



FAIRDOM User Meeting May 2022

<https://fair-dom.org>
<https://fairdom-seek.org>



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Bring together users of FAIRDOM-SEEK tools and services

Users

- Build a community forum
- Exchange experiences about the use of FAIRDOM-SEEK
- Start possible collaborations

Users and the FAIRDOM Consortium

- Feedback, suggestions, updates
- Highlight communication channels to work with and join the FAIRDOM team

Next meeting **17 Oct 2022 14:00 CET**



Today's Agenda

14:05 - FAIRDOM Introduction: features now and coming

14:20 - **Cyril Pommier**, INRA - Institut national de la recherche agronomique, France and ELIXIR-FR

SEEK for plant sciences, feedback on the use of a dedicated instance for the H2020 AGENT Project

14:40 - **Frank Meineke**, University of Leipzig, Germany

Leipzig Health Atlas

15:00 - **Jasper Koehorst**, Wageningen University, The Netherlands

WorkflowHub

15:20 - **Andrej Blejec**, National Institute of Biology, Ljubljana, Slovenia

Bulk uploading from pISA-tree to FAIRDOM using SEEK API and R package seekr

15:40 - Discussion

FAIRDOM

FAIR Asset Management for Projects

Organising

Sharing

Showcasing

Retaining

Reusing



People: Programmes, Projects, Profiles, Institutions

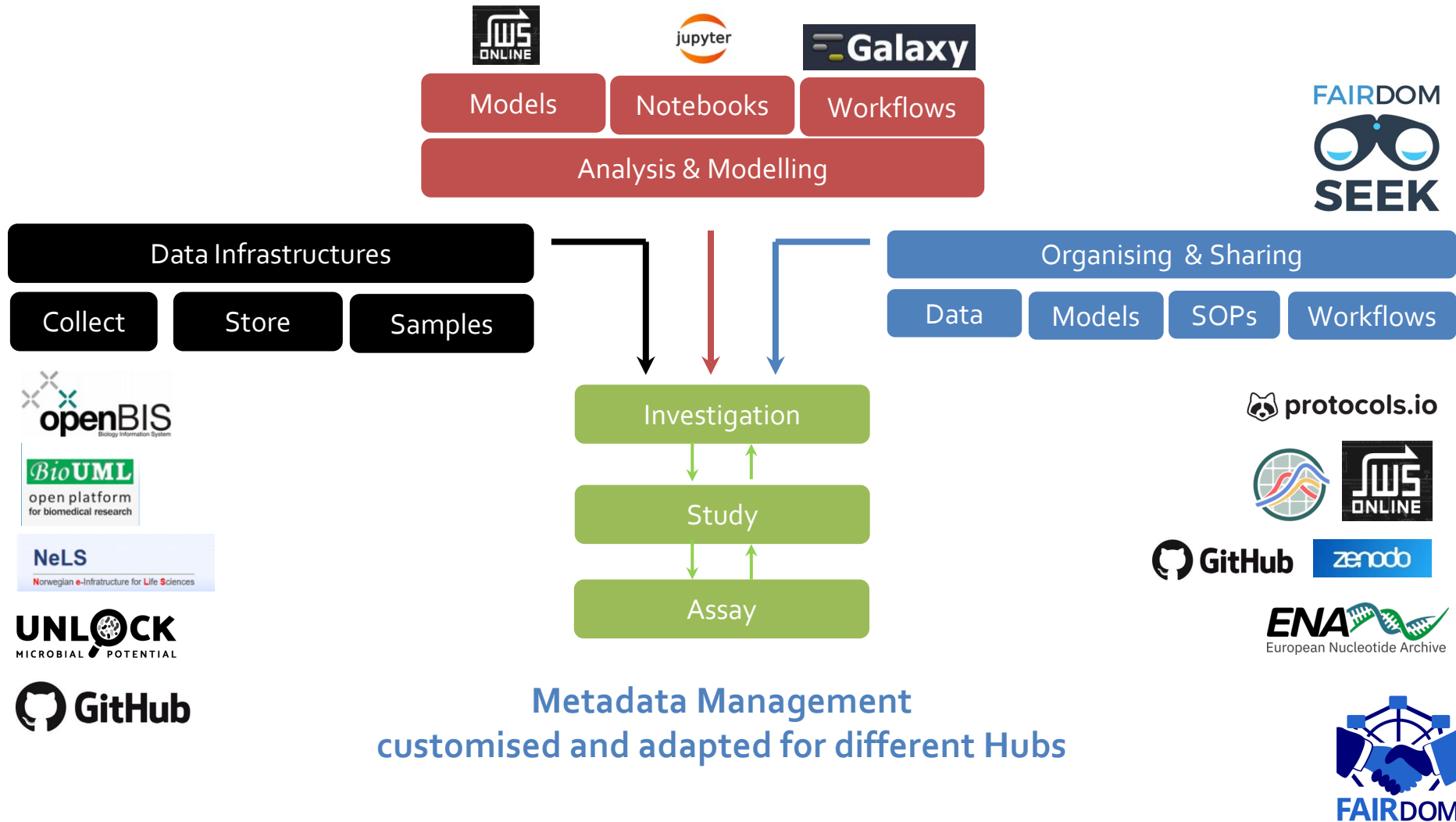
Experiments: Investigations, Studies, Assays

Assets: Data files, Models, SOPs, Publications, Documents, Workflows, Collections

Samples: Samples, Sample types, Organisms, Strains

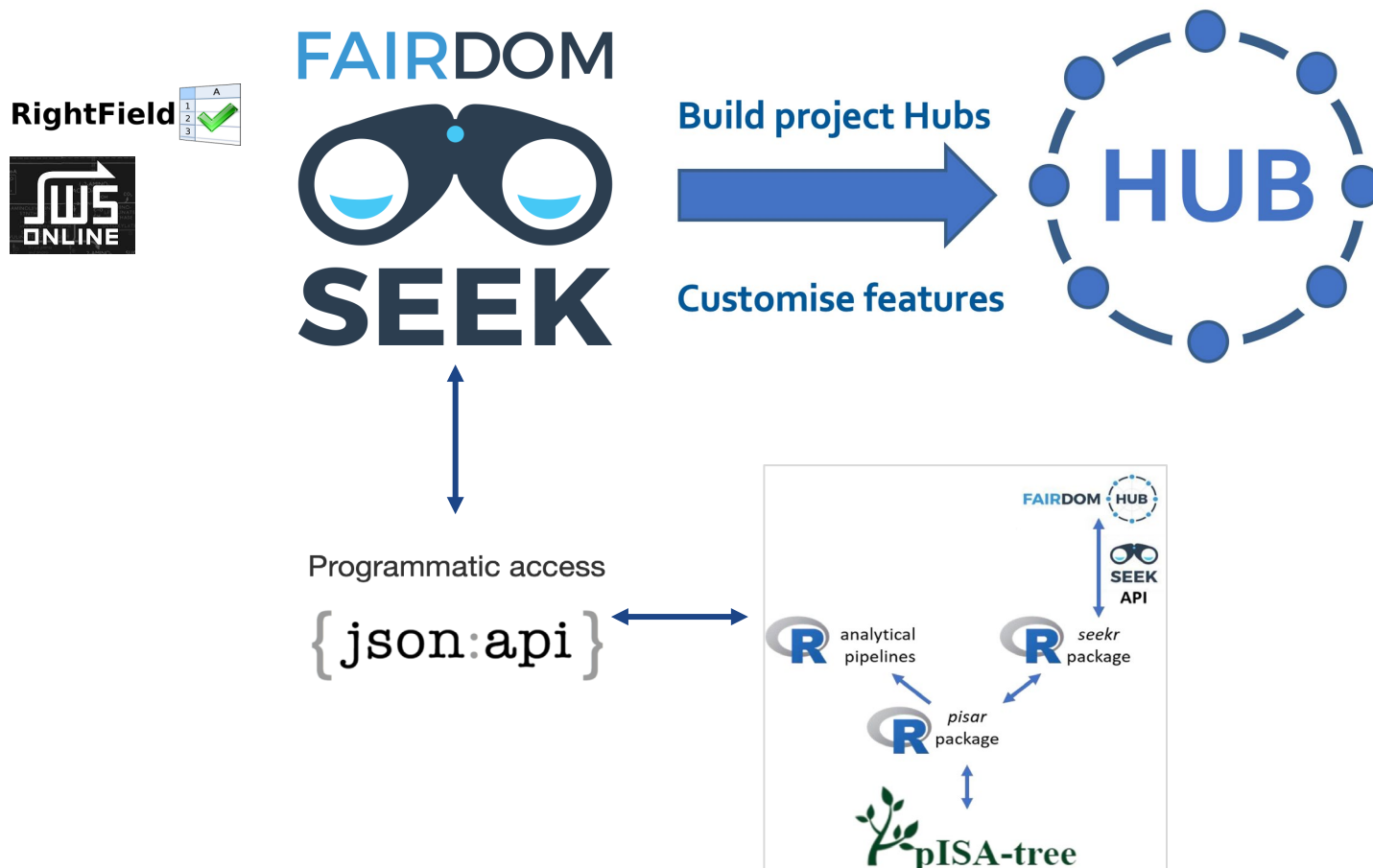
FAIRDOM Framework

FAIR Asset Management for Projects



Open Source Software

FAIR Asset Management for Projects



doi: 10.1101/2021.11.18.468977

Project and Community Hubs

FAIR Asset Management at all scales of project

Public Hubs



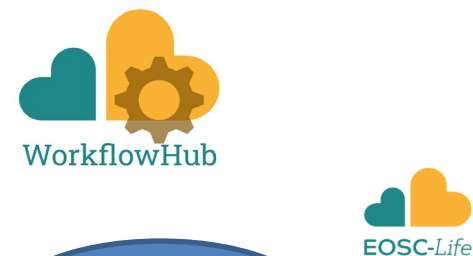
275 projects

Project Hubs



140 Hubs

Specialised Hubs



230+ workflows
92 teams



Community Activities
Project Support



FAIRDOM Consortium

a collective of developers, users and projects

- Work together on the code bases and tools
- Support the public hubs and their own private hubs
- Partner in projects to use, sustain and support FAIRDOM



Criteria for joining?

Willingness to contribute.

FAIRDOM Consortium

Ongoing Projects supporting FAIRDOM



EuroScienceGateway

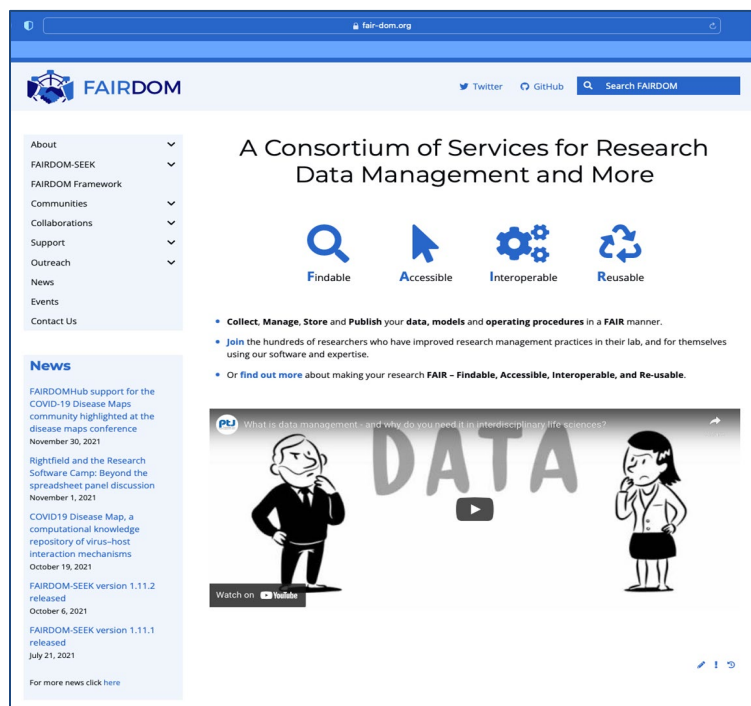
AgroServ

EOSC₄Cancer

Do you have a project that can contribute?



FAIRDOM promotion



Website refresh

<https://fair-dom.org/>



Node Service Features in RDMkit

<https://rdmkit.elixir-europe.org/>



COVID Disease Map Consortium

<https://fairdomhub.org/projects/190>



FAIRDOM-SEEK, version 1.12.0 released Today!

<https://docs.seek4science.org/tech/releases/#version-1120>




Feature Fest SEEK Hub Customisations

Landing Page

- Hub Look
- Personalisations

FAIRDOMHub: The better way to manage your data
Free and open platform for easier research data management



Organise & Structure
Organise documents and data to easily manage your research project
[Learn more](#)

Manage access
There is a lot of flexibility and control over who can see, download or edit your items

Standardise research data
Use available standards to describe your dataset and make it ready for publication

Publish & Share data
Publish your data and link them to your scientific article
[Register](#)

My FAIRDOMHub

Projects I administer

- Perennial ryegrass
- Genetic diversity and forage yield of perennial ryegrass
- FAIRDOM Community Workers

Other Projects I am a member of

My recent changes

- Perennial ryegrass
Project - updated 3 months ago
- not associated with assay
Sample - added 3 months ago
- project sop
SOP - added 9 months ago
- teststudy
Study - added 9 months ago

Help - My Items Flora D'Anna -

Quick start

- [Create Project](#) Create a new Project
- [Join Project](#) Request membership of an existing Project

For more information

<https://docs.seek4science.org/tech/releases/#version-1120>

Feature Fest

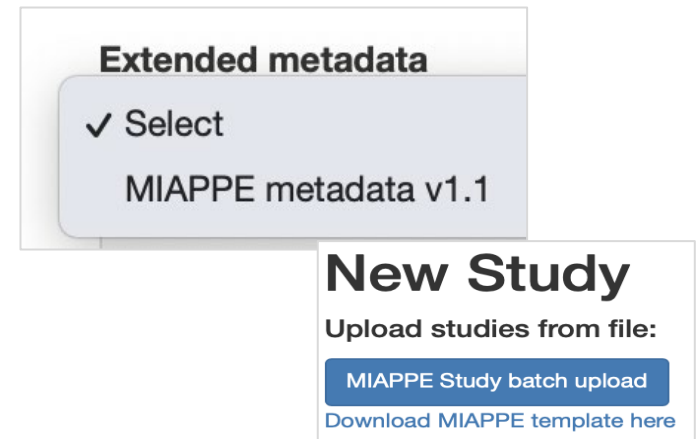
Metadata enrichment

Custom/extended metadata support

- Specific standards, initially MIAPPE
- Other standards through configuration – currently on request for FAIRDOMHub

Integration of ontologies

- Browse ontologies available from EBI's Ontology Lookup Services and apply to attributes for samples and custom metadata



Extended metadata

✓ Select

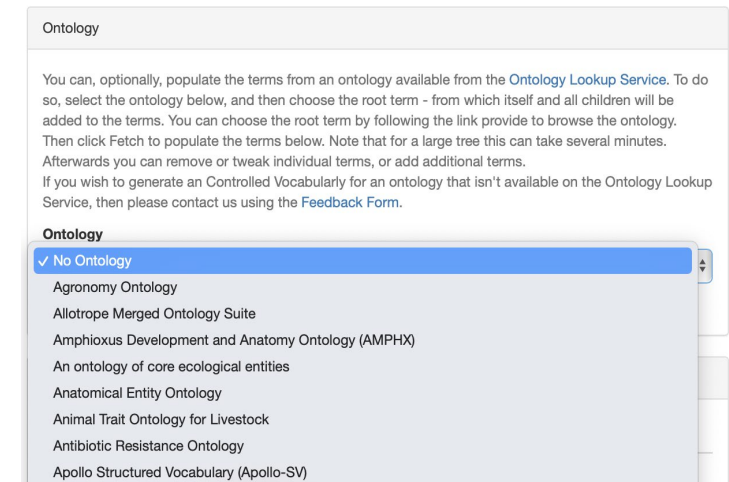
MIAPPE metadata v1.1

New Study

Upload studies from file:

MIAPPE Study batch upload

[Download MIAPPE template here](#)



Ontology

You can, optionally, populate the terms from an ontology available from the [Ontology Lookup Service](#). To do so, select the ontology below, and then choose the root term - from which itself and all children will be added to the terms. You can choose the root term by following the link provide to browse the ontology. Then click Fetch to populate the terms below. Note that for a large tree this can take several minutes. Afterwards you can remove or tweak individual terms, or add additional terms. If you wish to generate an Controlled Vocabulary for an ontology that isn't available on the Ontology Lookup Service, then please contact us using the [Feedback Form](#).

Ontology

✓ No Ontology

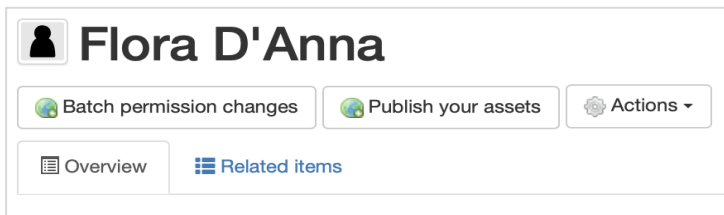
- Agronomy Ontology
- Allotrope Merged Ontology Suite
- Amphioxus Development and Anatomy Ontology (AMPHX)
- An ontology of core ecological entities
- Anatomical Entity Ontology
- Animal Trait Ontology for Livestock
- Antibiotic Resistance Ontology
- Apollo Structured Vocabulary (Apollo-SV)

Feature Fest Improvements

Process Improvements

Batch sharing permissions

Creating and joining projects



Flora D'Anna

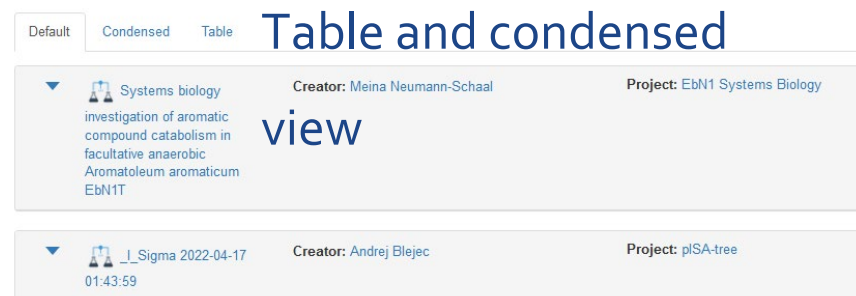
Batch permission changes Publish your assets Actions

Overview Related items



Description Improvements

Describing the creators of items

Markdown formatting for descriptions

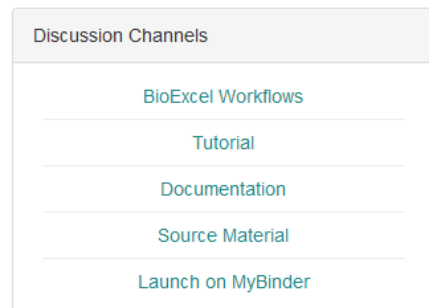


Default Condensed Table **Table and condensed**

 Systems biology investigation of aromatic compound catabolism in facultative anaerobic Aromatoleum aromaticum EbN1T	Creator: Meina Neumann-Schaal	Project: EbN1 Systems Biology
 _I_Sigma 2022-04-17 01:43:59	Creator: Andrej Blejec	Project: pISA-tree

view

Dissemination Improvements



Discussion Channels


- BioExcel Workflows
- Tutorial
- Documentation
- Source Material
- Launch on MyBinder

Enhanced support for publications

Discussion channel links

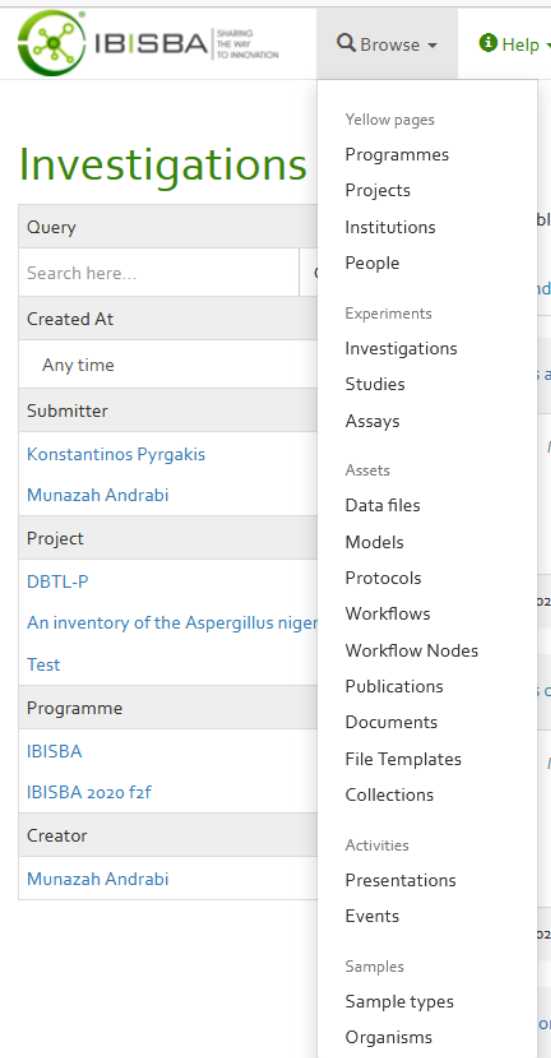
Comms channels

 Request Contact

 Subscribe

Feature Fest

Creating and Organising Content

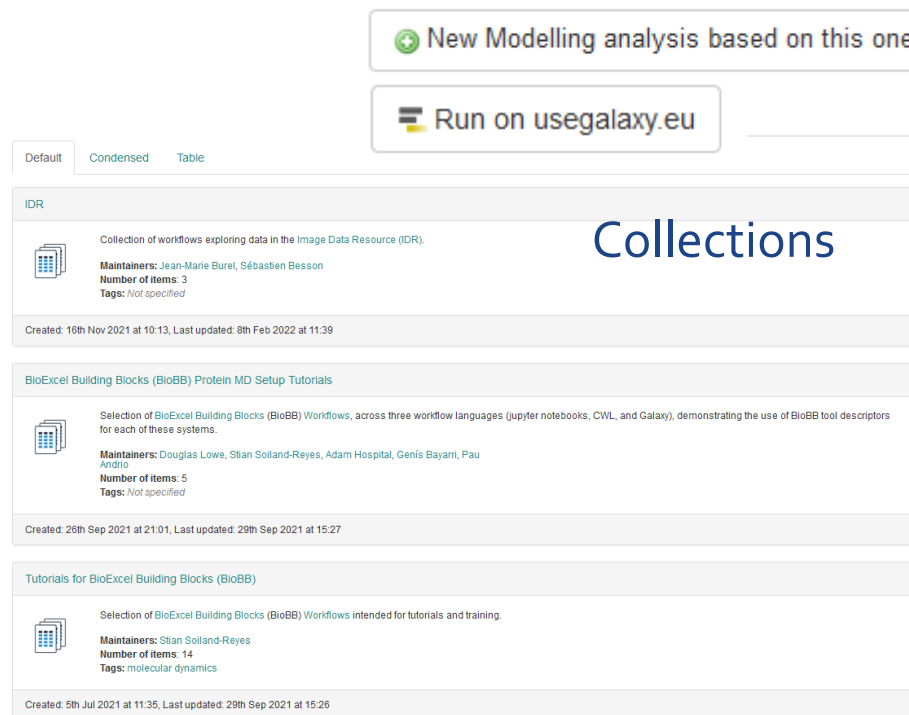


The screenshot shows the IBSBA website navigation menu. The IBSBA logo is at the top left, with the tagline "SHARING THE WAY TO INNOVATION". Below the logo is the word "Investigations" in green. A search bar is present with the text "Search here...". A "Browse" dropdown menu is open, listing various categories: Yellow pages, Programmes, Projects, Institutions, People, Experiments, Investigations, Studies, Assays, Assets, Data files, Models, Protocols, Workflows, Workflow Nodes, Publications, Documents, File Templates, Collections, Activities, Presentations, Events, Samples, Sample types, and Organisms. The "Collections" option is highlighted in blue. Below the search bar, there are filters for "Created At" (Any time) and "Submitter" (Konstantinos Pyrgakis, Munazah Andrabi). The "Project" filter is also expanded, showing "DBTL-P" and "An inventory of the Aspergillus niger". The "Programme" filter shows "IBISBA" and "IBISBA 2020 fzf". The "Creator" filter shows "Munazah Andrabi".

New asset types – incl. workflows and their metadata and Collection

Explicit ordering of Investigation, Studies and Assays

Linking multiple SEEK samples



The screenshot shows the IBSBA Collections page. At the top, there are two buttons: "New Modelling analysis based on this one" and "Run on usegalaxy.eu". Below these buttons, there are three collection cards. The first card is titled "IDR" and describes a collection of workflows exploring data in the Image Data Resource (IDR). It lists maintainers Jean-Marie Burel and Sébastien Besson, with 3 items and no tags. The second card is titled "BioExcel Building Blocks (BioBB) Protein MD Setup Tutorials" and describes a selection of BioExcel Building Blocks (BioBB) workflows across three workflow languages (Jupyter notebooks, CWL, and Galaxy). It lists maintainers Douglas Lowe, Stan Soiland-Reyes, Adam Hospital, Genis Bayarri, and Pau Andrio, with 5 items and no tags. The third card is titled "Tutorials for BioExcel Building Blocks (BioBB)" and describes a selection of BioExcel Building Blocks (BioBB) workflows intended for tutorials and training. It lists maintainers Stan Soiland-Reyes, with 14 items and the tag "molecular dynamics".

Feature Fest


Integration with other systems

API improvements (JSON API, samples, sample type)


GitHub integration


Application launching




 [View on GitHub](#)

 [Request Contact](#)

 [Subscribe](#)

 [Download RO Crate](#)

 [Visit source](#)

 [Run on usegalaxy.eu](#)

Ongoing Projects

Contributing to Code Development



Repository and metadata management for local storage (NeLS)



Registry for computational workflows



Platform for (meta)data management and brokering to EBI repositories



Repository and metadata management for experimental data



Metadata management for UNLOCK(iRODS) storage



Registry for studies



Registry for federated databases (INRAE)



Repositories for files and models



With these projects

Data features in the pipeline

Data brokering

with local storage platforms & repos (e.g. NeLS, iRODS, Git, Github ...)
with public archives (e.g. ENA..)

ISA Support

Improved ISA compliance and management



Rich ISA JSON export

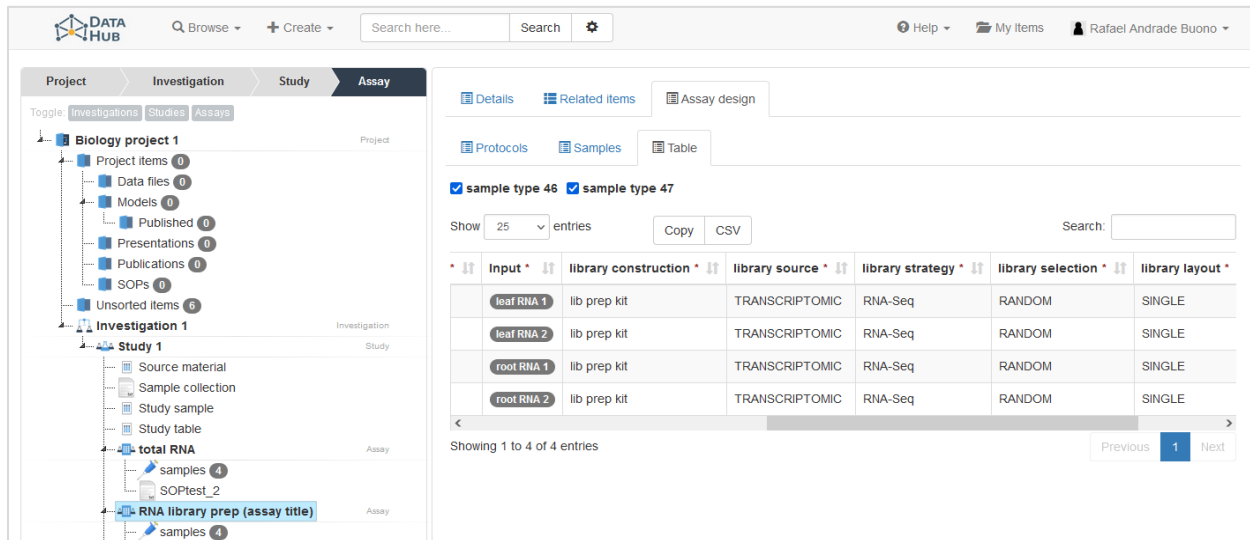
Special metadata

adding Observed Variables to
the MIAPPE

More features in the pipeline

Project and file organisation & views

Single page view of Project - ISA



The screenshot shows the Data Hub interface for a Project - ISA. The left sidebar displays a hierarchical folder view of the project, including folders for Project items, Investigation 1, and Study 1. The main content area shows the Assay design tab, which includes a table of assay data. The table has columns for Input, library construction, library source, library strategy, library selection, and library layout. The table displays four rows of data, with the first row highlighted. The interface also includes a search bar, a 'Show 25 entries' dropdown, and a 'Copy CSV' button.

Input	library construction	library source	library strategy	library selection	library layout
leaf RNA 1	lib prep kit	TRANSCRIPTOMIC	RNA-Seq	RANDOM	SINGLE
leaf RNA 2	lib prep kit	TRANSCRIPTOMIC	RNA-Seq	RANDOM	SINGLE
root RNA 1	lib prep kit	TRANSCRIPTOMIC	RNA-Seq	RANDOM	SINGLE
root RNA 2	lib prep kit	TRANSCRIPTOMIC	RNA-Seq	RANDOM	SINGLE

Improving search;
improved UI for filtering search results

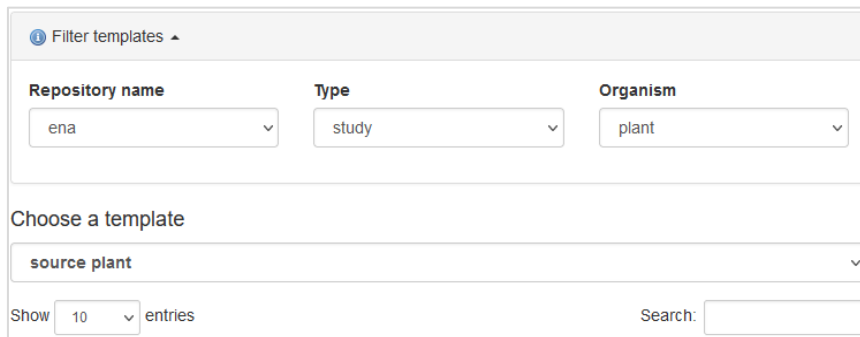
- Project folder view to organise items within the project
- Multiple files for data and models, organised in folders with improved versioning support
- UI for administrators to create new extended/custom metadata per asset type

More features in the pipeline

Samples support enhancements

Samples Working Group

- Improve sample type templates, e.g. based on EBI checklists like ENA



Filter templates ▾

Repository name	Type	Organism
ena ▾	study ▾	plant ▾

Choose a template

source plant ▾

Show 10 ▾ entries Search:

Do you handle Samples?
Have features to
contribute?

- Improve querying of samples (detection of duplicates)
- Dynamic table for samples creation and description
- Introduce validation for PID/ontology terms
- Sample attributes with customizable regular expression for validation

Getting involved with FAIRDOM

https://fair-dom.org/get_involved

Channels

Slack [SEEK4Science](#)

Github Discussion [SEEK](#)

Google groups [SEEK](#),
[Developers](#), [Community](#)

News & Events

<https://fair-dom.org/news>

<https://fair-dom.org/events>

Online User Meeting

Two times per year

Next user meeting:

17 Oct 2022 14:00 CET

Meetings

FAIRDOM Club biweekly

Community Workers monthly

Developers Discussion monthly



Links

- FAIRDOM-SEEK: <https://fairdom-seek.org>
- FAIRDOM: <https://fair-dom.org>

Hubs and Projects

- FAIRDOMHub: <https://fairdomhub.org>
- DataHub: <https://datahub.elixir-belgium.org>
- IBISBAHub: <https://hub.ibisba.eu/home/terms>
- URGI: <https://urgj.versailles.inrae.fr/fairdom/>
- WorkflowHub: <https://workflowhub.eu>
- LiSyM: <https://seek.lisym.org>
- NFDI4Health: <https://covid19.studyhub.nfdi4health.de>
- Leipzig Health Atlas: <https://www.health-atlas.de>