FAIRsharing.org

curating an ecosystem of databases, standards and policies to enable FAIR data and explore community relationships

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RDA Europe / EOSC Future Domain Ambassador for standards, repositories and policies

DEPARTMENT OF ENGINEERING SCIENCE

UNIVERSITY OF OXFORD

datareadiness.eng.ox.ac.uk

contact@fairsharing.org

@FAIRsharing_org

10.25504/FAIRsharing.2abjs5

An informative and educational resource, and a service

POLICIES
by funders, journals
and other organizations

DATABASES
including repositories
and knowledgebases

Humanities
Social Sciences

Natural
Science

Engineering
Science

COMMUNITY STANDARDS

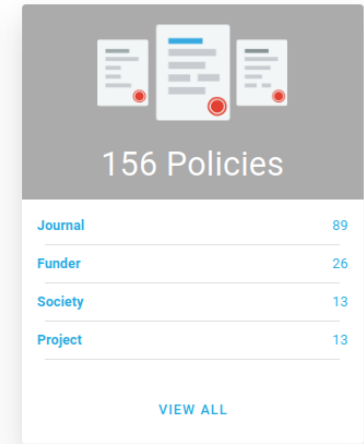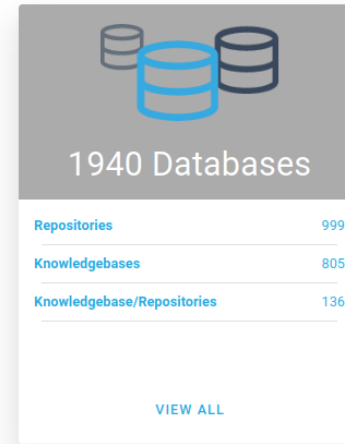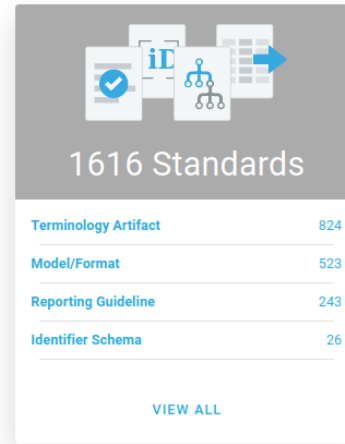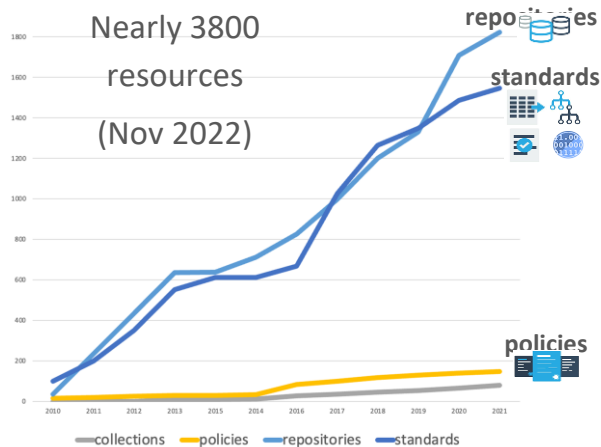Formats | Terminologies | Guidelines | Identifiers | Metrics

FAIRsharing provides **curated descriptions** and **relationship graphs** of

standards, databases and policies in **all disciplines** FAIRsharing.org Educational

Promoting use and value of databases, standards, policies

FAIRsharing.org

Nearly 3800 resources (Nov 2022)

repositories

standards

policies

collections policies repositories standards

1616 Standards

Terminology Artifact	824
Model/Format	523
Reporting Guideline	243
Identifier Schema	26

VIEW ALL

1940 Databases

Repositories	999
Knowledgebases	805
Knowledgebase/Repositories	136

VIEW ALL

156 Policies

Journal	89
Funder	26
Society	13
Project	13

VIEW ALL

Guides **consumers** to *discover*, *select* and *use* these resources with confidence

Helps **producers** to make their resources more *visible*, more widely *adopted* and *cited*

FAIRsharing.org Educational

Users, adopters, communities and working groups

Including:

An endorsed output of the FAIRsharing WG (since 2015):

A WG (since 2015) in:

FORCE11
The Future of Research Communications and e-Scholarship

GO FAIR

RDA
RESEARCH DATA ALLIANCE

A recommended resource in EOSC reports

EUROPEAN OPEN
SCIENCE CLOUD

Used by all stakeholder groups

Researchers in academia, industry and government

Developers & curators of resources and tools

Research data facilitators, librarians, trainers

Society, unions and community alliances

Journal publishers and organisations with data policies

Funders and data policy makers

allea
Sustainable and FAIR Data Sharing in the Humanities
ALLEA Report | February 2020

Six Recommendations for Implementation of FAIR Practice

TURNING FAIR INTO REALITY
2018

Horizon Europe (HORIZON)
Programme Guide

erc
European Research Council
Scientific Council
Established by the European Commission
Open Research Data and Data Management Plans
Information for ERC grantees
by the ERC Scientific Council

Science Europe Guidance Document
Presenting a Framework for Discipline-specific Research Data Management

WILEY
SPRINGER NATURE
ELSEVIER
F1000 FACULTY of 1000
PLOS
EMBOpress
eLIFE
(GIGA)ⁿ SCIENCE
OXFORD UNIVERSITY PRESS

THE ROYAL SOCIETY PUBLISHING
Hindawi
Taylor & Francis
CAMBRIDGE UNIVERSITY PRESS
W wellcome
NIH
Jisc
ISO

eLixir
RDA RESEARCH DATA ALLIANCE
DataCite
CoS CENTER FOR OPEN SCIENCE
CODATA
GO FAIR
FORCE11
EOSCpilot

https://fairsharing.org/communities

FAIRsharing.org Educational

Providing relevant information across the entire research community is a complex challenge requiring a **strong user community**

Relationships (among resources and within the user community) are at the core of FAIRsharing's curation approaches
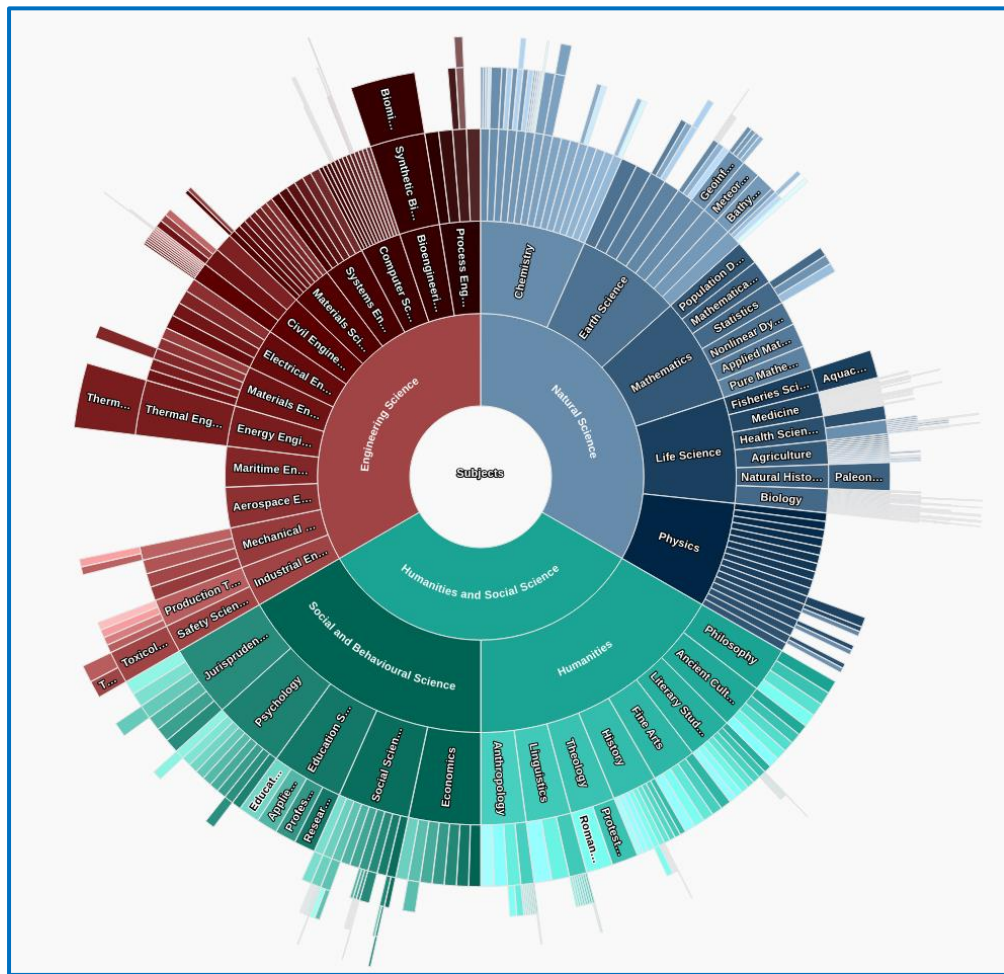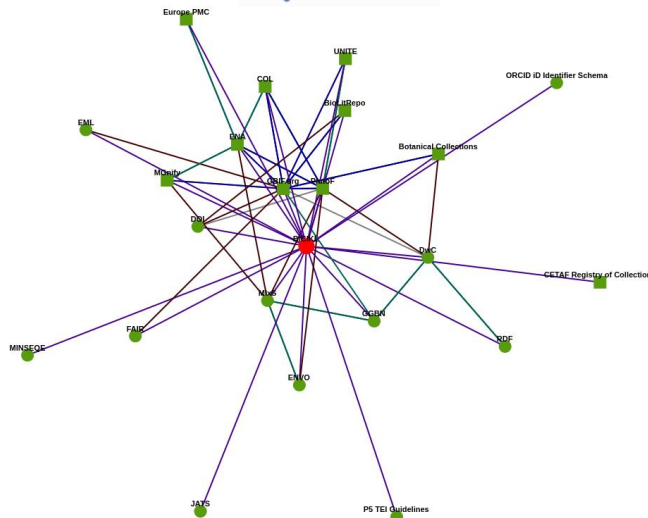
Relationships are key

POLICIES
by funders, journals
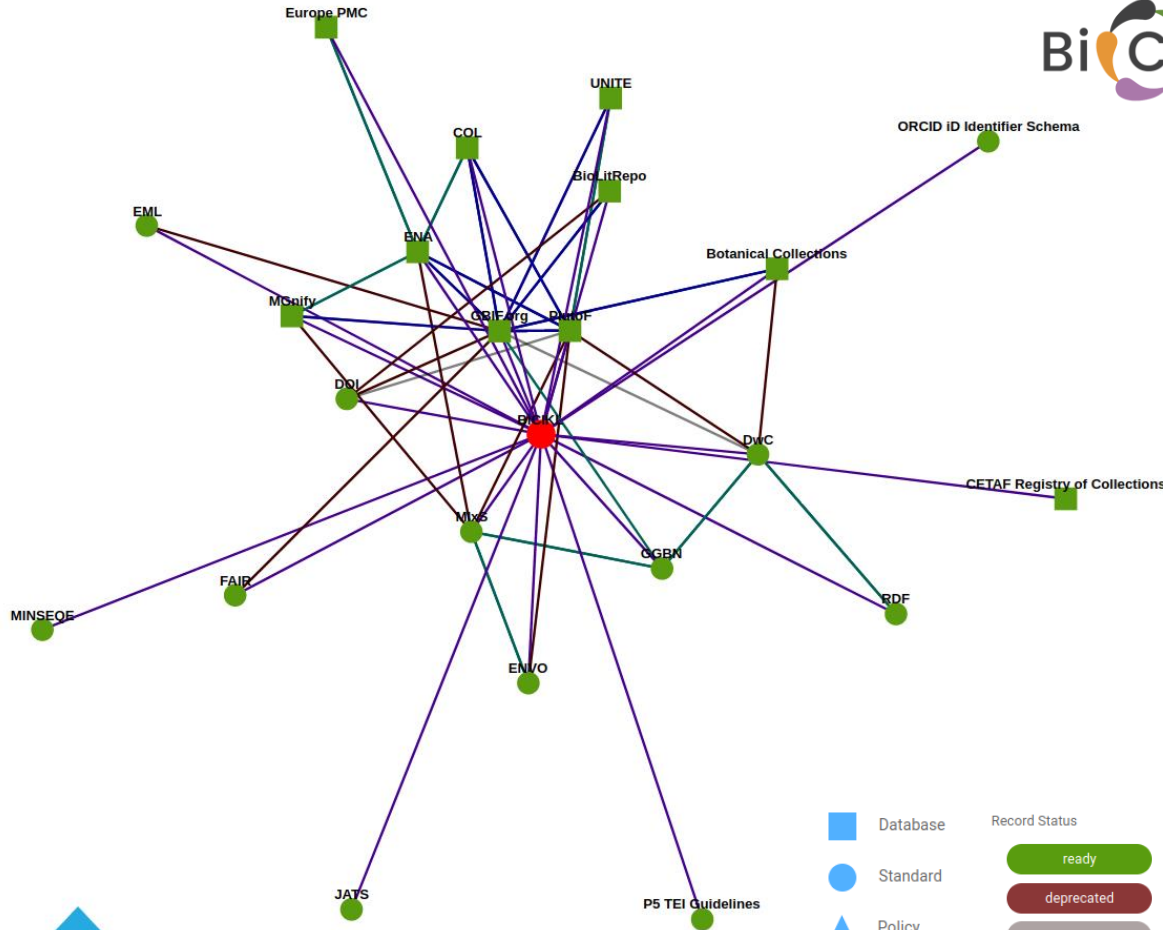and other organizations

DATABASES
including repositories
and knowledgebases

COMMUNITY STANDARDS

| Formats | Terminologies | Guidelines | Identifiers | Metrics |

Europe PMC
UNITE
COL
BioLitRepo
ORCID iD Identifier Schema
EML
Botanical Collections
DwC
MIQxID
GBIF.org
RDF
DOI
DMC
CETAF Registry of Collections
MINSEQE
MIxS
FAIR
GGBN
RDF
ENVO
JATS
P5 TEI Guidelines

https://bicikl-project.eu/

EU-funded **BiCIKL** Consortium is curating entries in FAIRsharing to structure landscaping analysis of adjacent infrastructures

https://fairsharing.org/graph/3776

EU-funded **BiCIKL** Consortium is curating entries in FAIRsharing to structure landscaping analysis of adjacent infrastructures

Traversal of the graph aids **resource discovery**, **gap analysis** and further **targeted outreach** and **engagement**

MINSEQE

https://fairsharing.org/graph/3776   https://fairsharing.org/graph/1206

Relationships with tool developers

fairassist.org

Help you discover resources to measure and improve FAIRness.

FAIRassist is the new, under development, educational component of the well established FAIRsharing resource.

FAIRassist is being designed to **offer personalised guidance to all stakeholders to discover standards and repositories in FAIRsharing**, which should be used to make data FAIR, as well as signpost other resources that enable FAIRness.

FAIRassist is under development, and it will implement a phased rollout of its content, working with and for the community. As an initial step, we are collecting and describing existing resources for the assessment and/or evaluation of digital objects against the FAIR principles, which are aspirational. The focus is on *manual* questionnaires, *checklists* and *automated* tests that help users understand how to achieve a state of "FAIRness", and how this can be measured and improved. This is not intended to be a comprehensive list of all groups, projects and organizations that tackle FAIRness or FAIRification. If your resource is missing, you can submit it via the "Register resource" button below.

Register a new resource

Resource ⌄	Execution Type	Key Features	Organisation	Target Objects	Reading Material
5 Star Data Rating Tool	Manual – questionnaire	Based on rating systems and maturity models	CSIRO OzNome	Datasets	
AutoFAIR	Semi-automated	A portal for automating FAIR assessments for bioinformatics resources	Department of Computer Information Systems, Faculty of ICT, University of Malta	bioinformatics resources	Published Article
Data Stewardship Wizard	Predictive: based on a manually filled questionnaire	Helps researchers to design a data stewardship process for a project aiming for the highest reasonable...			

...LICIES

DATABASES

COMMUNITY STANDARDS

OpenAIRE
openaire.eu

DSW
ds-wizard.org

fair metrics

FAIR Evaluation Services
w3id.org/AmIFAIR

FAIRshake
fairshake.cloud

FAIRsharing.org Educational

# Relationships with tool developers

For FAIR evaluation, DMP and other tools/services

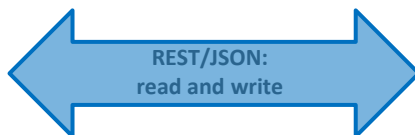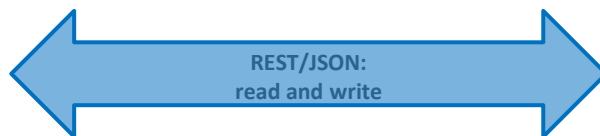it provides a <u>look-up service</u> (via the API) for standards and repositories

For developers and users of FAIRness tests and indicators

it provides a <u>searchable registry</u> to describe and discover them
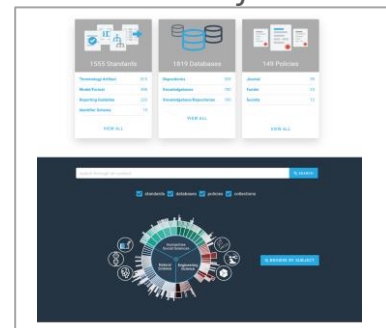
User interface

Authentication via

REST/JSON:
read and write

REST/JSON:
read and write

OAI-PMH:
read
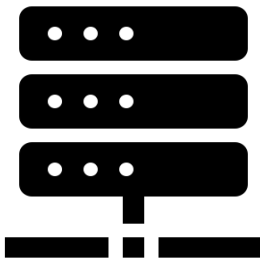
Third-party tools and other clients

https://api.fairsharing.org

```
url = "https://api.fairsharing.org/fairsharing_records/1"

headers = {
    'Accept': 'application/json',
    'Content-Type': 'application/json',
    'Authorization': 'Bearer your_token_goes_here',
}

response = requests.request("GET", url, headers=headers)
```

FAIRsharing.org Educational

Relationships with guidance and standards developers

FAIRSFAIR
Fostering Fair Data Practices in Europe

FAIR Data Policy Checklist and Structured Policy Descriptions

doi.org/10.5281/zenodo.6281105

POLICIES

DATABASES

Repository Features to Help Researchers: An invitation to a dialogue

Cannon, Matthew; Graf, Chris; McNeice, Kiera; Chan, Wei Mun; Callaghan, Sarah; Carnevale, Ilaria; Cranston, Imogen; Edmunds, Scott C.; Everitt, Nicholas; Ganley, Emma; Hrynaszkiewicz, Iain; Khodiyar, Varsha K.; Leary, Adam; Lemberger, Thomas; MacCallum, Catriona J.; Murray, Hollydawn; Sharples, Kathryn; Soares E Silva, Marina; Wright, Guillaume; (Moderator) McQuilton, Peter; (Moderator) Sansone, Susanna-Assunta

doi.org/10.5281/zenodo.4683794

Home » Working and Interest Groups » Working Group » Data Repository Attributes WG

WG **Data Repository Attributes WG**
🏷 **Taxonomy:**

Developing a Research Data Policy Framework for All Journals and Publishers

Authors: Iain Hrynaszkiewicz ✉, Natasha Simons, Azhar Hussain, Rebecca Grant, Simon Goudie

doi.org/10.5334/dsj-2020-005

COMMUNITY STANDARDS

SCIENCE EUROPE

PRACTICAL GUIDE TO
THE INTERNATIONAL ALIGNMENT OF
RESEARCH DATA MANAGEMENT

Extended Edition
with DMP Evaluation Rubric

ANNEX 1:
Horizon 2020 FAIR Data Management Plan (DMP) Template

INTRODUCTION

This Horizon 2020 FAIR DMP template has been designed to be applicable to any Horizon 2020 project that produces, collects or processes research data. You should **develop a single DMP for your project** to cover its overall approach. However, where there are specific issues for individual datasets (e.g. regarding openness), you should clearly spell this out.

FAIR data management

In general terms, your research data should be 'FAIR', that is findable, accessible, interoperable and re-usable. These principles precede implementation choices and do not necessarily suggest any specific technology, standard, or implementation-solution.

This template is not intended as a strict technical implementation of the FAIR principles, it is rather inspired by FAIR as a general concept.

More information about FAIR:

FAIR data principles (FORCE11 discussion forum)

FAIR principles (article in Nature)

Structure of the template

plate is a **set of questions** that you should

FAIRcookbook

faircookbook.elixir-europe.org

RDMkit

rdmkit.elixir-europe.org

FAIRsharing.org 🎓 Educational

Relationships with guidance and standards developers

Dryad: https://doi.org/10.25504/FAIRsharing.wkggtx

Relationships with our community

Community Curators for 2022

1143 Record maintainers and 20 community curators

POLICIES

DATABASES

COMMUNITY STANDARDS

The following community curators have contributed to this record: kcopas@gbif.org jmiller@gbif.org

doi.org/10.25504/FAIRsharing.zv11j3

Maintainers   ERC_OPEN_ACCESS

doi.org/10.25504/FAIRsharing.iKa3Xm

Collections developed by the community

International Virtual Observatory Alliance (IVOA)

Maintainer   carviset

Subjects   Astrophysics And Astronomy

URL: https://fairsharing.org/IVOA

Relationships with our communities

Organisations

look for ways to promote their work

search for related infrastructures and resources

Researchers / Research Support Roles

look to FAIRsharing for information on relevant resources

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FAIRsharing.org

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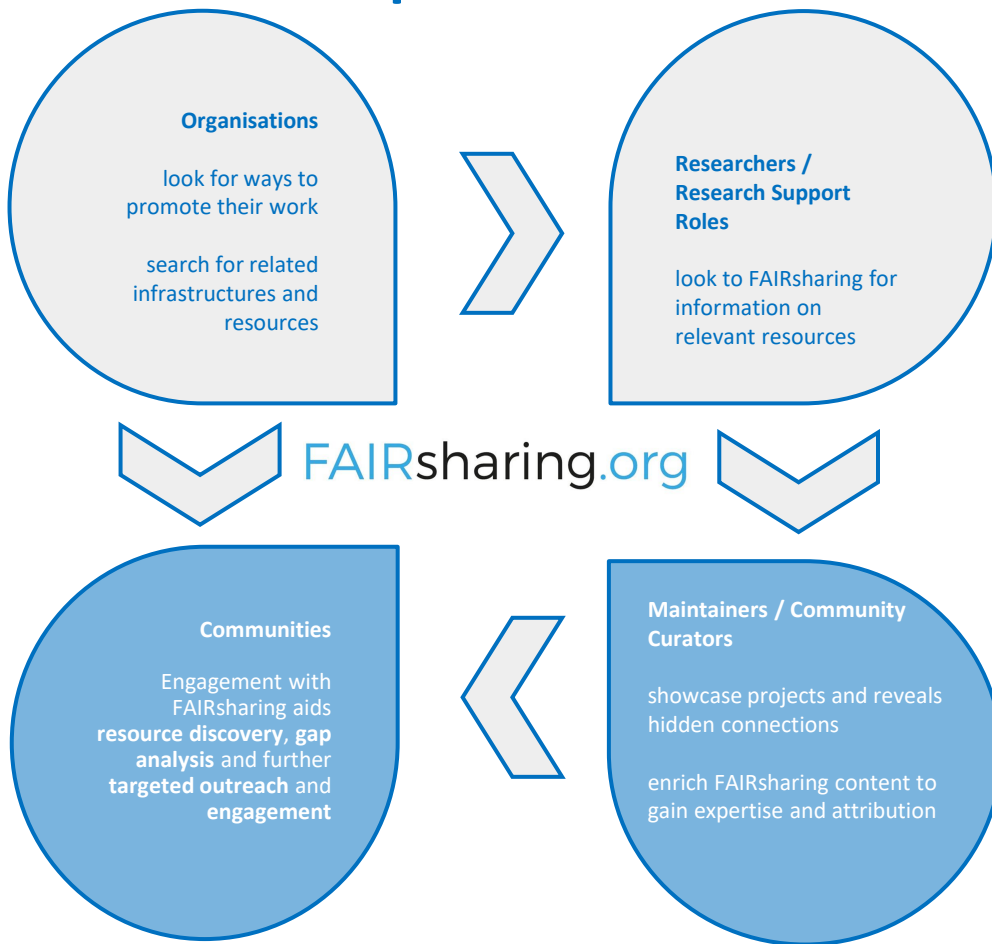
FAIRsharing.org

Maintainers / Community Curators

showcase projects and reveals hidden connections

enrich FAIRsharing content to gain expertise and attribution
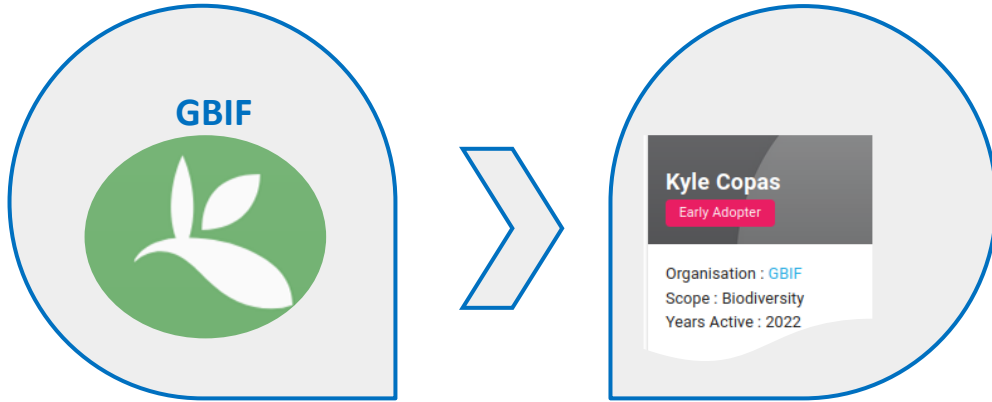
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FAIRsharing.org

Communities

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FAIRsharing.org Educational

Relationships with our communities

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FAIRsharing.org

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Maintainers / Community Curators

showcase projects and reveals hidden connections

enrich FAIRsharing content to gain expertise and attribution

FAIRsharing for communities

We help you customise your view of FAIRsharing to declare and visualise the standards and repositories you use

We promote your organisation and your efforts as a maintainer/curator

We help you leverage wider knowledge, share information, support open science and connect infrastructures

FAIRsharing.org Educational

Relationships with our communities

GBIF

Kyle Copas
Early Adopter

Organisation : GBIF
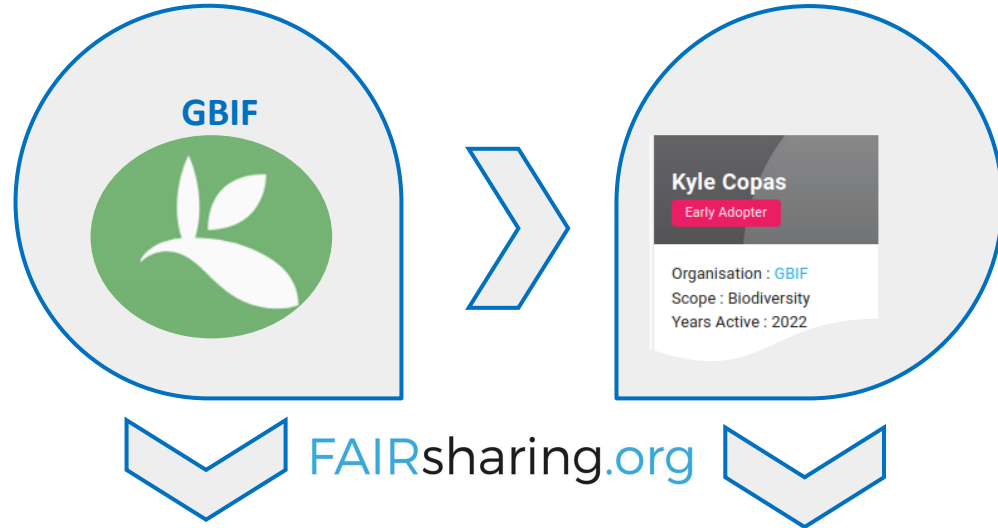Scope : Biodiversity
Years Active : 2022

GBIF Use Case

GBIF wants to perform a landscape analysis of infrastructures adjacent to them and to the BiCIKL consortium.

GBIF Community Manager Kyle Copas asks FAIRsharing if we can help, and joins us as a **Community Curator for Biodiversity**

Relationships with our communities

GBIF

FAIRsharing.org

Kyle Copas
Early Adopter

Organisation : GBIF
Scope : Biodiversity
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FAIRsharing.org **Educational**

Relationships with our communities

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Kyle gains personal attribution and expertise as a result of his efforts

His role as a Community Curator promotes the work of GBIF by enriching FAIRsharing content, revealing connections that they weren't aware of going into the collaboration/project

Tailored views for education and promotion

Collections are are branded pages that *group* selected **standards** and/or **repositories**
Initiatives and projects have created them for several purposes, e.g. to list resources:

EXAMPLES

Developed by the community

International Virtual Observatory Alliance (IVOA)

Maintainer   carviset

Subjects   Astrophysics And Astronomy

URL: https://fairsharing.org/IVOA

Recommended by a community

RDA Covid-19 WG Resources (RDACovid19WG)

Maintainer   FAIRsharingTeam

Subjects   Public Health

URL: https://fairsharing.org/RDACovid19WG

Developed by a SDO

cdisc

Maintainer   awhite

Subjects   Biomedical Science   Preclinical Studies

URL: https://fairsharing.org/CDISC

Mapped to each other

Crosswalk of most used metadata schemes and guidelines for metadata interoperability

Maintainer   ojstersek@uni-mb.si iD

Subjects   Subject Agnostic

URL: https://fairsharing.org/CrosswalkOfMostUsedMetadataSchemesAndGuidelines

FAIRsharing.org   Educational

Organization and user attribution

Linking associated data resources, standards and policies

https://bicikl-project.eu/

EU-funded **BiCIKL** Consortium is curating entries in FAIRsharing to structure landscaping analysis of adjacent infrastructures

https://fairsharing.org/graph/3776

FAIRsharing.org Educational

CC BY-SA 4.0 International

https://bicikl-project.eu/

EU-funded **BiCIKL** Consortium is curating entries in FAIRsharing to structure landscaping analysis of adjacent infrastructures

https://fairsharing.org/graph/3776

FAIRsharing.org — Educational

CC BY-SA 4.0 International

FAIRsharing Community Curator Programme

Curate – Influence – Gain Attribution – Engage – Learn
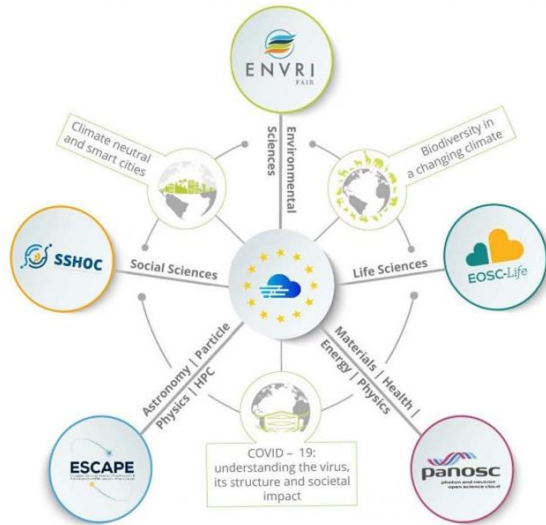
fairsharing.org/community_curation

- Gain on-the-job curation **expertise**
- **Engagement** and networking with a community of like-minded people
- Become an **expert** on data and metadata standards, repositories and data policies in their area
- **Influence** new FAIRsharing functionalities
- **Attribution** via ORCID, specialist user profiles, and others

FAIRsharing.org Educational

FAIRsharing.org

Current Operational Team

- **Allyson Lister,** Content and Community Lead
- **Milo Thurston**, Technical Lead
- **Ramon Granell,** Data Enrichment & Quality Manager
- **Delphine Dauga**, Data Curator Manager
- **Prakhyat Gailani**, Web Developer
- **Dominique Batista**, Research Software Engineer
- **Philippe Rocca-Serra**, Co-Founder
- **Susanna-Assunta Sansone**, PI and Founder
- *and many collaborators and contributors!*

Executive Advisors

- **Chris Graf**, Springer Nature
- **David Carr**, Independent expert
- **Peter McQuilton**, (FAIRsharing Founding Member), GSK
- **Robert Hanisch**, National Institute of Standards and Technology
- **Varsha Khodiyar**, Independent Expert

Community Curators

https://fairsharing.org/community_curation/our_curators

Stakeholder Advisors

- **Amye Kenall,** Research Square
- **Adam Leary,** Oxford University Press
- **Catriona MacCallum,** Hindawi
- **Dagmar Meyer,** European Research Council, Executive Agency
- **Dominic Fripp,** JISC
- **Emma Ganley,** Protocols.io
- **Geraldine Clement-Stoneham,** Medical Research Council
- **Helena Cousijn,** DataCite
- **Lauren Cadwallader,** PLoS
- **Imma Subirats,** FAO of the United Nations
- **Kiera McNiece,** Cambridge University Press
- **Luiz Olavo Bonino,** GO-FAIR
- **Lorenzo Feri** and **Sarah Callaghan,** Elsevier
- **Michael Ball,** Medical Research Council
- **Mike Huerta,** NIH National Library of Medicine
- **Molly Cranston** and **Guillaume Wright,** F1000Research
- **Nick Everitt** and **Matthew Cannon,** Taylor and Francis
- **Sarah Stewart**, Bodleian Libraries, University of Oxford
- **Scott Edmunds,** GigaScience, Oxford University Press
- **Simon Hodson,** CODATA
- **Theo Bloom,** British Medical Journal
- **Thomas Lemberger,** EMBO Press
- **Wei-Mun Chan,** eLife
- **Sowmya Swaminathan,** Springer Nature
- **Marta Teperek,** TUDelft

Thank you!

FAIRsharing.org 🎓 Educational