eInfra Central

Newsletter, Issue 4
January 2019

Launch of The European Open Science Cloud

EUROPEAN OPEN SCIENCE CLOUD

The European Open Science Cloud (EOSC) was officially launched on 23 November 2018, during an event hosted by the Austrian Presidency of the European Union. The inauguration marked the conclusion of a long process of consultation and reflection with stakeholders led by the European Commission.

The event demonstrated the importance of EOSC for the advancement of research in Europe and introduces the new EOSC Portal. EInfraCentral's contribution to the EOSC is the all-inclusive catalogue of services and resources provided by e-infrastructures for the benefit of European research.

The launch event featured live demonstrations to showcase how researchers can interact with and benefit from the functionalities of the portal. The demonstrators, presented live and at the demo booth, cover a wide range of disciplines and user scenarios to show the many different user journeys through the portal.

All research communities, service providers and other entities with a stake in EOSC are invited to visit the EOSC Portal and explore how they can benefit from its functionalities.

The EOSC Portal is jointly developed and maintained by the eInfraCentral (731049), EOSC-hub (777536), EOSCpilot (739563) and OpenAIRE-Advance (246686) projects funded by the European Union's Horizon 2020 research and innovation programme with contribution of the European Commission.

75 new e-services and resources added by eInfraCentral building the EOSC Catalogue further

eInfraCentral warmly welcomes new services providers to the European e-Infrastructure Services Catalogue (eInfraCentral), which is building the EOSC Catalogue. Services and resources from Horizon 2020 funded projects AGINFRA+, BlueBRIDGE, CompBioMed, OpenMinTeD, PhenoMeNal, VI-SEEM, and WEST-LIFE as well as from the private service providers Exoscale, SixSq, T-System International GmbH are now part of this growing catalogue.

These services and resources join the offering from EGI, EUDAT / EPCC, GÉANT, PRACE and OpenAIRE / CNR – partners in the eInfraCentral project who jointly with other members of the consortium continue to perfect the way e-services and resources can be presented to the user communities.

More than 150 services and resources can be discovered and accessed through the catalogue and the offering is growing further. eInfraCentral encourages all providers of e-services (whether operating at European or national levels) to become part of the eInfraCentral community and benefit from access to an extended user base.

Since early November 2018, service providers are able to register, upload and modify their services through the REST API methods offered by eInfraCentral, thus making the synchronisation of content between SPs and eInfraCentral an automated process.

If you would like to find out more about the service registration process, do not hesitate to contact the team.

SAVE THE DATE! 20 June 2019, Tallinn

The eInfraCentral project is a key building block in the implementation of the European Open Science Cloud (EOSC) Portal. We invite all interested stakeholders – service providers, users and policy-makers – to the final project event on 20 June 2019 in Tallinn, Estonia.

We aim to ensure that the service catalogue developed through eInfraCentral will continue to develop and expand (in terms of number of services listed and active users) well beyond the end of the official project lifetime. Let's look at the key achievements of the project and discuss how to further leverage the service catalogue to support the future development of the EOSC.

Tallinn as a location was not chosen by accident and not only because TNC19 will be happening there the same week. Tallinn is one of the smartest city in Europe, revolving around three keywords: accessibility, interoperability, and user-friendliness. All what the eInfraCentral team and the project strove to achieve in building the EOSC Catalogue!

"A central service catalogue including all available services provided by the European e-Infrastructures is a key element for the development of the European Cloud Initiative,"

says Florian Berberich, Member of PRACE Board of Directors

What is PRACE's role in eInfraCentral?

PRACE, as the European HPC Infrastructure, is enabling high-impact scientific discovery and engineering research and development across all disciplines to enhance European competitiveness for the benefit of society. With our engagement in eInfraCentral we want to enhance the visibility and accessibility of e-infrastructure services in general. A central service catalogue including all available services provided by the European e-Infrastructures is a key element for the development of the European Cloud Initiative.

PRACE will also support eInfraCentral to develop a harmonised set of KPIs acceptable to e-Infrastructures stakeholders as a common base for describing and offering their services.

What is the role of PRACE in the European e-infrastructures arena and in the context of EOSC?

One of PRACE's mission is to promote HPC in Europe, thus we support the development of the EOSC and we will contribute to develop the HPC part in the EOSC. Since the access of the PRACE resources is peer review based, it is not evident that EOSC users can access these HPC services in the same way as other services with direct access. However, we are interested in finding solutions that may allow also access HPC via the EOSC in future. The establishment of the EuroHPC JU may give new opportunities also to engage with EOSC. With our engagement in the EOSC, we are also seeking for new user communities and application areas.

How do you see future provision of e-services and resources?

Scientific discovery is getting more and more complex and interdisciplinary. We think that connecting different e-services and resources including HPC will lead to new discoveries and will create completely new perspectives, especially in the context of dealing with big data sets. Of course, it is not evident, that users can access the very different services in a seamless way yet, and still a lot of work is needed to create unified access mechanism and common authentication, authorization and accounting procedures. eInfraCentral will be a significant support to the users providing them the knowledge about the different possibilities and options.

AAI for User management and SSO

In September 2018, eInfraCentral moved its user management services to AAI (Authentication and Authorisation Infrastructure) services thus making the lives of the e-infrastructure service providers and their various users easier. An AAI service enables an organisation to manage access to digital resources among its users, assigning authentication and authorisation to external identity providers. eInfraCentral employs the AAI services implemented for the EOSC Portal and integrates various AAI services and solutions, such as the EGI CheckIn, EUDAT B2ACCESS, GÉANT EduTeams, INDIGO IAM and EduGAIN.

The key advantages are:

- The whole European research community of researchers, service providers and policy makers can easily access the personalised features on the eInfraCentral portal via their institutional / organisational account and credentials.

- Make a use of social logins for users who do not have an institutional account possible. Soon, more identity providers will be added.

- A Single SignOn (SSO) functionality for users offers a way to seamlessly navigate around all current and future platforms, tools and services of the EOSC ecosystem and the EOSC Portal.

Introduction of the AAI for User management and SSO contributes to further building of an all-inclusive Catalogue of Services for EOSC offering both public – anonymous – and authenticated users a functionality to browse, search and compare listed services. Moreover, authenticated users can personalise their user experience and have access to advanced features such as rating and a personal portfolio of favourite services. Service managers are also offered with the Provider Analysis Dashboard, in which they can add, modify, activate/deactivate services and monitor the user response to their offerings in the portal through various indicators.

No need to sign up, no need for new credentials. Login via your organisational account at https://www.eosc-portal.eu or http://catalogue.eosc-portal.eu/home and become a member of the all-inclusive family of the European e-infrastructure services!

Rules of Participation in the Service Catalogue
Discussion at the 2nd Advisory Board meeting

The second meeting of the eInfraCentral Advisory Board was held on 8 October 2018 in Lisbon. The Board includes five leading experts whose main role is to provide insight and challenge conventional thinking on crucial aspects of the project. Together they bring e-infrastructure expertise, research as well as policymaking experience to eInfraCentral.

The Advisory Board members met with the consortium partners which presented progress in the project since the last meeting. The Board congratulated the eInfraCentral consortium on the work so far, especially in its efforts to build the Catalogue of Services for EOSC. One of the main discussion topic during the meeting was the Rules of Engagement of Service Providers. The definition and principles of the rules of engagement, application of these rules as well as incentives for service providers were discussed and a list of actions put together.

The key word in defining the Rules of Participation is *inclusiveness* and eInfraCentral team keeps this concept close in their work. Building the all-inclusive Catalogue of Services for EOSC increases visibility of various service providers and helps the researchers, innovators, data science practitioners and other users find, compare, select and ultimately access e-Infrastructure services.

Did you know?

- The latest version (v1.12) of the standard Service/Resource Description Template is available at Gitbook (PDF/MS Word format).
- If you are a Service Provider and want to go directly into action, an authorised representative of your SP could login/register via our AAI.
- More than 250 services and resources in 155 entries of 15 SPs from the public and private sector are currently available in the eInfraCentral Catalogue.
- The catalogue of services/resources created through eInfraCentral constitutes the EOSC Catalogue, part of the EOSC Portal.
- Among the six new Research Infrastructures (RI) added to the ESFRI 2018 Roadmap at least one has a clear e-element. METROFOOD-RI consists of a physical and an electronic infrastructure. The e-RI will make available an access platform to share and integrate knowledge and data on metrological tools for food analysis.
- According to the e-IRG Knowledge Base, up to now more than 600 million Euro funding from H2020 has been invested in e-Infrastructure related projects.

Recent key events in Europe

International Conference on Research Infrastructures ICRI2018 | Vienna, Austria | 12-14 September 2018

The International Conference on Research Infrastructures (ICRI) 2018 was organised in the framework of the Austrian Presidency of the Council of the European Union in Vienna. Participants and speakers from all continents attended this event. During the conference the recommendations of the ICRI2016 were confirmed and it was underlined that these recommendations are still valid. Research Infrastructures have impact on innovation and economy and thus on the development of the society.

Research Infrastructures are planned to operate for decades and thus a sustainable operation and an alignment of funding instruments is important. This long period from planning to operation requires reactivity and flexibility to scientific as well as political developments to stay at the forefront of their scientific domain and maintain scientific diversity and excellence. With regard to the open approach the concept of reciprocity was repeatedly underlined.

In parallel sessions topics like the need for developing a shared vision on global research infrastructures, the need for increasing the visibility of European Research Infrastructures and their services, the conditions for transnational access and sharing of results, the development of human resources and skills, fostering diversity and overcome inequalities in all facets and the enhancement of the societal value of Research Infrastructures were discussed. The report on the outcome of the ICRI2018 is still under preparation.

European Science Foundation workshop "Challenges for the European Research Area" | Florence, Italy | 3 October 2018

Experts of different domains came together to discuss, exchange and debate critical subjects for the European Research Area, such as mission-based approaches in the forthcoming Horizon Europe programme, current trends in merit-based scientific review, and Open Science. Among the topics under the Open Science theme were collaboration and sharing of services and resources of Research Infrastructures (RI); a link between such sharing, more technological and scientific breakthroughs and higher socio-economic impacts; a need to re-think incentives and rewards for researchers and RIs when engaging in an Open Science environment.

DI4R 2018: Serving the User Base | Lisbon, Portugal | 9-11 October 2018

Jointly organised by EOSC-hub, GÉANT, OpenAIRE and PRACE, this conference had sessions, posters and networking opportunities for Europe's researchers, developers and service providers. All created in order to brainstorm and discuss how best to serve the user base. The work of eInfraCentral was presented in several sessions: "EOSC Service Architecture: how the services

could support the use communities", "Rules of Participation for EOSC", "Shaping the EOSC service roadmap: what users need", "EOSC from Theory to Practice", and "Innovation for Open Science with SMEs".

ESFRI Workshop "Monitoring of RIs, periodic update of Landmarks, use of KPIs" | Milan, Italy | 19-20 November 2018

The European Strategy Forum on Research Infrastructures (ESFRI) organised this dedicated workshop to address the need to develop a proper methodology for the periodic update on the State of Play of ESFRI Landmarks and to foster their long-term sustainability. It drew from the Pilot Periodic Review Exercise carried out with 4 Landmarks and considering EU Council Conclusions of 29 May 2018. These mention ESFRI as the strategic forum to develop a common methodology for monitoring RIs and stress ESFRI role in the development of the EOSC.

In this workshop PRACE participated in the panel session "FAIR + R and EOSC-readiness implications on RIs performance and sustainability". It served to understand that FAIR+R data principles impact the services that RIs provide, and each RI can only act in certain steps of the data pipeline. This high diversity needs to be properly considered in the future monitoring of Research Infrastructures and in the implementation of FAIR+R principles.

The results of the workshop will feed into the activities of the ESFRI ad hoc Working Group on Monitoring of Research Infrastructures Performance, also in view of interacting with the European Commission High Level Expert Group on assessment of the progress of ESFRI and other World Class Research Infrastructures towards implementation and long-term sustainability.

The recording of the workshop can be viewed here.

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e-IRG workshop | Vienna, Austria | 20-21 November 2018

The second e-IRG workshop in 2018 was organised under Austrian Presidency of the Council of the European Union. During the first session the Go-FAIR initiative and its approach beyond regional open science initiatives was presented by Prof Barend Mons, who underlined the importance of machine actionable data on the example of the Personal Health Train that could lead to important improvements in the health sector. Prof Roberto Barbara reported about projects which are taking up the concepts of Open Science and the European Science Cloud in Africa to develop science and research in different African countries. Mrs Fidel Rahel from the Ethiopian Ministry of Innovation and Technology presented the development of an African Open Science Cloud.

During the second day the preliminary outcome of the e-IRG activity on National Nodes as building blocks for the European Open Science Cloud was presented. The first analysis showed that there are some good examples for national and regional coordination of different e-Infrastructures like the Italian initiative ICDI and the Nordic e-Infrastructure Collaboration (NeiC). Also a presentation of the German initiative towards a national research data infrastructure was given.

2nd EOSC Stakeholder Forum: Shaping the Future of the EOSC | Vienna, Austria | 21-22 November 2018

The 2nd EOSC Stakeholder Forum brought together researchers and provider of e-Infrastructures. During the forum a broad spectrum of EOSC-related topics were discussed. The adoption of EOSC principles through projects from various disciplines like the Life Sciences, Social Sciences, Earth Sciences and Physics and Astronomy were presented. A workshop for scientific communities addressed the specific user needs and opportunities to define the EOSC service roadmap. Also, the topic of the implementation of FAIR data principles were discussed.

EOSC Launch | Vienna, Austria | 23 November 2018

The week that has started with the e-IRG workshop and the 2nd EOSC Stakeholder Forum reached its peak with the official launch of the European Science Cloud. In the magnificent environment of the library of the university of Vienna representatives of Bulgarian, the Austrian and the Romanian EU Presidency read the Declaration of the European Open Science Cloud that highlights the most important steps and commitments, agreed upon by the Member States. The appointed representatives of the EOSC Governance Board and the Executive Board were officially announced and the EOSC Portal that incorporates the service catalogue as substantial contribution from eInfraCentral was presented. The launch of the European Open Science Cloud was buoyantly closed by two saxophone players performing the European anthem from Ludwig van Beethoven "Ode to Joy".

Symposium "Open Science in the Greek Research Ecosystem: Research Data, Procedures and Collaborations" | Athens, Greece | 29-30 November 2018

The Research Center "Athena" organised this symposium in the framework of the European projects OpenAIRE, infrastructure for Open Science in Europe, and the RDA Europe 4 (the European plug-in of Research Data Alliance, RDA). The eInfraCentral catalogues of e-services and resources, being the catalogue of the EOSC Portal, was presented in an interactive hands-on attended by the national service providers who wish to include their services in the catalogue.

Save the date!

Some of the events of possible interest to you, as the community, are listed below. Come and meet our various Consortium partners to find out more and contribute to the development of the service catalogue and the EOSC Portal.

Winter 2019

- TF-CSIRT 56, 21-23 Jan 2019, Tallinn, Estonia
- ESFRI RIs-EOSC liaison workshop, 30 January, London, UK
- TIIME Workshop, 11-14 Feb 2019, Vienna, Austria
- SIG-MSP meeting, 5 Mar 2019, Nicosia, Cyprus

Spring 2019

- EOSC-hub Week 2019, 09-12 April 2019, TBC
- EGI Conference 06-08 May 2019, Amsterdam, Netherlands
- PRACEdays19

Summer 2019

- TNC2019 – Forging Digital Societies, 16-20 June 2019, Tallinn, Estonia
- eInfraCentral Final Project Event, 20 June, Tallinn, Estonia

More information on the planned events will be available on our website and on Twitter.

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