

Roadmap for Implementing Open Science Training Practices in Research Institutions

There are three **key ways** how stakeholders across the research lifecycle can influence and support the **transition towards Open Science**.

Promote change
by advocating
**skills acquisition
& learning**

1

Support change
through access to
**training materials
& courses**

2

Motivate change
by providing
**recognition
& reward**

3

The EC report¹ *Providing researchers with the skills and competencies they need to practise Open Science* reveals that many researchers are still unaware of what Open Science means, how to put Open Science into practice & the numerous training opportunities available to them.² The following **roadmap** outlines a range of **practical actions** that stakeholders can take to **support the uptake of Open Science practices** in all disciplines.

1 Improve quality & capacity of Open Science training

1 A large number of high quality training is necessary to increase skills & knowledge. Trainers & advocates need access to good, reusable materials that will empower them to deliver effective and engaging training to researchers.

FOSTER Offers materials for training & reuse (different levels, target groups & formats) and trains the trainers

2 Integrate Open Science content in researcher training

2 Institutions can ensure a cultural change by embedding training modules focused on practical skills into ongoing educational programmes on a regular & standardised basis from as early as possible. A starting point can be topics like Open Access publishing and FAIR³ Open Data management.

FOSTER Covers relevant topics to be taught & can be a first step towards developing curricula

3 Tailor Open Science resources to research disciplines

3 Open Science training materials and guidelines should be tailored to disciplines taking into account different research practices and needs.

FOSTER Includes discipline specific guidance (life sciences, social science, arts & humanities)

4 Support & promote Open Science skills acquisition

4 Sufficient infrastructure, support & time should be provided so that researchers are able to develop their skills in the workplace.

FOSTER E-learning can offer support when institutions cannot provide trainings themselves

¹ written by the European Commission's Working Group on Education and Skills under Open Science

² EC 2017: [Providing researchers with the skills and competencies they need to practise Open Science](#) p.4

³ Findable, Accessible, Interoperable & Reusable Data

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5 Lobby for change at all levels
The young generation of scientists is a major audience for training. Supervisors & researchers guide their mentees and are therefore an important target group to recognise the value of Open Science training, too.

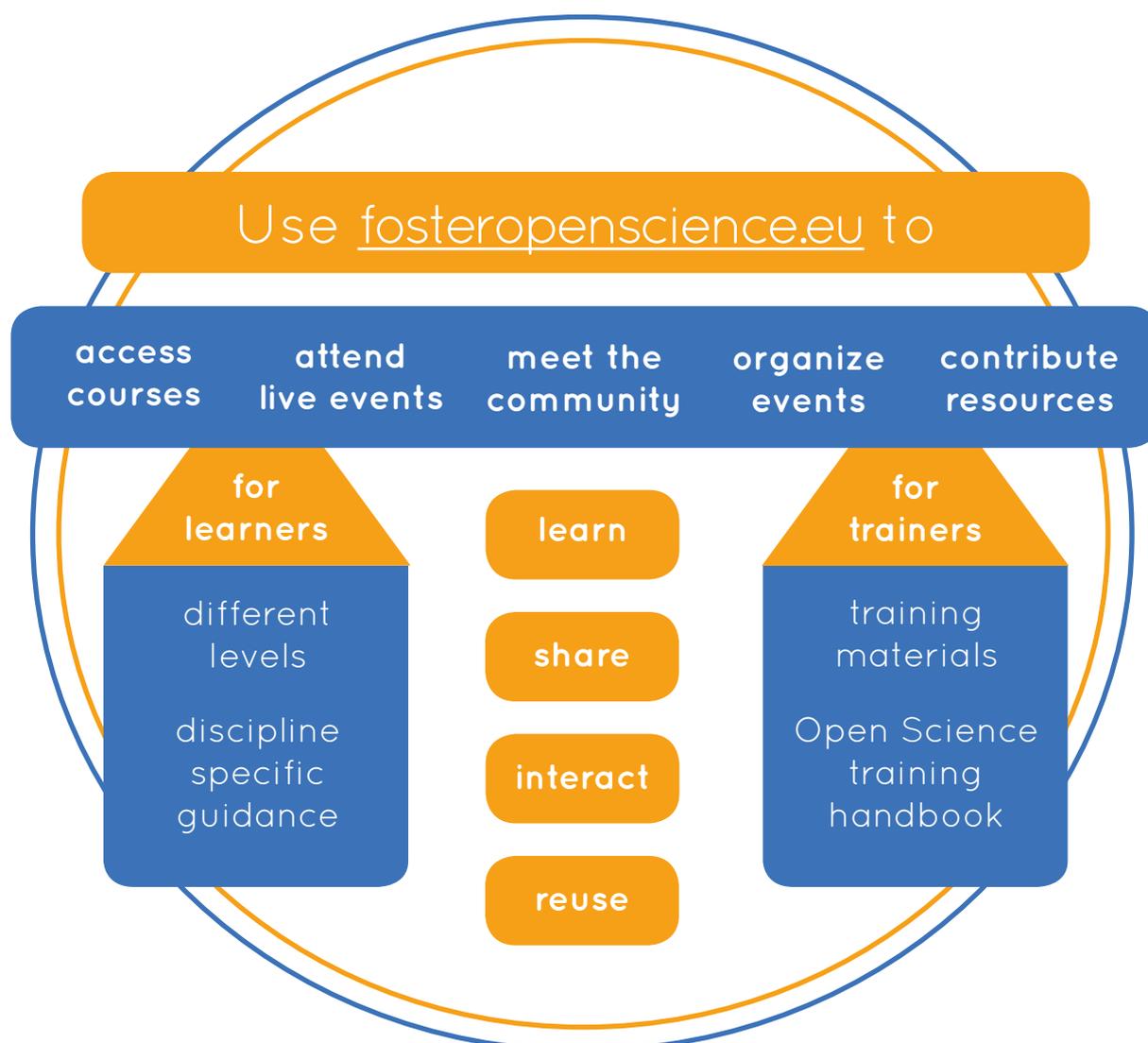
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Offers career relevant training, advocates & raises awareness in institutions, the society & politics

6 Recognise & reward Open Science skills
Students & researchers are more likely to make an effort to gain skills if these are deemed relevant for their career progression. Stakeholders across the research lifecycle, should reward (young) researchers by including Open Science practices in evaluation processes & awarding efforts with ECTS⁴ or other formal certificates.

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Improves skills & awareness, but only RIs⁵ can ensure a permanent cultural change by introducing new government settings



⁴ ECTS = *European Credit Transfer and Accumulation System* for higher education across the EU

⁵ RI = Research Institution