Sharing FAIR soil data

Repositories, licenses and metadata

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EJP SOIL webinar on open science 03/11/2023

EJP SOIL
European Joint Programme

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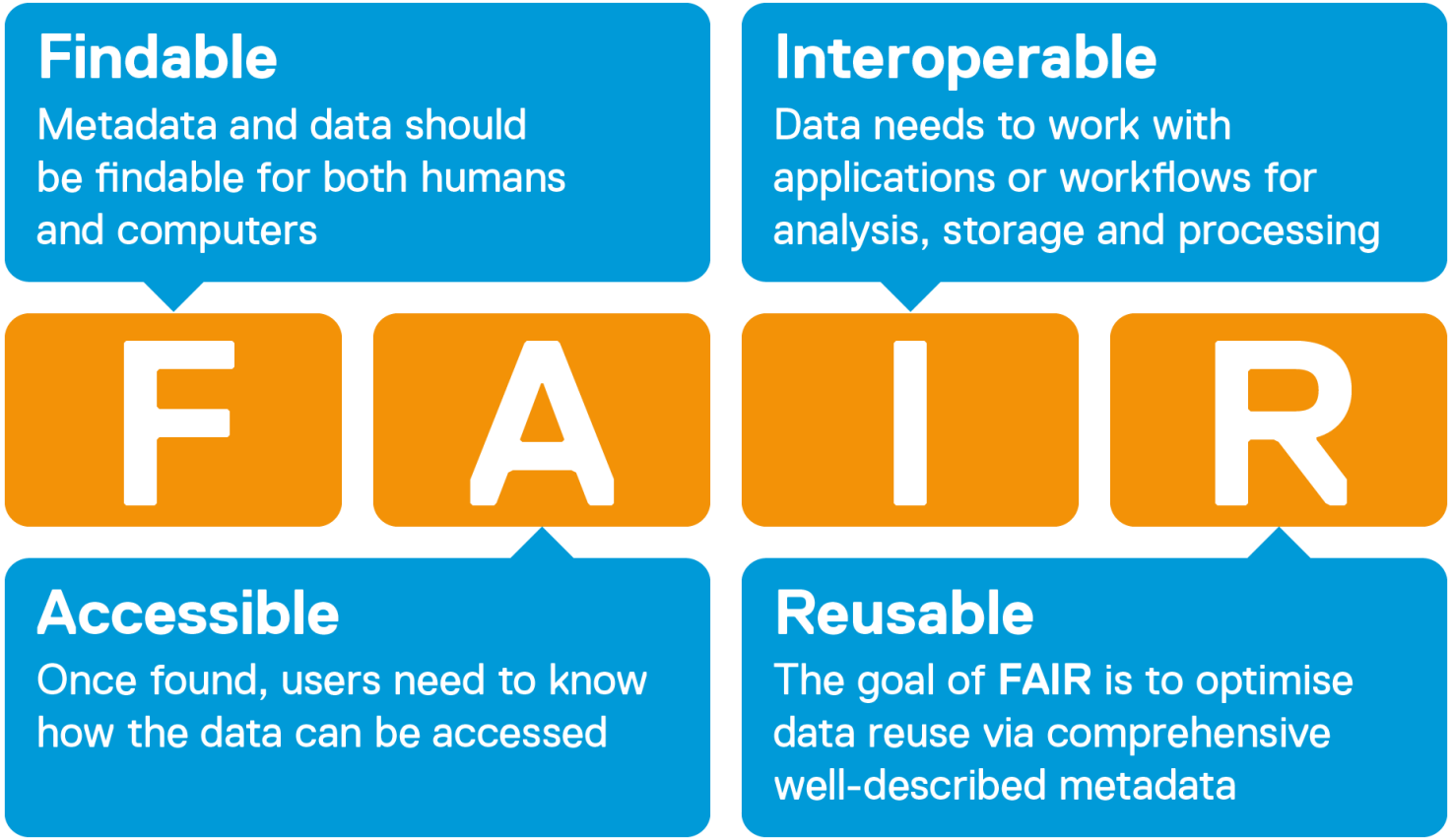
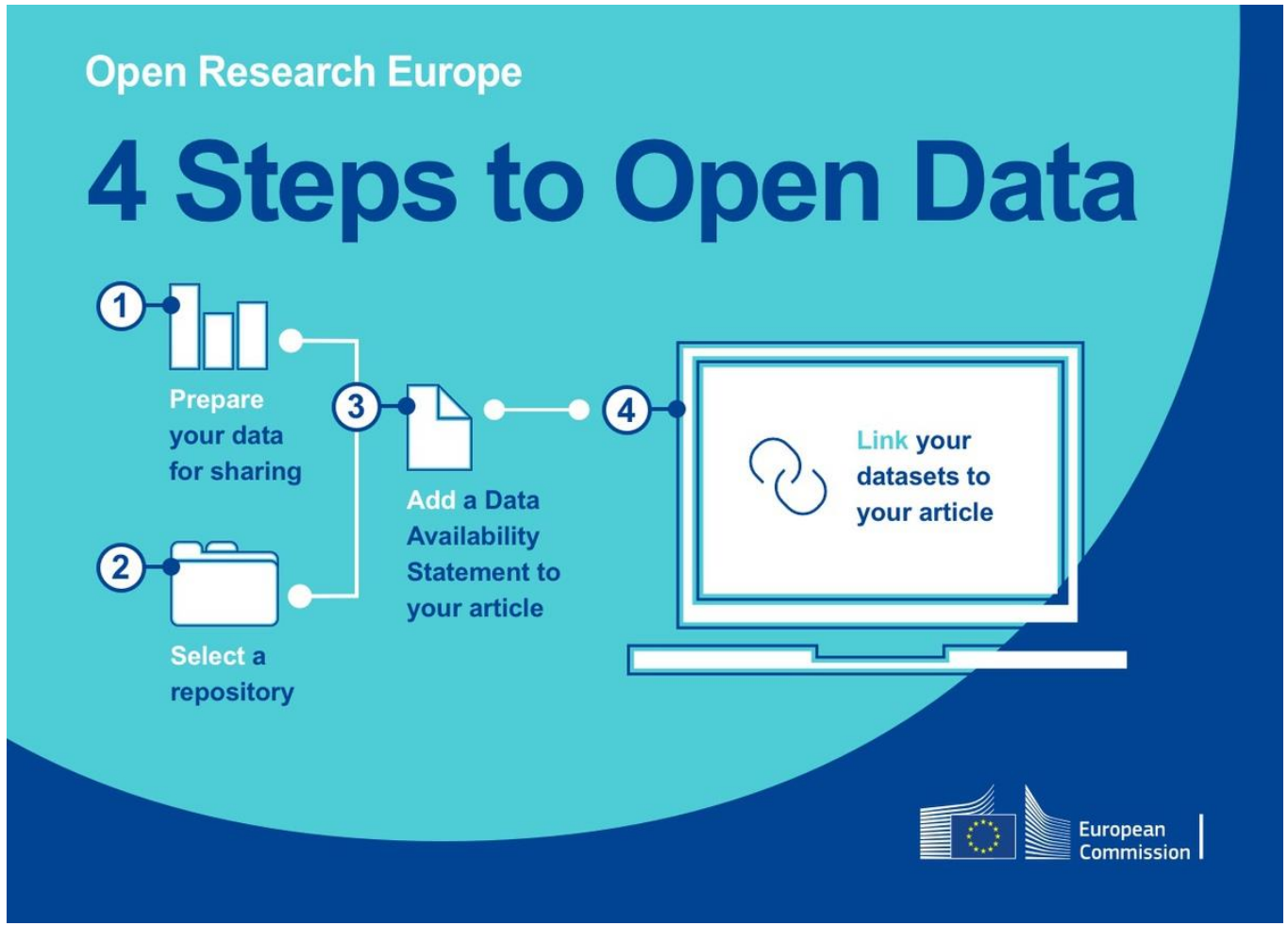
DATA MANAGEMENT PLAN EJPSOIL

The data produced under EJPSOIL with H2020 fundings follows FAIR principles



Open Access requirements for data underlying publications

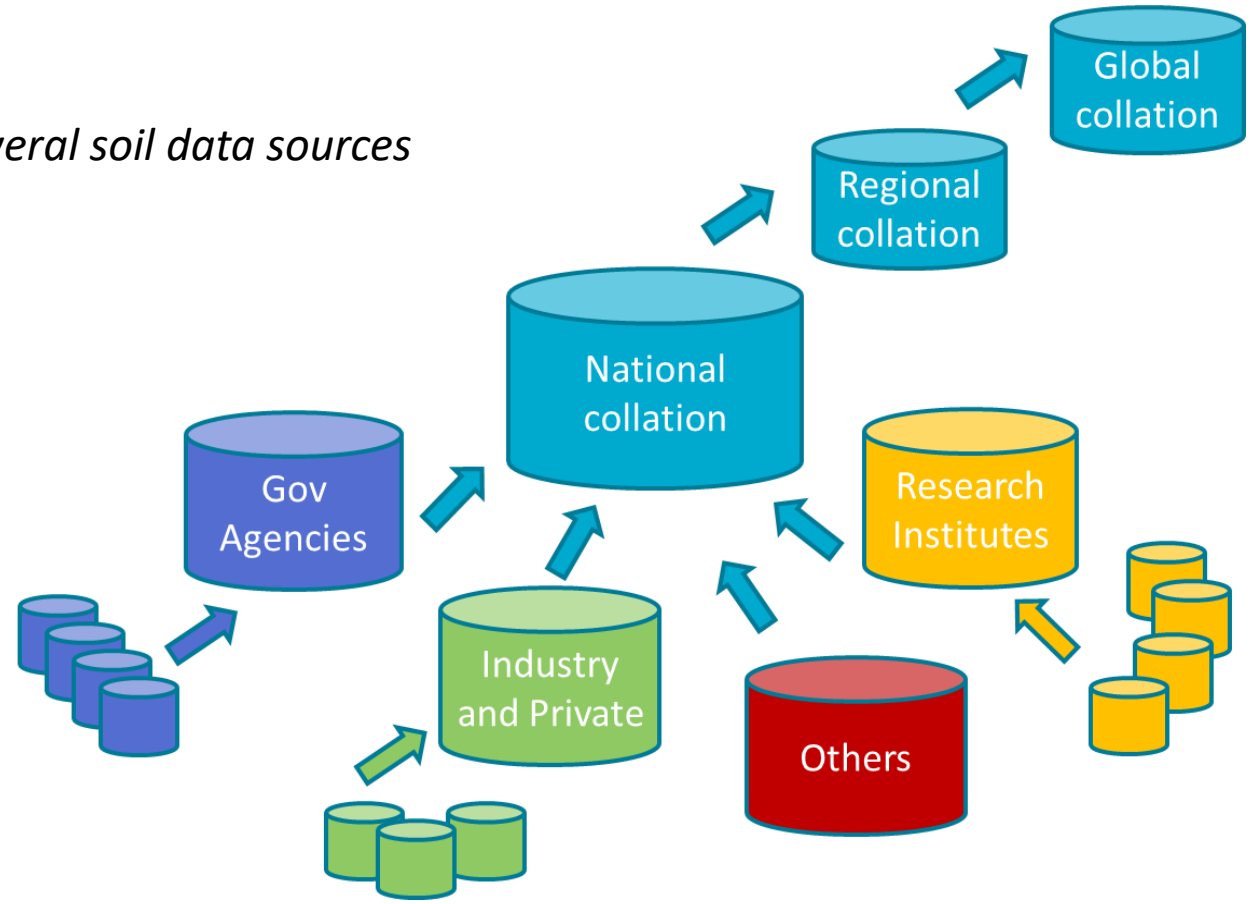


Open Access as soon as possible

- Deposit data (and metadata) in an eligible permanent repository (e.g. Zenodo)
- Provide DOI -> dataset becomes a publication
- CC BY license (open with recognition of authorship)
- Link dataset to article, link article to dataset
- NOT as supplementary material with publisher (it is not permanent repository)
- Be aware of predatory publishers: checklist to identify a trusted journal

PRODUCING RESEARCH BY COLLECTING SEVERAL DATA SOURCES

Several soil data sources



As researchers you may be using also datasets that you were collecting from other soil data owners/producers.

DATA MANAGEMENT LEGAL ASPECTS

Background data

Data produced **OUTSIDE THE EJP SOIL programme** by project partners

The data owners define the sharing rules.

Specific agreements to be produced and signed by the data owners.
In the D6.2 of EJP SOIL:
a draft template of agreement with a list of possible sharing rules to facilitate the sharing.

EJP SOIL data

Data produced **INSIDE THE EJP SOIL programme** by ALL THE EJP SOIL WPs and by ALL THE EJP SOIL PROJECTS

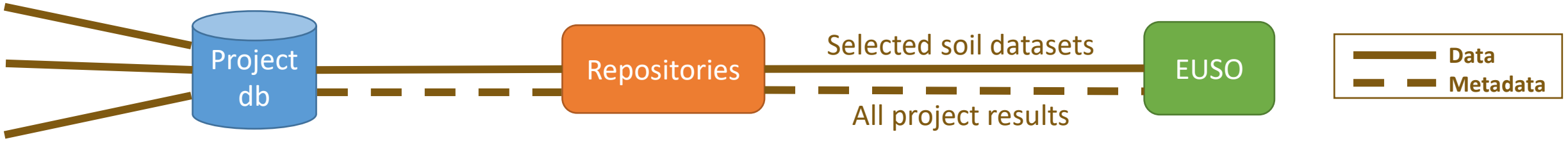
Sharing rules defined in the Grant Agreement and Consortium Agreement of EJP SOIL.

Open access at the end of the project, respecting an embargo period (to get results published).
Intellectual properties rights respected.

Permanent repositories.

NOTE THAT: The sharing rules for site **coordinates** are in all cases respected, following the **national legislations.**

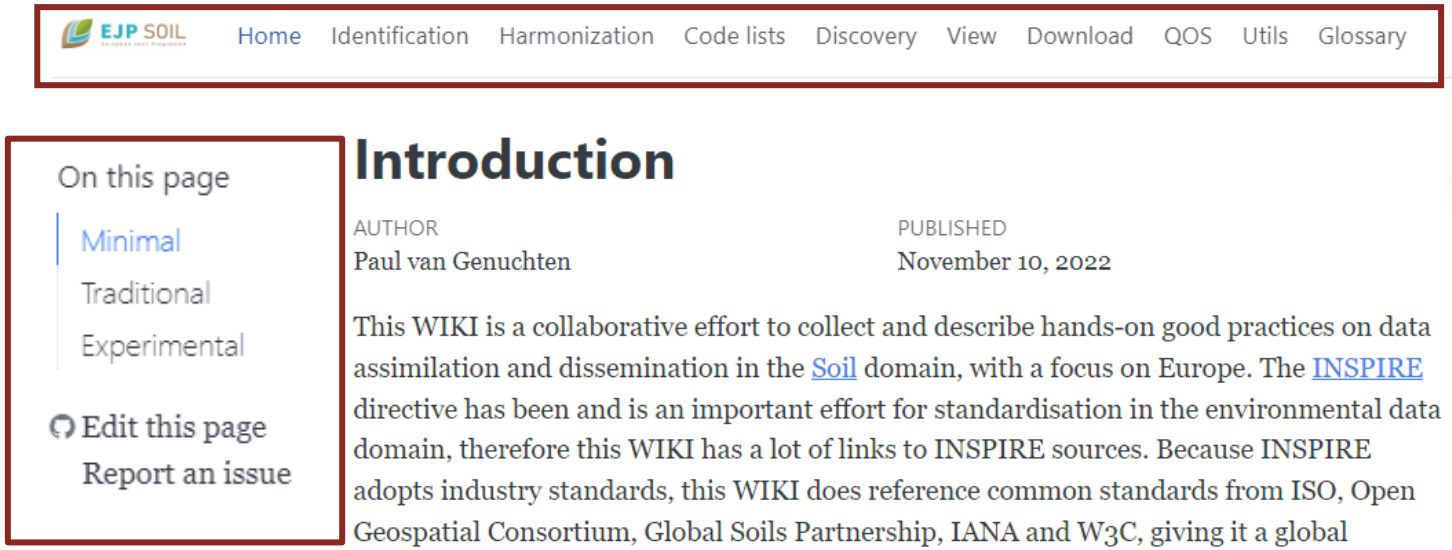
1) MAKE DATA INTEROPERABLE =>> Soil data provisioning workflow: Guidance



Wiki with guidance on soil data provisioning options:
https://ejpsoil.github.io/soildata-assimilation-guidance/

including recordings of two 3 day courses on Soil Data Assimilation

EJPSOIL WP6 has produced/published and is producing several other tools to help making soil data INSPIRE compliant, we will present during the EUSO stakeholders forum online in 15-17 November 2023.



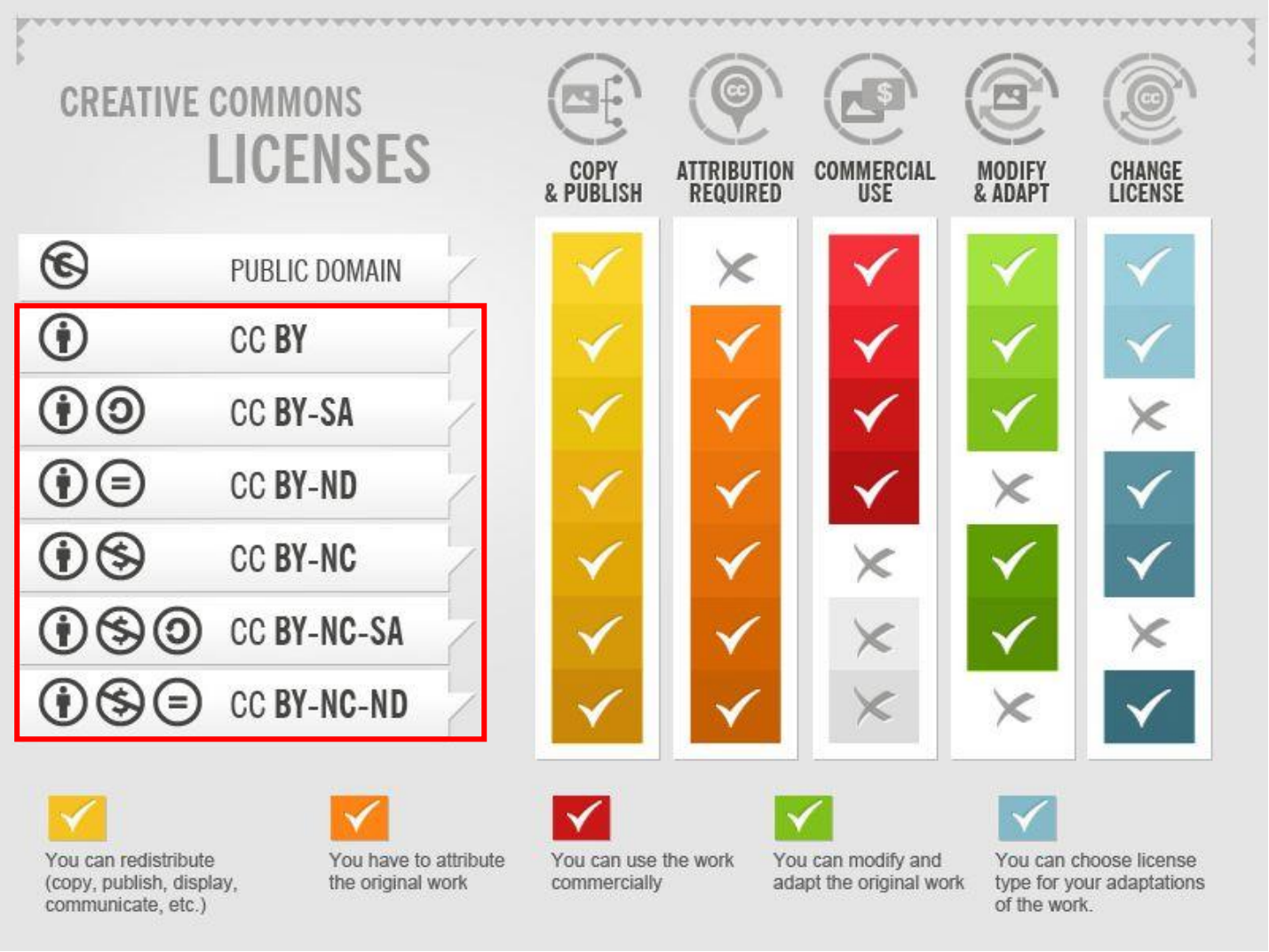
2) MAKE DATA ACCESSIBLE =>> Upload in repositories (permanent)

- Minimum requirements repositories:
  - Persistent (>20 yr guaranteed) repositories (e.g. ZENODO for research, national repositories)
  - You get a DOI that you can use to cite the dataset

3) MAKE DATA REUSABLE =>> Use standard and open licenses

- Include the data license in the metadata:
  - **OPEN LICENSE** like **CC-BY** must be used **for datasets produced under EJPSOIL (H2020)**
  - for datasets produced under EJPSOIL (H2020), **it has to be declared if any further specification is needed** (e.g. for the anonymization of soil coordinates, in the name of which national legislation)
  - When you are using **background datasets** with different sharing rules, first make a sharing agreement with the data owner, than publish the sharing agreement, and mention in the metadata the citation of the agreement that you have made. You can the sharing agreement template produced and published by EJPSOIL as annexed to the D6.2

Copyright licenses



Tool to help you choose the right license: https://creativecommons.org/choose/

4) MAKE DATA FINDABLE =>> Use metadata and keywords

- Minimum requirements for metadata:
  - Include metadata required by repositories to fulfill ISO19139/ DataCite/ DCAT standard

EJPSOIL – WP6 and WP1 are producing an EJPSOIL metadata template (xlsx and git)

  - Use keywords in the metadata!

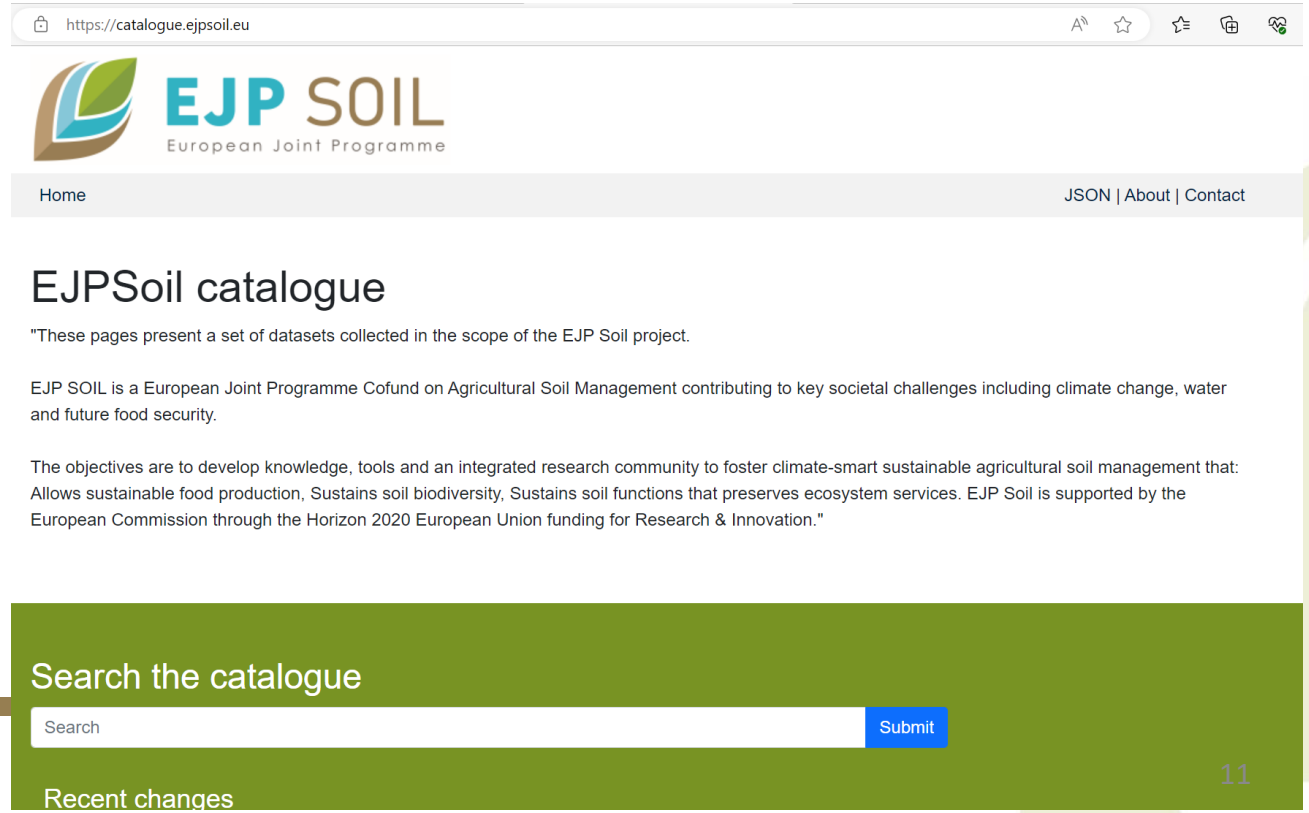
e.g. EJPSOIL, project acronym, soil property, region, country, etc.

4) MAKE DATA FINDABLE =>> upload in online metadata catalogues

- EJPSOIL has now its own soil metadata catalogue online!

With the soil metadata template that you will have compiled the soil datasets will be uploaded in the catalogue.
Other data has been and will be retrieved/harvested by other soil metadata catalogues.

EJPSoil catalogue - Home



Discovery of soil data in Latvia

https://catalo

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the plants, there are
also pollutants

https://catalogue.ejpsoil.eu/collecti

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Home / Collections / EJPSoil catalog

Digital soil da

Latvia | EJP Country survey | Dataset

profile sampling, samples from top

Contacts

Ministry of Agriculture of the Re
Role: pointOfContact
country: Latvia

Temporal

Created: 1960-1991
Updated: 2023-06-14
Temporal extent: 1960-1991

External identification

- https://geolatvija.lv/geo/p/319

Links

55b9911957f49ed6ce0

csw 3.0.dev0

in digital form (parcel-specific,no).

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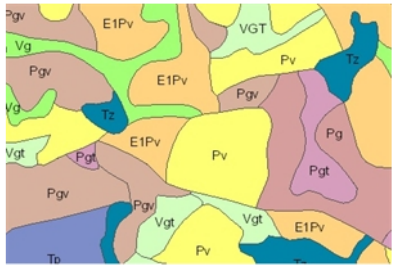
Polyg

https://geolatvija.lv/geo/p/319

LV EN Mana darba vieta

GEO Latvija.lv

Kartes pārlūks | Ģeoprodukti | Karšu galerija | Teritorijas attīstības plānošana | Metadatu katalogs +



Lauksaimniecībā izmantojamo zemju augsnes Latvijā ir kartētas laika periodā no 1960. līdz 1991. g. vairākās kārtās, dažādos laika posmos, izmantojot dažādas augšņu klasifikācijas mērogā 1:10 000, kā rezultātā iespējamas atšķirības starp rajoniem.

Eiropas ekonomiskās zonas projekta „Nacionālās sistēmas pilnveidošana siltumnīcefekta gāzu inventarizācijai un ziņošanai par politikām, pasākumiem un prognozēm" (Nr. 4.3-23/EEZ/INP-002) zinātniskā pētījuma projekta "Ilgtspējīga zemes resursu pārvaldības veicināšana, izveidojot digitālu augšņu datubāzi" rezultātā laika periodā no 2014. gada septembra līdz 2016. gada martam tika veikta esošo ģeodēzisko koordinātu (LKS 92) piesaiste un datubāzes izveide Valsts zemes dienesta Centrālā arhīva materiālos esošajiem 746 augsnes dziļrakumiem.

Lejupielādes datne "Augsnes dziļrakumi" ietver informāciju par dziļrakuma numuru, gadu, integrēto augsnes granulometrisko sastāvu, virskārtas augsnes granulometrisko sastāvu, apakškārtas augsnes granulometrisko sastāvu, brīvo kalcija karbonātu sastopamības dziļumu.

Augsnes dziļrakumi (lejupielādes datne)

Zemkopības ministrija

Ģeoprodukta tips: Lejupielādes datne

Ģeotelpiskā informācija par lauksaimniecībā izmantojamo zemju augsnēm Latvijā, kas kartētas laika periodā no 1960. līdz 1991. g. vairākās kārtās dažādos laika posmos, izmantojot dažādas augšņu klasifikācijas mērogā 1:10 000. Informācija iegūta, digitalizējot Latvijā pieejamās vēsturiskās augšņu kartes. Atbildīgais par karšu uzturēšanu: Zemkopības ministrija.

Kartes mērogs 1:10000

Licencēšanas noteikumi

Atvērto datu licence (CC 4.0)

→ ĢEOTELPISKIE DATI

→ METADATI

↓ DATŅU SARAKSTS

Filtrēt pēc datņu nosaukuma

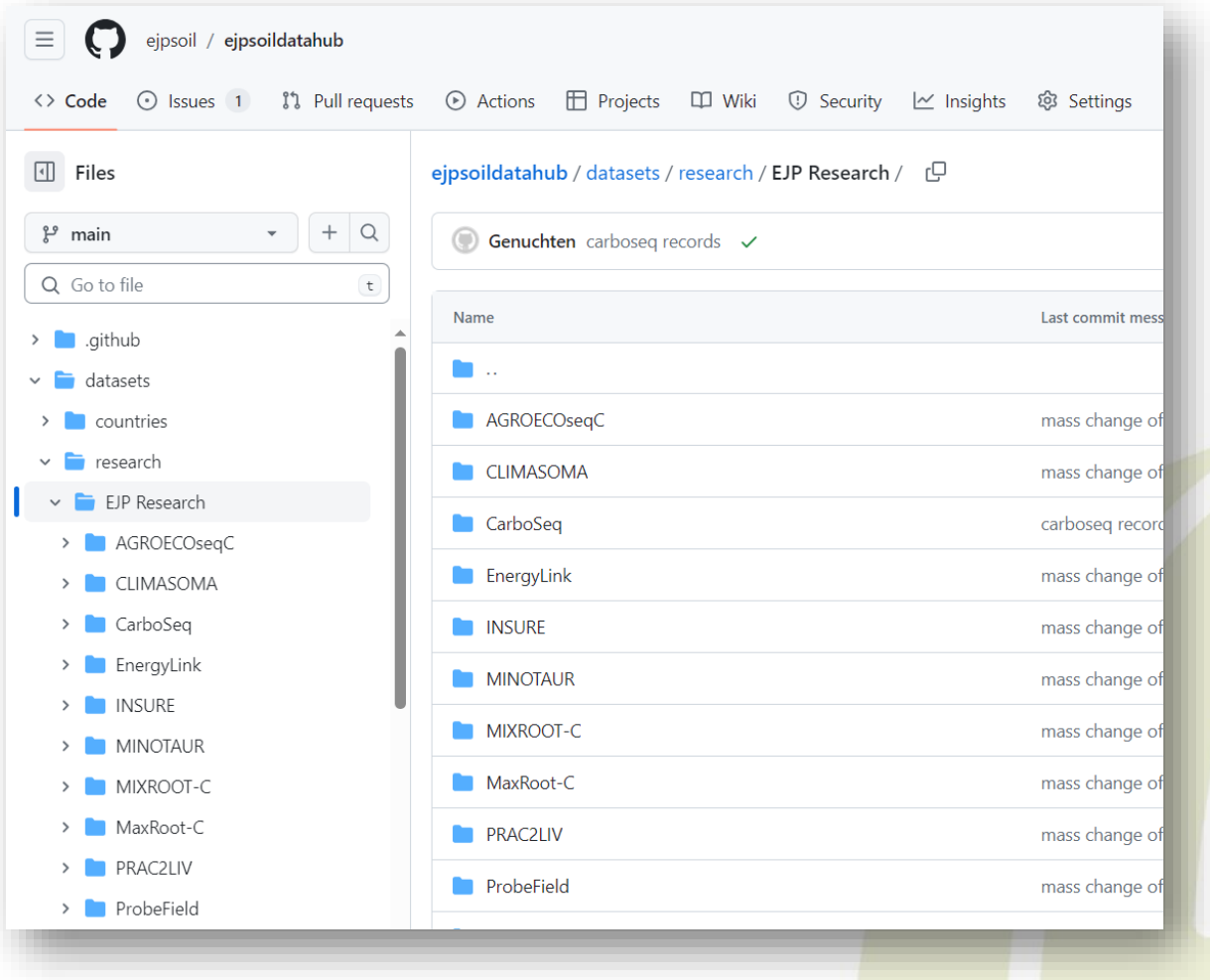
Atcelt izvēli

Dzilrakumu_profili_AP 70,34 KB

Lejupielādēt

Catalogue co-creation via Github

- Records are maintained in Github
- Suggest changes via issues or pull requests
- A folder has been prepared for every project



Metadata creation options

=> link

- **Option 1: Maintain metadata at the source**
  - **Embed metadata in the resource**
  - **Maintain a separate metadata file for every datafile, service or application, with the same name in that folder**

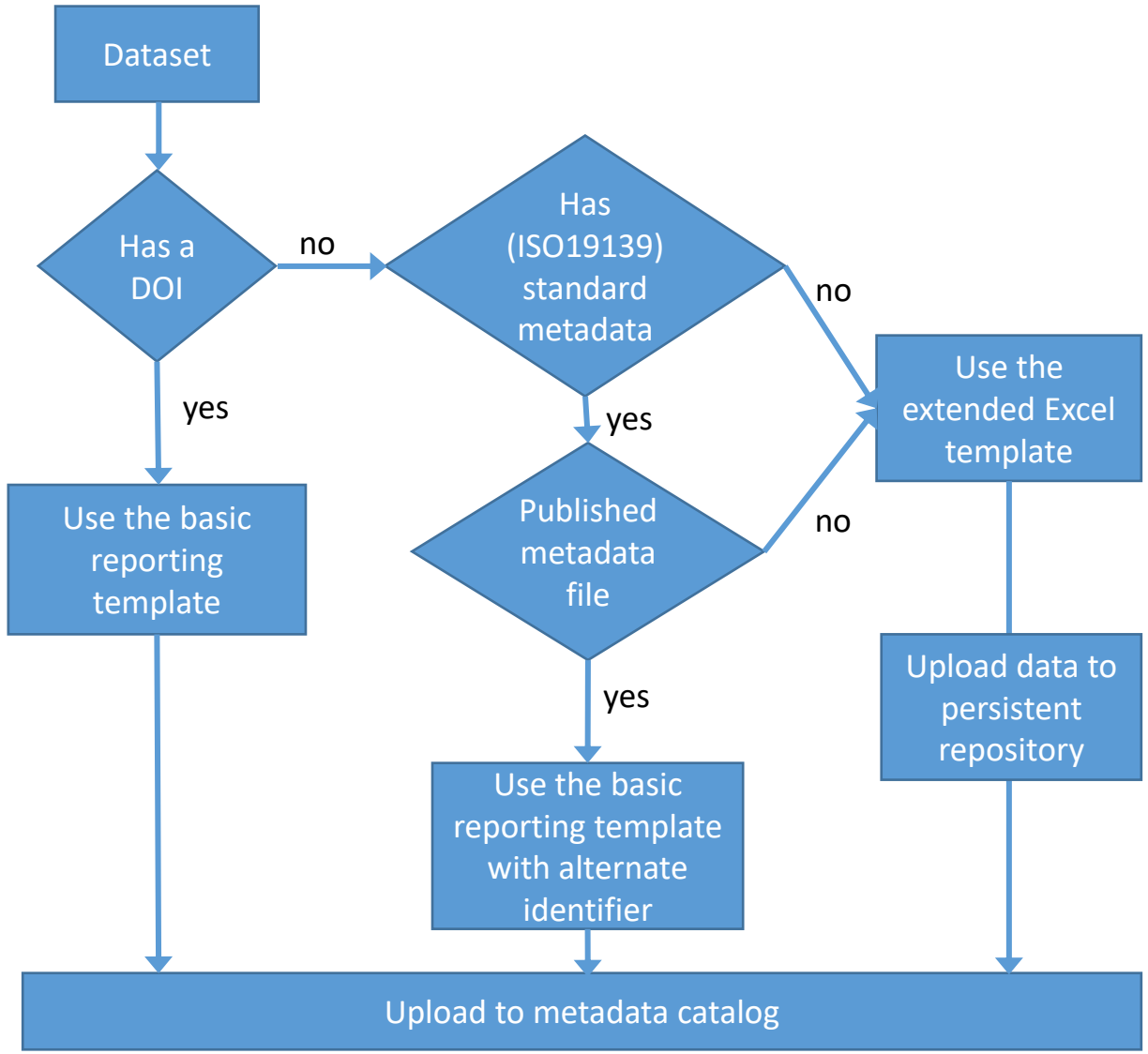
- Option 2: Metadata creation as part of upload to a repository (e.g. https://zenodo.org/, https://recherche.data.gouv.fr/en (former INRAE DataVerse)
  - Guidance document on how to use available metadata properties in Zenodo to create a metadata record which matches the EJP Soil Metadata profile: https://ejpsoil.github.io/soildata-assimilation-guidance/cookbook/zenodo.html

- **Option 3: Use the EJP Soil metadata excel template**

EJPSOIL – EUSO metadata template

Metadata upload workflow

EJP SOIL Template RP3 - Continuous reporting



EJPSOIL – EUSO metadata template

Metadata standards to use

- Use an existing metadata standard

or

- Use the EJP SOIL WP6 template which is an extension of existing standards (ISO 19115:2013 and DataCite)

and

- Use EJPSOIL and relevant keywords from relevant thesauri (Agrovoc, Gemet, Cordis) and

EJPSOIL, project acronym, soil property, region, country, etc.

A COMPARISON OF METADATA STANDARDS HAVE BEEN PRODUCED UNDER EJPSOIL and is available at https://ejpsoil.github.io/soildata-assimilation-guidance/cookbook/md-schema-comparison.html

Metadata standards

Community	Metadata format	Metadata Tools	Catalogues
Academia	DataCite (DOI)	Dataverse	zenodo.org, search.dataone.org
Open Data / Semantic web	DCAT	CKAN, BRegDCAT	https://data.europa.eu
GeoSpatial / INSPIRE	ISO19115:2003	GeoNetwork, ArcGIS, pycsw	https://geoportal.org, https://inspire-geoportal.ec.europa.eu
Earth Observation	STAC	STAC Browser	explorer.digitalearth.africa/stac
Search engines	Schema.org	Rich results test	https://datasetsearch.research.google.com

Metadata template excelfile

	A	B	C	D	E	F	G	H	I	J	K
1											
2	nr	Identification	EUSO Data WG subgroup	Context	Title	Abstract	Format	Extent (geographic)	Reference period - Start	Reference period - End	Access constraints
3		*Unique identification of the dataset (A UUID, URN, or URI, such as DOI)*	*The EUSO subgroups which contributed to this record*	*Context: (e.g. EU-Project SOILCARE, EJP-Soil, Literature, ESDAC, etc.)*	*Short meaningful title*	*Short description or abstract (1/2 page), can include (multiple) scientific/technical references*	*File Format in which the data is maintained or published*	*Geographical coverage (e.g. EU, EU & Balkan, ...)*	*Reference period for the data - Start*	*Reference period - End; empty if ongoing*	*Indicates if the data is publicly accessible or the reason to apply access constaints*
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EJP/EUSO Metadata Profile for Soil Datasets

Label	Cardinality	Codelist	DataCite	Description
Identification	1-1		yes	Unique identification of the dataset (A UUID, URN,
EUSO Data WG subgroup	0-n	yes		The EUSO subgroups which contributed to this rec
Context	0-n	yes		Context: (e.g. EU-Project SOILCARE, EJP-Soil, Litera
Title	1-1		yes	Short meaningful title
Abstract	1-1		yes	Short description or abstract (1/2 page), can includ
Format	0-1	yes	yes	File Format in which the data is maintained or pub
Extent (geographic)	0-1		yes	Geographical coverage (e.g. EU, EU & Balkan, ...)
Reference period - Start	0-1			Reference period for the data - Start
Reference period - End	0-1			Reference period - End; empty if ongoing
Access constraints	1-1	yes		Indicates if the data is publicly accessible or the re
Usage constraints	1-1	yes	yes	Indicates if there are legal usage constraints (licen
Keywords	0-1		yes	Keywords; separated by ';'
Contact	1-n		yes	One Contact per line; name; organisation; email; r
Source	0-n			Source is a reference to another dataset which is u
Lineage	1-1			Statement on the origin and processing of the data

EJPSOIL – EUSO metadata template

Thanks for your attention

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fenny.vanegmond@wur.nl

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