Facilitate Open Science Training for European Research

Best Practices in Training for Open Science: Experiences from FOSTER’s Two-Year Training Programme

Iryna Kuchma, Gwen Franck (EIFL), Astrid Orth (Göttingen State and University Library)

LIBER 45th Annual Conference, Helsinki, 1 July 2016
• 2,5-year EU-funded FP7 project (Feb 2014 - Jul 2016, sustainability plan for the coming years)
• 13 consortium partners (Project lead: University of Minho)
• Collaboration and support by 77 other organizations (Universities & research institutes, Graduate Schools, students and young researchers associations, scientific communities, etc.) from 24 countries

“Spread the seeds of Open Access and Open Science”

This project has received funding from the European Union’s Seventh Framework Programme for research, technological development and demonstration under grant agreement no 612425
Methods and tools

Training Courses
- Join the Open Science learning community and contribute to the open resources collection
- Create e-Learning courses and track learning progress and monitor courses
- Combine Face-to-face with Online Courses for Blended Learning Formats
- Identify best practices and adapt courses to local context
- Find FOSTER events in your country, language and discipline

Re-Use
- Browse existing material under open licenses, quality assured by the FOSTER consortium
- Select your target groups

Training Resources
- Determine your learning objectives
- Combine from a wealth of formats: short multimedia clips, comprehensive video lectures, presentations, and lots more

Practice
- Find expert speakers
- Search database of training resources and view recommendations and featured material
- Receive notifications on new content
- Use Helpdesk and FAQs

Training Portal
Open Science Taxonomy

Taxonomy (w/o dynamic %)  https://figshare.com/articles/Open_Science_Taxonomy/1508606
FOSTER Portal

- Materials free to use, re-purposed, recombined to suit your own training needs.
- Being compiled into courses (currently 15 courses in 4 languages).
- Create your own e-course: https://www.fosteropenscience.eu/content/foster-course-course-creation
- Propose courses
FOSTER Trainings 2014 - 2016
FOSTER
Event Data 2014-2015

AUDIENCE
5053

EVENTS
125

PARTICIPATING COUNTRIES
26

PARTNER COUNTRIES
15

COST
€1,499,860

FUNDING COMMUNITY IDEAS
€170,000

COST PER TRAINED PERSON
<€300
<table>
<thead>
<tr>
<th>Country</th>
<th>Audience</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU*</td>
<td>562</td>
<td>11%</td>
</tr>
<tr>
<td>Spain</td>
<td>520</td>
<td>10%</td>
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<tr>
<td>UK</td>
<td>492</td>
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<tr>
<td>Germany</td>
<td>488</td>
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<tr>
<td>Croatia</td>
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<tr>
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<tr>
<td>Lithuania</td>
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<tr>
<td>Poland</td>
<td>163</td>
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<td>Denmark</td>
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<tr>
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<tr>
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<tr>
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<td>Norway</td>
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<tr>
<td>Italy</td>
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<tr>
<td>Austria</td>
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</tr>
<tr>
<td>Bulgaria</td>
<td>20</td>
<td>0.5%</td>
</tr>
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</table>

*Eu refers to the webinars which were followed by audience from different countries in Europe
## Audience per Stakeholder

<table>
<thead>
<tr>
<th>Stakeholders</th>
<th>Audience</th>
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<tbody>
<tr>
<td>Researchers and Students</td>
<td>2045</td>
</tr>
<tr>
<td>Librarians and Repository Managers</td>
<td>1420</td>
</tr>
<tr>
<td>Research Administrators</td>
<td>672</td>
</tr>
<tr>
<td>Policy Makers and Funders</td>
<td>102</td>
</tr>
<tr>
<td>Project Managers</td>
<td>50</td>
</tr>
<tr>
<td>PHD Students</td>
<td>43</td>
</tr>
<tr>
<td>Remaining Stakeholders</td>
<td>?</td>
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## MOST TAGGED SUBJECTS

<table>
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<tr>
<th>Subjects</th>
<th>Percents</th>
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<tr>
<td>Open Science</td>
<td>26%</td>
</tr>
<tr>
<td>Open Access</td>
<td>19.5%</td>
</tr>
<tr>
<td>Open data</td>
<td>12.5%</td>
</tr>
<tr>
<td>Research Data</td>
<td>9.5%</td>
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<tr>
<td>Funders Policy</td>
<td>7%</td>
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<tr>
<td>Research Data Management</td>
<td>6%</td>
</tr>
<tr>
<td>Open Science Policy</td>
<td>5%</td>
</tr>
</tbody>
</table>
Strong discipline networks

FOSTER-CESSDA Data Management Training in Ljubljana (Slovenia), Manchester (UK), Cologne (Germany), Lausanne (Switzerland), and Copenhagen (Denmark)

4 months: July 23, 2015 - November 25, 2015

UK Data Service (University of Essex and University of Manchester), GESIS - Leibniz Institute for the Social Sciences, National Archives/Danish Data Archive (DDA), Swiss Centre of Expertise in the Social Sciences (FORS) and Slovenian Social Science Data Archives (ADP)
Strong discipline networks (2)

Open Access Trends and Open Data for the Agropolis Scientific Community, Montpellier, October 2015 throughout January 2016

A conference + four half-day workshops for the Agropolis scientific community involved in the fields of agriculture, food, biodiversity and environment + 10 posters on OA + “face to face” practical training for researchers + 2 courses and a workshop for trainers on Open Data, Practical aspects of OA and on Dissem.in tool to facilitate the identification of publications ready to deposit in an OA repository + factsheets + screencasts + an article
Strong discipline networks (3)

OA Trends and Open Data for the Agropolis Scientific Community (2)

Objectives: Increase the % of articles published in OA journals (from 16% to 20% in two years) and the % of scientific articles deposited in repositories (% in 2013: 65% for CIHEAM-IAMM, 54% for IRSTEA Montpellier, 42% for IRD, 36% for Cirad, 25% for INRA Montpellier).

Results: 500+ publications have been deposited in OA repositories during the OA Week by researchers from INRA and IRD; https://hal.archives-ouvertes.fr/AGROPOLIS: 11,977 records from 76 research units.
Early career researchers - go to their events!

Access in Action, Berlin, European Medical Students Association: from panel speeches to presentations, group workshops and roundtable discussions, active engagement.

Lessons learnt: OA and Open Science need to be explained more broadly (a lot of it is misinterpreted); students are still not aware/very little aware about OA; academia and the students organizations do not engage (enough) into dialogue how to implement/promote OA; there is a need for and platforms such as FOSTER.
Early career researchers - go to their events! (2)

Leveraging Open Science to Facilitate Interdisciplinary Cancer Research, Young Alliance Against Cancer, Copenhagen

Day 1 featured prominent speakers from cancer research; Day 2 was dedicated to Open Science:

- 3 Open Science talks: OA & OA Advocacy; Repositive - a public platform for genomic data discovery & data collaborations; OpenScienceLink
- 4 Open Science Workshops: Open Science & Research Life Cycle, Open research data: how to manage and share your research data, Open source code, 100% Open Access: Publishing do not have to cost you anything

Successful young PIs shared the stories behind their fast-tracked careers (and also about their exciting research).
Early career researchers - go to their events! (3)

YEAR Annual Conference 2015: Open Science in Horizon 2020, Espoo, Young European Associated Researchers (YEAR)


Day 2: Young researchers were invited to submit a project idea relying on, or promoting Open Research Data/Open Science aspects prior to the conference. In total 15 excellent project ideas were submitted. At the workshop on Day 2, the ideas have been worked on further in groups (to gain hands-on experience as well as to find other potential project partners).
Early career researchers - go to their events! (4)

YEAR Annual Conference 2015 (2)

The winners:

- Oliver Zendel (AIT, Austrian Institute of Technology): *Towards an Open Peer-Review Process*, and

- Helena Henno (VTT): *Fluvoid - a Smartphone-based Diagnostic System for Preventing Epidemics*.

The awards consist of a European Project Management training course and 5000€ each to further develop the project ideas. The YEAR Award is fully funded by YEAR.
Early career researchers - go to their events! (5)

YEAR Annual Conference 2015 (3)
Feedback from the participants:
Networking possibilities + learning about Open Science.
+++ Workshop on project ideas, the interactive parts of the conference, as well as How to open up my data training session.

After the conference the YEAR Board decided to join the Right to Research Coalition (R2RC).

Michela Vignoli, YEAR Board Member, is a member of European Open Science Policy Platform
Credits

Winning Horizon 2020 with Open Science, Spain

Training young researchers (PhD & Graduate Students): workshops in Madrid (80 attendees) and Valencia (150 attendees) with Doctoral Schools in Universidad Carlos III de Madrid (UC3M) and Universidad Politécnica de Valencia (UPV)

UC3M: PhD students got the transversal training credit through attendance but also writing a post in the Blog. UPV: students got the credit by attendance and participation. UC3M plans a seminar about Open Science for doctoral students and young researchers on a regular basis, as transversal training for all PhD programmes using FOSTER training materials.
Documentos del Winning Horizon 2020 with Open Science. Foster event: Training young researchers

18 junio, 2015

A modo de recordatorio quisiera aportar al blog en vez de un comentario del evento, como
Eva Méndez @evamen · 24 Jul 2015
#iamAnOpenScientistbecause there is @CienciaConFutur. And I just discovered their blog and it is great!!! #OpenScience

Open Science @openscience · 8 Jul 2015
"#iamAnOpenScientistBecause engaging with 'Sunday scientists' is not less important to me than with the formal research community" - @EvoMRI

Eva Méndez @evamen · 23 Jun 2015
Now Patient Innovation: sharing solutions to save lifes...
#iamAnOpenScientistbecause it save lifes!!! #ERAofInnovation

D@aniel Mietchen @EvoMRI · 22 Jun 2015
Ping the #iamanopenscientistbecause crowd about #ERAofInnovation and vice versa

Eva Méndez @evamen
What is #OpenScience? Follow live streaming of #ERAofInnovation in: ec.europa.eu/research/confer... Good moment for: #iamAnOpenResearcherbecause

Foster Open Science @fosterscience · 28 May 2015
We are at the EC event "Future of the Doctorate" future-doctorate.teamwork.fr, and your #iamAnOpenScientistBecause input will be shown in plenary
Train-the-trainers approach

Winning Horizon 2020 with Open Science, Spain

Workshop for academic librarians and repository managers (80 people), as a pre-conference free workshop of FESABID2015, the main biannual conference for librarians at national level, organized by the federation of information professionals in Spain
Hands on

Software Writing Skills for Your Research, Helmholtz Centre Potsdam - GFZ German Research Centre for Geosciences, in collaboration with The Software Carpentry

4 months: September 23-25, 2015 (workshop for novices), October 21-23, 2015 (workshop for users with intermediate knowledge) and December 14-16, 2015 (workshop for proficient users) - 73 people trained

Presented results and experiences at the EGU General Assembly in 2016 in a session 'Open Science goes Geo'.
Hands-on (2)

Software Writing Skills for Your Research (2)

- Workshops to pass software writing skills are highly demanded by early career scientists and have to be offered on the regular basis.

- It is quite easy to structure the curriculum answering general demands. In the future demands will become more specific and advanced and curriculum will be a challenge.

- Small groups with homogeneous background knowledge work the best. In case of sophisticated software writing skills an additional day to create homogeneous background knowledge by recapitulating the required skills to build upon.

- Free workshops with free coffee create a good atmosphere; lightning talks of the participants sharing experiences.
Findings

• FOSTER call as a starting point
  • Courses that we couldn’t co-fund/co-organize took place anyway; those who missed our calls have been encouraged to conduct their trainings (using attention that the calls received)
  • FOSTER branding & competencies, training materials
• 1st call to build awareness for the topic & brand, 2nd call to target specific audiences & areas: topics changed from OA focus to wider Open Science and Open Data (Data Management) area
• Broad horizontal approach across all open science topics, specialization through co-funding of community-driven events
• Good coverage, diverse stakeholders and audiences
Feedback

- Quality of trainings between ‘good’ and ‘excellent’, especially speakers and training materials
- Wide range of topics in majority of trainings
  - Good for overview, but would have preferred focus on smaller amount of topics
- No ‘one size fits all’ approach: local trainers were able to identify and target specific subjects and audiences
- Plus: Infrastructure for hosting events pages and training materials
  - “Researchers, in particular those using qualitative methods, still need additional support in finding ways to share data ethically and meaningfully”.
Lessons Learnt

“Presentation of cases and researchers’ firsthand and ‘hands on’ experiences was very instructive, the examples of good practices, the tools that were shared, the overview of different issues involved, the good mix of practice and policy, the presence of repository providers and the good communication about the event.”

For many participants the most valuable aspects of the event where operational and strategic ones such as «how to». 
Lessons Learnt (2)

“Generally people were very interested to hear the experiences of other institutions who are further down the road.”

“Attendees appreciated hearing of the practical problems that may have been encountered and how speakers adopted a realistic approach to sharing their experiences.”

“Livestreaming of the event considerably increases the audience of the event.”
Lessons Learnt (3)

“Take-up for the events was excellent, although there were several 'no shows' and last minute cancellations to the workshops. This can often be the case for free workshops as delegates sometimes don't value their place as much as they would do if it was 'paid for'.”

“Researchers sometime prefer online trainings (less constraining in time and travel).”
Recommendations

• Graduate schools to catch up on Open Science training
• Coordination and combination with research integrity training highly recommended
• Every data-related and e-infrastructure project or initiative should have a strong training component in cooperation with other RIs and projects like FOSTER to avoid duplication of effort, creating unnecessary differences in approaches between domains, to identify and champion good practice across disciplines, and to fill gaps.
Recommendations (2)

• Develop into a network of training hubs

• Expand train-the-trainers approach to facilitate a network of trainers across sub-topics of open science

• Tap into students organizations
Get your feet wet in Open Science!

Running an Open Science Workshop at the University of Helsinki

Kimmo Koskinen
Helsinki University Library
OPEN SCIENCE WORKSHOP
20.10.2015
MINERVA PLAZA
UNIVERSITY OF HELSINKI
#oaweek @hulib
#fosteropenscience
# Open Science Workshop

**20.10.2015**  
**Minerva Plaza**  
**University of Helsinki**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Details</th>
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<tbody>
<tr>
<td>9:30</td>
<td>Registration starts</td>
<td></td>
</tr>
<tr>
<td>10:00</td>
<td>Opening of the Workshop</td>
<td></td>
</tr>
<tr>
<td>10:00-10:45</td>
<td>Presentations</td>
<td>Introduction to Open Science and Horizon 2020</td>
</tr>
<tr>
<td>10:45-11:00</td>
<td>Presentations</td>
<td>Data Management Support for Pan-European Research Communities</td>
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<tr>
<td>11:00-11:15</td>
<td>Presentations</td>
<td>Zenodo and the Data Seal of Approval</td>
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<tr>
<td>11:15-11:30</td>
<td>Presentations</td>
<td>Data management support for open science</td>
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<tr>
<td>11:30-12:00</td>
<td>Lunch break</td>
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<tr>
<td>12:00-12:40</td>
<td>Workshops</td>
<td>Present your own research topic and data</td>
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<td>12:40-13:00</td>
<td>Workshops</td>
<td>Make your own research papers via TUHAT with university data policy</td>
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<td>13:00-13:20</td>
<td>Workshops</td>
<td>Self-archive booth: Research funding and open access</td>
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<td>13:20-13:40</td>
<td>Workshops</td>
<td>Information booth: Research data and open access</td>
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<td>13:40-14:00</td>
<td>Workshops</td>
<td>Make a data management plan</td>
</tr>
<tr>
<td>14:00-14:20</td>
<td>Workshops</td>
<td>Repositories, Metadata, Licences, ORCID, IT Options</td>
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</tbody>
</table>

**Nearby**

- Marian Heimi
Features of the workshop

- Contribution to the International Open Access Week
- Designed in cooperation with doctoral programmes at the University of Helsinki
- 78 participants at the Minerva Plaza venue
- Organized by a team from Helsinki University Library
- Support from FOSTER for speakers from abroad
- Visiting speakers: Ivo Grigorov and Lars Holm Nielsen
Our guest speakers
Afternoon workshops

- Present your own research topic and data
- Make a data management plan
- Self-archive your own papers via TUHAT research information system
- Information booth: Research funding and university data policy
- Information booth: Research data and open access
Present your own research topic and data

Consolidate your open science efforts with an ORCID profile
More workshops...

- Find the most suitable data repository
- Describe and share research data
- Consolidate your open science efforts with an ORCID profile
- Explore licenses for open data
- Get to know IT options for data storage in the University of Helsinki environment
TUHAT

Self-archive your own papers via TUHAT research information system

IT-OPTIONS

Get to know IT options for data storage in the University of Helsinki environment
Experience of the organizer

• Planning for the event started 12 months in advance
• The aim was to have hands-on workshops using a special learning environment (Minerva Plaza)
• Lots of details to take care for the organizing team
• Five parallel workshops was a challenge to arrange
• The team was motivated to work as a self-organizing network
Experience of the participants

• Very positive feedback
• Hands-on workshops were well received
• “Really excellent seminar day. One of the best ever & I’ve been to a few. Just right at current point of my research”.
• Presentations, interviews, photos and videos from the workshop at the wiki page of the event
• A summary of the event at the FOSTER web site
Thank you! Questions?

www.fosteropenscience.eu

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