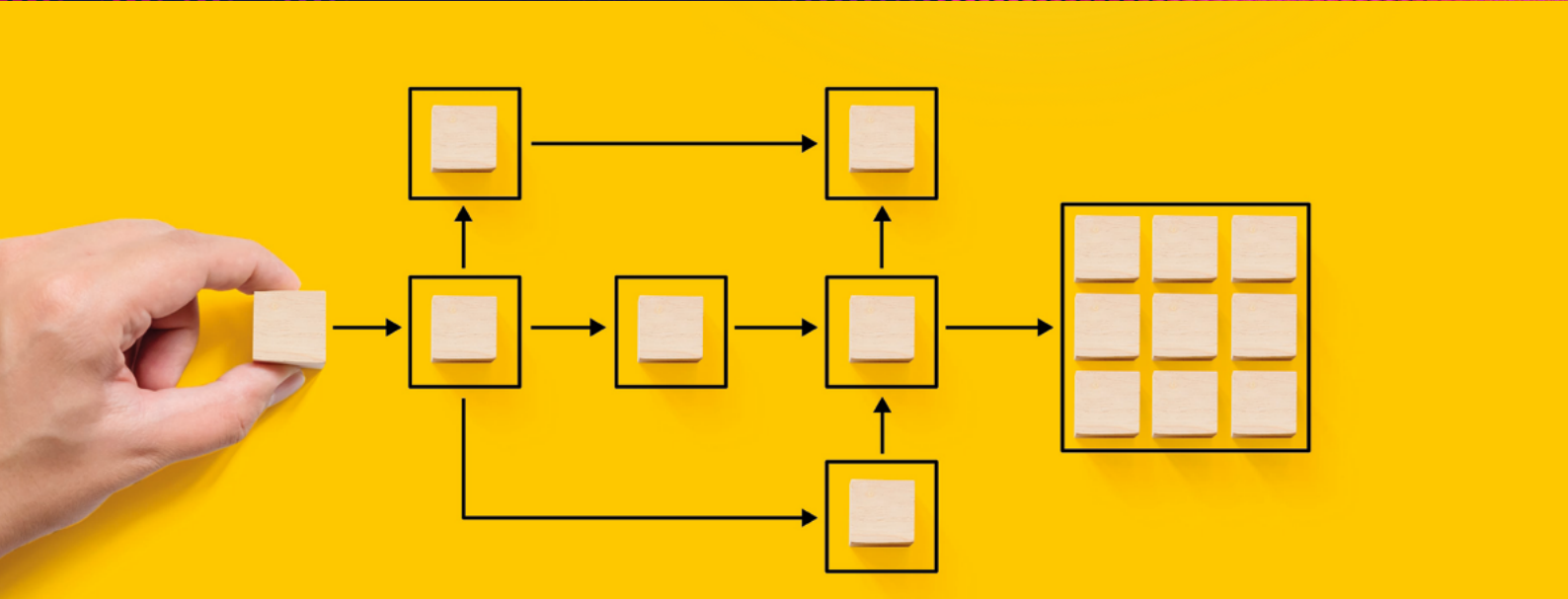
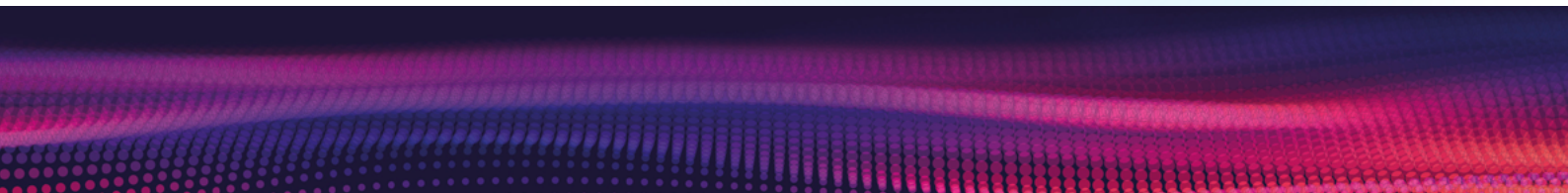




FAIR Signposting for current and future versions of the Tunisian portal for research outputs



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Support action:

FAIR signposting and RO-Crate

Keywords:

FAIR signposting, national level repository, InvenioRDM, PIDs, RO-Crate

Summary:

CNDUST implemented signposting Level 1 on [PIST](#), which is the first Tunisian repository developed based on Invenio's legacy version. Implementation of Signposting Level 2 on [InvenioRDM](#) was explored and started by one of the project partners.



■ Introduction

At CNDUST, the University National Center of Scientific and Technical Documentation, which is part of the ministry of Higher Education in Tunisia, we collect all the research output at national level and have the mission to publish them and make them more visible nationally and globally.

Our current repository, the Tunisian Technical and Scientific Information Portal (<http://www.pist.tn>), is based on Invenio's legacy framework, but we are planning to move to the new version of InvenioRDM in a few years. InvenioRDM is a collaborative project to build an open-source research data management repository based on Invenio Framework and Zenodo. CNDUST has been a partner of this project for around 3 years now.

We already had a background on Signposting and RO-Crate and, before submitting our application for the support action, we had already planned and discussed three goals that we would like to achieve: (1) implement signposting Level 1 on our current repository, (2) implement signposting Level 2 on InvenioRDM with the support of our partners, and (3) explore the possibility of integrating RO-Crate to InvenioRDM.

■ Approach taken:

During the support action we completed the first goal, implementing Level 1 signposting to our current repository and we partially achieved the second goal, implementing Level 2 signposting to InvenioRDM.

The implementation of the Level 2 signposting method in the InvenioRDM was started by one of the partners. An API endpoint will provide the necessary metadata that will be shared in JSON-LD format. The main scope of this implementation is the serialisation aspect of the signposting. By the end of the support action, we still had some issues related to how to expose this on the front end and were discussing how to do this securely and being consistent with other parts of the project. But I am confident that this will be solved over the next year, and we will have the signposting Level 2 specifications implemented on InvenioRDM. During the support action, we also started exploring the possibility of integrating RO-Crate to InvenioRDM. The support of the mentors was very valuable and we also learned a lot from the experience of other institutions.

■ Challenges encountered and addressed:

Map Metadata from MARC21 schema to datacite schema/JSON LD:

Our repository is currently implemented in Invenio's legacy version, that uses MARC 21 metadata specifications which are not totally in compliance with DataCite metadata specifications used by Signposting and RO-Crate. The InvenioRDM framework already uses DataCite specifications, so no further efforts are needed in this case.

Metadata without Persistent Identifiers :

The lack of use of uniform PIDs by Tunisian researchers when they reference their research objects impacted the signposting specifications implementation for some records in our repository. It is an issue that we will share with the Tunisian universities in order to get consensual and uniform PIDs that will be used by researchers at a national level.



■ Impact:

The support action has definitely impacted the repository metadata entry practices, and after this experience, we will be focusing more on promoting the use of PIDs in research outputs, especially for authors, affiliations and research objects such as publications, datasets, software or workflows. We will share what we have learned with our national institutions and make sure to inform the libraries in our network of the importance of the use of PID metadata to make our repositories more FAIR enabling. Informing the libraries about emerging technologies is one of our missions at national level. We will develop an action plan to make research output FAIR-enabling and promote the use of Signposting and RO-Crate approaches.

The implementation of signposting Level 2 in InvenioRDM, when complete, will be available in the next releases of InvenioRDM. We will continue to explore the possible use of RO-Crate in InvenioRDM as a tool to integrate and exchange research outputs.

We are looking forward to continuing our collaboration with the FAIR-Impact project to implement some further actions at national level and to improve the FAIRness of Tunisian research data.

■ Key message:

The implementation of signposting Level 1 using HTML tag is easy, so start by implementing this level as this will help you to confront your metadata with signposting specifications and decide which signposting level is suitable for your case.





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