National Initiatives for Open Science in Europe – *Project goals and activities*

National Dissemination event in Montenegro

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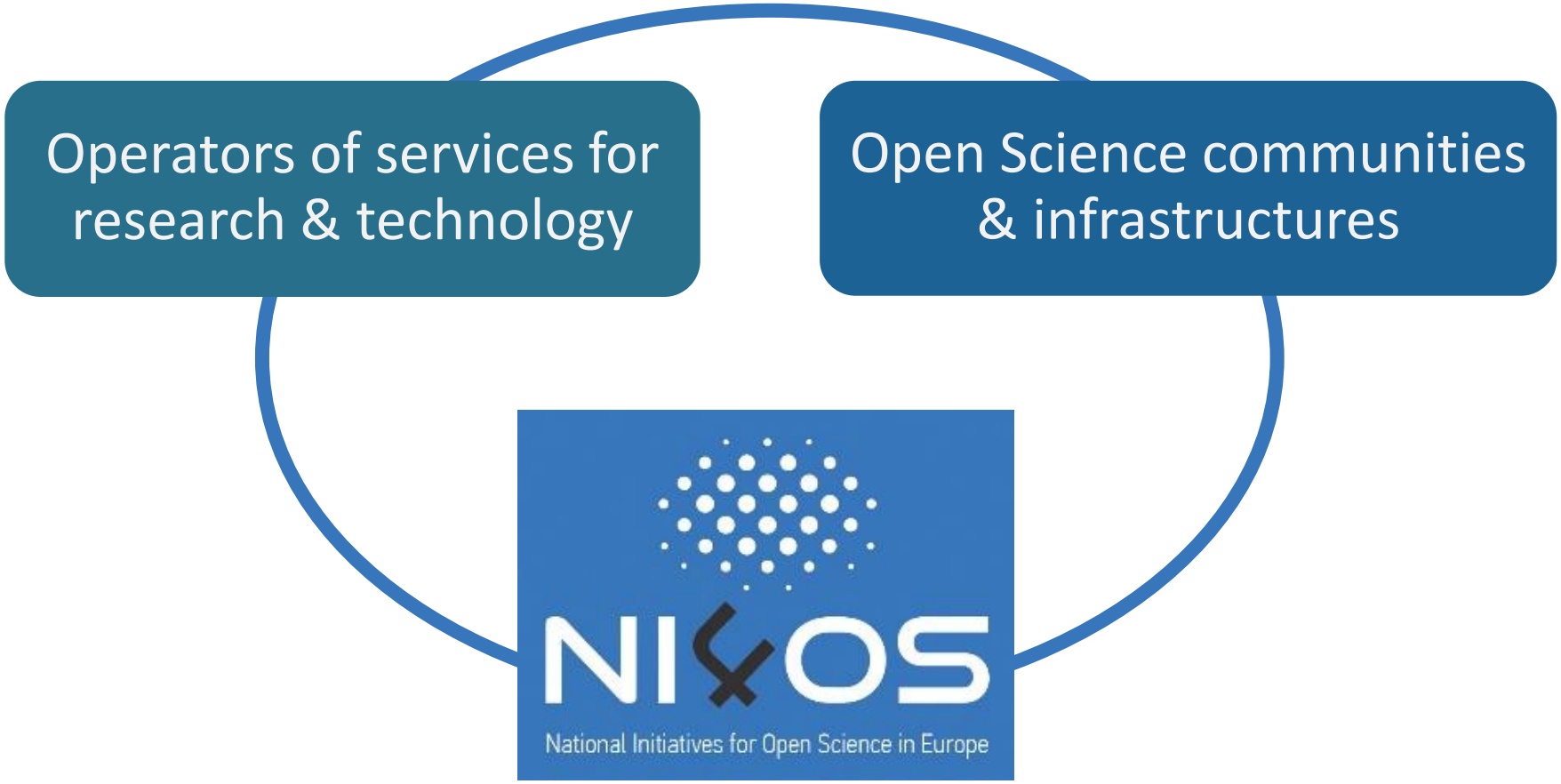
Project administrative summary

- Name: National Initiatives for Open Science in Europe
- Acronym: NI4OS-Europe
- 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 5,599,475 €
- 22 Partners from 15 countries

Partnership

1	National Infrastructures for Research and Technology SA	GRNET	Greece
2	Athena Research & Innovation Center	ATHENA	Greece
3	The Cyprus Institute	CYI	Cyprus
4	University of Cyprus	UCY	Cyprus
5	Institute of Information and Communication Technologies	IICT	Bulgaria
6	SRCE - University of Zagreb, University Computing Centre	SRCE	Croatia
7	Ruđer Bošković Institute	RBI	Croatia
8	Governmental Agency for IT Development	KIFU	Hungary
9	University of Debrecen	UD	Hungary
10	National Institute for Research and Development	ICI	Romania
11	Executive Agency for Higher Education, Research, Development and Innovation Funding	UEFISCDI	Romania
12	Academic and Research Network of Slovenia	ARNES	Slovenia
13	University of Maribor Library	UMUKM	Slovenia
14	Institute of Physics Belgrade	IPB	Serbia
15	University of Belgrade	UOB	Serbia
16	Albanian Academic Network - Interinstitutional ICT Research Centre	RASH	Albania
17	University of Banja Luka	UNI BL	Bosnia-Herzegovina
18	Ss. Cyril and Methodius University in Skopje	UKIM	Northern Macedonia
19	University of Montenegro, Faculty of Electrical Engineering	UOM	Montenegro
20	Research and Educational Networking Association of Moldova	RENAM	Republic of Moldova
21	Institute for Informatics and Automation of the Academy of Sciences of Armenia	IIAP	Armenia
22	Georgian Research and Educational Networking Association	GRENA	Georgia

Partnership building blocks



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

Spread the EOSC and FAIR principles in the community and train it

Provide technical and policy support in on-boarding of the existing and future service providers into EOSC

Objective 1: Building national OSC initiatives

- Support EOSC governance framework by building national Open Science Cloud (OSC) initiatives for open research data, infrastructure and services and enabling them to support the overall EOSC governance and the related EOSC coordination structure
  - Perform a stakeholder analysis / survey
  - Map the existing landscape at the national level
  - Set up national OSC initiatives

Objective 2: Federation and on-boarding preparation

- Facilitate the federation of existing infrastructures and state-of-the-art services and their on-boarding to EOSC
  - Operational best practices enabling the on-boarding and federation of generic and thematic services and their connection to EOSC
  - Support the national tools for federated management to be compatible with EOSC core corresponding services
  - Support harmonization of service templates
  - Provide a pre-production environment for testing and validation

Objective 3: Service on-boarding

- Enable the EOSC-relevant, non-commercial services to be accessed through the EOSC portal
  - Provide technical support to service providers, ensuring interoperability between national and EOSC services, for their federation and integration into EOSC
  - Provide support to the integration of national repositories securing the FAIRness of their practices
  - Deliver an integrated platform, consisting of the on-boarded resources from the region, which will be available as proof-of-concept for testing and fine-tuning with user communities

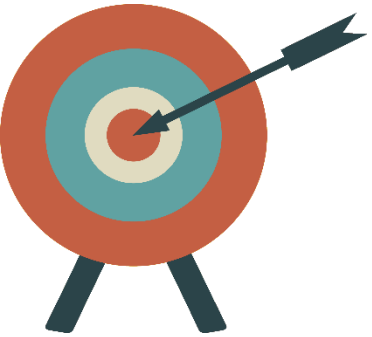
Objective 4: ORDM practices

- Technical, organizational and legal guidelines, tools, mechanisms and certification schemes, to support Open Research Data Management and its implementation in a harmonised and coordinated fashion
  - Produce specific guidelines for ORDM
  - Define and adapt FAIR guidelines in the local context and ensure the FAIRness of repositories in a standardised and interoperable fashion
  - Develop and adapt easy-to-use technical and legal tools: DMP management, FAIR assessors, licence calculators, decision trees, provision of identifiers
  - Establish reliable certification schemes for open research data and service management of data repositories, compliant with GDPR, ethics and IPR rules and policies

Objective 5: Community engagement

- Ensure the engagement of the targeted communities and validate the project solutions
  - Run selected cross-country inter-disciplinary demonstrators with selected real user communities and research infrastructures
  - Provide full-blown training programme for prospective providers and users in the area to ensure take-up of core EOSC services/functions in the community
  - Provide capacity building trainings on service management, federation, interoperability, FAIR, certification, and technical/organizational/legal aspects of ORDM
  - Promote the uptake of EOSC guidelines and FAIR principles across the widest possible community

EOSC national initiatives and policy support (WP2)

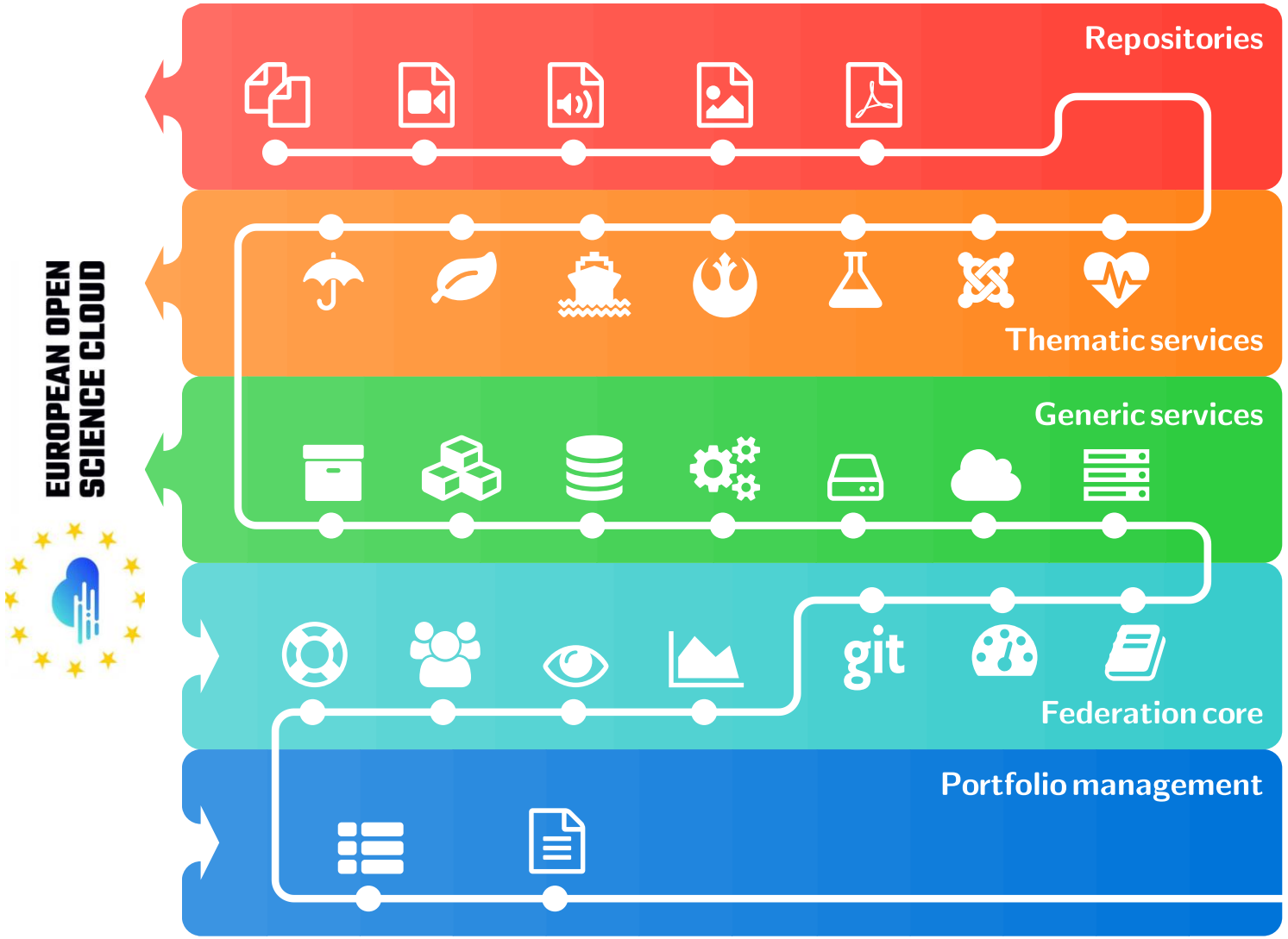


Strengthen the national Open Science ecosystems, enhance regional representation in the pan-EU initiatives, and support alignment of policies and practices for RRI, Open Science and FAIR data with the EOSC

- 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**

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 candidate generic services (WP5)

- HPC Resources
  - CPU
  - GPU
  - Xeon Phi

- Cloud Virtual Machines

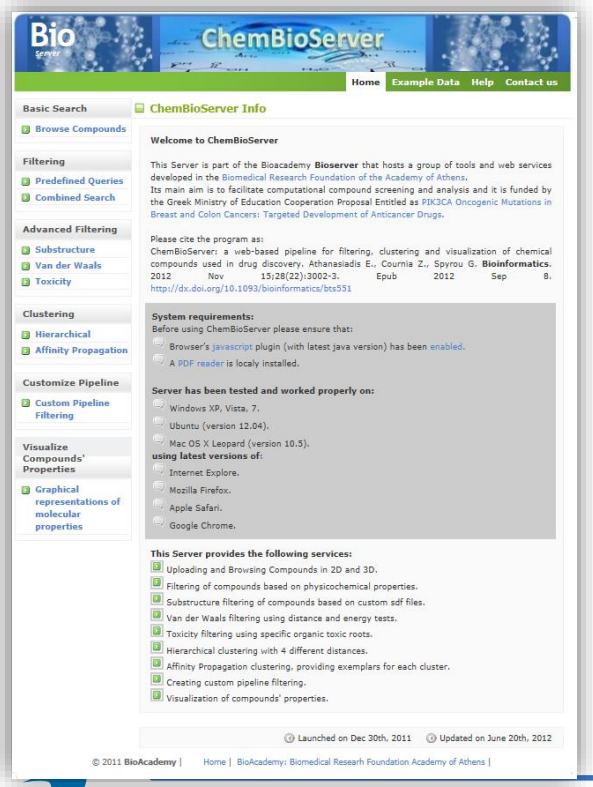
- Generic Storage

- Data management services (Archival, Repository, Data discovery, Hadoop on-demand, Data analysis service, Simple storage)

EOSC candidate thematic services: examples (WP5)

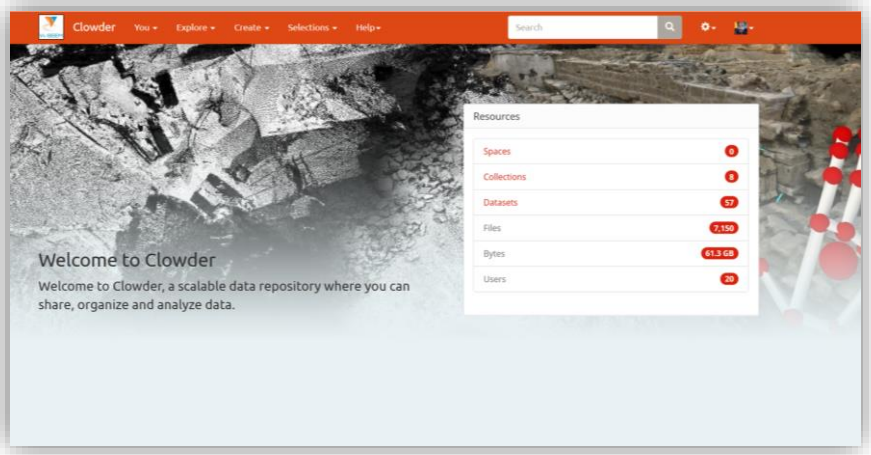
ChemBioServer

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



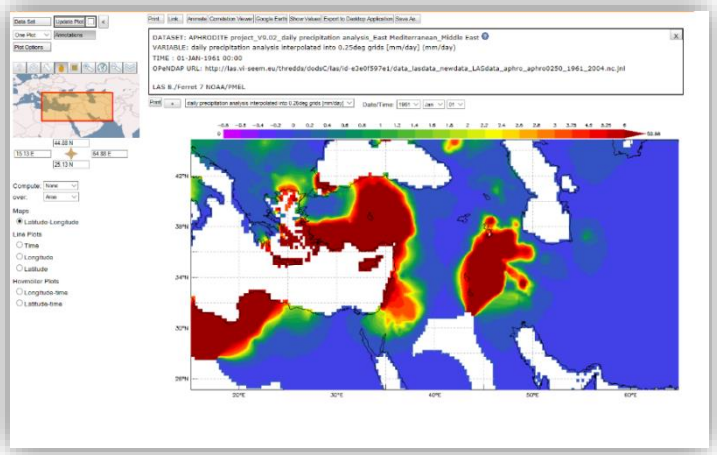
DCH Clowder

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 candidate repositories: actions (WP5)

National

- 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)

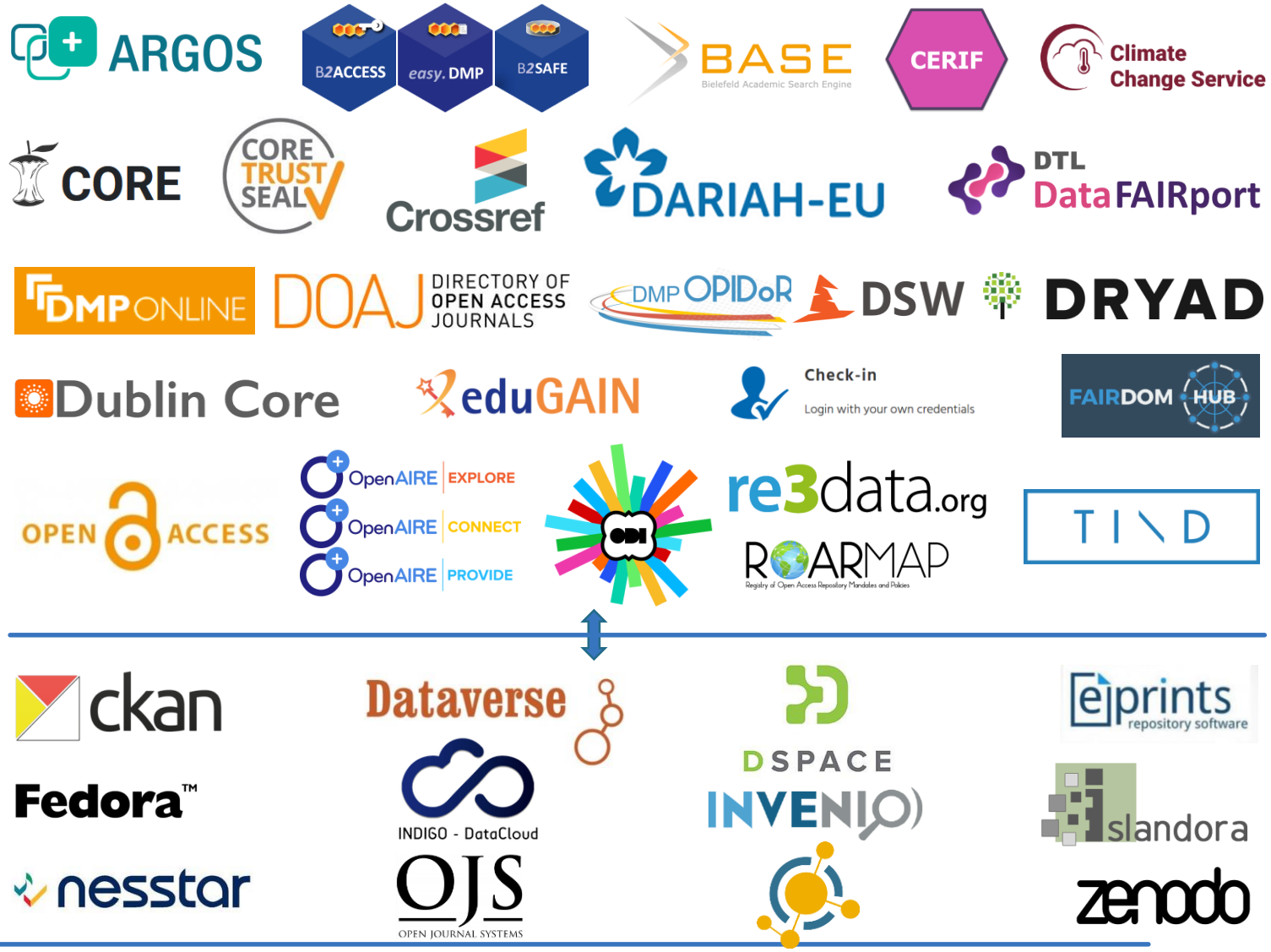
- Enhance discoverability (indexed by registries)
- Contribute to OpenAIRE/ EOSC Research Graph (OpenAIRE compatibility; information contextualisation)
- Enrich collections (Broker)
- Certification (in collaboration with FAIRsFAIR)

Institutional

45 candidates
Certification
NOADs cooperation

ORDM / FAIR tools and certification schemes (WP4)

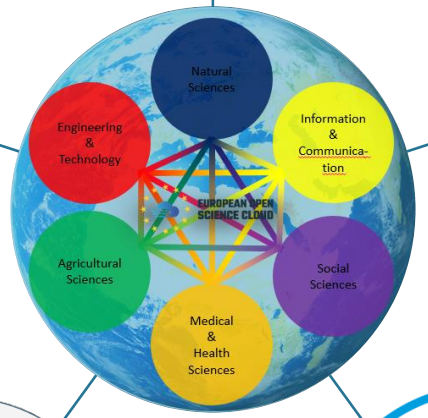
- Implementation and adoption of tools, standards and guidelines
- Selection and delivery of tools
- Harmonisation and interoperability within and across communities and with core initiatives
- Development and application of certification schemes
- Elaboration of incentives to support ORDM and FAIR

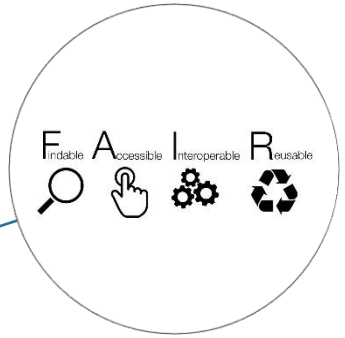


User engagement, training and demonstrators (WP6)

Involving and supporting scientific communities

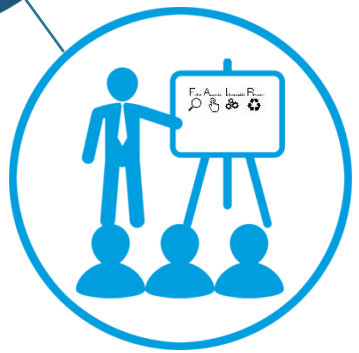
Ensuring take-up of core EOSC services in the community





Promoting uptake of FAIR among research communities

Promoting and ensuring EOSC research outcomes through concrete support to users



Training for federated services, interoperability, ORDM principles, repository certification, FAIR…

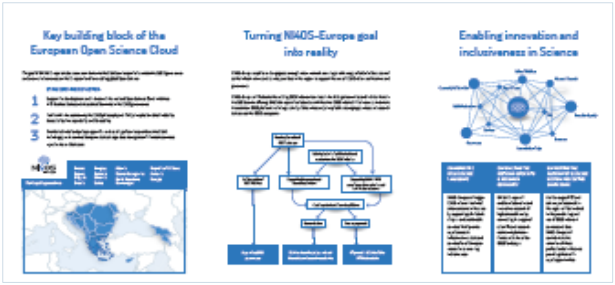
Communication, marketing, sustainability, innovation (WP7)

Communication platform

Website: https://ni4os.eu/
Calendar: https://ni4os.eu/calendar
Agenda tool: http://events.ni4os.eu/
Social media: @NI4OS_eu @NI4OS

Promotional material

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



Dissemination events

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

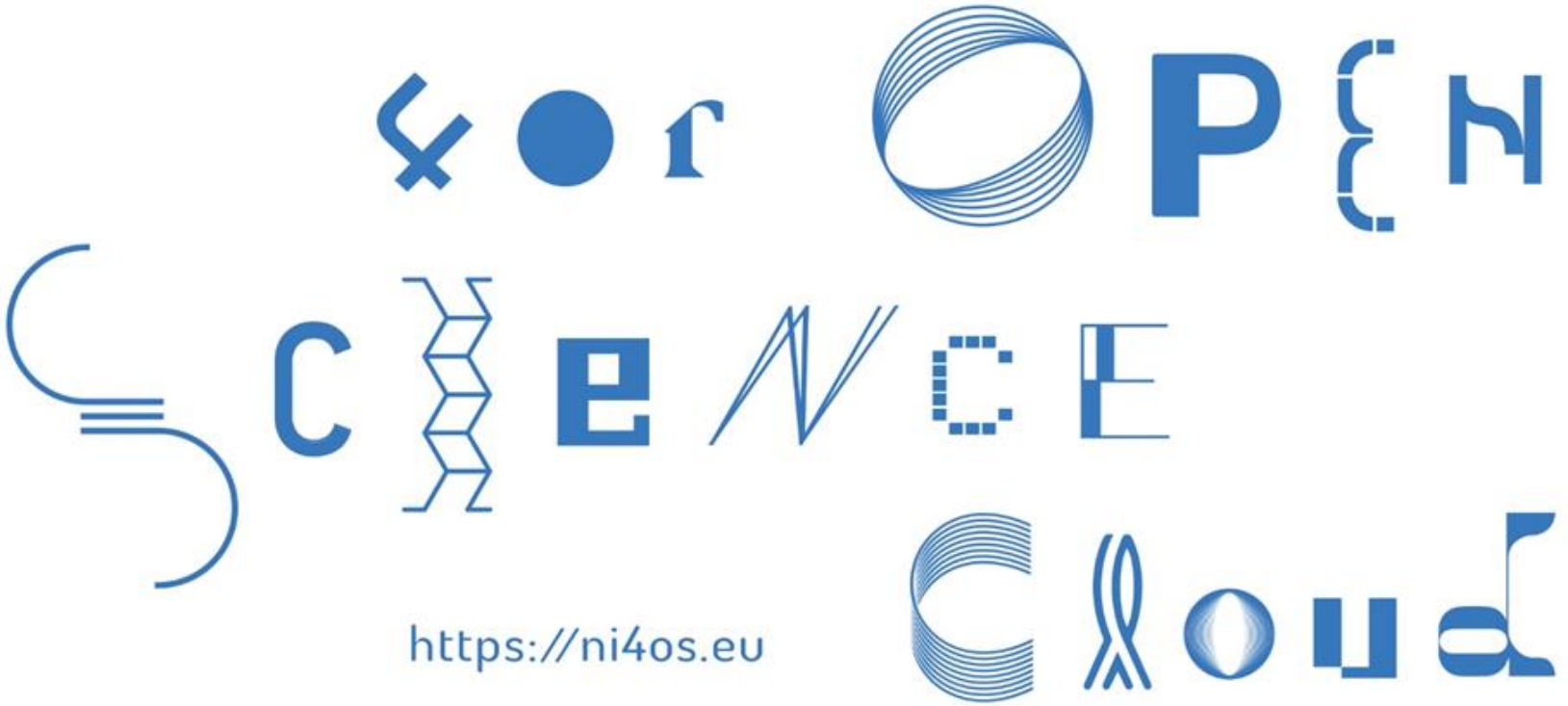
Sustainability and innovation

Find solutions for sustainable and long-term impact of project results
Manage knowledge and results so as to create added value for different stakeholders

NI4OS-Europe in numbers: Key Performance Indicators

- 15 OSC initiatives
- 20 generic service instances
- 20 thematic services
- 15 repositories
- 30 national-level trainings (450 persons targeted)
- 5 train-the-trainer events
- 30 national dissemination events (600 persons targeted)
- 1 regional event (200 persons targeted)
- 3 flagship scientific fields
- 3 sets of ORDM guidelines
- 6 ORDM tools
- 1 pre-production environment

Thanks!



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