POSTER ABSTRACT

Open Science as-a-Service for research communities: OpenAIRE-Connect project

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OpenAIRE-Connect fosters transparent evaluation of results and facilitates reproducibility of science for research communities by enabling a scientific communication ecosystem supporting exchange of artefacts, software, packages of artefacts, and links between them across communities and across content providers. To this aim, OpenAIRE-Connect will introduce and implement the concept of **Open Science as a Service** (OSaaS) on top of the existing OpenAIRE infrastructure[1], by delivering out-of-the-box, on-demand deployable tools in support of Open Science.

OpenAIRE-Connect[2] will realize and leverage the uptake of two new services that build on and extend the existing OpenAIRE technical and networking infrastructure, to stimulate a technical and cultural shift towards a scholarly communication ecosystem supporting more effective/transparent evaluation and reproducibility of research results. The OpenAIRE-Connect services are being conceived to contribute to the realization of a **common scientific communication ecosystem in support of Open Science publishing principles**.

OpenAIRE-Connect will operate two OSaaS services: the first will serve **research communities** to (i) publish research artefacts (packages and links), and (ii) monitor their research impact. The second will engage and mobilize **content providers**, and serve them with services enabling notification-based exchange of research artefacts, to leverage their transition towards Open Science paradigms. Both services will be served on-demand according to the OSaaS approach, hence be re-usable by different disciplines and providers, each with different practices and maturity levels, so as to favor a shift towards a uniform cross-community and cross-content provider scientific communication ecosystem.

This poster outlines the results of the development of the OSaaS **tools for research communities**, highlighting disciplinary **use cases of the OpenAIRE dashboard for Research Communities**.

The OpenAIRE Research community services are being developed in OpenAIRE-connect with the support of some key stakeholders from forward-looking research communities: **Earth and Environmental Sciences** (Pangaea and Atlas community), **Cultural Heritage and Digital Humanities** (the PARTHENOS research infrastructure), **Neuroinformatics** (France Life Imaging

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[1] Open Science Infrastructure for Research in Europe – http://www.openaire.eu
[2] https://www.openaire.eu/connect

national infrastructure**), Fisheries and aquaculture management** (the BlueBridge and MARBEC infrastructures), **Environment & Economy** (national/EU node of the United Nations Sustainable Development Solutions Network).

Several components of the production system of the existing OpenAIRE infrastructure are being extended or adapted to support the OSaaS tools for research communities developments: i) the **OpenAIRE data model** has been extended for the representation of artefacts different from publications and datasets, as software and other research products; ii) the **interactive mining platform** is being developed for configuring text mining algorithms to identify links from literature, datasets and software to research communities; iii) **OpenAIRE back-ends and Zenodo repository software** (Invenio) are being upgraded according to the data model extension.
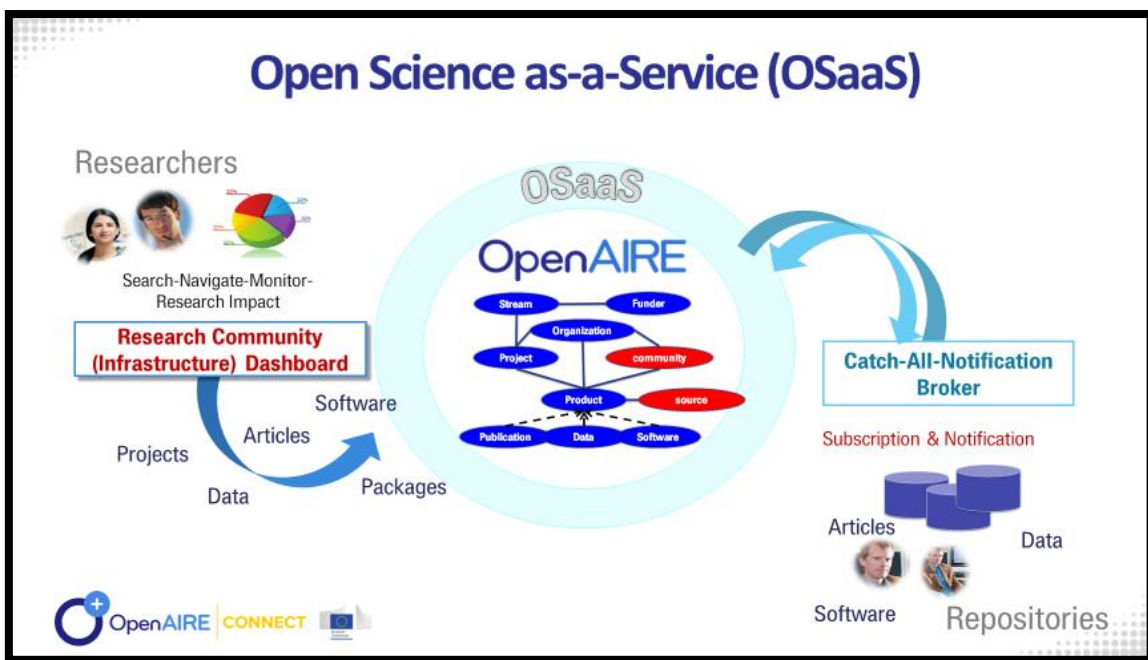

Figure 1 - OpenAIRE-connect services