

Getting started with the ENVRI RM

The ENVRI Reference Model (ENVRI RM, RM) exists to illustrate common characteristics of environmental science research infrastructures in order to provide a common language and understanding, promote technology and solution sharing and improve interoperability.

About

Independent development of research infrastructures leads to unnecessary replication of technologies and solutions whilst the lack of standard definitions makes it difficult to relate experiences in one infrastructure with those of others. The ENVRI Reference Model (ENVRI RM) uses Open Distributed Processing (ODP) in order to model the "archetypical" environmental research infrastructure. The use of the ENVRI RM to illustrate common characteristics of existing and planned European Environmental Research Infrastructures from a number of different perspectives provides a common language for and understanding of those infrastructures, promotes technology and solution sharing between infrastructures, and improves interoperability between implemented services.

Intended Audience

The intended audience of this document is the [ENVRI community](#) as well as other organisations or individuals that are interested in understanding the top level conceptual architecture that underpins the construction of such research infrastructures. In particular, the intended primary audience the Reference Model includes [\[33\]](#):

- Research Infrastructures Implementation teams:
 - Architects, designers, and integrators;
 - Engineers – to enable them to be able to drill down directly to find required knowledge;
- Research Infrastructure Operations teams; and
- Third party solution or component providers.

The Reference Model is also intended for research infrastructure leaders and service centre staffs.

The Reference Model can be read by others who want to better understand the ENVRI community work, to gain understanding necessary to make contributions to the standardisation processes of environmental research infrastructures.

Document Structure

[Introduction](#) introduces the motivation and background knowledge of the ENVRI RM.

[Model Overview](#) presents an overview of the ENVRI RM against the backdrop of a typical lifecycle for research data.

[The ENVRI Reference Model](#) is a detailed description of the ENVRI RM from the Open Distributed (ODP) Viewpoints perspectives.

[Conclusions and Future Work](#) concludes this work.

Appendices are not formally part of the reference model. They provide additional information that may be helpful and for the convenience of the reader.

[Appendix A Common Requirements of Environmental Research Infrastructures](#) presents the full list of the required functionalities that is the result of the investigations of the common requirements of Research Infrastructures.

[Appendix B Terminology and Glossary](#) is a glossary of terms, and consists of concepts and terms defined throughout the ENVRI RM.

How to Read

- The primary audience of the ENVRI RM should generally read the whole documentation, starting with the [Introduction](#) and [Model Overview](#). Such readers then should proceed to the [Science Viewpoint](#) and the [Information Viewpoint](#) before looking at the [Computational Viewpoint](#). It is not necessary to read everything nor to read in order. The tutorials given below are useful entry points. Elsewhere (link to be provided) we give detailed guidance on how best to engage with the Reference Model for different purposes.
- The leaders of research infrastructures, and service centre staff may want to read the introduction and background knowledge in [Introduction](#) and [Model Overview](#).
- Readers who have general interests in the ENVRI RM may want to read [Introduction](#).

Learning

The ENVRIplus project is developing custom materials for different types of users of the ENVRI RM which complement this wiki and the other dissemination materials ([Learning Materials](#))