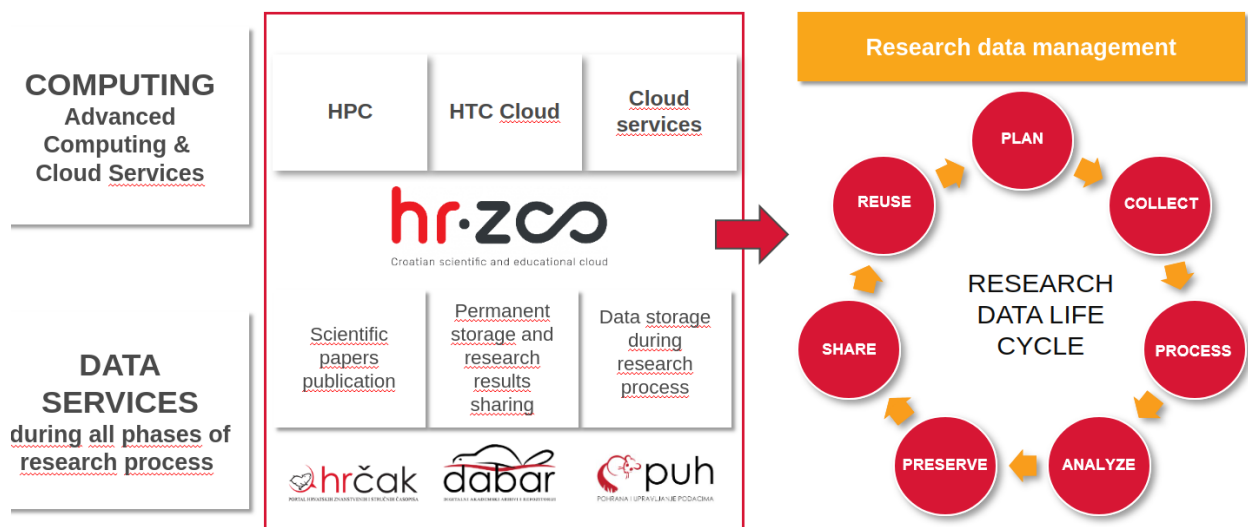


The Role of CRIS as a Glue for National e-infrastructure and Digital Services for Open Science

Authors: Petra Udovičić, Neven Balenović, Ognjen Orel

University of Zagreb, University Computing Centre – SRCE is actively advancing open science and providing crucial support to the scientific community in Croatia. Through Croatian Scientific and Educational Cloud (HR-ZOO)¹, we provide a wide range of advanced computing and cloud services, alongside data services designed to simplify research data management across all stages of the research process. In this talk, we will show how National Open Science Cloud services are interlinked with a national CRIS in Croatia².

Our goal is to contribute to the Croatian Open Science Plan, striving to enrich the understanding and application of open science principles within the academic and scientific community. SRCE was appointed as a mandate organization in EOSC³ by the Croatian Ministry of Science and Education and thus assumed the pivotal role of coordinating the national initiative for open science.



Under our guidance, the Croatian Open Science Cloud (HR-OOZ) Initiative has been started, concentrating on producing a draft of the national plan and policies for open science by defining the initiative's structure and principles. The Croatian Research Information System (CroRIS) serves as the repository of HR-OOZ services and resources, solidifying our dedication to cultivating an atmosphere that encourages open science practices in Croatia. As the national Current Research Information System (CRIS), CroRIS actively promotes open science by ensuring the reliability of information, openness, and interoperability, and providing essential support for informed decision-making. In doing so, CroRIS serves as a cornerstone in advancing the scientific

¹ <https://www.srce.unizg.hr/hr-zoo/>

² <https://crosis.hr/>

³ <https://eosc-portal.eu/>

landscape in Croatia and contributing to the scientific community. Above that, CroRIS helps automate and orchestrate other computing and data services.



Some notable mentions of services within the CroRIS HR-OOZ catalogue, Digital academic archives, and repositories – DABAR⁴, Data storage and management service – PUH⁵, and Advanced computing⁶, along with others, are briefly introduced in this abstract. However, during the upcoming presentation, these services will be more extensively discussed.

Advanced computing applies state-of-the-art computing infrastructure to help researchers solve resource-demanding problems in various scientific fields such as artificial intelligence, bioinformatics, computational chemistry, climate modelling, seismology, and many others. Support for these services includes consulting offered through the role of “e-scientists”. They help researchers choose the best-fit resource based on their needs, assist with setting up the environment, update existing applications, install, and optimization of new scientific applications, as well as assist in running applications. Access to the supercomputer and HTC Cloud services completely depends on projects being registered and validated in CroRIS. Only researchers related to projects in CroRIS can access advanced computing services.

PUH is a system by which SRCE enables users from the academic and scientific community to reliably store and share files on SRCE storage systems. The PUH system is based on NextCloud open-source software.

DABAR (Digital Academic Archives and Repositories) is the national platform for institutional repositories. It is the key component of the Croatian e-infrastructure’s data layer, a system that enables all legal entities from the academic and scientific community to easily establish and maintain reliable and interoperable institutional and thematic repositories. By establishing a repository, legal entities are provided with a reliable environment for the development and maintenance of collections of digital materials through the supported functionalities of permanent storage and dissemination of various digital objects. SRCE develops and systematically improves the DABAR system in cooperation with the academic and scientific community in Croatia. CroRIS

⁴ <https://dabar.srce.hr/>

⁵ <https://www.srce.unizg.hr/puh>

⁶ <https://www.srce.unizg.hr/en/advanced-computing>

and DABAR are deeply linked one to another, as institutional repositories are a place to permanently store not only full texts but also research data and all digital objects related to publications and projects.

SRCE contributes to open science by building open research infrastructures, digital resources, and services. In this talk, we will introduce those HR-OOZ services and the means of bringing them together with a national CRIS to create a meaningful whole.

References

- [1] Imamagić, Emir
Role of national e-Infrastructure in OS // PUBMET2020: the 7th Conference on Scholarly Communication and Publishing in the Context of Open Science; Virtual event, 16.09.2020-18.09.2020
<https://urn.nsk.hr/urn:nbn:hr:102:109492>
- [2] Posavec, Kristina; Celjak, Draženko; Jertec Musap, Ljiljana
Role of a Croatian National Repository Infrastructure in Promotion and Support of Research Data Management // Data Science Journal, 19 (2020), 48-48
<https://datascience.codata.org/articles/10.5334/dsj-2020-048>
- [3] Dobrenić, Dobriša, Imamagić, Emir i Marić, Ivan
Project HR-ZOO - The Final Stages of Implementation // Computational Chemistry Day; Zagreb, Croatia, 24.09.2022-24.09.2022
<https://urn.nsk.hr/urn:nbn:hr:102:480952>
- [4] Celjak, Draženko
Data and open science from the perspective of service provider // Srce DEI 2023; Zagreb, Croatia, 28.03.2023-30.03.2023
<https://urn.nsk.hr/urn:nbn:hr:102:545663>
- [5] Marić, Ivan; Belavić, Martin; Celjak, Draženko; Udovičić, Petra
SRCE for Open Science: National e-infrastructure and digital services // 3rd DARIAH-HR International Conference; Zagreb, Croatia 25-27 October 2023
<https://urn.nsk.hr/urn:nbn:hr:102:704823>