National Open Science Cloud Initiatives

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Prof. Boro Jakimovski,

Faculty of computer science and engineering

Ss. Cyril and Methodius University in Skopje

Outline

❑National Open Science Initiatives

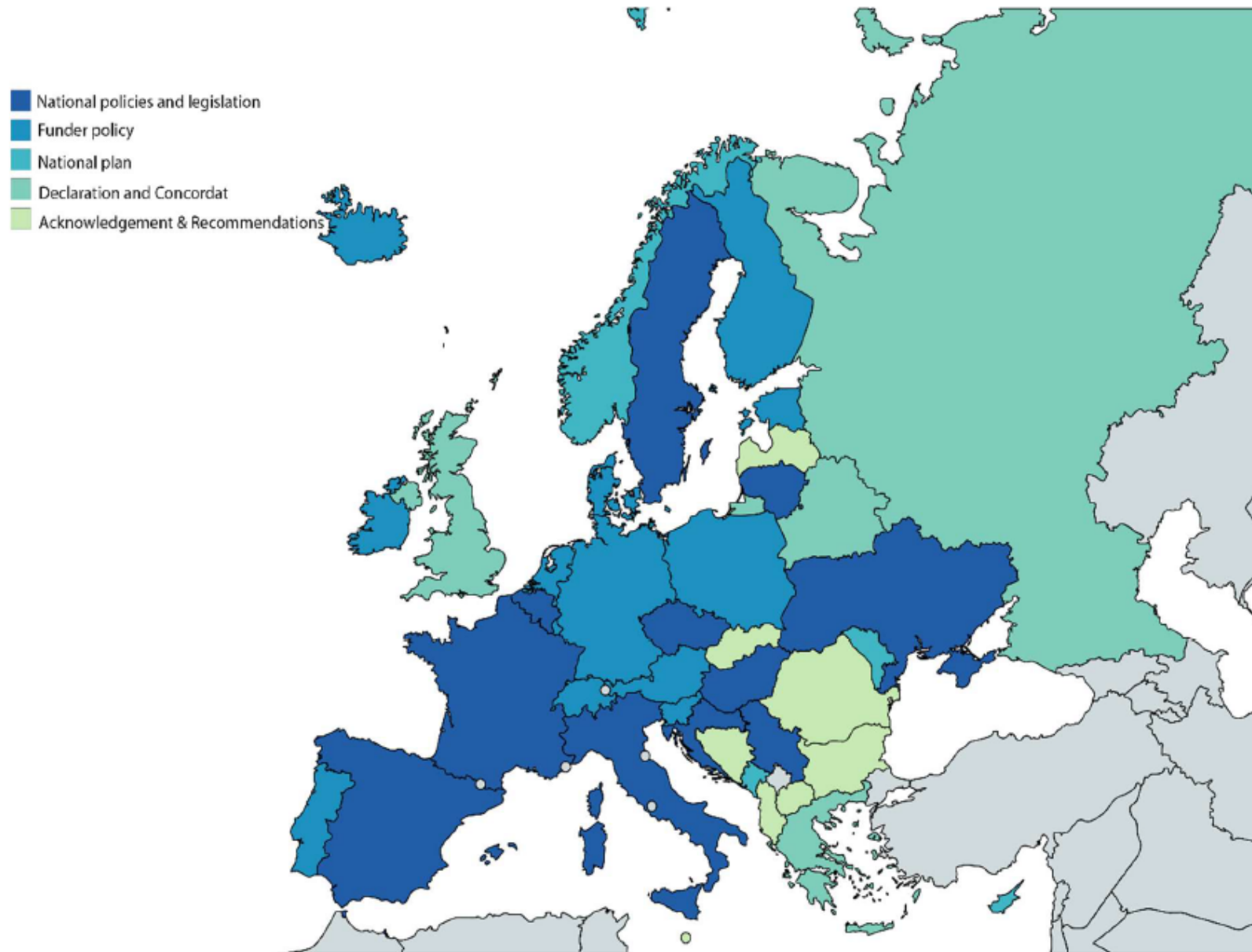❑Current status of OS policies across Europe

❑Blueprint

National Open Science Cloud Initiative

- A NOSCI is envisaged as a coalition of national organisations that have a prominent role and interest in the European Open Science Cloud (EOSC).

- The main aim of NOSCI is the promotion of synergies at national level, and the optimization/articulation of their participation to European and global challenges in this field of OSC, including the EOSC.

- National Initiatives are envisaged to play a prominent role in Member States and Associated Countries and facilitate EOSC governance.

Important OS policies across Europe

❏ In the recent years Open Science has moved from a merely theoretical construct, to the area of policy development and deployment

❏ At the level of research institutions, implementing measures and policies may take different forms and have different gravity such as:

   ❏ setting up an enabling environment,
   ❏ providing incentives for open access publishing,
   ❏ establishing a solid reward system,
   ❏ establishing mandatory rules on access to scientific publications or data, or
   ❏ funding for infrastructure.

❏ The measures are thus of three kinds:

   ❏ sticks (mandatory rules),
   ❏ carrots(incentives), and
   ❏ enablers (soft and hard infrastructure).

OS models across Europe

Legend:
- National policies and legislation
- Funder policy
- National plan
- Declaration and Concordat
- Acknowledgement & Recommendations

Blueprint

- NI4OS Europe has produced a **blueprint** that presents the building blocks of an Open Science ecosystem whilst ensuring its connection to the EOSC

- The building blocks set a framework for policies, governance mechanisms, standards and principles of engagement for providers and users

- The advantage of the proposed model is that the Blueprint can be further customized by any Member State and Associated Country and can be used as a valuable tool to advance national OSC, support the establishment of different types of national initiatives at different levels of maturity, monitor their progress and facilitate the governance of EOSC

Indicators

❑Important for evaluation of the state and level of NOSCIs

❑EOSC Secretariat has released a document "A working proposal for living indicators to monitor MS progresses towards EOSC Readiness" that recommends some indicators

❑The Blueprint proposes an indicative set of metrics that may be used for the assessment of the status and progress of the NOSCI in the region.

❑The proposed indicators are in line with the EOSC Readiness Indicators and may be used as a guide to complement the establishment and operation of a NOSCI.

❑These indicators and framework are agile and expandable to successfully address any countries-specific needs.

Indicators

- The indicators are categorized in four distinct categories:
  - NOSCI organization is focused on organizational, administrative and legal aspects of the NOSCI.
  - Infrastructure is focused on the core infrastructure aspects: the infrastructure itself and its operations.
  - Training and Skills assesses the nature and spread of the training activities within the NOSCI community.
  - Sustainability and international collaboration is focused on financial issues related to long-term sustainability of the NOSCI, as well as its relationship with international organizations, specifically in terms of sustainability at European level.

Workflows for setting up National OSC Initiatives

❑ National Open Science Cloud Initiatives cannot be a linear process

❑ There is no "one solution fits all" with regard the regional support of EOSC

❑ Initiatives take different form such as: task forces, consortia, national projects, professional associations or legal entities

Approaches

- Top down (objective-driven)
  - Initiated by higher authority stakeholders, such as Ministries and relevant Public Bodies, who set goals and utilise macro variables so as to identify the bigger picture and all of its components

- Bottom up (data-driven)
  - Involves all stakeholders in decision-making processes and focuses on specific characteristics and micro attributes more fundamental in nature

- Hybrid
  - A mixture between Top down and Bottom up. A hybrid approach breaks down activities and provides a multi-dimensional and transparent scoring system.

Steps for performing collaborative activities

❑ An essential first step is to identify relevant stakeholders and in turn design and establish the proper communication workflows between them

❑ A review on policies, (e-)infrastructures and training should follow to create a deep understanding of the current status and bring all stakeholders up to date and on the same path

❑ Following matching activity should be the categorisation of available services between EOSC-Core and EOSC-Exchange services, providing a clear distinction between the two categories.

❑ Next step will be drafting OSC strategy(ies) and associated implementation actions and its communication with Ministries.

❑ A separate activity should also be linking to Innovation Platforms.

Steps

❑ Stakeholders identification and engagement
  - ❑ Identify national organisations that have a prominent role in EOSC
  - ❑ Make contact with diverse research scientific communities
  - ❑ Reach out to national stakeholders
  - ❑ Collaborate with NGIs, NRENs, and national HPC initiatives
  - ❑ Collaborate with OpenAIRE NOADs
  - ❑ Approach relevant Ministries

❑ Designing of workflows and communication between stakeholders
  - ❑ Hold an inaugural meeting of the consortium
  - ❑ Hold working meetings and divide work in Task Forces
  - ❑ Involve Ministries right from the beginning

Steps

❑ Communication to wider public
- ❑ Communicate current Open Science Cloud status in the country and goals
- ❑ Hold an official inauguration event of the NOSCI targeted at wider public

❑ Drafting of National Roadmap
- ❑ Agree on common roadmap
  - ❑ Research outputs management, sharing and publication
  - ❑ Research/e-Infrastructures and services access and enhancement
  - ❑ Training and skills for digital research, data management and scholarly communication
  - ❑ Connection with existing R&D ecosystem focusing on information exploitation and innovation
  - ❑ Connection with the EOSC
- ❑ Define and adopt in the strategy any national and institutional level policies
- ❑ Reflect in the strategy the value of the European Open Science Cloud

Steps

❑Establishment and Sustainability

  ❑Consider and define the form that NOSCI

  ❑ Legal base - establishing a legal entity for promoting OS in the country with roles and responsibilities for EOSC

  ❑ Public private partnership - cooperation based on good practices and well-defined roles and responsibilities for the public and private sector

  ❑ Appointed by the government / ministry - experts (individuals or organisations) working under the authorship of Ministries; tied to national policies.

  ❑ Collaboration through an MoU- scope, duration, responsibilities and overall framework under which members build a consortium and collaborate are defined

  ❑Perform a cost-benefit analysis, complementary to the strategy

  ❑Seek national funding programme by proposing a national-level project

Steps

❑EOSC liaison and communication

- ❑ Communicate progress to Ministries and EOSC representatives
- ❑ Define national representation and liaison with the EOSC Association
- ❑ Link to national monitoring mechanisms / bodies for assessment

Operational aspects of the Blueprint

❑ Governance and organization
- ❑ The activities to be worked on by the initiative include integration of Open Science Cloud at the national level and are relative to setting up and management of infrastructures, services, policies and skills necessary for all technical, procedural and legal operations.
- ❑ All of them are characterized by three main stages in its lifetime: Planning - Establishment - Support and maintenance.

❑ Definition of Strategy
- ❑ The role of the strategic document is pivotal for the setting up and the success of a NOSCI.
  - ❑ Research Outputs
  - ❑ Access, preservation and RDM
  - ❑ Research Assessment
  - ❑ Skills and Training

❑ Infrastructures & services
- ❑ National Service Catalogue
- ❑ Information Technology Service Management Framework
- ❑ Monitor
- ❑ Access policies

❑ Sustainability