Research Data Management Toolkit (RDMkit): guidelines for plant phenotyping data management and sharing

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8: BioData.pt, Instituto Gulbenkian de Ciência, 2780-156 Oeiras, Portugal

Efficient sharing of plant phenotyping data is a challenge that has been addressed during the last two decades by European infrastructures (ELIXIR, EMPHASIS) and international communities (CGIAR), that allowed to coordinate the effort of major institutes developing activities in the domain.

They produced consistent and interoperable sets of resources to support plant phenotyping data management:

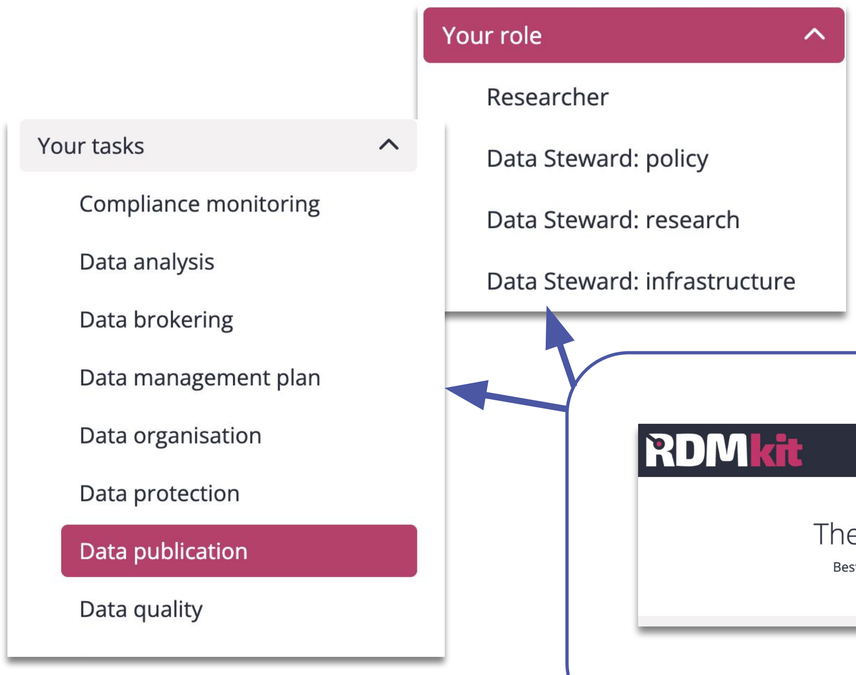
- data standards: Minimum Information About Plant Phenotyping Experiments (MIAPPE), and the Breeding API (BrAPI)
- databases: PIPPA, PHIS, GnpIS, e!DAL-PGP among others
- exchange file formats: MIAPPE Template, ISA-Tab

These systems and standards have been designed to be as close as possible to researchers and experimenters needs. As a consequence, important efforts have been made to ease their adoption through documentations and trainings. However all these resources remain dispersed, and it can be complicated for new users to know where to get the right information.

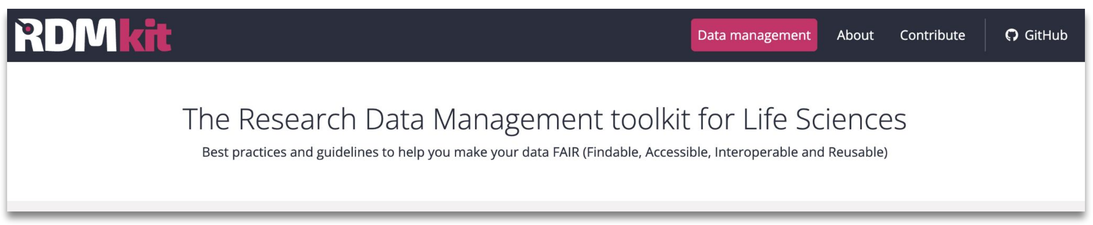
To address this issue, ELIXIR has developed in the frame of the ELIXIR-CONVERGE project a central portal of guidelines and resources supporting FAIR data management in Life Sciences: the Research Data Management toolkit (RDMkit).

RDMkit is a one stop portal that gives a general overview and understanding of the complementarity of the solutions, and links back to the extended documentation and training materials maintained for each of them. To develop and sustain this portal, ELIXIR has engaged with various communities, infrastructures and projects, among which the ELIXIR plant science community and the AGENT project.

In the RDMkit, the plant community has built a set of pages and in particular is building plant phenotyping guidelines. The present poster gives an overview of the RDMkit logic and of the solutions presented in the plant sciences pages, including the procedures and contact to submit enrichment and additional solutions.

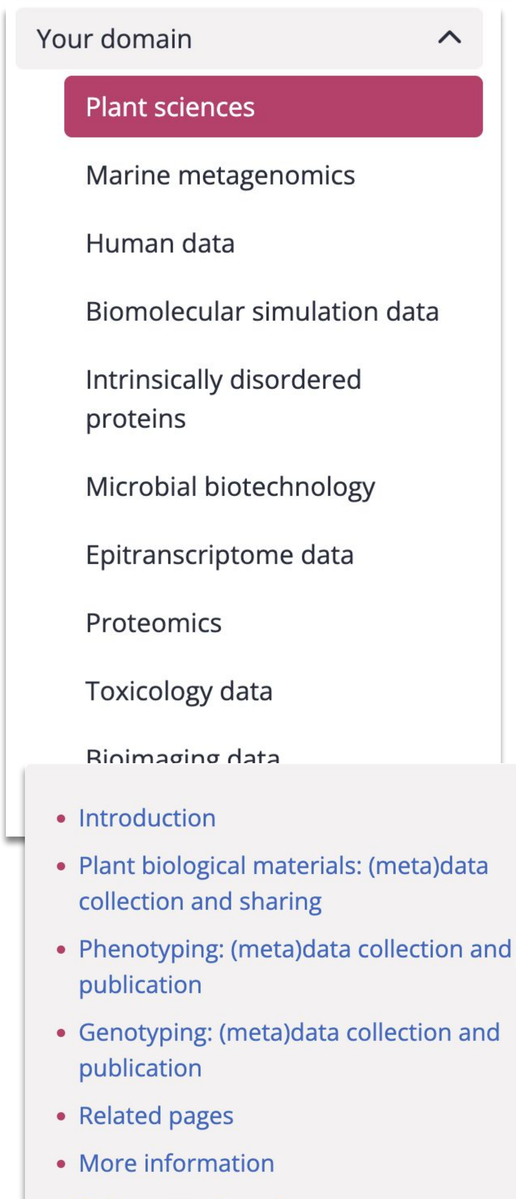


ONE-STOP PORTAL



to find guidelines, documentation and how-tos

Community selection of data management good practices



- Introduction
- Plant biological materials: (meta)data collection and sharing
- Phenotyping: (meta)data collection and publication
- Genotyping: (meta)data collection and publication
- Related pages
- More information
- Relevant tools and resources

Consistent groups of tools in tool assemblies

Tool assembly

Plant Genomics

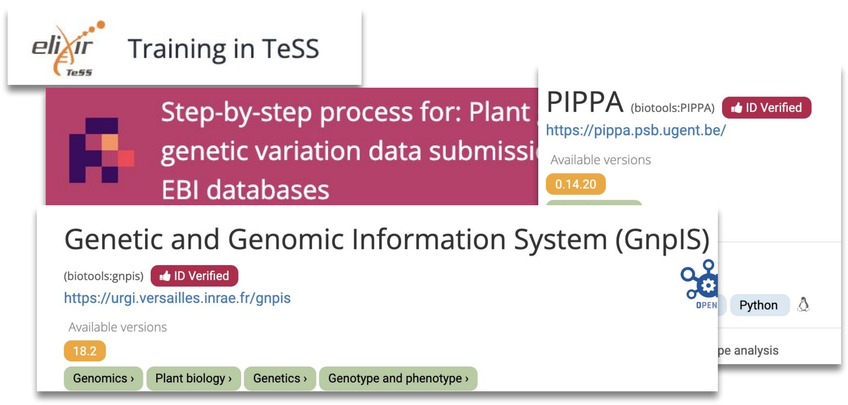
- What is the plant genomics tool assembly?
- Who can use the plant genomics tool assembly?
- How can you access the plant genomics tool assembly?
- For what purpose can you use the plant genomics tool assembly?
- Related pages
- More information
- Relevant tools and resources

Tool assembly

Plant Phenomics

- What is the plant phenomics tool assembly and who can use it ?
- How can you access the plant phenomics tool assembly?
- The plant phenomics tools
- Related pages
- More information
- Relevant tools and resources

Tool pages and tutorials



OPEN CONTRIBUTION

Useful links:

Contribute:
rdmkit.elixir-europe.org/how_to_contribute

Plant sciences page:
rdmkit.elixir-europe.org/plant_sciences

Plant phenomics tool assembly:
rdmkit.elixir-europe.org/plant_phenomics_assembly

AGENT project: agent-project.eu
ELIXIR Europe: elixir-europe.org

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