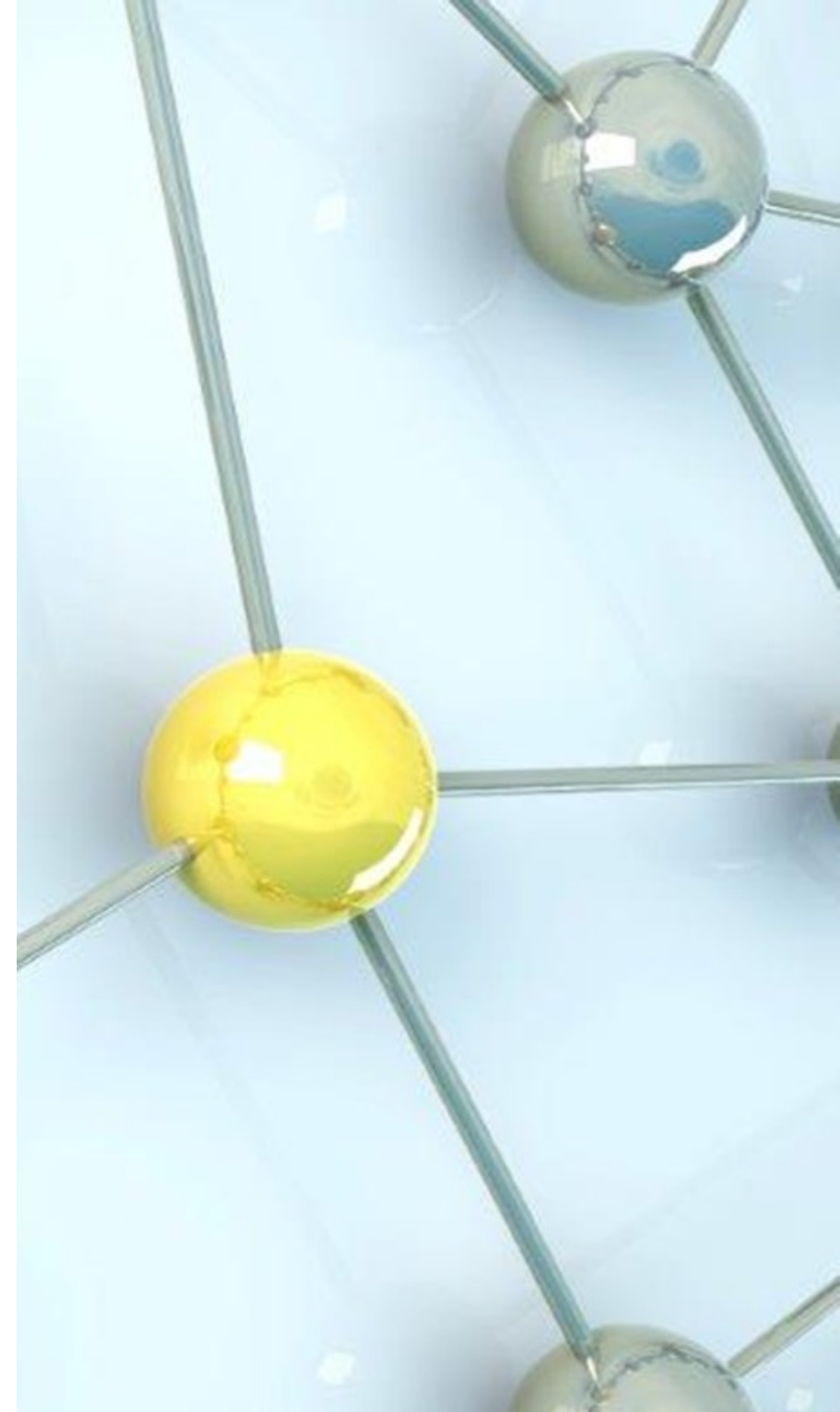




# National Initiatives for Open Science in Europe

Pre-production environment and  
service on-boarding

Kostas Koumantaros , GRNET

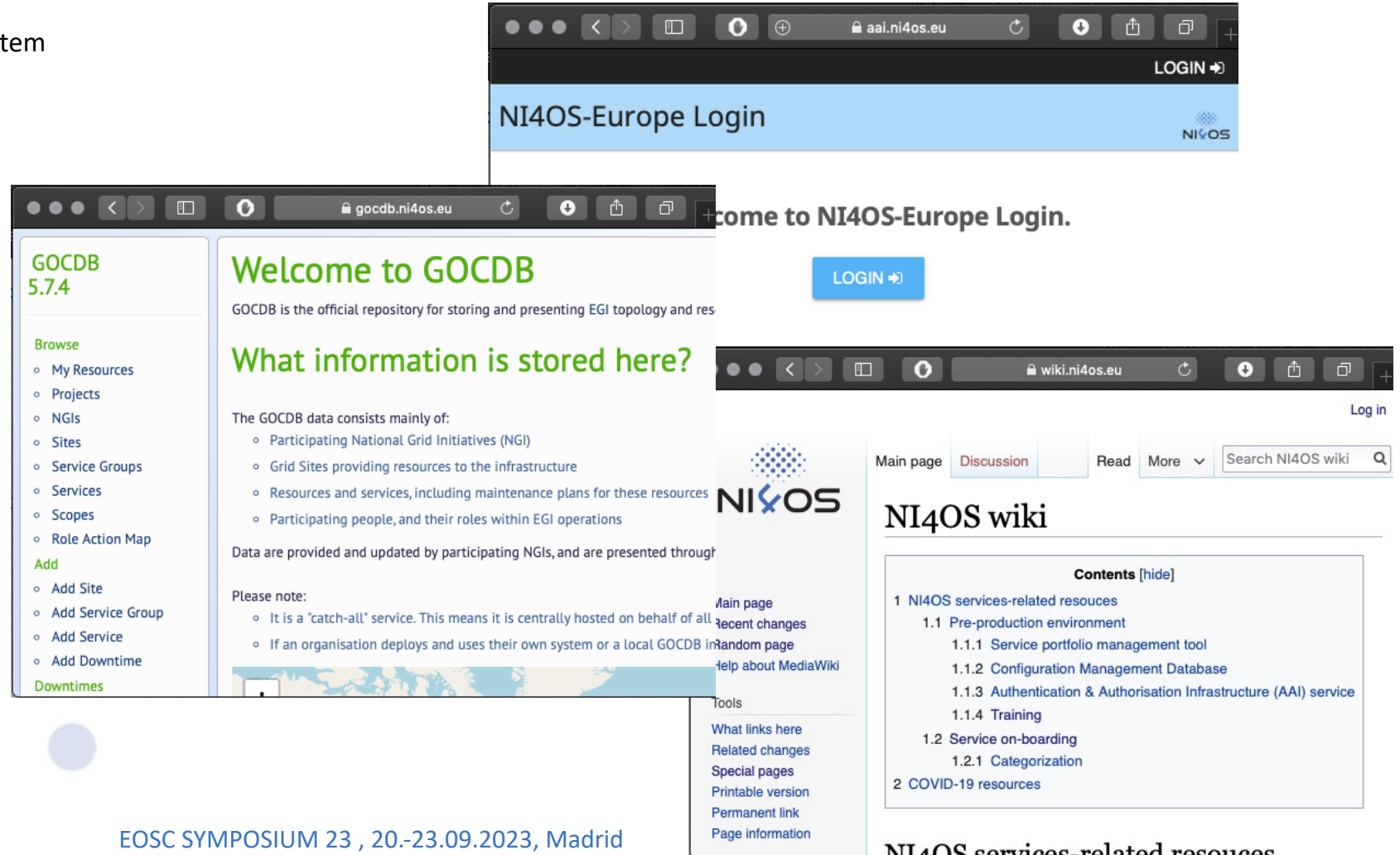


# Introduction

- Why do we need pre-production environment?
- Minimum set of federating services to support integration of the initial set of the regional service into the EOSC
- Environment equivalent to the EOSC Core
- Essential building blocks that will enable the integration of all the other service in the EOSC ecosystem
- Verify the services before EOSC on-boarding
- Regionally support the service providers through the process
  - Based on the previous experience of excellent regional cooperation

# Technical architecture of the pre-production env.

- Service portfolio management system
  - Agora
- Helpdesk
  - Request tracker
- AAI
  - NI4OS Login
- Monitoring
  - Argo
- Inventory
  - GOCDDB
- Accounting
  - in-house
- Training
  - Moodle + BBB
- Wiki
  - MediaWiki
- Events
  - Indico



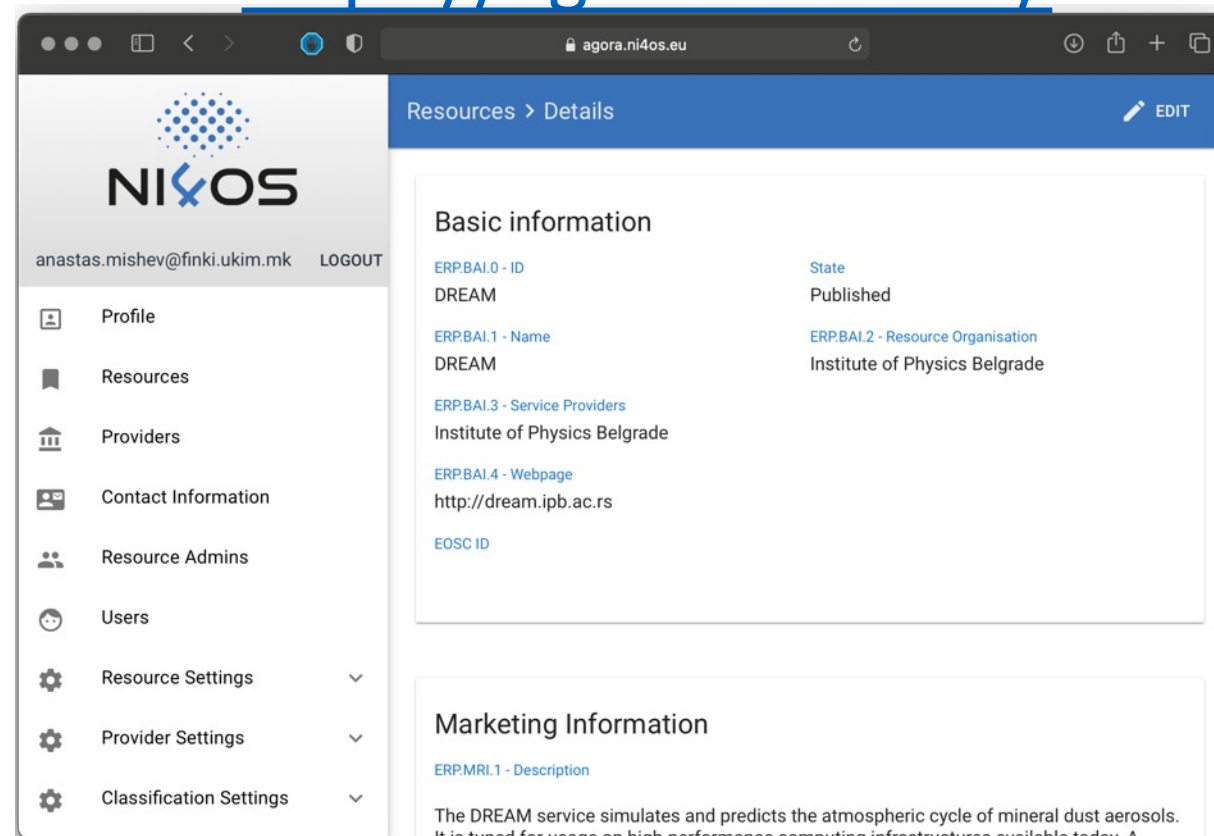
The image displays three overlapping browser windows illustrating the technical architecture of the pre-production environment:

- Top Window (aai.ni4os.eu):** Shows the "NI4OS-Europe Login" page with a "LOGIN" button.
- Middle Window (gocdb.ni4os.eu):** Shows the "Welcome to GOCDDB" page. The main content includes the heading "What information is stored here?" and a list of data types: Participating National Grid Initiatives (NGI), Grid Sites providing resources to the infrastructure, Resources and services, including maintenance plans for these resources, and Participating people, and their roles within EGI operations. A sidebar on the left lists navigation options like "My Resources", "Projects", "NGIs", "Sites", "Service Groups", "Services", "Scopes", "Role Action Map", and "Add" options.
- Bottom Window (wiki.ni4os.eu):** Shows the "NI4OS wiki" page. The main content includes a "Contents [hide]" section with a list of resources: "1 NI4OS services-related resources" (subdivided into "1.1 Pre-production environment" with sub-items "1.1.1 Service portfolio management tool", "1.1.2 Configuration Management Database", "1.1.3 Authentication & Authorisation Infrastructure (AAI) service", and "1.1.4 Training"; and "1.2 Service on-boarding" with sub-item "1.2.1 Categorization") and "2 COVID-19 resources".

# SPMT

- AGORA system, developed by GRNET
- Hosted by GRNET
- Fully compatible with EOSC catalogues
- Based on the EOSC Service Profiles 4.0

<https://agora.ni4os.eu/>



The screenshot displays the AGORA system interface. The browser address bar shows the URL <https://agora.ni4os.eu/>. The page title is "Resources > Details" and includes an "EDIT" button. The left sidebar contains a navigation menu with the following items: Profile, Resources, Providers, Contact Information, Resource Admins, Users, Resource Settings, Provider Settings, and Classification Settings. The main content area is titled "Basic information" and displays the following details for the resource "DREAM":

ERP.BAI.0 - ID	State
DREAM	Published

Additional information includes:

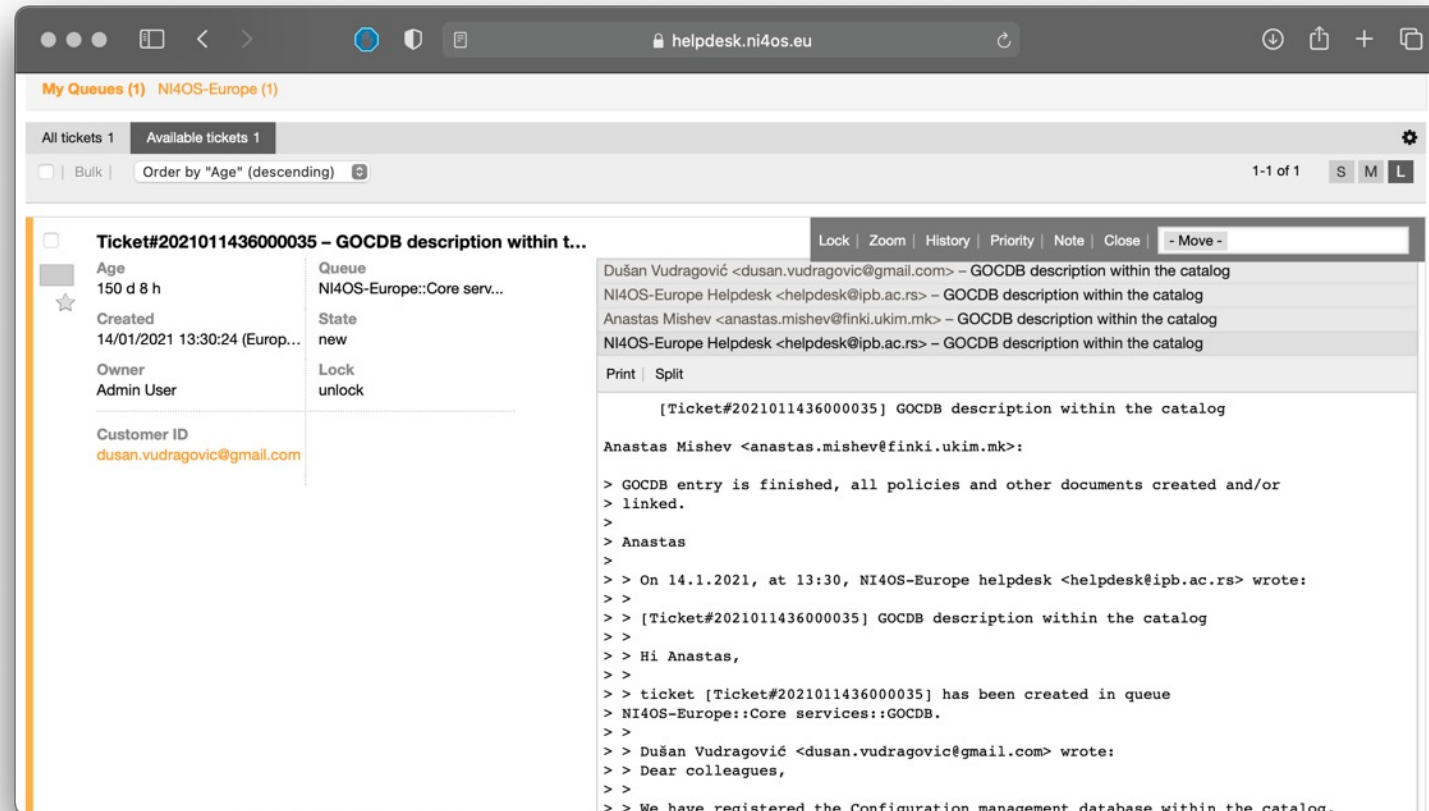
- ERP.BAI.1 - Name: DREAM
- ERP.BAI.2 - Resource Organisation: Institute of Physics Belgrade
- ERP.BAI.3 - Service Providers: Institute of Physics Belgrade
- ERP.BAI.4 - Webpage: <http://dream.ipb.ac.rs>
- EOSC ID

The "Marketing Information" section includes the description: "The DREAM service simulates and predicts the atmospheric cycle of mineral dust aerosols. It is tuned for usage on high performance computing infrastructures available today."

# Helpdesk

- OTRS
- Hosted by IPB
- Procedures for registering support channels available on the wiki

<https://helpdesk.ni4os.eu/>



The screenshot displays the OTRS helpdesk interface for NI4OS-Europe. The browser address bar shows `helpdesk.ni4os.eu`. The page title is "My Queues (1) NI4OS-Europe (1)". The main content area shows a ticket titled "Ticket#2021011436000035 - GOCDB description within t...". The ticket details are as follows:

Age	150 d 8 h	Queue	NI4OS-Europe::Core serv...
Created	14/01/2021 13:30:24 (Europ...	State	new
Owner	Admin User	Lock	unlock
Customer ID	dusan.vudragovic@gmail.com		

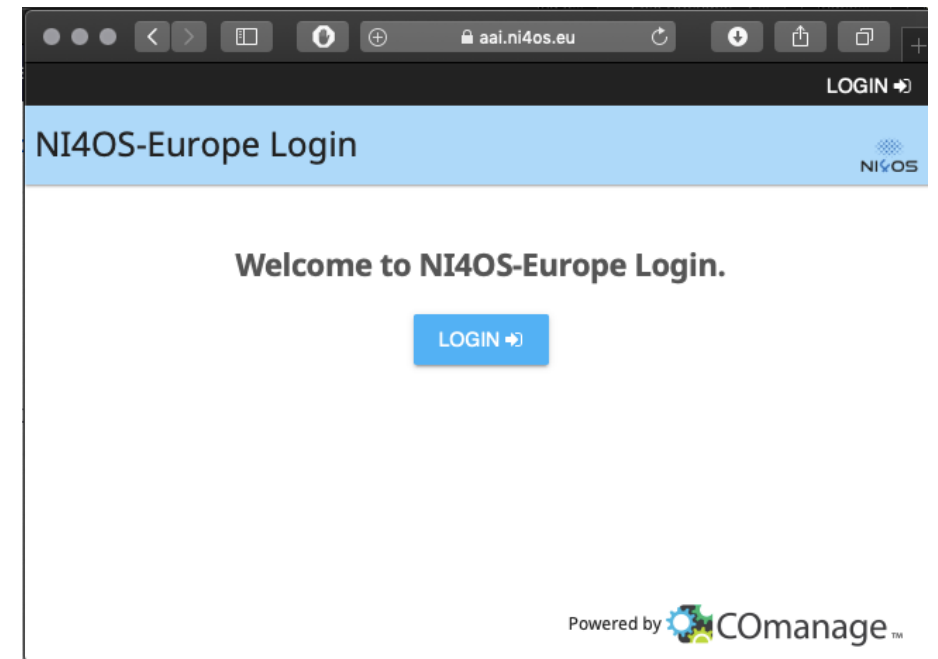
The ticket description shows a conversation between Dušan Vudragović and Anastas Mishev regarding the registration of the Configuration Management database within the catalog. The text of the ticket is:

```
[Ticket#2021011436000035] GOCDB description within the catalog
Anastas Mishev <anastas.mishev@finki.ukim.mk>:
> GOCDB entry is finished, all policies and other documents created and/or
> linked.
>
> Anastas
>
> On 14.1.2021, at 13:30, NI4OS-Europe helpdesk <helpdesk@ipb.ac.rs> wrote:
>
>> [Ticket#2021011436000035] GOCDB description within the catalog
>>
>> Hi Anastas,
>>
>> ticket [Ticket#2021011436000035] has been created in queue
>> NI4OS-Europe::Core services::GOCDB.
>>
>> Dušan Vudragović <dusan.vudragovic@gmail.com> wrote:
>> Dear colleagues,
>>
>> We have registered the Configuration management database within the catalog,
```

# AAI – NI4OS-Europe Login

- Hosted by GRNET
- Part of eduGAIN
- Dedicated wiki page with the instructions how to integrate services with NI4OS Login
- [https://wiki.ni4os.eu/index.php/AAI guide for SPs](https://wiki.ni4os.eu/index.php/AAI_guide_for_SPs)

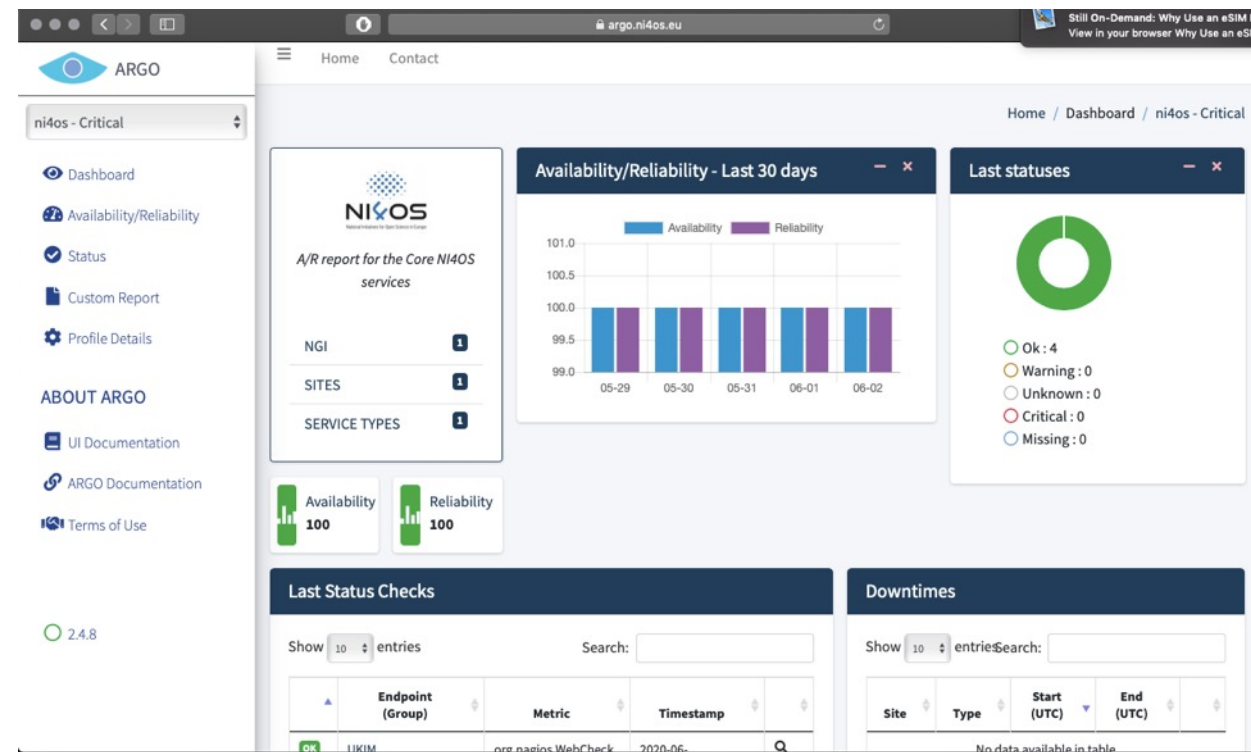
<https://aai.ni4os.eu/>



# Monitoring

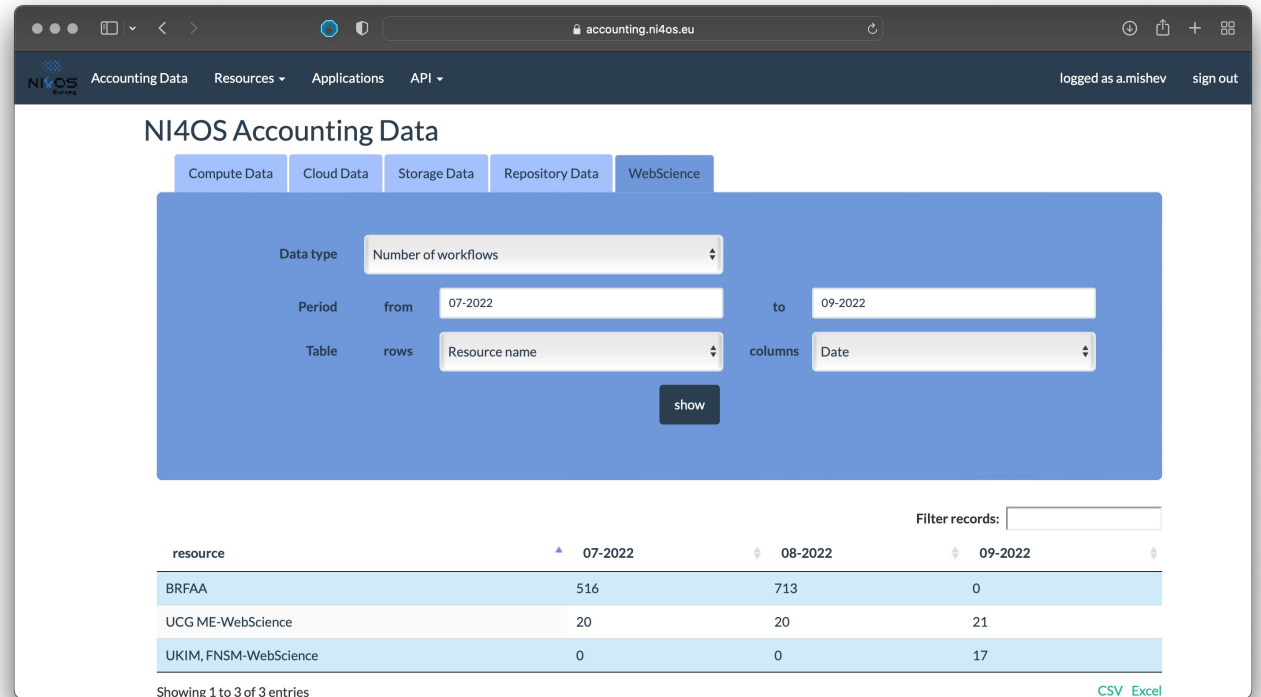
- ARGO tool used for monitoring
- Hosted by GRNET and SRCE
- Instructions on how to integrate services available at the wiki
- [https://wiki.ni4os.eu/index.php/Monitoring\\_guide\\_for\\_SPs](https://wiki.ni4os.eu/index.php/Monitoring_guide_for_SPs)

<https://argo.ni4os.eu>



# Accounting

- Developed and hosted by IICT
- Initially accounting for HPC resources
- Extended to support thematic services, repositories and other types of generic services



The screenshot shows the NI4OS Accounting Data web application. The interface includes a navigation bar with 'Accounting Data', 'Resources', 'Applications', and 'API'. The main content area has tabs for 'Compute Data', 'Cloud Data', 'Storage Data', 'Repository Data', and 'WebScience'. A search form allows filtering by 'Data type' (Number of workflows), 'Period' (from 07-2022 to 09-2022), and 'Table' (rows: Resource name, columns: Date). A 'show' button is present. Below the form is a table with columns for 'resource', '07-2022', '08-2022', and '09-2022'. The table shows data for BRFAA, UCG ME-WebScience, and UKIM, FNSM-WebScience. A 'Filter records:' input field is also visible.

resource	07-2022	08-2022	09-2022
BRFAA	516	713	0
UCG ME-WebScience	20	20	21
UKIM, FNSM-WebScience	0	0	17

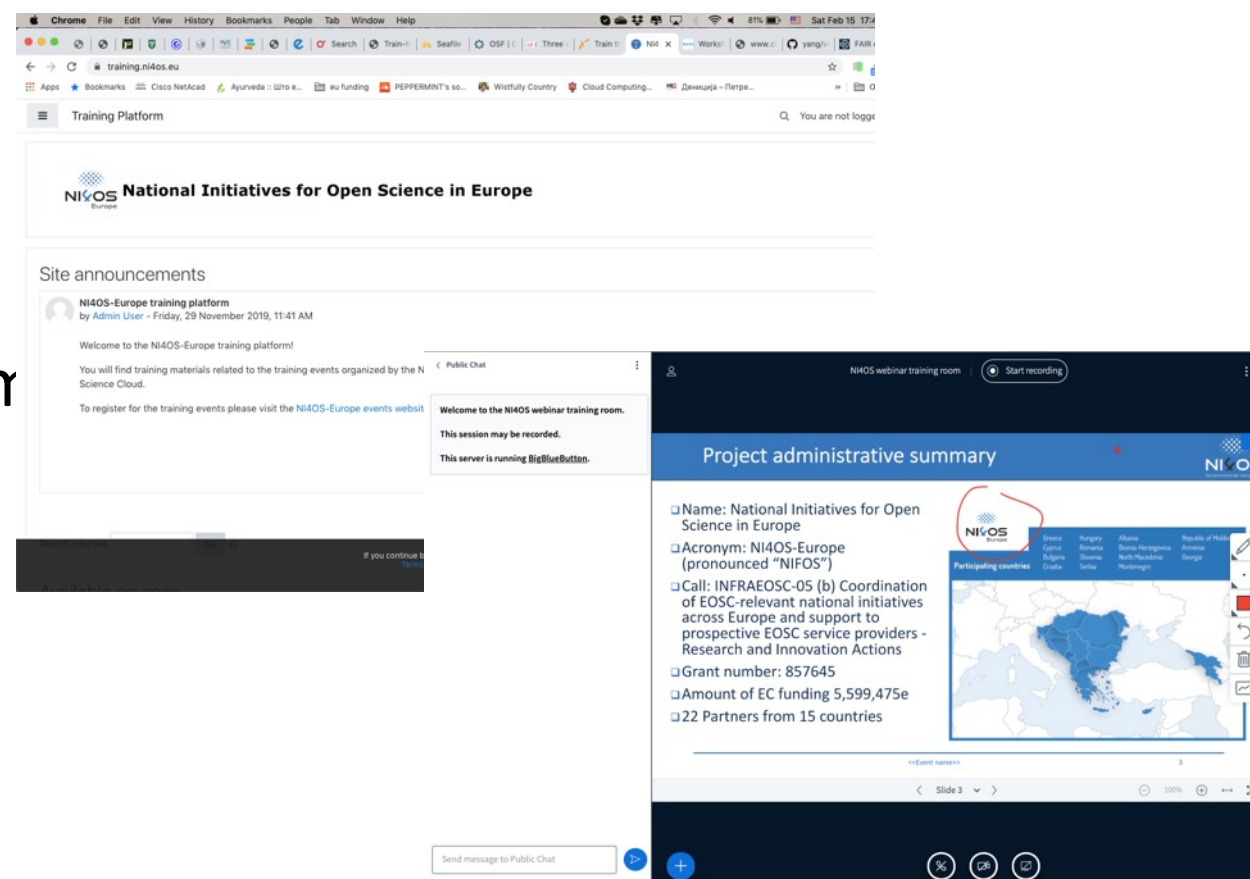
Showing 1 to 3 of 3 entries [CSV](#) [Excel](#)



# Training

- Moodle + BigBlueButton based
- Hosted by UKIM
- AAI login enabled
- Full GDPR compliance
- Integrated rich webinar environment

<https://training.ni4os.eu/>



The image shows two overlapping screenshots. The top one is a browser view of the training platform website, and the bottom one is a webinar interface.

**Website Screenshot:**

- Browser: Chrome, URL: training.ni4os.eu
- Page Title: Training Platform
- Logo: NI4OS National Initiatives for Open Science in Europe
- Section: Site announcements
- Announcement: NI4OS-Europe training platform by Admin User - Friday, 29 November 2019, 11:41 AM
- Text: Welcome to the NI4OS-Europe training platform! You will find training materials related to the training events organized by the N Science Cloud. To register for the training events please visit the NI4OS-Europe events website.

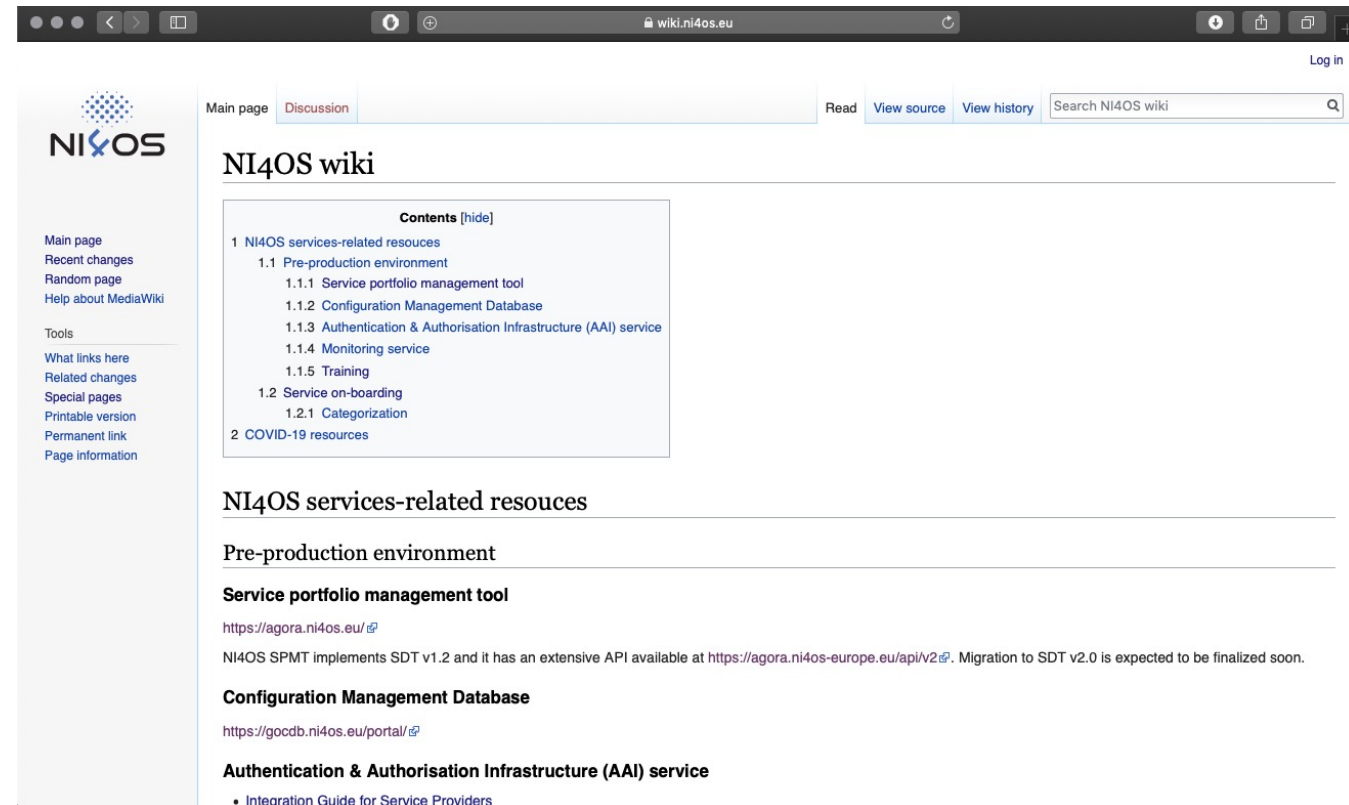
**Webinar Interface Screenshot:**

- Header: NI4OS webinar training room | Start recording
- Section: Project administrative summary
- Text:
  - 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
- Map: Participating countries (Greece, Hungary, Italy, Spain, Portugal, Austria, Serbia, Slovakia, Czechia, Bulgaria, Romania, Poland, France, Germany, Netherlands, Belgium, Luxembourg, Ireland, United Kingdom)
- Footer: Slide 3 | 100%

# Technical wiki

- MediaWiki based
- Hosted by IPB
- Contains a growing set of document explaining the integration process of different types of services with the pre-production environment as well as the on-boarding procedure, members of the team, etc.

<https://wiki.ni4os.eu/>



The screenshot shows the NI4OS wiki homepage. The browser address bar displays "wiki.ni4os.eu". The page features a navigation menu with "Main page" and "Discussion" tabs, and a search bar labeled "Search NI4OS wiki". The main content area is titled "NI4OS wiki" and includes a "Contents [hide]" table of contents with the following structure:

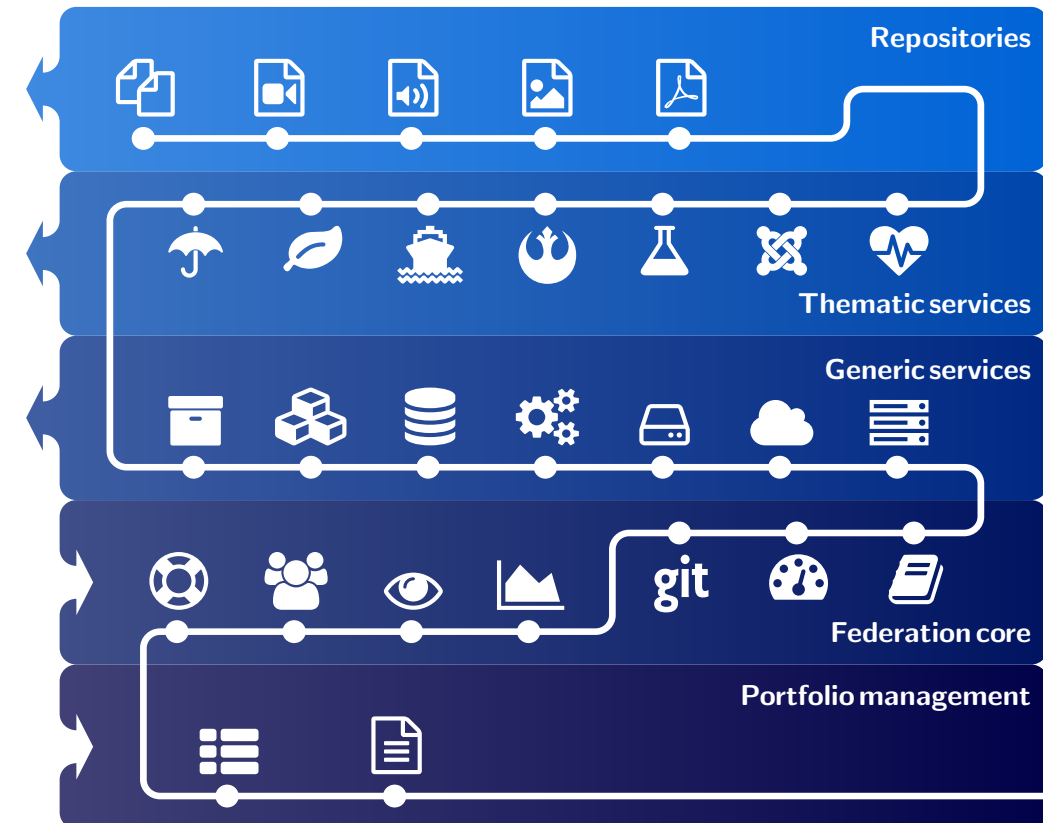
- 1 NI4OS services-related resources
  - 1.1 Pre-production environment
    - 1.1.1 Service portfolio management tool
    - 1.1.2 Configuration Management Database
    - 1.1.3 Authentication & Authorisation Infrastructure (AAI) service
    - 1.1.4 Monitoring service
    - 1.1.5 Training
  - 1.2 Service on-boarding
    - 1.2.1 Categorization
- 2 COVID-19 resources

Below the table of contents, the page lists "NI4OS services-related resources" with sub-sections: "Pre-production environment", "Service portfolio management tool" (with URL <https://agora.ni4os.eu/>), "Configuration Management Database" (with URL <https://gocdb.ni4os.eu/portal/>), and "Authentication & Authorisation Infrastructure (AAI) service" (with a link to "Integration Guide for Service Providers").

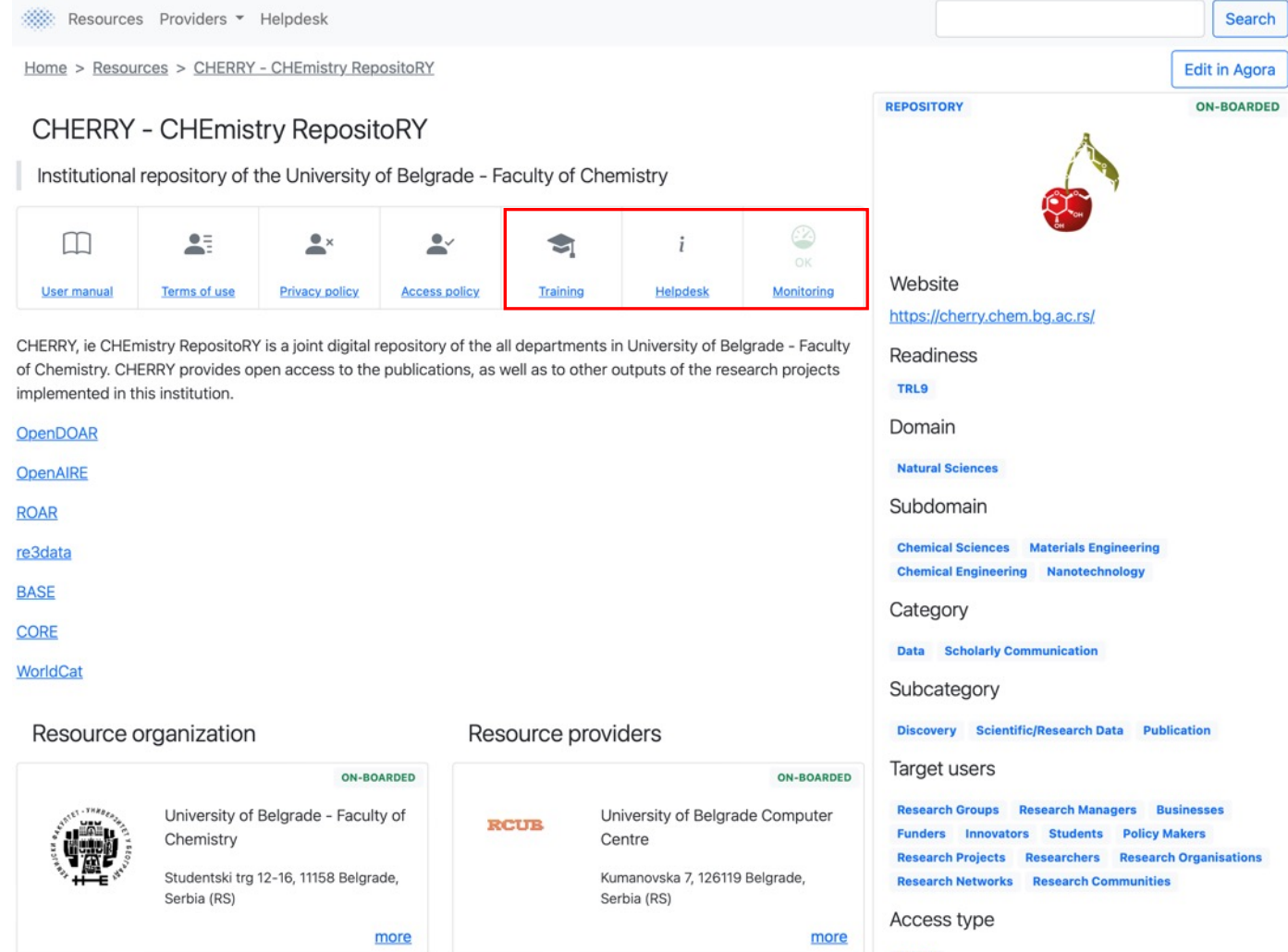
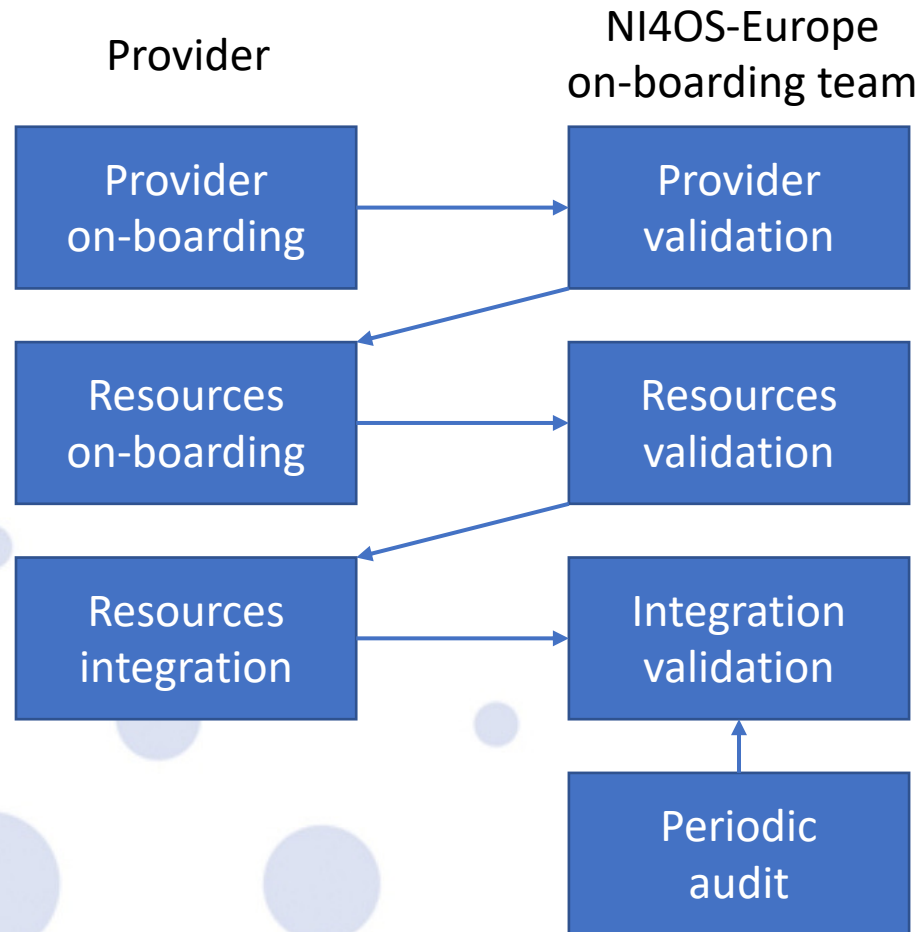
# On-boarding



- Integration with federation core services
- Service categorization
- Onboarding of
  - generic services
  - thematic services
  - repositories

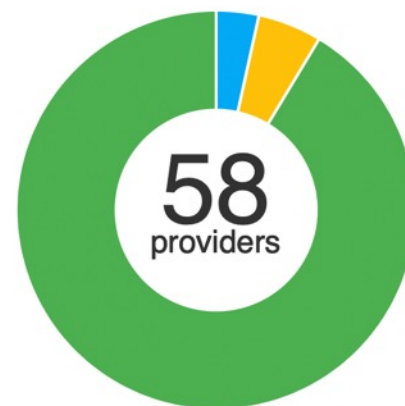
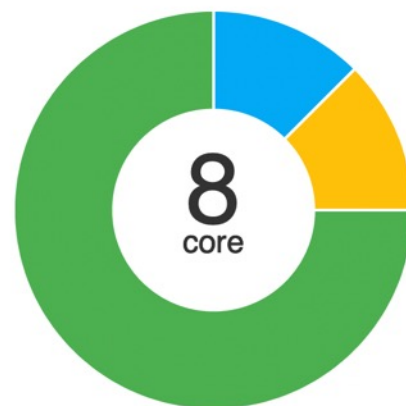
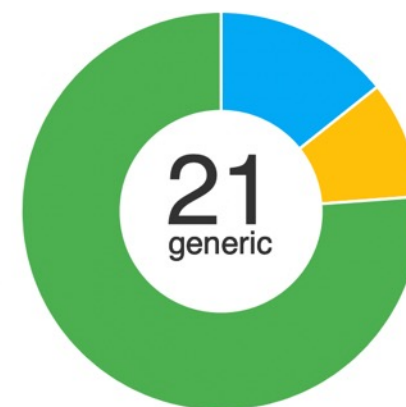
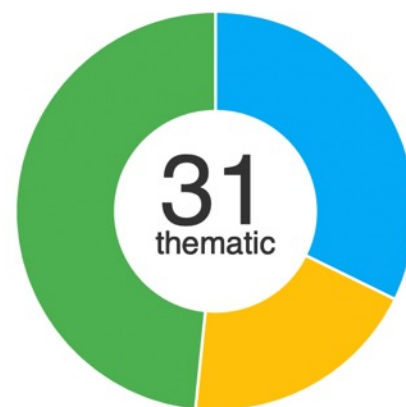


# Basic on-boarding workflow: resource integration

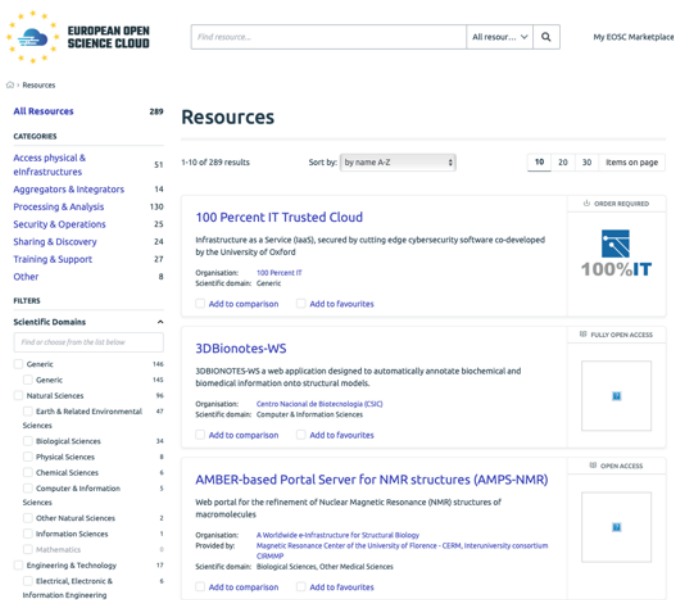


The screenshot shows the website for the CHERRY - CHEmistry Repository. The page title is 'CHERRY - CHEmistry Repository' and the subtitle is 'Institutional repository of the University of Belgrade - Faculty of Chemistry'. The navigation menu includes 'User manual', 'Terms of use', 'Privacy policy', 'Access policy', 'Training', 'Helpdesk', and 'Monitoring'. The 'Training', 'Helpdesk', and 'Monitoring' links are highlighted with a red box. The main content area describes the repository as a joint digital repository of all departments in the University of Belgrade - Faculty of Chemistry. It lists various access points: OpenDOAR, OpenAIRE, ROAR, re3data, BASE, CORE, and WorldCat. The 'Resource organization' section shows the University of Belgrade - Faculty of Chemistry, and the 'Resource providers' section shows the University of Belgrade Computer Centre. The right sidebar contains metadata for the repository, including the website URL, readiness (TRL9), domain (Natural Sciences), subdomain (Chemical Sciences, Materials Engineering, Chemical Engineering, Nanotechnology), category (Data, Scholarly Communication), subcategory (Discovery, Scientific/Research Data, Publication), target users (Research Groups, Research Managers, Businesses, Funders, Innovators, Students, Policy Makers, Research Projects, Researchers, Research Organisations, Research Networks, Research Communities), and access type (Virtual).

# Dashboard



# Integration with the EOSC marketplace



Find resource... All resour... My EOSC Marketplace

Resources

1-10 of 289 results

Sort by: by name A-Z

10 20 30 Items on page

**100 Percent IT Trusted Cloud**

Infrastructure as a Service (aaS), secured by cutting edge cybersecurity software co-developed by the University of Oxford

Organization: 100 Percent IT  
Scientific domain: Generic

Add to comparison  Add to favourites

**3DBionotes-WS**

3DBIONOTES-WS a web application designed to automatically annotate biochemical and biomedical information onto structural models.

Organization: Centro Nacional de Biotecnología (CNB)  FULLY OPEN ACCESS  
Scientific domain: Computer & Information Sciences

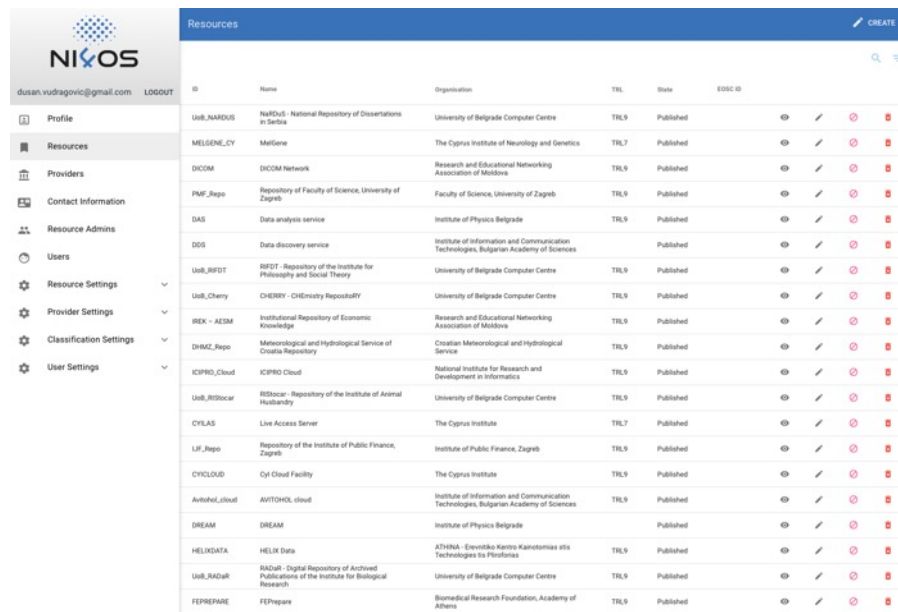
Add to comparison  Add to favourites

**AMBER-based Portal Server for NMR structures (AMPS-NMR)**

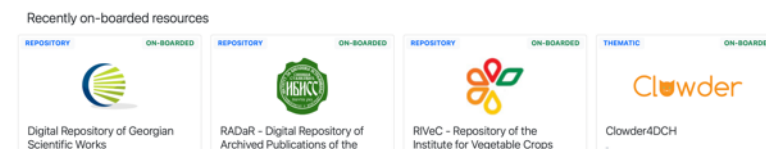
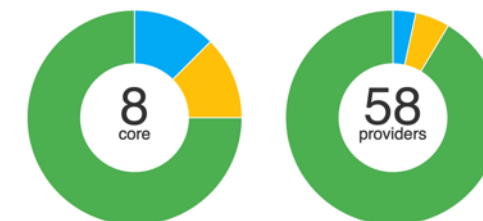
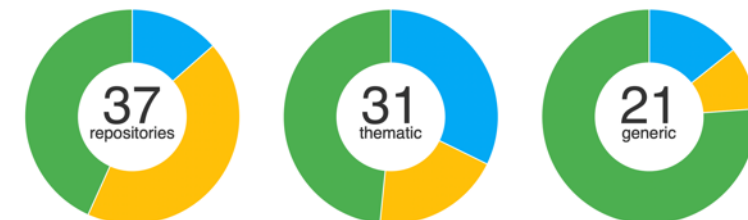
Web portal for the refinement of Nuclear Magnetic Resonance (NMR) structures of macromolecules

Organization: A Worldwide e-Infrastructure for Structural Biology  
Provided by: Magnetic Resonance Center of the University of Florence - CERM, Interuniversity consortium CERN  OPEN ACCESS  
Scientific domain: Biological Sciences, Other Medical Sciences

Add to comparison  Add to favourites



ID	Name	Organization	TRL	Status	EOSC ID
UuB_NARDUS	NARDUS: National Repository of Dissertations in Serbia	University of Belgrade Computer Centre	TRL9	Published	
MELGENE_CV	MelGene	The Cyprus Institute of Neurology and Genetics	TRL7	Published	
DICOM	DICOM Network	Research and Educational Networking Association of Moldova	TRL9	Published	
PMP_Repo	Repository of Faculty of Science, University of Zagreb	Faculty of Science, University of Zagreb	TRL9	Published	
DAS	Data analysis service	Institute of Physics Belgrade	TRL9	Published	
DOS	Data discovery service	Institute of Information and Communication Technologies, Bulgarian Academy of Sciences		Published	
UuB_RFDIT	RFDIT - Repository of the Institute for Philosophy and Social Theory	University of Belgrade Computer Centre	TRL9	Published	
UuB_Cherry	ChERRY - ChEMistry Repository	University of Belgrade Computer Centre	TRL9	Published	
IREK - AEMM	Institutional Repository of Economic Knowledge	Research and Educational Networking Association of Moldova	TRL9	Published	
DHMZ_Repo	Meteorological and Hydrological Service of Croatia Repository	Croatian Meteorological and Hydrological Service	TRL9	Published	
ICPRO_Cloud	ICPRO Cloud	National Institute for Research and Development in Informatics	TRL9	Published	
UuB_RISocar	RISocar - Repository of the Institute of Animal Husbandry	University of Belgrade Computer Centre	TRL9	Published	
CYCLAS	Live Access Server	The Cyprus Institute	TRL7	Published	
LIF_Repo	Repository of the Institute of Public Finance, Zagreb	Institute of Public Finance, Zagreb	TRL9	Published	
CYCLCLOUD	Cy Cloud Facility	The Cyprus Institute	TRL9	Published	
AVITOHZ_Cloud	AVITOHZ_Cloud	Institute of Information and Communication Technologies, Bulgarian Academy of Sciences	TRL9	Published	
DREAM	DREAM	Institute of Physics Belgrade		Published	
HELIXDATA	HELIX Data	ATHINA - Eleni Kiriaki Kiriaki-Konstantinos Iliadis Technologies to Piroforas	TRL9	Published	
UuB_RADAR	RADAR: Digital Repository of Archived Publications of the Institute for Biological Research	University of Belgrade Computer Centre	TRL9	Published	
FEPREPARE	FEPrepares	Biomedical Research Foundation, Academy of Athens	TRL9	Published	



Recently on-boarded resources

- REPOSITORY ON-BOARDED: Digital Repository of Georgian Scientific Works
- REPOSITORY ON-BOARDED: RADaR - Digital Repository of Archived Publications of the
- REPOSITORY ON-BOARDED: RIVeC - Repository of the Institute for Vegetable Crops
- THEMATIC ON-BOARDED: Clowder Clowder4DCH

EOSC Portal Catalogue & Marketplace

NI4OS-Europe  
AGORA catalogue  
<https://agora.ni4os.eu/>

NI4OS-Europe  
On-boarding dashboard  
<https://catalogue.ni4os.eu/>



NI4OS



NI4OS\_eu



NI4OS.eu



Join NI4OS-Europe Community:

<https://ni4os.eu/contact-us>