

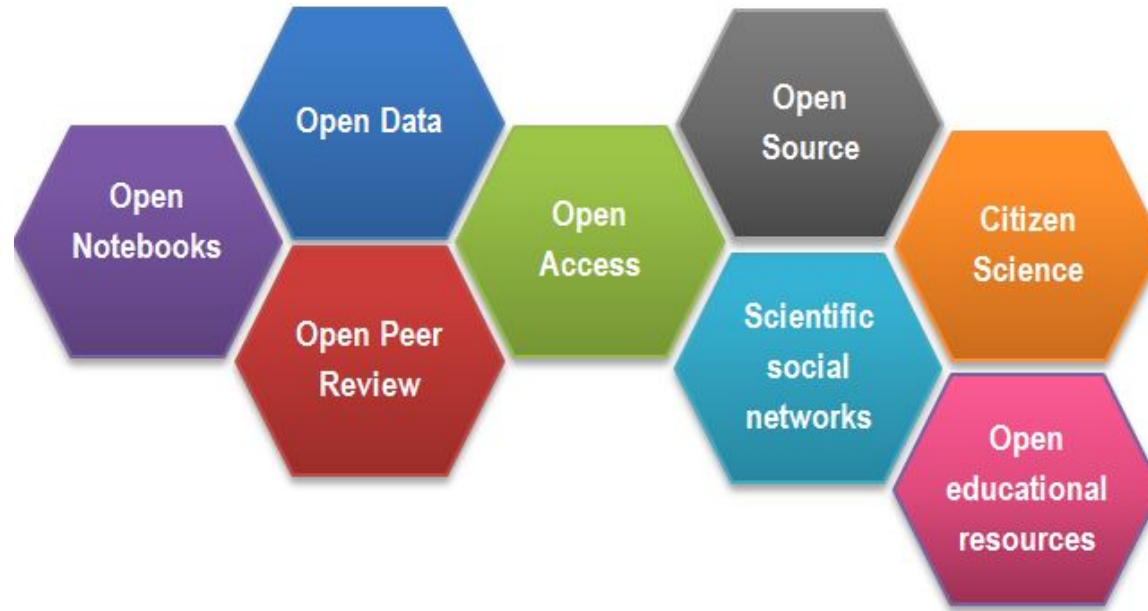


Sustainable infrastructure for open learning in the European Open Science Cloud: the EOSC Synergy project

Helen Clare, EOSC Synergy WP6.2 Task Leader
Senior e-infrastructure strategy manager (skills)



Open science



“Open science facets as a beehive”
www.fosteropenscience.eu/node/1420

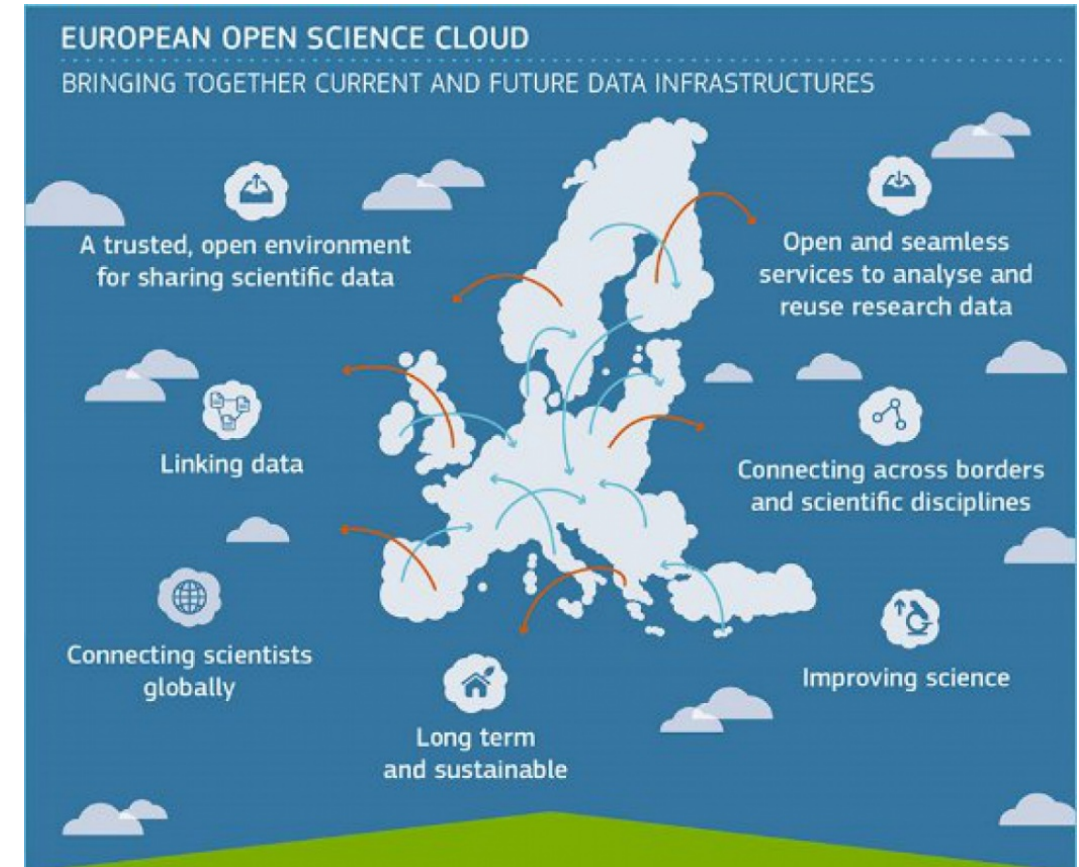
“Open Science is frequently defined as an **umbrella term** that involves various movements aiming to remove the barriers for sharing any kind of output, resources, methods or tools, at any stage of the research process.”

The European Open Science Cloud (EOSC)

Enabling the digital transformation of research: towards more of data-intensive, collaborative and cross-disciplinary science

“A process not a project” – EOSC Declaration

“Holy Trinity of data, services and training” – Cees Hoff, DANS



ec.europa.eu/research/openscience/index.cfm?pg=open-science-cloud

EOSC values

Focused on research needs

Community-driven


Inclusive and respectful of diversity

Accessible to all from large equipment, large computers & 'big data' to 'small data' and long-tail research

Open by default – closed where necessary


Hands-on and participatory

Transparent and trustworthy

Findable 

Accessible 

Interoperable 

Reusable 

www.force11.org/group/fairgroup/fairprinciples

[EOSC Strategic Implementation Plan, June 2019](#)

The skills gap

In 2016 the report Realising the European Open Science Cloud identified 10 challenges and general observations, three of which highlighted a need for relevant skills:

- “There is an alarming shortage of data experts both globally and in the European Union.
- This is partly based on an archaic reward and funding system for science and innovation, sustaining the article culture and preventing effective data publishing and re-use.
- A lack of core intermediary expertise has created a chasm between e-infrastructure providers and scientific domain specialists.”

Realising the European Open Science Cloud (2016)

https://ec.europa.eu/research/openscience/pdf/realising_the_european_open_science_cloud_2016.pdf

**"500,000 data scientists
needed in European open
research data"**

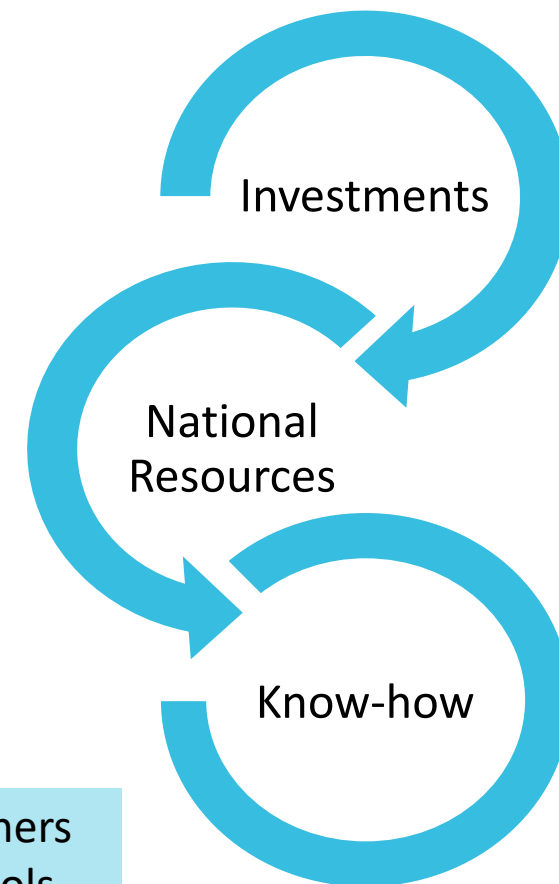
EOSC Synergy project

Expanding the capacity and capabilities of EOSC by leveraging the experience, effort and resources of national publicly-funded digital infrastructures.

Sept 2019 - March 2022

“EGI and EOSC-Synergy join forces to tackle COVID-19” The portal is an open lab for researchers that want to run their experiments without the burden of downloading data and installing tools, with easy tools for sharing data, workflows and results.

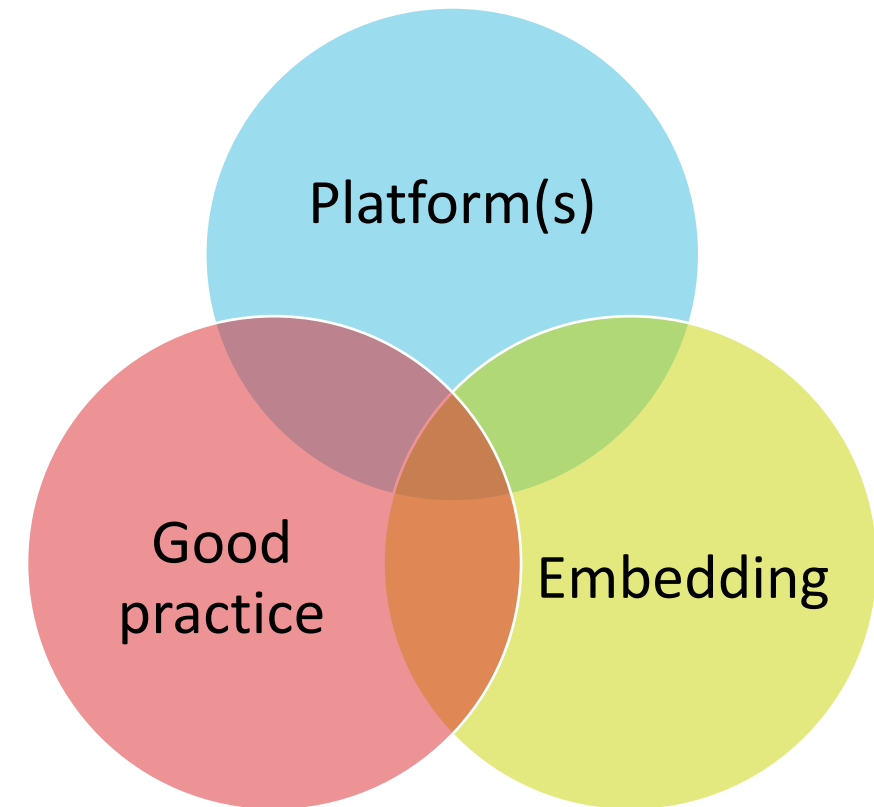
<https://www.egi.eu/news/egi-and-eosc-synergy-join-forces-to-tackle-covid-19/>



Training and skills in EOSC Synergy

Building capability and capacity to support open science training delivery

- Provide online platforms for content creation/hosting of training material and running hackathons
- Provide guidance and resources to support trainers in the best use of these platforms and to create quality resources
- Create a means of demonstrating quality through an accredited trainer program
- Work with national academic institutions to embed skills and resources
- Create guidelines to publicize and improve visibility of training materials



Work so far...

- Talking to a lot of people!
- Review of open science projects and initiatives
- Reviewing open platforms and online learning trends
- Initial selection of platforms based on EOSC values



PARTHENOS



Platforms and trends in online learning

- There are many types of MOOC - an approach not a platform
- Feature creep - learning platforms have more & more features
- Suites of tools rather than a single monolithic platform
- Rise of Teams - many learning platforms producing apps to work with Microsoft's Open API
- Social learning
- Interoperability and standards important
- Analytics - tracking usage but concerns around privacy, GDPR
- Personalised learning environments
- Badges / accreditation
- Gamification

Observations from review of initiatives

- Three main areas of focus:
 - Train the trainer approach (but mainly for f2f delivery)
 - Collections of training materials (usually PowerPoints)
 - Training communities
- Online delivery
 - Not much focus on structured online learning
 - Mainly sharing workshop resources, some webinars
 - Moodle dominant
 - Standard set of features used: content sequencing / lesson delivery, basic assessment and certification, embedded media, and communication channels
 - Use of a range of tools, with LMS used for limited features and as the presentation layer (Open Science MOOC)

What did this mean for Synergy?

- Train the trainer approach for online learning in open science is needed
- Many initiatives are tied to subject communities – we could fill a gap
- Most suited platforms based on EOSC values
 - Moodle, OpenEdx, Sakai, Canvas, Chamilo
 - FOSTER, Up2U (“containerized” education)
- An open learning platform is needed

UP²U Up To University



<https://up2university.eu/up2universe/>



Teaching practices & values of Open Science and Scholarship needs open infrastructure!

Posted on September 03, 2019 by Tobias Steiner in community

Next steps (or so we thought)

- Detailed user needs analysis, use cases and development of personas
- Develop the content for the train the trainer programme for July 2020
- Looking beyond open science initiatives to related relevant contexts eg computing / data science teaching
- An iterative/agile approach to development of the platform
- Define the tool stack needed as part of the user consultation and customise this for open science
- Select standards and metadata schema for discovery and interoperability of learning content

And now...

Everyone has moved online!

Everyone is sharing tips and good practice

Everyone now has a platform



THE
CARPENTRIES

Tips for Teaching Online from
The Carpentries Community

openUp2U

The open version Up2U learning environment is available to all educational institutions in Europe in order to enhance online learning in these extreme times.

<https://up2university.eu/open/>

Where does that leave Synergy?

Platforms

- Continuing with agile approach
- Focusing on interoperability and reuse of content

Train the trainer

- Gathering stories from OS context
- Collaborating even more (globally)
- Beyond 'emergency' delivery
- Long term impacts of recent change

Bruno Latour

What are the activities now suspended that you would like to see not resumed?

Which of the now suspended activities would you like to develop/resume or even create from scratch?

<http://www.bruno-latour.fr/node/852.html>

Frances Bell

10:52 AM

I think those are typically tough academic questions



Maybe we should just tell our stories and work out the significance later

(My notes and clips from the OER20 welcome session, 01.04.20)

Now what?

Where can Synergy add value?

Are open learning platforms needed?

What can we learn from the OER community?

Report and article coming soon

Questions, comments & suggestions welcome!



Dr. Donna Lanclos
@DonnaLanclos

I think it's still worth keeping in mind the trauma being experienced by people in this pandemic, and what the strength of their desire will be to distance themselves from things they had to do (eg teach and learn online) during the trauma.

4:31 PM · Apr 1, 2020 · [Twitter Web Client](#)

Get in touch:

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