Building National Initiatives for Open Science: NI4OS-Europe

ESOF2020 - Euroscience Open Forum, Trieste 5-9 July 2020

Dr. Ognjen Prnjat, Director of European Infrastructures and Projects,

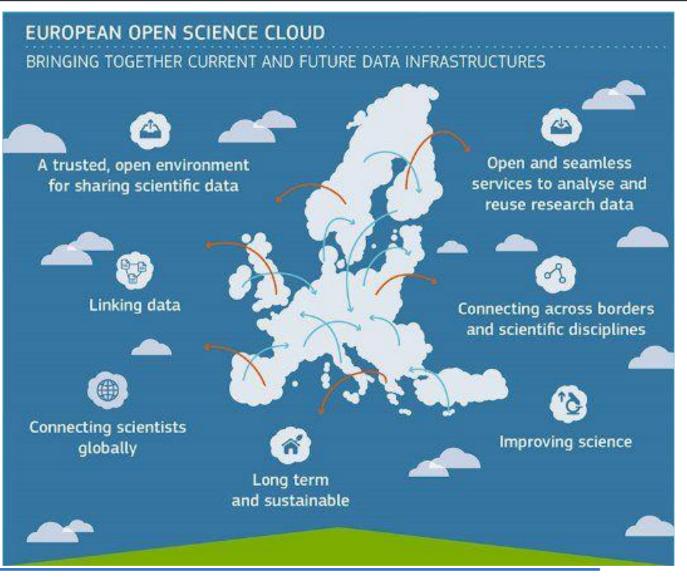


European Open Science Cloud



- The role of the EOSC is to ensure that European scientists reap the full benefits of data-driven science, by offering:
- "1.7 million European researchers and 70 million professionals in science and technology a virtual environment with free at the point of use, open and seamless services for storage, management, analysis and re-use of research data, across borders and scientific disciplines"

2016 Communication on the "European Cloud Initiative"



Project administrative summary

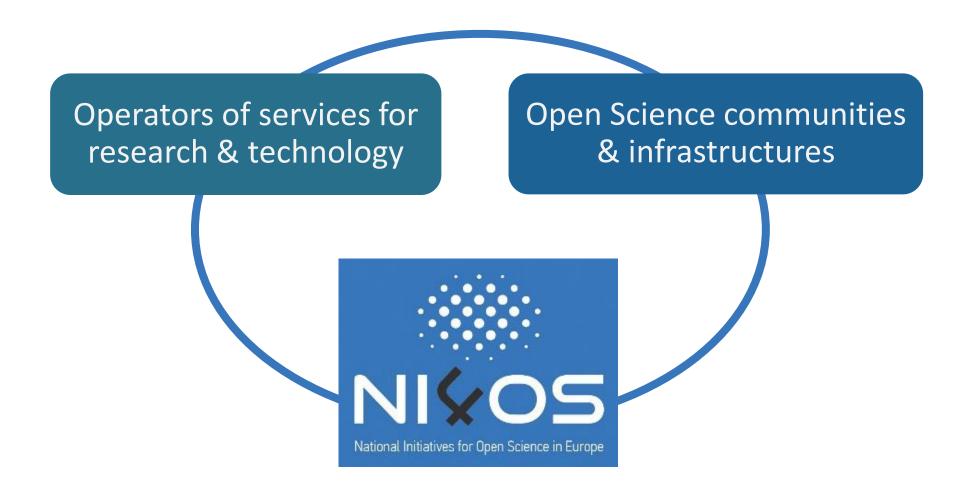


- Name: National Initiatives for Open Science in Europe
- Acronym: NI4OS-Europe (pronounced "NIFOS")
- Call: INFRAEOSC-05 (b) Coordination of EOSC-relevant national initiatives across Europe and support to prospective EOSC service providers -Research and Innovation Actions
- Grant number: 857645
- □Amount of EC funding 5,599,475e
- 22 Partners from 15 countries



Partnership building blocks





Partnership



National Infrastructures for Research and Technology SA	GRNET	Greece				
	ATHENA	Greece				
The Cyprus Institute	CYI	Cyprus	gr net	grnet ATTENA' INSTITUTE	University of Cyprus	
University of Cyprus	UCY	Cyprus		Research & Research Information Technologies		
Institute of Information and Communication Technologies	IICT	Bulgaria				
SRCE - University of Zagreb, University Computing Centre	SRCE	Croatia	~~~		100	<i></i>
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Governmental Agency for IT Development	KIFU	Hungary				
University of Debrecen	UD	Hungary				[]
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Mission



Support

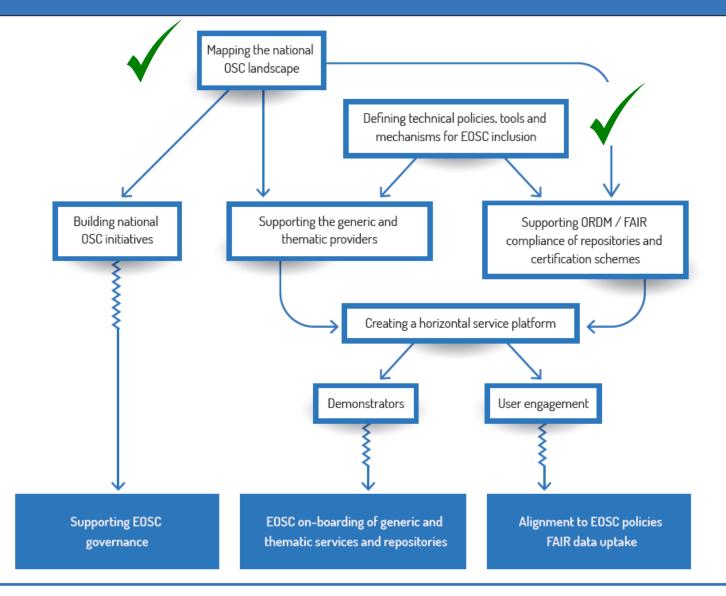
the development and inclusion of the national Open Science Cloud (OSC) initiatives in 15 Member States and Associated Countries in the overall scheme of EOSC governance



Provide technical and policy support in onboarding of the existing and future service providers into EOSC

Methodology





EOSC national initiatives and policy support (WP2)





²Strengthen the national Open Science ecosystems, enhance regional representation in the pan-EU initiatives, and support alignment of policies and practices for RRI, Open Science and FAIR data with the EOSC

Support the EOSC Governance structure by forming 15 national OSC initiatives in partner countries

Support the building of sustainable pan-European EOSC governance by engaging the national initiatives

Provide **support and interface** to other EOSC-relevant bodies

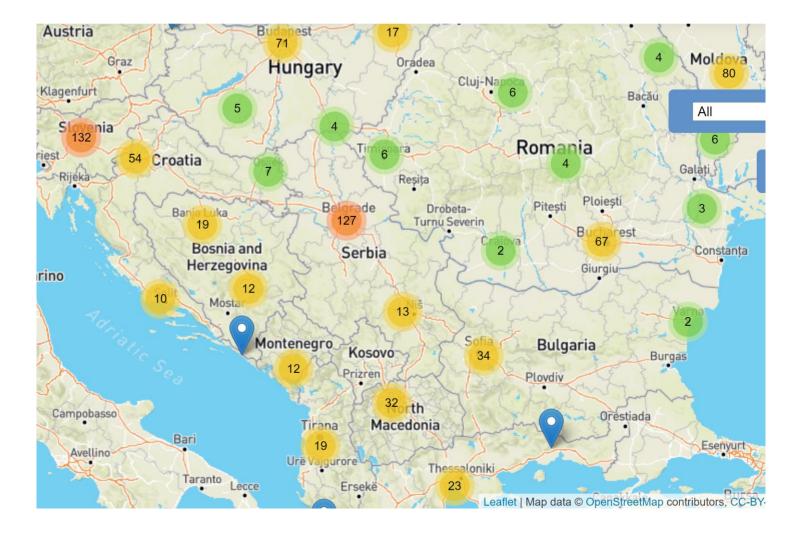
Reduce **fragmentation** and promote federation on national level

Prepare the ground for EOSC **on-boarding**

Open Science stakeholders map (WP2)



- Existing OS stakeholders in SEE
- Clustered on the basis of their role in important Open Science functions, i.e. funding, creating, supporting, consuming and facilitating OS.
- Result of NI4OS-Europe landscaping activity
- Supports filtering per country and stakeholder group
 1010 stakeholders

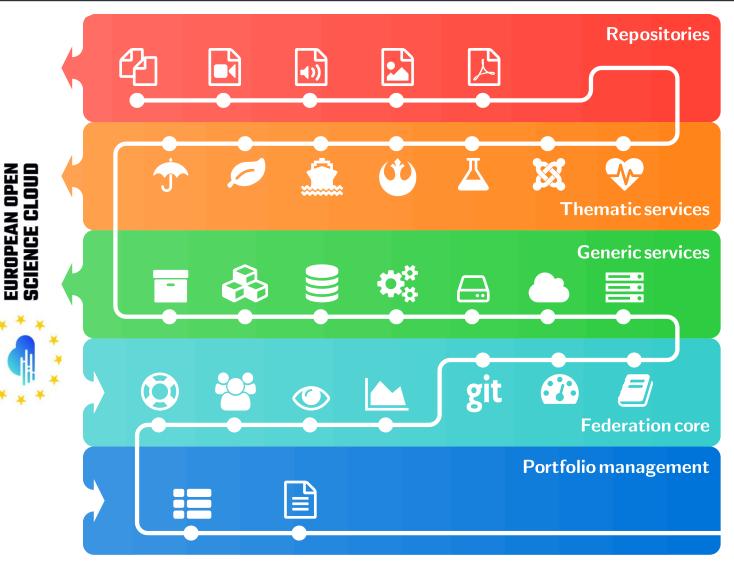


Service integration and onboarding (WP3, WP5)



NI4OS-Europe onboarding includes:

- Pre-production environment to prepare for the onboarding process (validating readiness and maturity level)
- Inclusion in the service and portfolio management system / service description template
- Integration with the federation core services (AAI, monitoring, accounting, etc.)
- Integration with generic services (HPC, HTC, cloud, storage, etc.)
- Usage of the thematic services
- Inclusion of repositories



EOSC generic services (WP5)









EOSC thematic services: examples (WP5)



<u>ChemBioServer</u>

Service for filtering, clustering and visualization of chemical compounds used in drug discovery

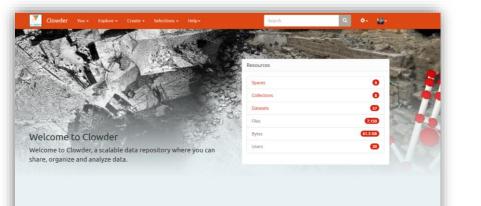
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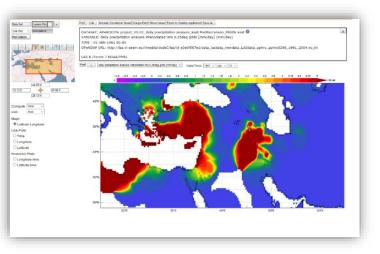
DCH Clowder

A Digital Culture Heritage repository which also offers integrated interactive visualization tools

Live Access Server

A web server providing flexible access to geo-referenced scientific data, offering visualization & post-processing capabilities for climate data





EOSC repositories: actions (WP5)





□ Type of repository (CRIS, registry, database, etc)

Maturity (in beta vs in production; maintenance, software versions)
 Types of content/ data (literature, data, OER, digitisations, etc)
 Services integrated (internal vs external; PIDs etc)
 Best practices adoption (Open & FAIR, policy, training)

□ Enhance discoverability (indexed by registries)

 Contribute to OpenAIRE/ EOSC Research Graph (OpenAIRE compatibility; information contextualisation)

Enrich collections (Broker)

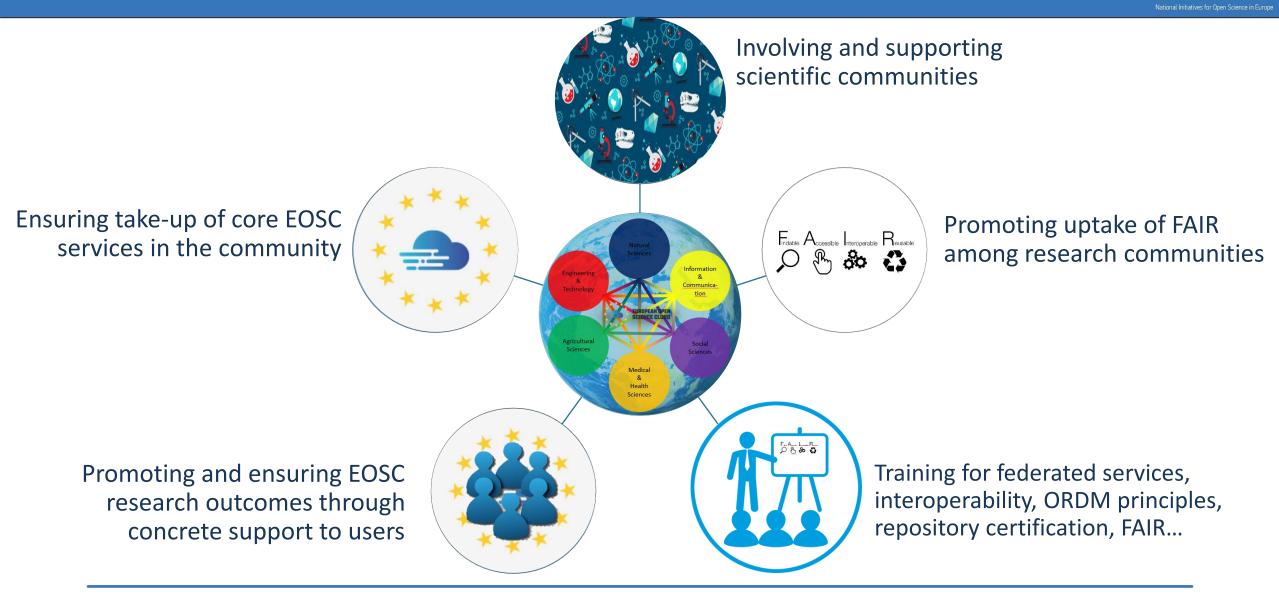
□ Certification (in collaboration with FAIRsFAIR)



Institutional

45 candidates Certification NOADs cooperation

User engagement, training and demonstrators (WP6)



Communication, marketing, sustainability, innovation (WP7)



Communication platform

Website:https://ni4os.euCalendar:https://ni4os.eu/calendarAgenda tool:http://events.ni4os.euSocial media:• @NI4OS







Promotional material

Brochure, posters, presentation, roll up banners, web banners

Key building block of the Exception Open Science Cloud Turning NKOS-Europe gas into reasky Enabling incovation and inclusion reasky Exception Open Science Cloud Image: Science Sc

Dissemination events

30 national events(600 persons targeted)1 regional event(200 persons targeted)



Sustainability and innovation

Find solutions for sustainable and long-term impact of project results

Manage knowledge and results so as to create added value for different stakeholders

A continuing effort of integration to ERA



e-Infrastructure and related services built over the last 15 years with a number of projects

- Targeting EU countries in the region, countries on path to accession and ENP
 - EU members (Greece, Cyprus, Bulgaria, Romania, Hungary, Croatia)
 - Western Balkans
 - **Eastern Mediterranean**, Turkey
 - Easter Partnership countries (incl. Southern Caucasus)

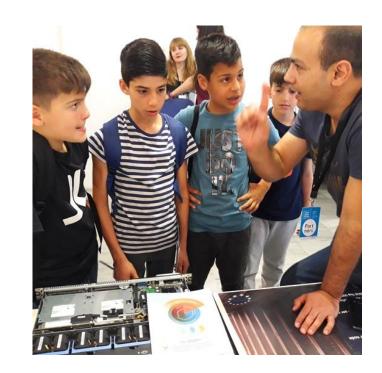


A strong and wide partnership



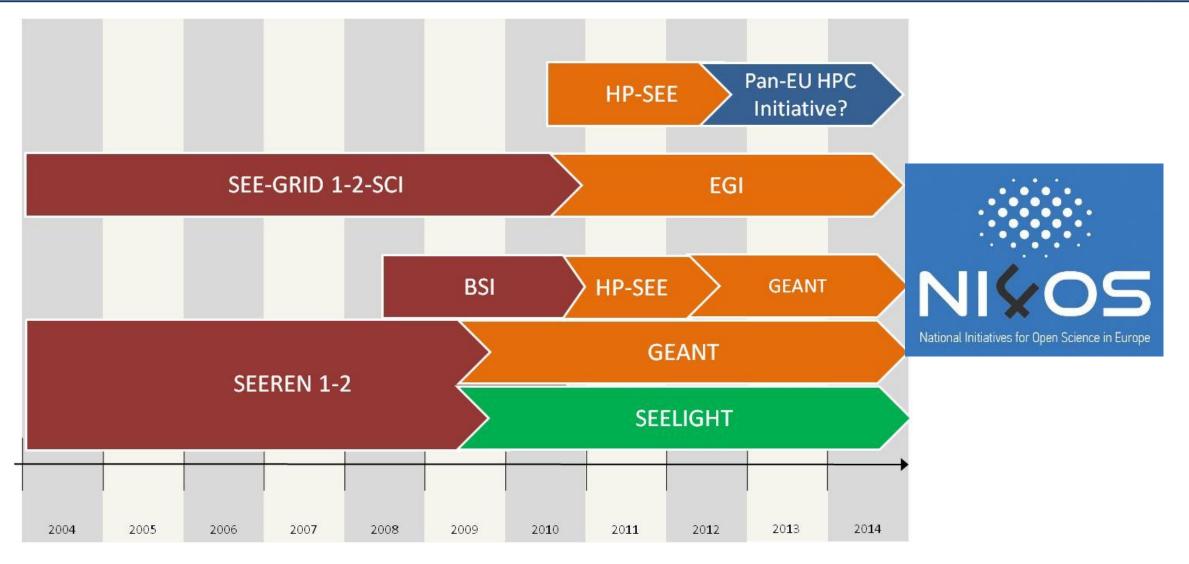
- □ Main service provider partners
 - National Research and Education Networks
 - National Grid, HPC and emerging Cloud Initiatives consortium of computing/data providers per country
- OS communities
- □ Affiliated "stakeholder" partners
 - □ Research institutes, universities, schools, SMEs
- Policy makers
 - Ministries, research councils





15+ years of collaboration!





Conclusion



- Regional technical cooperation built a state of the art e-Infrastructure and services, used by cross-border communities
- Now evolving towards European Open Science Cloud
- Close cooperation with governments to secure national support for EOSC e-Infrastructures and buy-in for EC initiatives
- Joint regional collaboration strategies and agendas
- Synergy and complementarity between national, regional and EU actions and funds
- Regional dimension is important to keep it on par with EU efforts, to support countries on the path to EU accession and to prevent brain drain from the region
- □ National and EC support for the countries of the region to join EOSC initiatives needed
- Continued EC funding for the region (matching the national funding) is crucial to keep the momentum and to prevent 2-speed Europe





These initiatives are pieces of the puzzle to sustain regional R&D, R&E, ICT development

- □ Increasing the retention of talented scientists and engineers in the region
- □ Easing the digital divide between the region and rest of EC
- Making available the benefits of the Information Society and Open Science for all citizens
- Pursuing joint R&D efforts among countries in the region
- □ Regional political stability and cohesiveness





