# **Building National Open Science Cloud Initiatives (NOSCIs)** in Southeast Europe: supporting research and scholarly communication

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#### **ABSTRACT**

The National Initiatives for Open Science in Europe (NI4OS Europe) project supports the development of the European Open Science Cloud (EOSC) by contributing to its portfolio of services, by involving national and regional research communities in the EOSC governance, by strengthening open science (OS) practices, and by promoting the FAIR principles (Macan et al., 2020; Garavelli et al., 2021) to help build the infrastructure and create a favourable environment for open and intensive scholarly communication.

The main instrument in achieving this is the network of 15 national Open Science Cloud Initiatives (NOSCIs) established in the partner countries as national-level coalitions of Open Science stakeholders that have a prominent role and interest in the EOSC. The concept of NOSCI has been developed in response to the specific traits and challenges in the targeted region, based on complex and multilayered analyses of stakeholders, policies, and local contexts (Toli et al., 2020). Inclusive by nature, NOSCIs connect stakeholders from across the research lifecycle at the national level and provide not only a testbed for the formulation of OS policies but also a forum for knowledge dissemination and sharing.

Drawing on a secondary analysis of the abundant data collected and materials produced during the project, this presentation focuses on the challenges identified as the NOSCIs were built - from data collection in the context of landscaping (Kosanović & Ševkušić, 2019) and policy analysis, through concept development, to implementation, testing, and verification (use cases). It highlights the relationship between individual challenges and NOSCI elements that address these challenges.

The challenges are largely owed to diversities within the region, most notably the varying levels of integration into European structures (of the 15 partner countries, eight are not EU members), linguistic diversity, different research governance systems, policy traditions, and available funding. The framework for NOSCI development, the so-called blueprint (Toli et al., 2020), was designed in full recognition of these diversities. It relies on three modular workflows (Toli et al., 2021) and gives maximum flexibility to countries or national initiatives while making sure that all locally specific aspects are addressed.



We believe that the approach adopted by the NI4OS-Europe team could be applied in other highly diversified environments, as has been demonstrated by the NI4OS-Europe use cases, thanks to the flexible mechanism of interaction between challenges and responses underlying the very concept of NOSCI.

#### **KEYWORDS**

European Open Science Cloud; NI4OS-Europe; National Open Science Cloud Initiatives; open science; national policies; Southeast Europe

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