RESEARCHERS IN MOTION

Quarterly Newsletter Issue 1 2022

EURAXESS North America

This newsletter is also intended as a communication tool with you all, so please do not hesitate to contact us at NorthAmerica@euraxess.net f or comments, corrections, or if you want to advertise a particular funding scheme or event.

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EURAXESS North America Team

Dear Friends and Colleagues,

Reflecting on 2022 so far, we are pleased to see growing interest in Horizon Europe and continued attendance at webinars and, increasingly, in-person activities. We invite you to reach out to us if you'd like us to present remotely or on-site to highlight research, funding, hosting, and job opportunities in Europe, build a custom event and bring in relevant stakeholders, or otherwise help further connect your community to Europe. As we look to summer, we hope to build out more events and contribute to transatlantic knowledge networks.

The first three months of the year saw the first European Scientific Diaspora, or ESD, quarterly networking meeting, which we look forward to continuing. We welcome your input to help make it a successful series that is of use to the researchers who are members of these networks, the leaders who run them, and all who want to develop ties to those countries.

We are excited to share an article below on *open science*, which will be followed next quarter with a piece on *fair data*. Please read on and get in touch with us to let us know how we can support your research career!

–Your EURAXESS North America Team

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1 Open to Learn

Where open science meets the world of learning

What is open science?

"Open science is the movement to make scientific research and its dissemination accessible to all levels of society, amateur or professional. Open science is transparent and accessible knowledge that is shared and developed through collaborative networks." (Wiki)

"Open science is based on the principle of openness and transparency in the whole research cycle, fostering sharing and collaboration as early as possible. Open and transparent practices accelerate the research process at an unprecedented speed and they reinforce core academic values, such as research integrity, cooperation and knowledge sharing. Open science is also key to increasing public trust in science and as a means to spark interest and foster the public's participation in research activities."

(European University Association)

The main feature in this edition of EURAXESS Worldwide newsletter explores the nexus between open science developments and its important links with the global learning environment. We outline the EU's open science policy ambitions and approaches under major research programs and introduce readers to a planned new learning management system by the OpenAIRE portal.

Emerging out open-source software and IT developments, scientific, learning and publishing communities today have become the vanguard of a growing movement that seeks to promote democracy through unobstructed access to information.

It is a grand vision which somehow helps us understand the power of emotions that open-access evokes within the scientific community and beyond. Open-science and open-learning principles are now firmly grounded in public policy and spurred on by rapid developments in the digital sphere, including numerous cloud facilities, massive advances in online learning tools and courses, such as MOOCs, and myriad other platforms and services – both public- and private-backed – to meet the growing demand for sharing and learning all manner of subjects including science.

Tackling misinformation about COVID-19 has further underlined the importance of up-to-date scientific data delivered through reliable channels by respected people – often the researcher or scientist him- or herself. The public has also recognized the power of collaboration and co-creation in developing rapid solutions to the pandemic, from novel vaccines to advanced testing and containment regimes.

The EU's current flagship research program, Horizon Europe, has been called the "most open" to date. Its main pillars prioritize i) excellent science, scientists and infrastructure, ii) global challenges and European industrial competitiveness, and iii) innovation drivers. Cross-cutting actions explore ways to boost the European Research Area (ERA) through stronger international linkages. And here, EURAXESS and its Worldwide hubs play a major role in promoting the program and its principles of open science, open movement, and the freedom to promote positive scientific developments.

Horizon Europe includes a pre-condition requiring funded researchers/organizations to pursue open science practices. This means "sharing research outputs as early and widely as possibly", but also encouraging citizen science, wide public consultation, and co-creation in

research developments. It also calls for new indicators aimed at evaluating research impacts and rewarding researchers.

The program stresses that funded researchers or their organizations retain the intellectual property rights they need to comply with their open access obligations. And it requires research data to be "open by default" while considering commercial rights, where relevant.

The EU-backed European Open Science Cloud (EOSC) helps European and international researchers meet growing demands for open science collaboration, and platforms like OpenAIRE, PLOS and other channels make up a growing ecosystem of democratic open-access research publishing and information-sharing services that empower researchers.

With so much invested and resting on the shoulders of EU-funded projects, the EU is keen to track developments and progress in open science throughout Europe and among global partner countries. Its Open Science Monitor is building a solid database observing trends and indicators.

An open-spirited policy

The European Union has established itself as a pioneer and keeper of the faith through its well-developed open-science policies built around open data which is **f**indable, **a**ccessible, **i**nteroperable and **r**eusable (FAIR) and new-generation metrics to monitor and do justice to open-science practices.

The EU also promotes so-called "mutual learning exercises" to develop alternative metrics (i.e. 'Altmetrics') for specific research and innovation challenges of interest to several EU countries and associated countries, which typically draw on project-based exchanges of good practice and measure the qualities and impact of research outcomes, but also rewards for researchers to further engage in open-science activities.

A key pillar of open access is ensuring that research findings are not locked behind paywalls. Peer-reviewed scientific publications should be freely accessible and the EU encourages the "early sharing of different kinds of research outputs". It also wants to see research career evaluation systems better acknowledging and motivating the use of open-science tools. It believes that all publicly funded research in the EU should adhere to commonly agreed standards of research integrity, which means their R&I activities "should be reproducible", among other qualities.

The link to education and skills in all this clear, according to the EU: "All scientists in Europe should have the necessary skills and support to apply open-science research routines and practices." Co-creation comes in here too, with greater encouragement of citizen science a cornerstone of future

science data-gathering and observation in fields such as marine pollution monitoring and earth observation.

Other EU research-oriented programs and facilities are also highly attuned to open principles. The European Research Council's (ERC) mission is to foster new ideas and knowledge through excellent scientific findings, and thus having them published in peer-reviewed articles and monographs is critical. The ERC therefore considers that "free online access to these materials is the most effective way of ensuring that the fruits of the research it funds can be accessed, read, and used".

"Open Science has huge benefits, the more people you reach the better. Science should be as transparent and accessible as possible because it should be reproducible and confirmed by others, that is what gives science its power."

(Author testimony:

Elias Nerad on PLOS ONE)

Meanwhile, in another demonstration of open science, the Commission's Joint Research Centre (JRC) is known for opening its labs and facilities to people working in academia and research organizations, industry, and SMEs from both the public and private sectors. The EU Science Hub explains the JRC's reasoning for this and how 'open projects' work within its strategy and framework for wider access.

On its Science Connect website, the European Science Foundation (ESF) also promotes open science principles, which it explains form part of the Commission's responsible R&I approach under Horizon 2020's ERA undertakings. This, it points out, anticipates and assesses potential societal expectations and implications of science and stimulates inclusive and sustainable R&I from the design up. ESF thus stresses the importance not only of open science, research integrity and gender equality in research, but also the role of education and public engagement in "making science more attractive and increasing society's appetite for innovation". This, it believes, paves the way for stronger R&I foundations and a brighter future.

Also of interest to the EURAXESS Worldwide community is the course run by the EU Academy focused on maximizing science for policy impact. The online program explores the skills scientists need to better engage with policymakers: "Through sharing of state-of-the art knowledge, interactive games and best practice examples, this course outlines the skills scientists need for their research results to have a bigger impact on policy and society in general."

Openness to communicating scientific findings in ways that non-specialists can readily understand is at the center of democratic science. Modules in the course therefore include knowing how to engage the audience better, understanding how scientists and policymakers communicate and use language, as well as some tricks and tips for getting key messages across with confidence. It is 60 minutes well spent.

The move to open publishing is a natural co-evolution or coalescence of digital developments, public pressure for more scientific transparency, and a massive shift towards online working and learning.

For PLOS, which has democratized scientific publishing, open-access matters because "most publishers own the rights to the articles in their journals, not the authors". It means paying a fee to access them. While institutions and libraries do their best to facilitate access to such paywalled research, it often involves costly and timely negotiations.

"Even then, no part of the article can be reused by researchers, students, or taxpayers without permission from the publisher, often at the cost of an additional fee," PLOS explains on its site. Open access provides "immediate and unrestricted access" to the latest research, creating a more equitable knowledge system that "returns us to the values of science" in pursuit of a better society.

Open access training platform

The COVID crisis has heightened demand for online learning and the appetite for reliable up-to-date teaching content. This has created a boom in so-called "synchronous events" and webinars taking place over various platforms like Microsoft Teams, Google Meet, and Zoom. "However, synchronous teaching is not always possible or feasible and online tools provide a wealth of alternatives," explains OpenAIRE in its rationale for creating a new learning-on-demand training platform and learning management system (LMS).

OpenAIRE's mission is to "shift scholarly communication towards openness and transparency and facilitate innovative ways to communicate and monitor research". It provides services and policy-alignment support across Europe as a means of improving the quality, transparency and reproducibility of research, and its (re)use by industry and society.

To further its efforts to reach those goals, it has recently announced plans to create the new open-access Training Platform to support learning and development, and provide fresh training material for services offered through its community of users. Once up and running in the course of 2022, the system will bring together pre-existing content, such as the FOSTER Open Science courses and OpenAIRE's own guides. The idea is to better use current openly available content while developing customized material according to user needs.

As a community platform, OpenAIRE says it plans to allow externally hosted content, from video tutorials and interactive modules to lesson plans and templates for a range of scientific subjects: "We invite those that have training content that needs a home to get in touch!"

Plans for the LMS also include incorporating a web-conferencing system for synchronous learning, classroom-style sessions, and breakout rooms. "Taken together," OpenAIRE concludes, "the functionality and modes of learning will provide a wide choice for both the training providers and the learners."

More info

For more information about the new Training Platform, contact OpenAIRE's helpdesk and address your query to the Training Manager.

2 In case you missed it…

Recent and upcoming activities

While not a complete list, here are a few past and future virtual events of ours and close partners—watch the recordings and sign up to attend live on the event webpages below!

Event	When	Where	Organized by	URL
European Scientific Diaspora Networking Meeting Q1 2022	*10 February 2022*	*Virtual*	*EURAXESS North America*	*Link*
Bridging the Gender Employment Gap: Conversations on Women, Research, and Accessing Opportunities	*10 March 2022*	*Virtual*	*EURAXESS North America, the Marie Curie Alumni Association's North America Chapter, and the Immigrant and International Women in Science (IWS) Network*	*Link*
Virtual Coffee Chat with a Science Diplomat: France Interview	*20 April 2022*	*Virtual*	*EURAXESS North America and the Embassy of France's Office for Science and Technology*	*Link*
U.S. Residency Options for European Scientific Diaspora Researchers	*21 April 2022*	*Virtual*	*EURAXESS North America, the Hellenic Bioscientific Association of the USA (HBA-USA), and the Swedish Trans-Atlantic Researchers and Scholars (STARS) Network*	*Link*
European Research Day 2022	*10 May 2022*	*Virtual*	*EURAXESS North America and George Washington University's Institute for International Science and Technology Policy (IISTP)*	*Link*
European Scientific Diaspora Networking Meeting Q2 2022	25 May 2022	Virtual	EURAXESS North America	Link

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About EURAXESS North America

EURAXESS North America is a network of thousands of European and non-European researchers, scientists, and scholars throughout North America (USA and Canada). This multidisciplinary network includes members at all stages of their careers. It allows them to connect with each other and with Europe, ensuring that they are recognized as an important resource for European research, whether they remain in North America or return to Europe.

For further information about EURAXESS North America, please visit our homepage: http://northamerica.euraxess.org.

To sign up for free membership in our network, subscribe here.

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