

# OPEN SCIENCE Learning Gate

## tailored capacity building for OS training

### The Problem Lack of tailored OPEN SCIENCE training for different stakeholders

- OS enables transparency, accessibility, collaboration, knowledge circulation & valorisation and innovation.
- Higher education lacks **tailored OS training resources** for various stakeholders of the scientific community.

### The Mission OPEN SCIENCE Learning Gate as a sample collection

Recognising that while openness is vital, only high-quality research output with legally and ethically justified openness is reliable and reasonable.

We reviewed **literature**, activated representatives for the **OS learner groups** and screened the **OS training resources** from the groups 1, 4 and 7.

We extracted **RI and RE principles** provided in these training resources.

We statuated **umbrella concepts** of OS training resources:

- **RESEARCH INTEGRITY**
- **RESEARCH ETHICS**
- **ETHICS of AI operating with OS**

We created **NERQ's sample collection of OS training resources**

- targeting specific learning groups
- promoting principles inevitable for current research



Figure:  
Adapted from  
EOSC's definition  
of Actors in the  
EOSC Ecosystem (1)

### NERQ'S OS Principles in the OPEN SCIENCE LEARNING GATE

#### RESEARCH INTEGRITY RESEARCH ETHICS

##### Principles

RESEARCHER	POLICY MAKER	OS EDUCATOR
Accountability	Awareness	Accountability
(Self-)Awareness	Collaboration, Community building, Hollistic engagement	Awareness
Honesty, Equity & Fairness		Honesty, Diversity & Inclusiveness
Quality & Integrity	Ethics	Openness
Reliability	Incentives, Recognition, Encouragement	Reliability (tools, infrastructures, actors)
Respect	Data confidentiality	Respect
Responsibility	Explainability	Responsibility
Transparency	Traceability	<i>Proceeding data collection (see QR-code)</i>

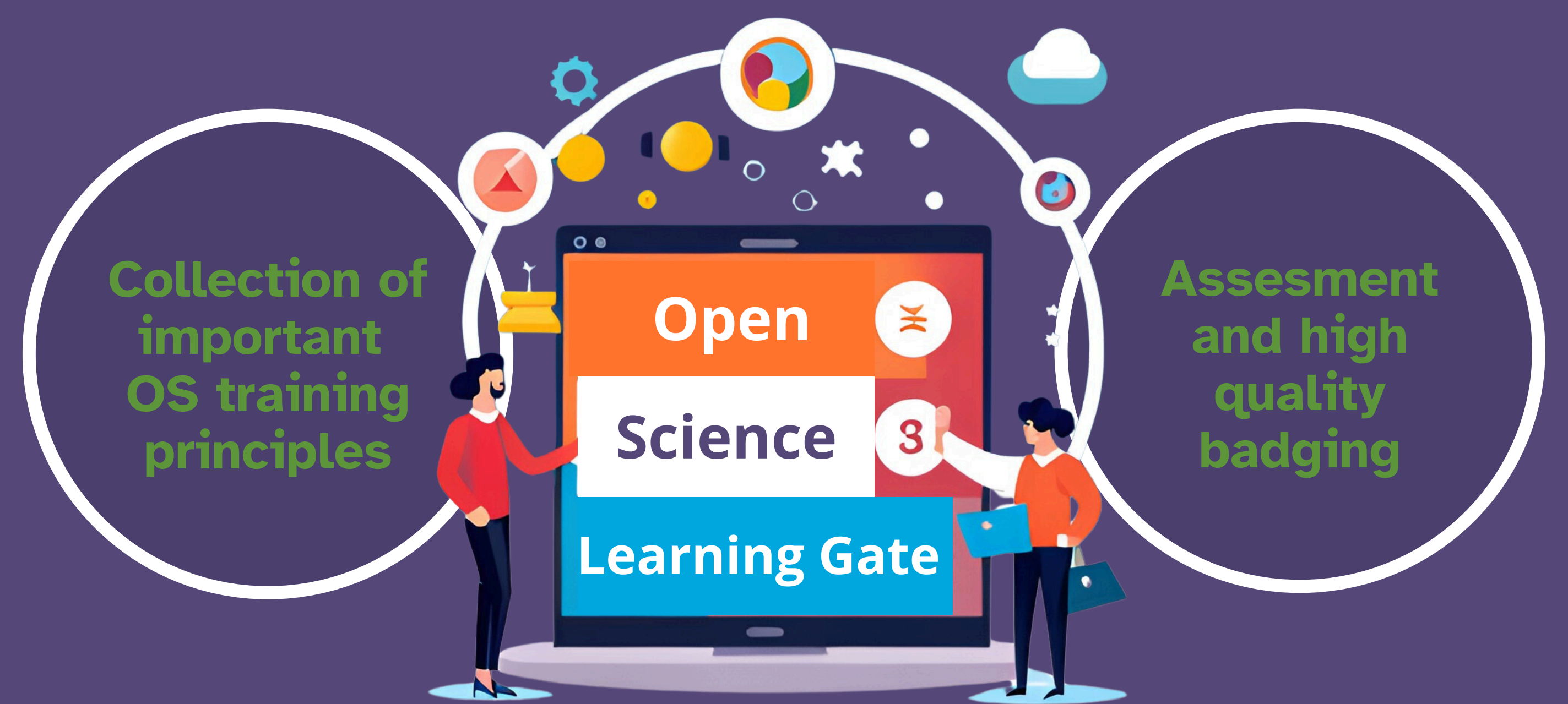
##### Educational Goals

RESEARCHER	POLICY MAKER	OS EDUCATOR
As open as possible - as closed as necessary	FAIR data & other outputs	As open as possible - as closed as necessary
Data protection & Intellectual property		
Open research: Data, Access, Code, OER, Source etc.	Monitoring & Evaluation	Reproducibility (data/ methodology etc. sharing)
Reproducibility	Open science & inclusive infrastructures	<i>Proceeding data collection</i>

#### ETHICS of AI operating with OS

Accessibility	Bias-free speech, data and outcomes	Fairness
Harm-monitoring	Guardrails to ensure scientific values	Privacy, Data & IP protection
Safety	Transparency	Value-based algorithmic decision-making
		<i>Proceeding data collection (see QR-code)</i>

### Features of the Open Science Learning Gate



### Join us in the OPEN SCIENCE LEARNING GATE

Help us to create an intersection of of high-quality and reliable OS training using our questionnaire:

- 1 **SCREEN** your training resources on principles recommended by the research community using our questionnaire.
- 2 **IDENTIFY** gaps or needs for further training and **AMEND** your resources.
- 3 Get your training resources **BADGED** if you meet at least 80% of the recommended principles.
- 4 **SUBMIT** your training resources to the **Open Science Learning Gate**.
- 5 **USE** the intersection for your training of specific stakeholders.



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