

Open Science and Open Education in Serbia: Current status, ongoing activities and further plans

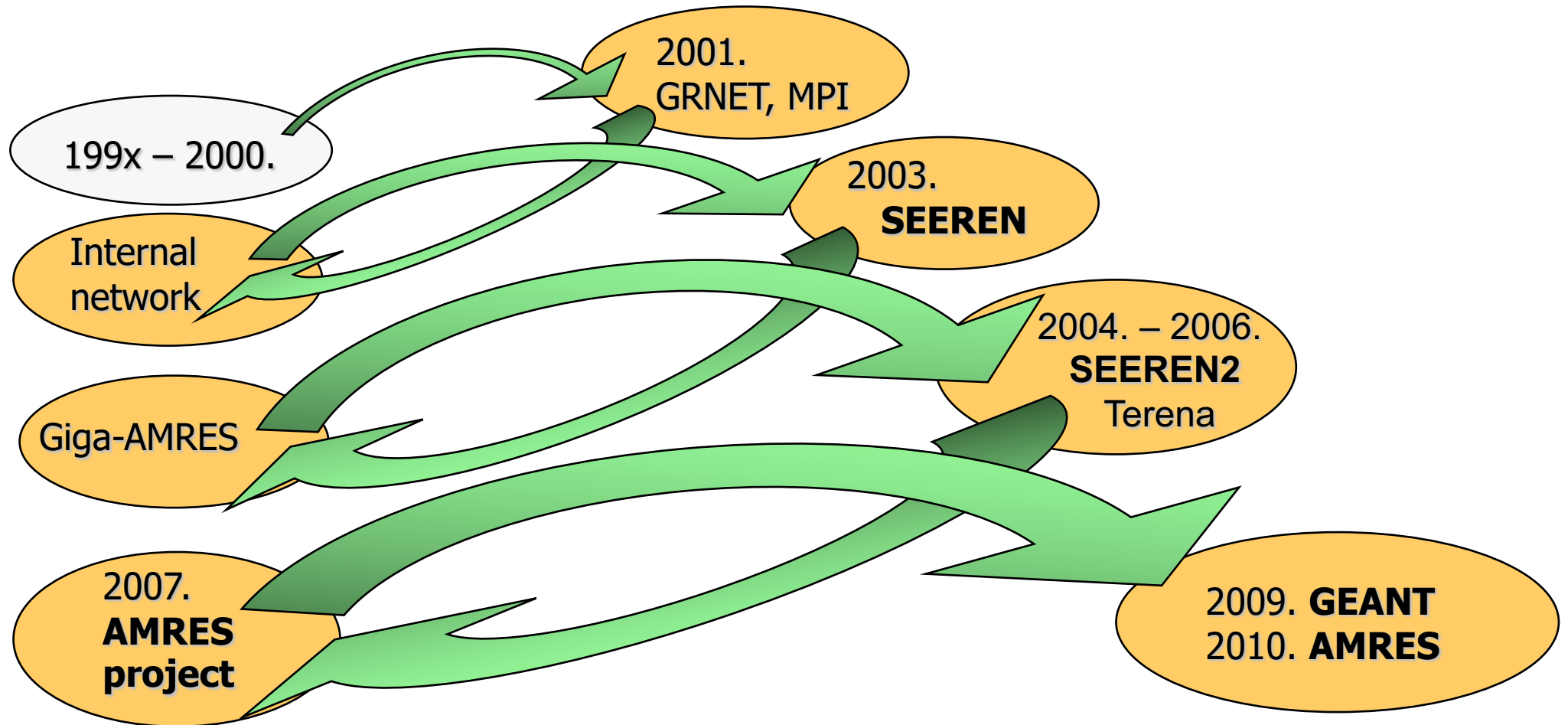


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e-IRG Workshop under Slovenian EU Presidency
Session 3: Western Balkans and EU collaboration

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e-Infrastructure development in Serbia – Brief overview



Serbian Science - Facts

- Small scientific community - up to 25.000 researchers
- 7.000 articles/year in WoS
- 1.200 PhD theses/year
- 80% of research is funded by the Serbian Government (<1% of GDP)
- 20% funded through EU projects (388 projects since 2013)
- 203 local journals indexed in Directory of OA Journals (DOAJ)
 - All on article level, with FAIR criteria
- Open Journal System by NGO SCIndeks (Serbian Citation Index)
 - 280 journals, 110.000 articles and 2.000.000 citations
 - Self-sustainable programe

Open Science Initiative



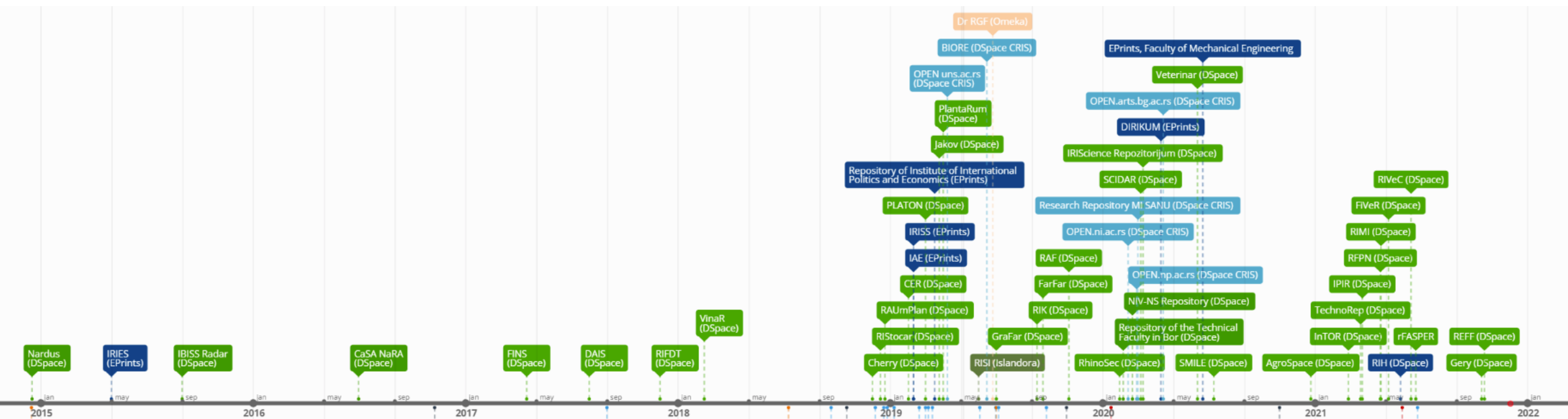
- 2014: Law of HE – PhD theses in permanent Open Access (OA) is mandatory
 - Result: National Theses Portal - NaRDUS (12.000 theses so far), by TEMPUS project
- 2015: OpenAIRE project – Initial work at UB in OA
 - Capacity building, policy development, building infrastructure – IT and staff
- 2016–2019: TEMPUS project BEOPEN
 - Boosting Engagement of Serbian Universities in Open Science - 5 of 6 state universities
- 2017 – 2019: OpenAIRE Advance
 - National Open Science Portal
- 2020: EOSC Cocreation project
 - Work on RDM – Research Data Management (rdm.open.ac.rs)



Open Science Initiative



- Bottom-up initiatives by institutions - Institutional repositories in OA
 - 47 repositories in OpenDOAR (Directory of OA Repositories)
 - 34 are OpenAIRE compatible and regularly harvested by OpenAIRE



Open Science Policies

- RCC – Regional Cooperation Council (WB)

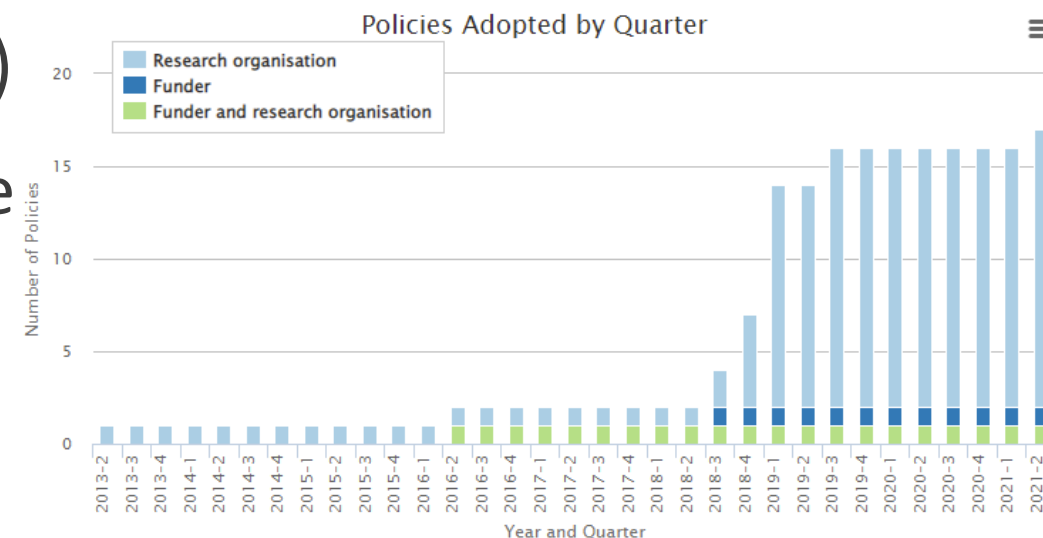
- 2018: National Platform for Open Science

- 16 Institutional Policies in ROARMap
(The Registry of Open Access Repository
Mandates and Policies)

- RCC - Open Access Research Infrastructure in WB Support Programme

- Policy for Open Access to Research Infrastructures at UB
 - Solution and Organizational Model for the Implementation of
Institutional or Thematic Repositories

- NI4OS project – RePol



Open Science – Researches perspective

- National Open Science Days
 - „What are your needs for Open Science?“



awareness Bibliometric-services citation-tools clear-data-management-guidelines-on-line Create-and-development-of-the-institutional-
repository-of-Comrat-State-University CRIS data-anonymization-tools data-repository-platform
Data-repository-software DMP-tools document-scanning e-book-readers Electronic-Catalog Fairifying-tools FAIRness-
assessment-tools fundings Institutional-Repository metadata-storage-tools on-line-course Open-Access-and-Open-Publication-training platforms-
for-presenting-digitized-material publishing-platforms repository-
software Research-data-cloud-platform research-data-curation-and-preservation software software-de-depositare statistical-analysis-tools
storage-software technological-tools textbook Training-for-researchers-and-librarians Trainings transcription-tools VPN

Open Science – Government perspective

- 2014: Law of HE – PhD theses in permanent Open Access
- 2018: National Platform for Open Science
- 2019: Law on Science and Research
 - Full article for OS, and elsewhere
- 2020: Team for Open Science in Serbia (TONuS)
 - Wide group of experts in OS
(6 decision-makers, 17 researchers, 6 librarians and research-support stuffs)
- 2021: Strategy of Scientific and Technological Development
 - A little less ☹️
- Dec 2021: National Registry of Researchers, Office for IT and eGovernment
 - Fully inline with open science principles

Open Science – EC perspective

- EC progress report – Science / Open Science

- Up to 2019 – full page for Science, positive report on Open Science

- 2019:

On **research and innovation policy**, the main priorities of the European Research Area are incorporated in the strategy on scientific and technological development. Some progress was made with the new law on science and research and the adoption of the first smart specialisation strategy, although an action plan for the strategy has yet to be adopted. A new funding mechanism, the Science Fund, was established, bringing more competitive approach into the national system. National open science and open access initiatives are well underway. The Strategy for the Development of Artificial Intelligence for 2020-2025 was adopted in December 2019 and an action plan for its implementation is being developed. In the 2020

- 2020: Open Science is not mentioned

Open Education

- Experiences from online learning
 - Understanding the needs for Open Education Resources (OER)
- Early steps
- 2021: UNICEF - Bridging Digital Divide
 - Digital Educational Resource Bank – assessment and proposal
- 2021: Institute for the Evaluation of the Quality of Education and Upbringing
 - Quality assurance in integration of digital technologies in education
- Initiative by MESTD to develop National Repository for OER
 - Central node in OER infrastructure

Lessons learned

- Jointly work – Top-down and/or Bottom-UP
 - Community
 - Ministry/Government
 - EU projects
- Challenges
 - Support
 - Funding
 - Staff