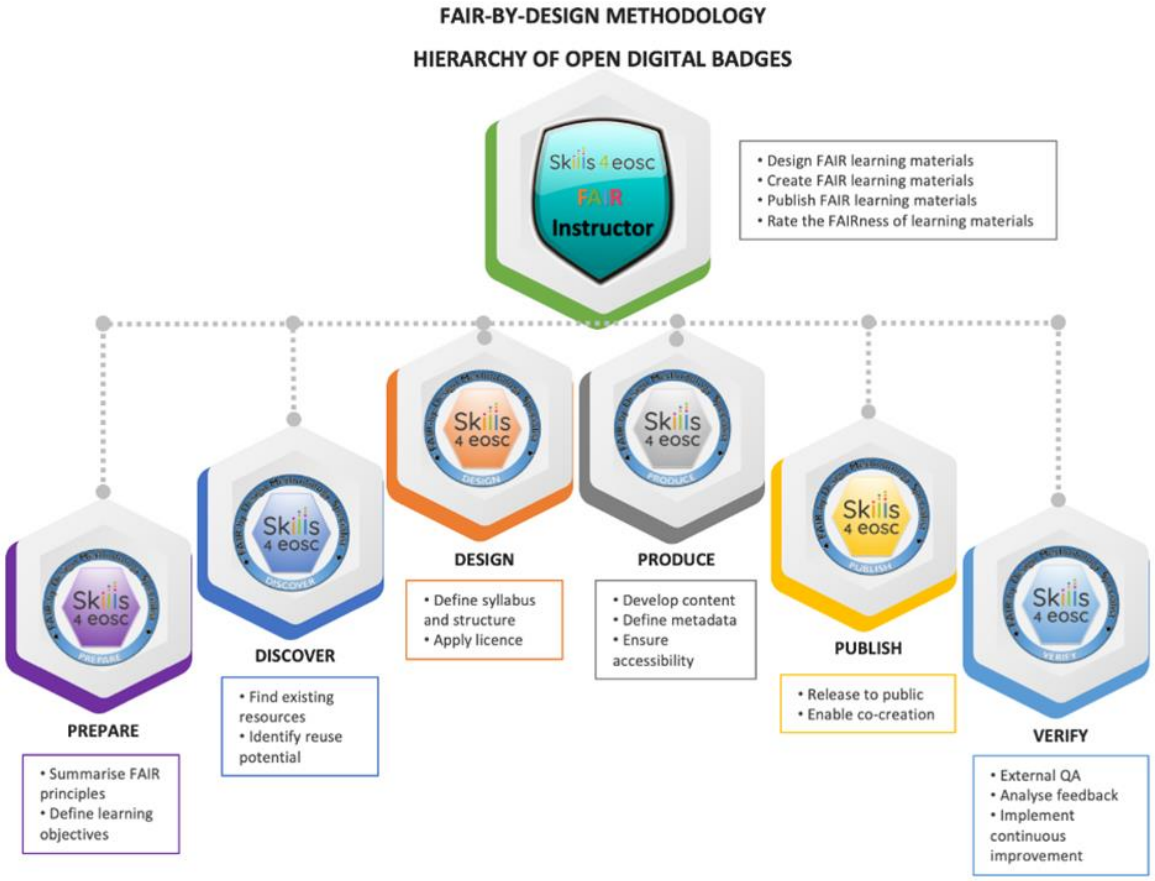
Thematic Open Science Training

DATA MANAGEMENT FOR RESEARCH INFRASTRUCTURE (RI) PROFESSIONALS			
Description	The course provides a comprehensive overview of the key issues and concepts around the management of data and data policy in Research Infrastructures. It covers topics such as the role of data policy, data typologies, metadata, operational considerations for managers, data lifecycle, workflows, user groups, open data, data sharing and access restrictions, certification mechanisms, and FAIR principles.	**Who should attend**	Managers, operators and other professionals in Research Infrastructures or Core Facilities (CF), as well as prospective trainers in this field
Level	Beginner	**Type**	Async
Learning Platform	**Available from August 2025**		

OPEN SCIENCE SKILLS FOR DIGITAL COLLECTIONS CURATORS			
Description	This course teaches curators and scientists how to digitise object-based collections and make them openly accessible. Participants learn to apply FAIR principles, use standardised metadata, and create sustainable digital repositories. The training covers from digitisation techniques and data visualisation, emphasising the transformation of physical artefacts into "Open Collections", to ethical and legal aspects of managing digital open collections. This course aims to enhance the accessibility and value of scientific collections for global research, bridging the gap between traditional curatorial practices and modern digital accessibility standards.	**Who should attend**	Curators and scientists in Libraries, Archives and Museums (LAMs), universities and research infrastructures working with object-based digital collections.
Level	Beginner / Intermediate	**Type**	Async
Learning Platform	**Available from August 2025**		

Trainer Accreditation/Certification

- **Courses are structured into various Stages**. Each stage consists of specific units
- **Stage-Specific Open Badge**. Complete all units within a stage to earn a specific badge for that stage
- **Instructor Badge.** Earn all stage-specific badges to certify proficiency and qualify as Master Trainer for a specific course



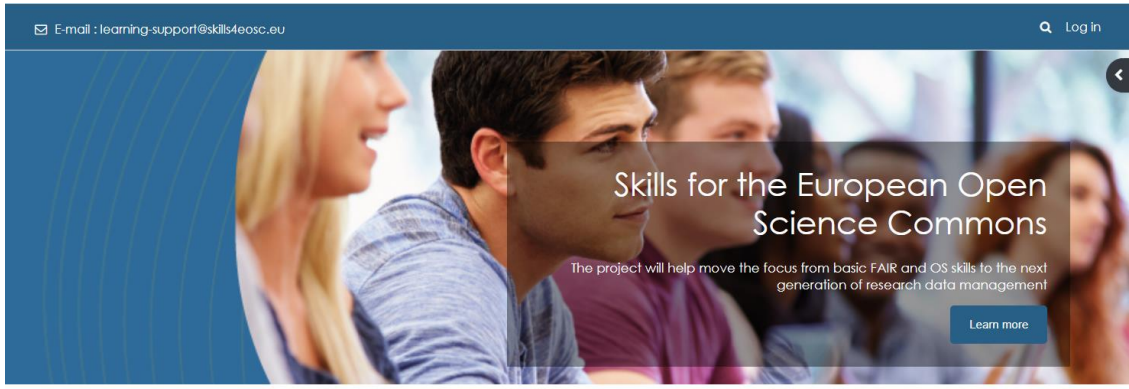
The Role of Master Trainers

Skills4EOSC Training Courses

- **Master Trainers** are trained by the Skills4EOSC community through the **Training of Trainers** sessions.
- After the Training of Trainers, the Master Trainers commit to **sharing best practices and lessons** learnt with their community trainers.

Facts and Figures

- 40 courses available on the Learning Platform (https://learning.skills4eosc.eu/)
- 850 registered participants in the courses
- 120 participants who already acquired the certification (constantly increasing)
- 700 participants in the training courses on the FAIR-by-design methodology



Highlighted activities

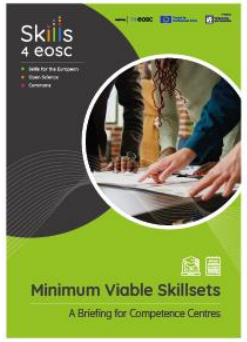
FAIR-by-Design @ EOSC-Future Training for the Western Balkans & Ukraine	Sep 2023
FAIR-by-Design training on OS FAIR workshop	Sep 2023
ToT Fair-by-design methodology	Oct 2023
FAIR-by-Design webinar for FAIR IMPACT Implementation Workshops	Dec 2023
FAIR-by-Design Methodology training as part of IDCC, in collaboration with FAIR-IMPACT	Feb 2024
Project training on slide design (FAIR-by-Design reuse of existing materials)	Apr 2024
FAIR-by-Design training for the CLARIN community Session 1	Sep 2024
FAIR-by-Design training for the CLARIN community Session 2	Sep 2024
IDCC'25 Skills4EOSC workshop	Feb 2025
Making Training Materials FAIR training for ATRIUM Session 1	Mar 2025
Making Training Materials FAIR training for ATRIUM Session 2 (closed, limited)	Mar 2025
FAIR-by-Design Methodology for Learning Materials for RDA in Norway group	Apr 2025
FAIR-by-Design Methodology Training for the FDRN Knowledge Hub	May 2025

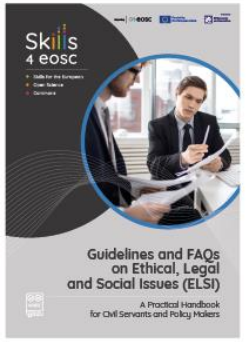
Useful Resources

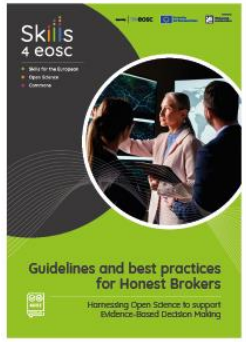
https://www.skills4eosc.eu/resources/publications

Skills4EOSC Publications

Skills for the European Open Science commons: creating a training ecosystem for Open and FAIR science.







Skills4EOSC Zenodo community

Skills 4 eosc

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- Open Science
- Commons

Supporting eosc

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UK Research and Innovation

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Thank you!

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