

Interopérabilité sémantique des données de la recherche

Utilisation d'EarthPortal, un catalogue de ressources sémantiques pour le Système Terre et l'environnement

Christelle PIERKOT, Hakim Allem

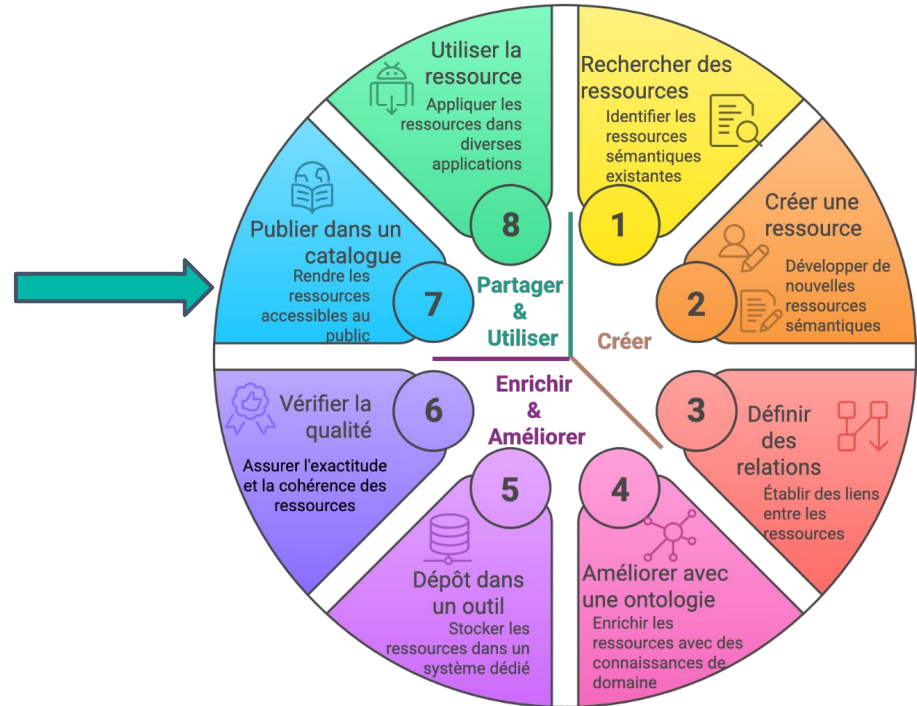
Ressources Sémantiques : Cycle de vie, Pratiques & Usages

- **Différents niveaux de complexité :**
Terminologie, Thésaurus, Ontologies
- **Diversité des pratiques de création**
 - Fichiers Excel, Registres, Outils, ...



- **Peu ou pas de documentation**
- **Diversité des usages**
 - Annoter des (méta)données, créer des KG, extraction de la connaissances, ...
- **Diversité du stockage**
 - Disque dur, Git, TripleStore, ...
- **Peu ou pas de partage**

Cycle de vie des ressources sémantiques



Data Terra

Pôles de données, EaSy Data & Gaia Data

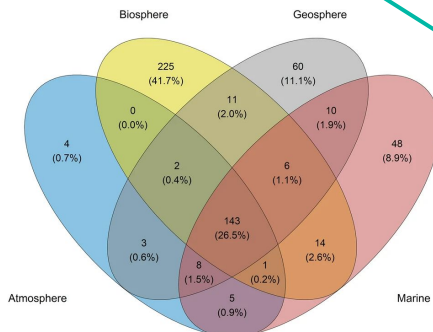
SA Infrastructures Européennes

ACTRIS, EPOS, ARGO, Seadatanet, ...

Autres SA utilisés par les communautés :

SWEET, GCMD, SOSA, OGC Rainbow, I-Adopt, ...

Communautés variées Recouvrement



Credit: DiMuri, C., Pulieri, M., Rahn, D. et al. Assessing semantic interoperability in environmental sciences: variety of approaches and semantic artefacts. Sci Data 11, 1035 (2024). <https://doi.org/10.1038/s41597-024-03669-3>

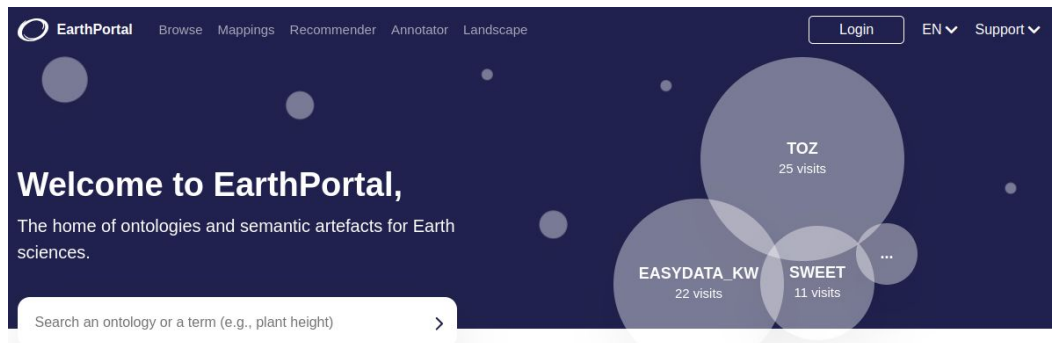
=> Besoin d'un catalogue pour la découverte, le partage et la réutilisation



Le catalogue des ressources Sémantiques du Système Terre



DATA 
TERRA



The screenshot shows the EarthPortal homepage with a dark blue background and white text. The navigation bar includes 'EarthPortal', 'Browse', 'Mappings', 'Recommender', 'Annotator', 'Landscape', 'Login', 'EN', and 'Support'. The main content area features a search bar with the placeholder text 'Search an ontology or a term (e.g., plant height)'. Below the search bar, there is a section titled 'Welcome to EarthPortal, The home of ontologies and semantic artefacts for Earth sciences.' To the right, there are three overlapping circles representing ontologies: 'TOZ' with 25 visits, 'EASYDATA_KW' with 22 visits, and 'SWEET' with 11 visits. A fourth circle with three dots is partially visible.

Do you want to share an ontology?

Uploading an ontology or another type of semantic artefact (vocabulary, terminology, thesaurus, ...) is a way of sharing your knowledge with others.

By uploading and sharing your ontology to EarthPortal, you can:

- ✓ Discover new insights and knowledge by exploring other ontologies or semantic resources in the repository.
- ✓ Map your ontology to other relevant ones in the domain and collaborate with other users.
- ✓ Precisely describe your ontology with relevant metadata and get a FAIR score for your ontology.
- ✓ Contribute to knowledge sharing and semantic interoperability in your domain.
- ✓ Get feedback and suggestions from other users who can use and comment on your ontology.

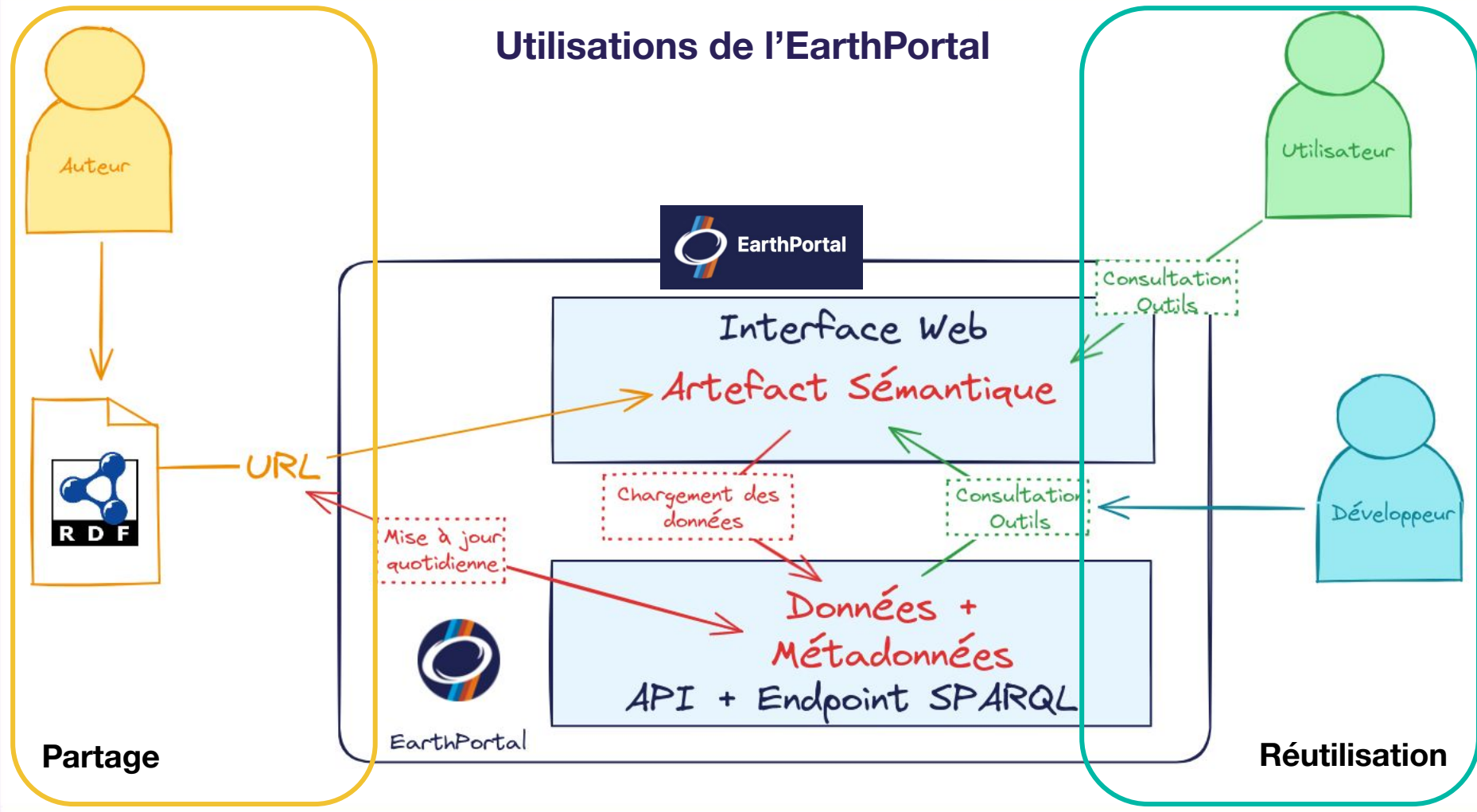
↑ Submit ontology

Discover ontologies >

Interface <https://earthportal.eu>
REST API: <https://data.earthportal.eu>
SPARQL: <https://sparql.earthportal.eu/test>

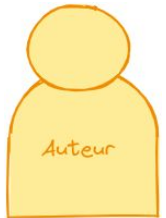
- *Publication, consultation et téléchargement des SAs*
- *Gestion de versions*
- *Annotation, recommandation*
- *Mappings*
- *Notes*
- *Projets*

Utilisations de l'EarthPortal



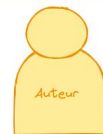
Partager ses ressources sémantiques dans le EarthPortal

*En tant qu'auteur, je souhaite partager ma ressource
sémantique.*





Formulaire de soumission et exemple de résultat du thésaurus Theia-Ozcar



Theia-OZCAR Thesaurus (TOZ) [view](#) [SKOS](#) [View license](#)

Last submission date April 9, 2025



Submit new ontology



Details General information Dates and contacts

Name*

Acronym*

Visibility*

public

Administrators*

cpierkot x

Categories

AGRI GEOLOGY GEO SOIL EARTH METEO OCEAN
GLACIOLOGY GEO-CHEM GEO-MORPHO ATMO HYDRO
GEODESY HYDRO-GEO GEO-PHYS ENV CLIMATE

General information

Thesaurus for in situ data from Environmental and Critical Zone Sciences. Used by Theia/OZCAR information system : <https://in-situ.theia-land.fr/>



Initial created on **January 1, 2018**. For additional information, contact **Véronique Chaffard** (veronique.chaffard@ird.fr) and **Charly Coussot** (charly.coussot@univ-grenoble-alpes.fr).

Languages



Categories and subjects

Soil Meteo Geo Chem Hydro Geo Phys Env

Pull location

<https://in-situ.theia-land.fr/skosmos/rest/v1/the>



Export all metadata

Metrics

63

Classes

1898

Individuals

98

Properties

Identifiers

URI

<https://w3id.org/ozcar-theia/>

EarthPortal URI

<https://earthportal.eu/ontologies/TOZ>

Dates

Persons and organizations

Contact

Véronique Chaffard Charly Coussot

Creator

Isabelle Braud Sylvie Galle

Charly Coussot Véronique Chaffard

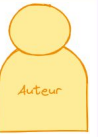
Contributor

THEIA

Endorsed by

UGA

Regroupement fonctionnel des thésaurus, pour une meilleure visibilité



Ontologies > THEIA_THES

Thesaurus Theia (THEIA_THES) SKOS [View license](#)

Last submission date April 14, 2025

Summary Concepts Properties Schemes Collections Notes Mappings Widgets Sparql

General information

This thesaurus is an aggregation of the Theia-OZCAR et Theia Spatial.

Initial created on April 14, 2025. For additional information, contact **Anne Puissant** (anne.puissant@live-cnrs.unistra.fr) and **Véronique Chaffard** (veronique.chaffard@ird.fr) and **Stephane Debard** (stephane.debard@ird.fr) and **Charly Coussot** (charly.coussot@univ-grenoble-alpes.fr).

Languages

Categories and subjects
Soil Earth Meteo Geo Chem Hydro Geo Phys Env

[Download](#) [Home](#) [List](#) [Refresh](#) [Share](#) [Print](#) [Search](#)

Export all metadata

Identifiers

URI
https://w3id.org/earthsemantics/THEIA_THES/the

EarthPortal URI
https://earthportal.eu/ontologies/THEIA_THES

Dates

Persons and organizations

Other links

Projects and usage information

Methodology and provenance

Community

Metrics

63 Classes	1935 Individuals	88 Properties
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Interface Web EarthPortal

En tant qu'utilisateur, je souhaite trouver et utiliser des ressources sémantiques

Rechercher des ressources
Identifier les ressources sémantiques existantes

1

Utiliser la ressource
Appliquer les ressources dans diverses applications

8



Rechercher des ressources
Identifier les ressources sémantiques existantes

Interface de Recherche

Utilisateur

EarthPortal Browse Mappings Recommender Annotator Landscape Projects Search an ontology or a term (e.g.) Login EN Support

Submit ontology Start typing to filter ontologies, e.g., GCMD... All formats Sort by popularity

Filters **Filtres spécifiques** from EarthPortal (44) in 0.55s

Show ontology views
Show retired ontologies

Categories
Groups
Natural languages
Formality levels
Ontology types

SWEET Ontology (SWEET)
The semantic web for Earth and environmental terminology (SWEET) is an investigation in improving discovery and use of Earth science data, through...
+ Show more ...
FAIR score 229.0 FAIR details ...
Submitted 9 months ago by Esip Semantic Team 2024 OWL
2,148 instances 10,239 classes

Theia-OZCAR Thesaurus (TOZ)
Thesaurus for in situ data from Environmental and Critical Zone Sciences. Used by Theia/OZCAR information system : <https://in-situ.theia-land.fr/>
FAIR score 253.0 FAIR details ...
Submitted 14 days ago by Véronique Chaffard 2018 SKOS
1,880 concepts 63 classes

Vocabulaire thématique (EASYDATA_THEMES)
Vocabulaire des thématiques utilisées dans l'entrepôt EaSy Data
FAIR score 207.0 FAIR details ...
262 concepts 6 classes
1 projects

EarthPortal Browse Mappings Recommender Annotator Landscape Projects Search an ontology or a term (e.g.) Login EN Support

oxygen **Filtre par mot clé** Search

Match in 12 ontologies from EarthPortal (12) in 0.47s API JSON Show options

oxygen - Environmental Thesaurus (ENVTHES)
<http://vocabs.liter-europe.net/EnvThes/20850>
[GEMET] A gaseous chemical element; an essential element in cellular respiration and in combustion processes; the most abundant element in the earth's crust and about 20% of the air by volume. [EN](#)
Details Visualize 13 mappings 20 more from this ontology

Oxygen - Theia-OZCAR Thesaurus (TOZ)
https://w3id.org/ozcar-theia/c_a54bce82
[Wikipedia] Oxygen is the chemical element with the symbol O and atomic number 8. It is a member of the chalcogen group in the periodic table, a highly reactive nonmetal, and an oxidizing agent that readily forms oxides with most elements as well as with other compounds. After hydrogen and helium, oxygen is the third-most abundant element in the universe by mass. At standard temperature and pressure, two atoms of the element bind to form dioxygen, a colorless and odorless diatomic gas with the formula O₂. Diatomic oxygen gas currently constitutes 20.95% of the Earth's atmosphere, though this has changed considerably over long periods of time. Oxygen makes up almost half of the Earth's crust in the form of oxides. [EN](#)
Details Visualize 10 mappings 13 more from this ontology

Dissolved oxygen - ODATIS aggregation parameters and Essential Variable names (NVS_OD1)
<http://vocab.nerc.ac.uk/collection/OD1/current/DOXY/>
Variables associated with the determination of the amount of oxygen dissolved in seawater using water column measurements. [EN](#)
Details Visualize 9 mappings

Dissolved oxygen - Earth science variables - TerraVocabulary (TERRA_VOCABS_ESV)
https://terra-vocabulary.org/incl/FAIR-Incubator/earthsciencevariables/c_971fbda2

Consultation du contenu de l'artefact sémantique



Ontologies > TOZ

Theia-OZCAR Thesaurus (TOZ) SKOS [View license](#)



Last submission date November 20, 2024

Summary **Concepts** Properties Schemes Collections Notes Mappings Widgets Sparql English

Jump to Filter

- > Constraint
- > Instrument
- > Method
- > Phenomenon
- > Physical entity
- > Process
- > Property
- > Time
- > Variable
 - > Atmosphere variable
 - Aerosol variable
 - > Atmospheric chemistry
 - > Atmospheric pressure variable
 - > Atmospheric radiation variable
 - > Atmospheric temperature variable
 - Air temperature**
 - 1 day maximum air temperature
 - 1 day maximum air temperature at 1.5 meters height
 - 1 day mean air temperature at 1.5 meters height
 - 1 day minimum air temperature
 - 1 day minimum air temperature at 1.5 meters height
 - Air temperature at 15 meters height
 - Air temperature at 18 meters height
 - Air temperature at 2 meters height

Details Visualization Notes (0) Mappings (19)

ID https://w3id.org/ozcar-theia/c_6f0c66  

Preferred name Air temperature

In schemes <https://w3id.org/ozcar-theia/>

Type <http://www.w3.org/2004/02/skos/core#Concept>

Raw data

dct:description Scientific variable observing air temperature

hasObjectOfInterest [Air >](#)

simplifiedLabel Air temperature

hasProperty [Temperature >](#)

skos.pref_label Air temperature

dct.created February 7, 2022

skos:broader [Atmospheric temperature variable >](#)

rdf:type <https://w3id.org/iadomt/ont/Variable>
<http://www.w3.org/2004/02/skos/core#Concept>
<http://www.w3.org/2002/07/owl#NamedIndividual>

skos:exactMatch <http://www.eionet.europa.eu/gemet/concept/281>

Copie rapide
Vérification de la résolubilité

Afficher les propriétés supplémentaires

Ontologies > TOZ

Theia-OZCAR Thesaurus (TOZ) SKOS [View license](#)

Last submission date November 20, 2024

Summary Concepts **Properties** Schemes Collections Notes Mappings Widgets Sparql English

Search a property in TOZ

abstract

acts on property

aggregationTimePeriod

> alternateOf

all_location

atTime

broader

broadMatch

category

closeMatch

component

conformsToKnowledgeRepresentationParadigm

constraints

contributor

created

creator

> definition

> definition

deployed on platform

deployed system

description

designedForOntologyTask

detects

domainIncludes

editorialNote

endedAtTime

exactMatch

example



> for property

generatedAtTime

hadActivity

hadGeneration





Details

ID <http://purl.org/dc/terms/abstract>  

Type <http://www.w3.org/2002/07/owl#AnnotationProperty>

Raw data

rdf:type <http://www.w3.org/2002/07/owl#AnnotationProperty>

Export de la sélection en différents formats

Identifier les projets qui utilisent les ressources sémantiques

Projects

Browse, filter, and discover projects that use or contribute to ontologies in EarthPortal.

+ Create new project

Search by name, acronym or coordinator

Sort by name

Filters






Show active projects only

Show funded projects only

Funder


Categories

Showing 5 projects

- 
CCN
 Cyber-Carothèque Nationale 1 Ontologies
- 
EASYDATA
 EaSyData 3 Ontologies
- 
FAIR-EASE
 FAIR-EASE 10 Ontologies
- 
GAIADATA
 GaiaData Project 3 Ontologies
- 
N4E_KH
 NFDI4Earth Knowledge Hub 1 Ontologies

Projects > FAIR-EASE

FAIR-EASE (FAIR-EASE)



FAIR-EASE is a RIA project funded under HORIZON-INFRA-2021-EOSC-01-04 which aims to customize and operate distributed and integrated services for observation and modelling of the Earth system, environment and biodiversity by improving their different components implemented in close cooperation with user-communities, the European Open Science Cloud (EOSC) and research infrastructures in their design and sustainable availability

Ontologies

- AER_INS AER_PRM AER_PFM ARG NVS_P07 NVS_P06 NVS_OD1
- NVS_L05 NVS_P02 NVS_L22

Project details

Homepage
<https://cordis.europa.eu/pr...>

Grant number
 101858785

Keywords
 FAIR-EASE

Persons and organizations

Funder
 EU

Dates

Start date
 September 1, 2022

End date
 August 31, 2025

AERIS Instruments (AER_INS) view edit delete

Last submission date February 10, 2026

Summary Concepts Properties Schemes Collections Notes Mappings Widgets SPARQL

General information

Instruments theoretical of the French cluster for atmospheric data and services AERIS, TheAeris Instruments du pôle national de données et de services AERIS
 Initial created on February 10, 2026. For additional information, contact Guillaume Bresselet (gbrisselet@ipis.fr).
 Categories: METEO, ATMOS

Identifiers

URI
<https://vocab.aeris-data.fr/instrument>

EarthPortal URI
<https://earthportal.eu/ontology/ahd/INS>

Dates

Persons and organizations

Other links

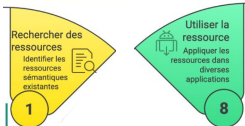
Metrics

2 Classes # 330 Individuals # 0 Properties #

Projects and usage information

Projects using AER_INS

- FAIR-EASE



Consultation, Téléchargement, Gestion de versions



Ontologies > TOZ

Theia-OZCAR Thesaurus (TOZ) SKOS [View license](#)

Last submission date November 20, 2024

Summary Concepts Properties Schemes Collections Notes Mappings Widgets Sparql

Métadonnées descriptives

General information

Thesaurus for in situ data from Environmental and Critical Zone Sciences. Used by Theia/OZCAR information system : <https://in-situ.theia-land.fr>

Initial created on **January 1, 2018**. For additional information, contact **Véronique Chaffard** (veronique.chaffard@ird.fr) and **Charly Coussot** (charly.coussot@univ-grenoble-alpes.fr).

Languages

Categories and subjects

Soil Meteo Geo Chem Hydro Geo Phys Env

Pull location

https://in-situ.theia-land.fr/skosmos/rest/v1/theia_c

Export all metadata

Identifiers

URI <https://w3id.org/ozcar-theia/>

EarthPortal URI <https://earthportal.eu/ontologies/TOZ>

Dates

Persons and organizations

Other links

Projects and usage information

Methodology and provenance

Community

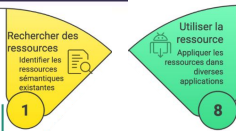
Content

Metrics **63** Classes | **1880** Individuals | **98** Properties

Submissions { }

ID	Version	Modified	Submitted	Actions
8	unknown	January 22, 2024	November 20, 2024	Download { }
7	unknown	January 22, 2024	June 25, 2024	Download { }
6	unknown	January 22, 2024	June 22, 2024	Download { }
5	unknown		June 21, 2024	Download { }
4	unknown		June 12, 2024	Download { }

more...



Recommandeur & Annotateur



Recommander

Get recommendations for the most relevant ontologies from an excerpt of text or a list of keywords

As the access to Solid Earth data is not facilitated for now, current activities are focused on the development of a new portal/service to evaluate automatically SO2 flux emissions by volcanoes by analysis of satellite observations from the Sentinel-5P/TROPOMI sensor together with ECMWF wind fields. Several publications are also in preparation for 1- the presentation of the new **service** (SO2 flux calculator) and its theoretical **framework**, 2- the scientific applications of these new services, in particular the analysis of specific eruptions and their impacts on the atmosphere (air quality, climate) using the VOLCLUME webportal (under further development).

Options

Input

Text Keywords

Output

Ontologies Ontology sets

Show advanced options

Edit

Recommended ontologies

Ontology	Final score	Coverage score	Acceptance score	Detail score	Specialization score	Annotations
SWEET	56.0%	74.5%	0.0%	0.0%	100.0%	19 annotations
GEMET	26.3%	35.7%	0.0%	0.0%	44.3%	9 annotations
FMT	25.4%	29.9%	0.0%	0.0%	59.9%	5 annotations
EASY_DATA_VOCAB	23.8%	29.9%	0.0%	0.0%	48.8%	5 annotations
GCMD	23.8%	26.3%	0.0%	0.0%	57.0%	4 annotations
ENVTHES	22.1%	26.3%	0.0%	0.0%	51.5%	6 annotations
EASYDATA_KW	19.2%	19.2%	0.0%	0.0%	28.8%	4 annotations
TOZ	19.2%	19.2%	0.0%	0.0%	24.1%	6 annotations
TERRA_VOCAB	18.8%	18.8%	0.0%	0.0%	29.1%	3 annotations
TERRA_VOCABS_EF	18.8%	18.8%	0.0%	0.0%	29.1%	3 annotations

Annotator

Obtenez des annotations pour le texte avec des classes d'ontologie

Within the study of the urban heat island UHI in Echirolles and Grenoble France two temperature measurement networks have been deployed The aim is to measure the temperature gradients associated with the UHI in summer The ADEMEfunded CASSANDRE research program analyzes and processes these observations to study the vulnerability of inhabitants to heat waves and more generally to summer heat stress

Insérer un texte d'exemple

Options

Mot entier seulement Correspondance uniquement avec le plus long

Inclure les mappings Exclure les chiffres Exclure les synonymes

Select ontologies

Effacer la sélection Sélection avancée des ontologies

Afficher les options avancées

Obtenir des annotations

Annotations

Résultats totaux 31 (direct: 31 / parents: 0)

Classe	Ontologie	Contexte
ontologies/AER_PRM/classes/htt...	AERIS Parameters	... the urban heat island UHI in inhabitants to heat waves and more to summer heat stress ...
ontologies/GEMET/classes/http...	General Multilingual Environmental Thesaurus	... urban heat island UHI in Echirolles ...
ontologies/SWEET/classes/http...	SWEET Ontology	... urban heat island UHI in Echirolles ...
ontologies/ACTRIS_VOCAB/class...	ACTRIS Vocabulary	... France two temperature measurement networks have measure the temperature gradients associated with ...
ontologies/GEMET/classes/http...	General Multilingual Environmental Thesaurus	... France two temperature measurement networks have measure the temperature gradients associated with ...

API EarthPortal

En tant que développeur, je souhaite intégrer EarthPortal dans des applications tierces pour pouvoir utiliser les ressources sémantiques



API



```
{
  acronym: "earthportal",
  title: "",
  color: "",
  description: "",
  logo: "",
  numberOfArtefacts: 45,
  federated_portals: {},
  fundedBy: {},
  @id: https://data.earthportal.eu/,
  @type: http://www.isibang.ac.in/ns/mod#Semanticartefactcatalogue,
  - links: {
    agents: https://data.earthportal.eu/agents,
    annotator: https://data.earthportal.eu/annotator,
    categories: https://data.earthportal.eu/categories,
    groups: https://data.earthportal.eu/groups,
    documentation: https://data.earthportal.eu/documentation,
    mappings: https://data.earthportal.eu/mappings,
    metrics: https://data.earthportal.eu/metrics,
    notes: https://data.earthportal.eu/notes,
    ontologies: https://data.earthportal.eu/ontologies,
    ontologies_full: https://data.earthportal.eu/ontologies\_full,
    analytics: https://data.earthportal.eu/analytics,
    submissions: https://data.earthportal.eu/submissions,
    projects: https://data.earthportal.eu/projects,
    property_search: https://data.earthportal.eu/property\_search,
    provisional_classes: https://data.earthportal.eu/provisional\_classes,
    provisional_relations: https://data.earthportal.eu/provisional\_relations,
    recommender: https://data.earthportal.eu/recommender,
    recommender_v1: https://data.earthportal.eu/recommender\_v1,
    replies: https://data.earthportal.eu/replies,
    reviews: https://data.earthportal.eu/reviews,
    search: https://data.earthportal.eu/search,
    slices: https://data.earthportal.eu/slices,
    submission_metadata: https://data.earthportal.eu/submission\_metadata,
    ontology_metadata: https://data.earthportal.eu/ontology\_metadata,
    users: https://data.earthportal.eu/users,
  }
  - @context: {
    agents: http://xmlns.com/foaf/0.1/Agent,
    annotator: "",
    categories: http://data.bioontology.org/metadata/Category,
    groups: http://data.bioontology.org/metadata/Group,
    documentation: "",
    mappings: http://data.bioontology.org/metadata/Mapping,
    metrics: http://data.bioontology.org/metadata/Metrics,
    notes: http://data.bioontology.org/metadata/Note,
    ontologies: http://data.bioontology.org/metadata/Ontology,
    ontologies_full: http://data.bioontology.org/metadata/Ontology,
    analytics: "",
    submissions: http://data.bioontology.org/metadata/OntologySubmission,
    projects: http://data.bioontology.org/metadata/Project,
    property_search: "",
    provisional_classes: http://data.bioontology.org/metadata/ProvisionalClass,
```

API Documentation

General Usage

This API is comprised of a set of resources (Ontologies, Classes, etc) and related endpoints (Search, Annotator, Recommender) that are connected together via links, much like webpages. We recommend that you try browsing the API using a web browser (Chrome and Firefox work very well while IE does not) before you start writing code. For more information, please see the documentation on [Media Types and Hypermedia Links](#) or view our [sample code](#), available in Java, Python, Ruby and other languages (please email support@bioontology.org if you would like examples in another language).

Common Parameters

Parameter	Possible Values	Description
apikey	{your api key}	An API Key is required to access any API call. It can be provided in three ways: <ol style="list-style-type: none"> Using the <code>apikey</code> query string parameter Providing an <code>Authorization</code> header: <pre>Authorization: apikey tokensyour_apikey</pre> (replace 'your_apikey' with your actual key) When using a web browser to explore the API, if you provide your API Key once using method 1, it will be stored in a cookie for subsequent requests. You can override this by providing a different API Key in a new call.
include	all (comma-separated list of attributes, EX: attr1,attr2)	By default, the API will show a subset of the available attributes for a given media type. This behavior can be overridden by providing <code>include=all</code> to show all attributes or <code>include=attribute1,attribute2</code> to include a specific list. The API is optimized to return the default values, so overriding this can impact the performance of your request. <p>The <code>include=all</code> option is most useful for testing in the browser. Use it to identify the set of attributes required and use only those by passing them as a comma separated list, e.g. <code>include=prefLabel1,cui</code>.</p> <p>The <code>include</code> parameter is currently unsupported on Annotator and Recommender endpoints.</p>
format	json jsonp xml	The API returns JSON as the default content type. This can be overridden by using the <code>format</code> query string parameter. The API also respects <code>Accept</code> header entries, with precedence given to the <code>format</code> parameter.

- Home
- General Usage
- Term Search
- Ontology Property Search
- Annotator
- Recommender
- Batch
- Ontology Analytics
- Resources
- Media Types and Hypermedia Links
 - Agent
 - Category
 - Class
 - Group
 - Instance
 - Mapping
 - Metric
 - Note
 - Reply
 - ObjectProperty
 - Ontology
 - OntologySubmission
 - Project
 - ProvisionalClass
 - ProvisionalRelation
 - Review
 - Collection
 - Scheme
 - Slice
 - User
- Content Types



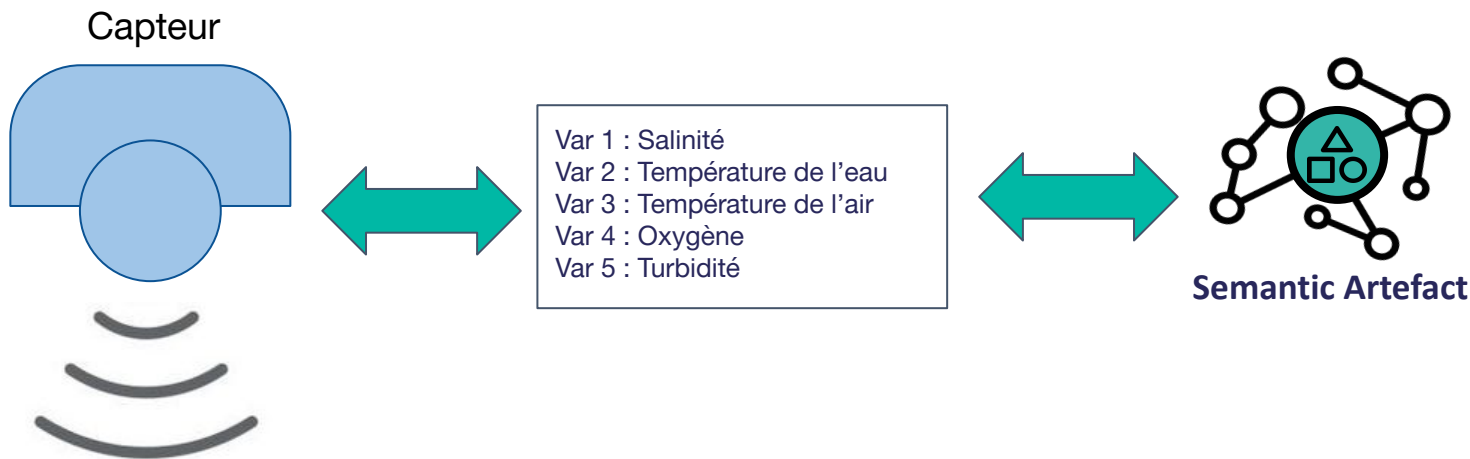
Exemple d'utilisation



DATA 
TERRA

Exemple appliqué

Postulat: J'ai une base de données centralisant les données d'un capteur **multi-paramètres** (salinité, température eau, température air, oxygène, turbidité...). Je veux y associer une **sémantique** à chaque **variable**, comment faire?



Exemple N°1: rechercher la variable Température de l'air

UI

Welcome to EarthPortal,

The home of ontologies and semantic artefacts for Earth sciences.

air temperature



air temperature Search

Match in 23 ontologies from EarthPortal (23) in 0.42s API JSON Show options

air temperature - ACTRIS Vocabulary (ACTRIS_VOCAB)

[Details](#) [Visualize](#) [18 mappings](#) [7 more from this ontology](#)

air temperature - Environmental Thesaurus (ENVTHES)

[Details](#) [Visualize](#) [20 mappings](#) [27 more from this ontology](#)

AIR TEMPERATURE - GCMD Keywords (GCMD)

[Details](#) [Visualize](#) [18 mappings](#) [25 more from this ontology](#) [Reuses in ontologies](#)

Air temperature - ODATIS aggregation parameters and Essential Variable names (NVS_ODI)

[Details](#) [Visualize](#) [18 mappings](#)

Air temperature - Earth science variables - TerraVocabulary (TERRA_VOCABS_ESV)

[Details](#) [Visualize](#) [20 mappings](#) [4 more from this ontology](#)

Air temperature - SeaDataNet Parameter Discovery Vocabulary (NVS_P02)

[Details](#) [Visualize](#) [17 mappings](#) [1 more from this ontology](#)

API

https://data.earthportal.eu/search?q=air%20temperature&apikey=my_api_key

```
{
  page: 1,
  pageCount: 13,
  totalCount: 625,
  nextPage: null,
  prevPage: 2,
  links: {
    nextPage: https://data.earthportal.eu/search?query=air%20temperature&apikey=3147273-954f-51bd-b068-d690c412856e&page=2,
    prevPage: null
  },
  collection: {
    - self: https://data.earthportal.eu/ontologies/ACTRIS_VOCAB/classes/https://vocab.earthportal.eu/actris_vocab/airtemperature,
    - type: https://www.w3.org/2002/07/owl#Class,
    - links: {
      - self: https://data.earthportal.eu/ontologies/ACTRIS_VOCAB/classes/https://vocab.earthportal.eu/actris_vocab/airtemperature,
      ontology: https://data.earthportal.eu/ontologies/ACTRIS_VOCAB,
      children: https://data.earthportal.eu/ontologies/ACTRIS_VOCAB/classes/https://vocab.earthportal.eu/actris_vocab/airtemperature/children,
      parents: https://data.earthportal.eu/ontologies/ACTRIS_VOCAB/classes/https://vocab.earthportal.eu/actris_vocab/airtemperature/parents,
      descendants: https://data.earthportal.eu/ontologies/ACTRIS_VOCAB/classes/https://vocab.earthportal.eu/actris_vocab/airtemperature/descendants,
      ancestors: https://data.earthportal.eu/ontologies/ACTRIS_VOCAB/classes/https://vocab.earthportal.eu/actris_vocab/airtemperature/ancestors,
      instances: https://data.earthportal.eu/ontologies/ACTRIS_VOCAB/classes/https://vocab.earthportal.eu/actris_vocab/airtemperature/instances,
      tree: https://data.earthportal.eu/ontologies/ACTRIS_VOCAB/classes/https://vocab.earthportal.eu/actris_vocab/airtemperature/tree,
      notes: https://data.earthportal.eu/ontologies/ACTRIS_VOCAB/classes/https://vocab.earthportal.eu/actris_vocab/airtemperature/notes,
      mappings: https://data.earthportal.eu/ontologies/ACTRIS_VOCAB/classes/https://vocab.earthportal.eu/actris_vocab/airtemperature/mappings,
      ui: https://earthportal.eu/ontologies/ACTRIS_VOCAB/classes/https://vocab.earthportal.eu/actris_vocab/airtemperature,
      - context: {
        self: https://www.w3.org/2002/07/owl#Class,
        ontology: https://data.bioontology.org/metadata/Ontology,
        children: https://www.w3.org/2002/07/owl#Class,
        parents: https://www.w3.org/2002/07/owl#Class,
        descendants: https://www.w3.org/2002/07/owl#Class,
        ancestors: https://www.w3.org/2002/07/owl#Class,
        instances: https://data.bioontology.org/metadata/Instance,
        tree: https://www.w3.org/2002/07/owl#Class,
        notes: https://data.bioontology.org/metadata/Note,
        mappings: https://data.bioontology.org/metadata/Mapping,
        ui: https://www.w3.org/2002/07/owl#Class
      }
    }
  },
  - context: {
    - vocab: https://data.bioontology.org/metadata/,
    - preLabel: https://www.w3.org/2002/07/owl#Class,
    - obsolete: https://www.w3.org/2002/07/owl#ObsoleteClass,
    - @Language: "en"
  }
},
  - preLabel: "air temperature",
  - definition: [
    {
      - rdfs:label: "The temperature of the atmosphere which represents the average kinetic energy of the molecular motion in a small region and is defined in terms of a standard or calibrated thermometer in thermal equilibrium with the air."
    }
  ],
  - obsolete: false,
  - matchType: "preLabel",
  - ontologyType: "ontology",
  - id: https://vocab.earthportal.eu/ontologies/ENVTHES/classes/https://vocab.earthportal.eu/actris_vocab/airtemperature,
  - type: https://www.w3.org/2002/07/owl#Class,
  - links: {
    - self: https://data.earthportal.eu/ontologies/ENVTHES/classes/https://vocab.earthportal.eu/actris_vocab/airtemperature,
    ontology: https://data.earthportal.eu/ontologies/ENVTHES,
    children: https://data.earthportal.eu/ontologies/ENVTHES/classes/https://vocab.earthportal.eu/actris_vocab/airtemperature/children,
    parents: https://data.earthportal.eu/ontologies/ENVTHES/classes/https://vocab.earthportal.eu/actris_vocab/airtemperature/parents,
    descendants: https://data.earthportal.eu/ontologies/ENVTHES/classes/https://vocab.earthportal.eu/actris_vocab/airtemperature/descendants,
    ancestors: https://data.earthportal.eu/ontologies/ENVTHES/classes/https://vocab.earthportal.eu/actris_vocab/airtemperature/ancestors,
    instances: https://data.earthportal.eu/ontologies/ENVTHES/classes/https://vocab.earthportal.eu/actris_vocab/airtemperature/instances,
    tree: https://data.earthportal.eu/ontologies/ENVTHES/classes/https://vocab.earthportal.eu/actris_vocab/airtemperature/tree,
    notes: https://data.earthportal.eu/ontologies/ENVTHES/classes/https://vocab.earthportal.eu/actris_vocab/airtemperature/notes,
    mappings: https://data.earthportal.eu/ontologies/ENVTHES/classes/https://vocab.earthportal.eu/actris_vocab/airtemperature/mappings,
    ui: https://earthportal.eu/ontologies/ENVTHES/classes/https://vocab.earthportal.eu/actris_vocab/airtemperature,
    - context: {
      - vocab: https://data.bioontology.org/metadata/,
      - preLabel: https://www.w3.org/2002/07/owl#Class,
      - obsolete: https://www.w3.org/2002/07/owl#ObsoleteClass,
      - @Language: "en"
    }
  }
}
```

Exemple N°2: rechercher un ensemble de variables

• Comment choisir la ressource la plus adaptée ?

- Je cherche une ressource sémantique qui décrit le plus grand nombre possible de ces variables
 1. J'utilise le Recommandeur pour avoir un aperçu
 2. Je sélectionne quelles ressources sémantiques m'intéressent
 3. J'utilise l'Annotateur pour rechercher plus en profondeur le contenu de ces ressources
 4. En fonction des résultats et de leur pertinence avec ma thématique, j'en déduis qu'elle ressource est la plus appropriée

Recommender

Get recommendations for the most relevant ontologies from an excerpt of text or a list of keywords

1.

Options

Input

Text Keywords

Output

Ontologies Ontology sets

Show advanced options

Edit

Recommended ontologies

Ontology	Final score	Coverage score	Acceptance score	Detail score	Specialization score	Annotations
AER_PRM	60.1%	89.4%	0.0%	0.0%	73.0%	0 annotations
2. TOZ	54.7%	87.2%	0.0%	0.0%	45.2%	6 annotations
GEMET	41.1%	66.0%	0.0%	0.0%	31.8%	4 annotations

Annotator

Get annotations for text with ontology classes

salinity water temperature air temperature oxygen turbidity

Options

Whole word only Match longest only Include mappings

Exclude numbers Exclude synonyms

3.

Clear selection Ontologies advanced selection

Show advanced options

Insert sample text

Get annotations

Annotations

Total results 7 (direct: 7 / parents: 0)

Class	Ontology	Context
ontologies/TOZ/classes/https%3...	Theia-OZCAR Thesaurus	salinity water temperature air ...
ontologies/TOZ/classes/https%3...	Theia-OZCAR Thesaurus	... salinity water temperature air temperature ...

Exemple N°3: annoter les données sémantiquement

- Comment importer techniquement une ressource sémantique dans une base de données?
 - Les variables vont être décrites avec les concepts que nous avons récupéré
 - ◆ Exemple avec un fichier csv:

<https://w3id.org/ozcar-theia/c_6f0c66da>

ID https://w3id.org/ozcar-theia/c_6f0c66da   

Preferred name Air temperature

In schemes <https://w3id.org/ozcar-theia/> >

Type <http://www.w3.org/2004/02/skos/core#Concept>

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	<u>Ref</u>										https://w3id.org/ozcar-theia/c_6f0c66da		
2	<u>Date</u>	<u>Wind Speed</u>	m/s	c39	<u>Gust Speed</u>	m/s	c39	<u>Wind Direction</u>	*	c39	<u>Air temperature</u>	*C	c39
3	26/11/24 22:00:00	0.7	2.0	246	7.24	93.50	6.27		1				
4	26/11/24 23:00:00	1.0	2.7	211	7.57	92.20	6.39		1				
5	27/11/24 00:00:00	0.7	2.0	224	7.82	91.30	6.50		1				

Exemple N°3: annoter les données sémantiquement

- **Comment importer techniquement un artefact sémantique dans une base de données?**
 - Les variables vont être décrites avec les concepts que nous avons récupéré
 - ◆ Exemple avec un fichier netCDF:

```
netcdf example {
  dimensions:
    time = UNLIMITED;
    latitude = 180;
    longitude = 360;
  variables:
    float air_temperature(time, latitude, longitude);
    air_temperature:standard_name = "air_temperature";
    air_temperature:long_name = "Air Temperature";
    air_temperature:external_reference = "https://w3id.org/ozcar-theia/c_6f0c66da";
    air_temperature:missing_value = -9999.0;
  data:
    // Données
}
```



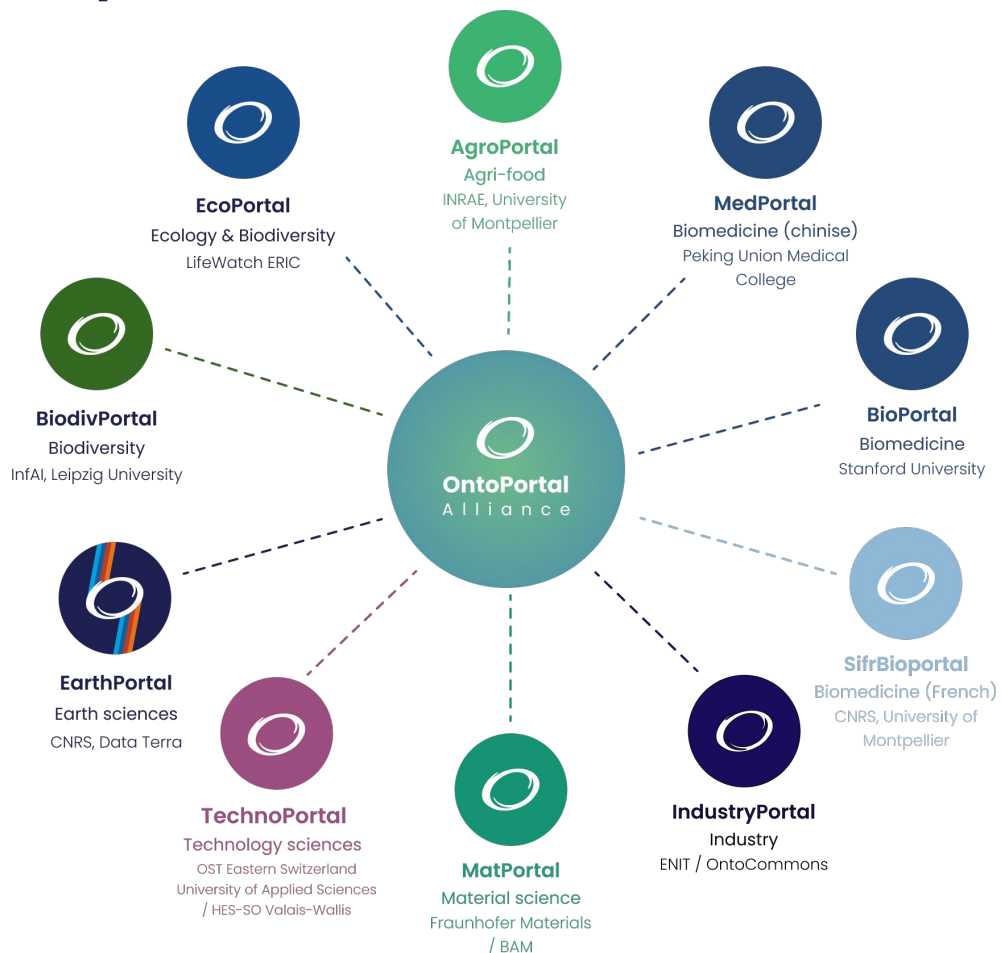
Fédération des portails de l'Ontoportail Alliance



DATA 
TERRA

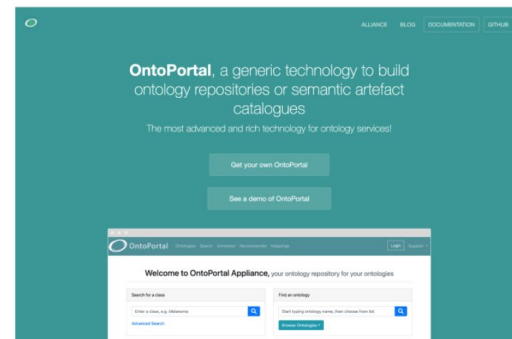


Ontoportall Alliance

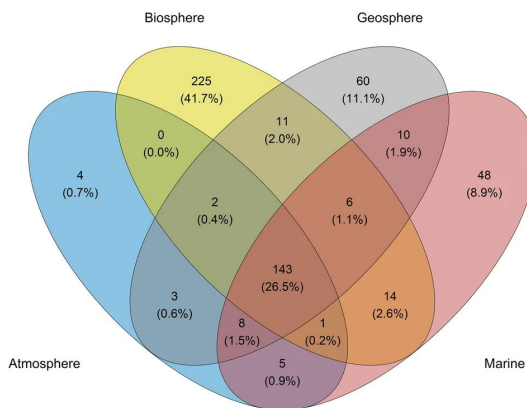


Web site and documentation:

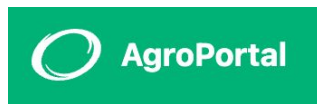
<https://ontoportall.org>



Fédération des OntoPortal de la thématique environnement



Recouvrement



Federated Search page (Content)

A hand-drawn sketch of a federated search page interface. It features a search bar at the top with a magnifying glass icon and the text "Search". Below the search bar, there are three checkboxes with labels: "Portal 1 (3 items)" in green, "Portal 2 (1 item)" in orange, and "Portal 3 (1 item)" in red. Below these are five search input fields, each with a label and two checkboxes to its right. The labels are: "ont1 (p1)", "ont2 (p1)", "ont3 (p2)", "ont4 (p1)", and "ont5 (p3)". The "ont5 (p3)" field is highlighted with a red border, and a blue arrow points to it from the right.

Are displayed only: Canonical or Local to the portals



Fédération des portails : Interface - Recherche mutualisée

Show ontology views

Show retired ontologies

Categories (i) ▾

Groups (i) ▾

Natural languages ▾

Formality levels ▾

Ontology types ▾

Results from external portals ▾

- ✓ AgroPortal
- ✓ EcoPortal
- ✓ EarthPortal
- ✓ BiodivPortal

Activation de la fédération



A stratified lexicon of water related geophysical and textual data (LEXEAU) [↗](#)

L'ontologie LEXEAU est la source d'un lexique de l'eau bilingue des services de l'eau et du développement durable. Elle a été conçue et...

+ Show more ...

Submitted about 1 month ago by Jean Louis Janin 2015 OWL [○ AgroPortal](#)

742 instances 383 classes 1 notes 1 projects

ABCD Base Ontology (ABCD) [↗](#) -- Accès direct vers le portail

The base ontology of the ABCD Standard.

Submitted over 1 year ago by David Fichtmueller 2019 OWL [○ BiodivPortal](#)

79 instances 65 classes

ACTRIS Controlled Lists (ACTRIS_CL) [↗](#)

Lists of controlled terms used in ACTRIS

Submitted 10 months ago by Markus Fiebig 2022 SKOS [○ EcoPortal](#) [○ EarthPortal](#)

98 concepts 2 classes

ACTRIS Vocabulary (ACTRIS_VOCAB) [↗](#)

Controlled vocabulary of terms used in ACTRIS

Submitted 10 months ago by Markus Fiebig 2022 SKOS [○ EcoPortal](#) [○ EarthPortal](#)

4,315 concepts 2 classes

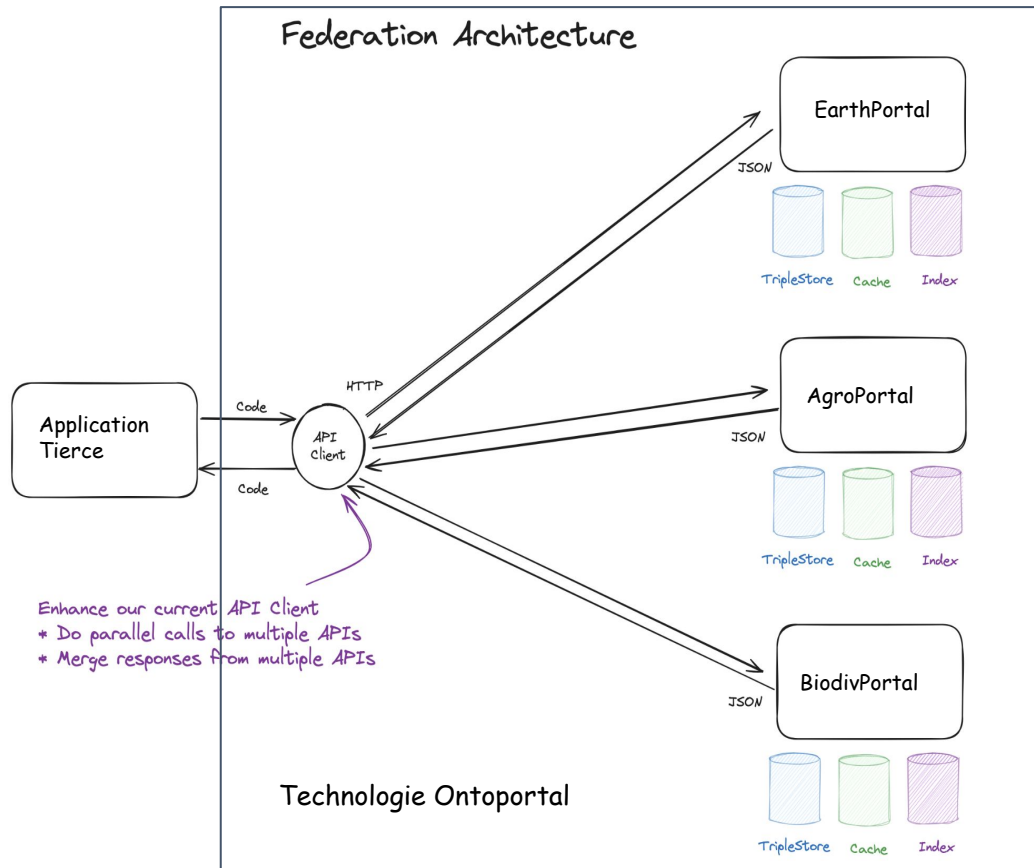
Portail qui contient le SA

Plusieurs portails contiennent le SA

Fédération des portails : API gateway pour connexion d'une application tierce



Stage en cours



Questions?

Christelle PIERKOT

Hakim Allem

support@earthportal.eu



Exemples d'utilisation avec des applications tierces



DATA 
TERRA

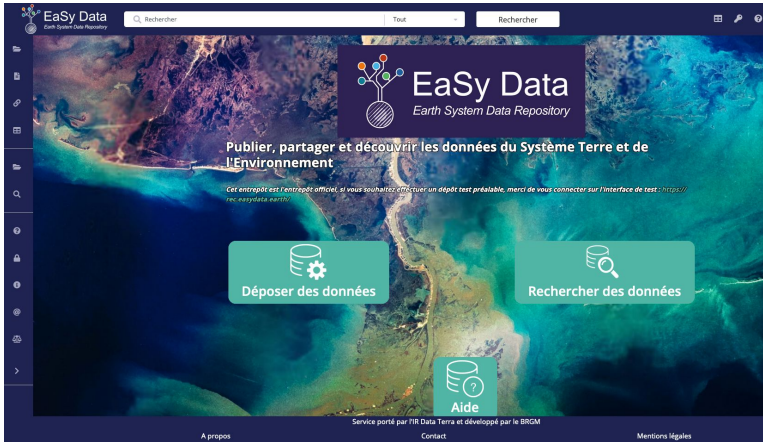


Utilisation de l'EarthPortal avec EaSy Data



EaSy Data : Entrepôt national des données de longues traînes

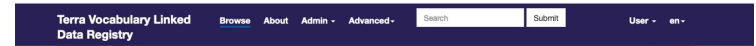
- Geonetwork to stocker les métadonnées(catalogue) + application ad-hoc (dépôt, recherche)
- basé sur ISO 19115



Vocabulaires incomplets qui ne reflètent pas la diversité complexe des données déposées dans EaSy Data

=> Nécessité d'utiliser d'autres vocabulaires : Theia/Ozcar, Actris, ...

- Vocabulaires contrôlés communautaires utilisés pour remplir certains éléments de métadonnées
- 3 vocabulaires internes définis pour les données EaSy
- Quelques vocabulaires externes : licences, ROR, Geonames, ...



Register: EaSy Data Thesaurus

URI: <https://terra-vocabulary.org/ns1/DataTerraRepositoryFairIncubator>

Cette collection contient une liste préliminaire des vocabulaires nécessaires pour l'entrepôt de données DataTerra à Fairiser

Contents

Name	Notation	Description	Types	Status
Infrastructures de Recherche et composantes	InfraRecherche	liste des IRe et de leur composantes en fonction de la feuille...	Container , Register , concept scheme	experimented
Vocabulaire des mots clefs	motsClefs	Vocabulaire des mots clefs pour l'entrepôt Data Terra	Container , concept scheme , Ontology , Register	experimented
Vocabulaire thématique	Voc_thematique	Vocabulaire des thématiques pour	Register , concept scheme ,	experimented

Theia/OZCAR thesaurus

Liste	Hierarchie	Groupes
A B C D E F G H I K L M N O P R S T U V W Y Z 0-9		

Description du vocabulaire

TITRE Theia/OZCAR thesaurus

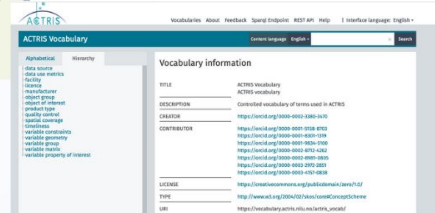
DESCRIPTION Thesaurus for in situ data from Environmental and Critical Zone Sciences. Used by Theia/OZCAR information system : <https://in-situ.theia-land.fr/>

CREATEUR Charly Coussot <https://orcid.org/0000-0002-9544-8802>

Weronique Chaffard <https://orcid.org/0000-0003-2823-7117>

Isabelle Bruel <https://orcid.org/0000-0001-9705-0006>

Sylvie Gallie <https://orcid.org/0000-0002-3100-8330>



Cas d'utilisation dépôt : utiliser les ressources de l'EarthPortal pour améliorer la qualité du dépôt

EaSy Data
Earth System Data Repository

Rechercher [] Tout [v]

Tous les dépôts / test depot vocab thematique / INTERSEISMIC AND LONG-TERM DEFORMATION OF SOUTHEASTERN SICILY DRIVEN BY THE IONIAN SLAB ROLL-BA ... /

Modifier le jeu de données

Langue utilisée / *Language* * [Français v]

Informations générales / *General informations*

Titre / *Title* * [INTERSEISMIC AND LONG-TERM DEFORMATION OF SOUTHEASTERN SICILY DRIVEN]

Résumé / *Abstract* * [New satellite geodetic data challenge our knowledge of the deformation mechanisms driving the active deformations affecting Southeastern Sicily. The PS-InSAR measurements evidence a generalized subsidence and an eastward tilting of the Hyblean Plateau combined with a local relative uplift along its eastern coast. To find a mechanical explanation for the present-day strain field, we investigate short and large-scale surface-to-crustal deformation processes. Geological and geophysical data suggest that the southward migration of the Calabrian subduction could be the causative geodynamic process]

Dépôt / *Repository* * [test depot vocab thematique v]

Thématiques / *Thematics* * [atmosphère v]

Mots-clés / *Keywords* * [Précipitations x]

Suggestion de mots-clés additionnels EarthPortal

EarthPortal Parcourir Alignements Recommandeur Annotateur Paysage Rechercher une ontologie Connexion

Soumettre une ontologie

Commencez à taper pour filtrer les ontologies, par ex., AGROVOC. Tous les formats

Affichage de 40 sur 40 (0.27s)

Thesa-02CAR Thesaurus (TOZ)
Thesaurus for in situ data from Environmental and Critical Zone Sciences. Used by Thesa02CAR information system : https://doi.org/10.21203/rs.3.rs-1181471/v1
Score FAIR [] 210.0 Détails FAIR ...
Soumis about 1 month ago par Guillaume alvisei 8 mai 2024 SKOS

Vocabulaire des mots clefs (EASYPDATA_KW)
Vocabulaire des mots clefs pour l'entrepôt Data Terra, Vocabulaire des mots clefs pour l'entrepôt Data Terra
Score FAIR [] 215.0 Détails FAIR ...
Soumis 3 months ago par Hélène bressan 2024 SKOS

SeaDataNet Device Thesaurus (SDNDEV)
A thesaurus comprising categorizations of devices (sensors, instrument packages and sample collectors) developed by SeaDataNet mapped to ...
+ Attacher plus ...
Score FAIR [] 236.0 Détails FAIR ...
Soumis 8 months ago par Ouwanaelle moncolffe 2023 SKOS

SWEET Ontology (SWEET)
The semantic web for Earth and environmental terminology (SWEET) is an investigation in improving discovery and use of Earth science data...
+ Attacher plus ...
Score FAIR [] 229.0 Détails FAIR ...
Soumis 3 months ago par Esp semantic team 2024 OWL

Groupes: AERIS 4, DGC 2, EPOS 0, ESIP 1, THEIA 1, W3C 2, BODC 1, ODATIS 4, BRGM 2, DATA_TERRA 4, ACTRIS 2, FORMATER 7

Langues naturelles, Niveaux de formalité, Types d'ontologies

UC2 : utilisation des services de l'



dans



: Ex Dépôt

EaSy Data
Earth System Data Repository

Rechercher [] Tout [v]

Tous les dépôts / test depot vocab thematique / INTERSEISMIC AND LONG-TERM DEFORMATION OF SOUTHEASTERN SICILY DRIVEN BY THE IONIAN SLAB ROLL-BA ... /

Modifier le jeu de données

Langue utilisée / Language * [Français v]

Informations générales / General informations

Titre / Title * [INTERSEISMIC AND LONG-TERM DEFORMATION OF SOUTHEASTERN SICILY DRIVEN]

Résumé / Abstract *
New satellite geodetic data challenge our knowledge of the deformation mechanisms driving the active deformations affecting Southeastern Sicily. The PS-InSAR measurements evidence a generalized subsidence and an eastward tilting of the Hyblean Plateau combined with a local relative uplift along its eastern coast. To find a mechanical explanation for the present-day strain field, we investigate short and large-scale surface-to-crustal deformation processes. Geological and geophysical data suggest that the southward migration of the Calabrian subduction could be the causative geodynamic process

Dépôt / Repository * [test depot vocab thematique v]

Thématiques / Thematics *
Registre des thématiques
[atmosphère v]
 Thématique choisi dans ce formulaire
 Thématique importé du dépôt "test depot vocab thematique"

Mots-clés / Keywords *
Registre des mots-clés
[Précipitations x v]
 Mot-clé choisi dans ce formulaire
 Mot-clé importé du dépôt "test depot vocab thematique"

Suggestion de mots-clés additionnels
EarthPortal

Utiliser le service d'annotation de l'EarthPortal

Modifier le jeu de données

Langue utilisée / *Language* *

Informations générales / *General informations*

Titre / *Title* *

INTERSEISMIC AND LONG-T

Résumé / *Abstract* *

New satellite geodetic data mechanisms driving the acti
InSAR measurements evider
of the Hyblean Plateau com
coast. To find a mechanical
investigate short and large-s
Geological and geophysical
Calabrian subduction could

Dépôt / *Repository* *

test depot vocab thematique

Thématiques / *Thematics* *

Registre des thématiques

atmosphère

Thématique choisi dans ce

Thématique importé du dépôt "test depot vocab thematique"

Mots-clés / *Keywords* *

Registre des mots-clés

Précipitations

Mot-clé choisi dans ce formulaire

Mot-clé importé du dépôt "test depot vocab thematique"

Suggestion de mots-clés additionnels

EarthPortal

Mots-clés additionnels



Les propositions sont issues des vocabulaires disponibles dans le EarthPortal



Utiliser les artefacts sémantiques disponibles dans EarthPortal pour suggérer de nouveaux mots-clés

Affichage 1-5 de 5 résultats

IDENTIFIANT	LIBELLÉ	THESAURUS D'ORIGINE
<input type="checkbox"/> https://terra-vocabulary.org/ncl/DataTerraRepositoryFairIncubator/motsClefs/c_a729a8f8	Données	EASYDATA_KW
<input type="checkbox"/> https://vocabulary.actris.nilu.no/actris_vocab/local	local	ACTRIS_VOCAB
<input type="checkbox"/> https://vocab.aeris-data.fr/project/42643d18-d58a-43d0-8d56-9f10b0c2a957	SCALE	AER_PJT
<input type="checkbox"/> https://vocabulary.actris.nilu.no/actris_vocab/surface	surface	ACTRIS_VOCAB
<input type="checkbox"/> https://terra-vocabulary.org/ncl/DataTerraRepositoryFairIncubator/motsClefs/c_843c85e0	Subduction	EASYDATA_KW

Annuler

Enregistrer

Étendue temporelle / *Time extent* *

Début / *Beginning* *

Fin / *Ending* *

Modifier le jeu de données

Langue utilisée / Language *

Informations générales / General informations

Titre / Title *

INTERSEISMIC AND LONG-T

Résumé / Abstract *

New satellite geodetic data mechanisms driving the act InSAR measurements eviden of the Hyblean Plateau com coast. To find a mechanical investigate short and large- Geological and geophysical Calabrian subduction could

Dépôt / Repository *

test depot vocab thematique

Thématiques / Thematics *

Registre des thématiques

atmosphère

Thématique choisi dans ce

Thématique importé du dépôt "test depot vocab thematique"

Mots-clés / Keywords *

Registre des mots-clés

Suggestion de mots-clés additionnels

EarthPortal

Précipitations

Mot-clé choisi dans ce formulaire

Mot-clé importé du dépôt "test depot vocab thematique"

Mots-clés additionnels

Les propositions sont issues des vocabulaires disponibles dans le EarthPortal



Affichage 1-5 de 5 résultats

IDENTIFIANT	LIBELLÉ	THESAURUS D'ORIGINE
<input type="checkbox"/> https://terra-vocabulary.org/ncl/DataTerraRepositoryFairIncubator/motsClefs/c_a729a8f8	Données	EASYDATA_KW
<input type="checkbox"/> https://vocabulary.actris.nilu.no/actris_vocab/local	local	ACTRIS_VOCAB
<input type="checkbox"/> https://vocab.aeris-data.fr/project/42643d18-d58a-43d0-8d56-9f10b0c2a957	SCALE	AER_PJT
<input checked="" type="checkbox"/> https://vocabulary.actris.nilu.no/actris_vocab/surface	surface	ACTRIS_VOCAB
<input checked="" type="checkbox"/> https://terra-vocabulary.org/ncl/DataTerraRepositoryFairIncubator/motsClefs/c_843c85e0	Subduction	EASYDATA_KW

Annuler

Sélection des mots-clés d'intérêt

Enregistrer

Étendue temporelle / Time extent *

Début / Beginning *

Fin / Ending *

Modifier le jeu de données

Langue utilisée / Language *

🇫🇷 Français

Informations générales / General informations

📄 Titre / Title *

INTERSEISMIC AND LONG-TERM DEFORMATION OF SOUTHEASTERN SICILY DRIVEN

📄 Résumé / Abstract *

New satellite geodetic data challenge our knowledge of the deformation mechanisms driving the active deformations affecting Southeastern Sicily. The PS-InSAR measurements evidence a generalized subsidence and an eastward tilting of the Hyblean Plateau combined with a local relative uplift along its eastern coast. To find a mechanical explanation for the present-day strain field, we investigate short and large-scale surface-to-crustal deformation processes. Geological and geophysical data suggest that the southward migration of the Calabrian subduction could be the causative geodynamic process

Dépôt / Repository *

test depot vocab thematique

Thématiques / Thematics *

[Registre des thématiques](#)

atmosphère

- Thématique choisi dans ce formulaire
- Thématique importé du dépôt "test depot vocab thematique"

📄 Mots-clés / Keywords *

[Registre des mots-clés](#)

[Suggestion de mots-clés additionnels](#)

[EarthPortal](#)

Précipitations

surface

Subduction

- Mot-clé choisi dans ce formulaire
- Mot-clé importé du dépôt "test depot vocab thematique"

Informations spatio-temporell

Emprises / Extents *

Emprise / Extent *

+ Ajouter une emprise

Type de représentation spatiale / Spatial resolution type

Étendue temporelle / Time extent *

Insertion des mots-clés supplémentaires



EarthPortal

Utilisation de l'EarthPortal avec Geonetwork



GeoNetwork
open source

Connecter



&



Thésaurus

Catégorie

Thésaurus

Continents, countries, sea regions of the world. (place)

+ Ajouter un thesaurus ▾

- Depuis un registre.
- À partir d'un fichier local
- À partir d'une URL
- + Nouveau thésaurus



Créer un thésaurus

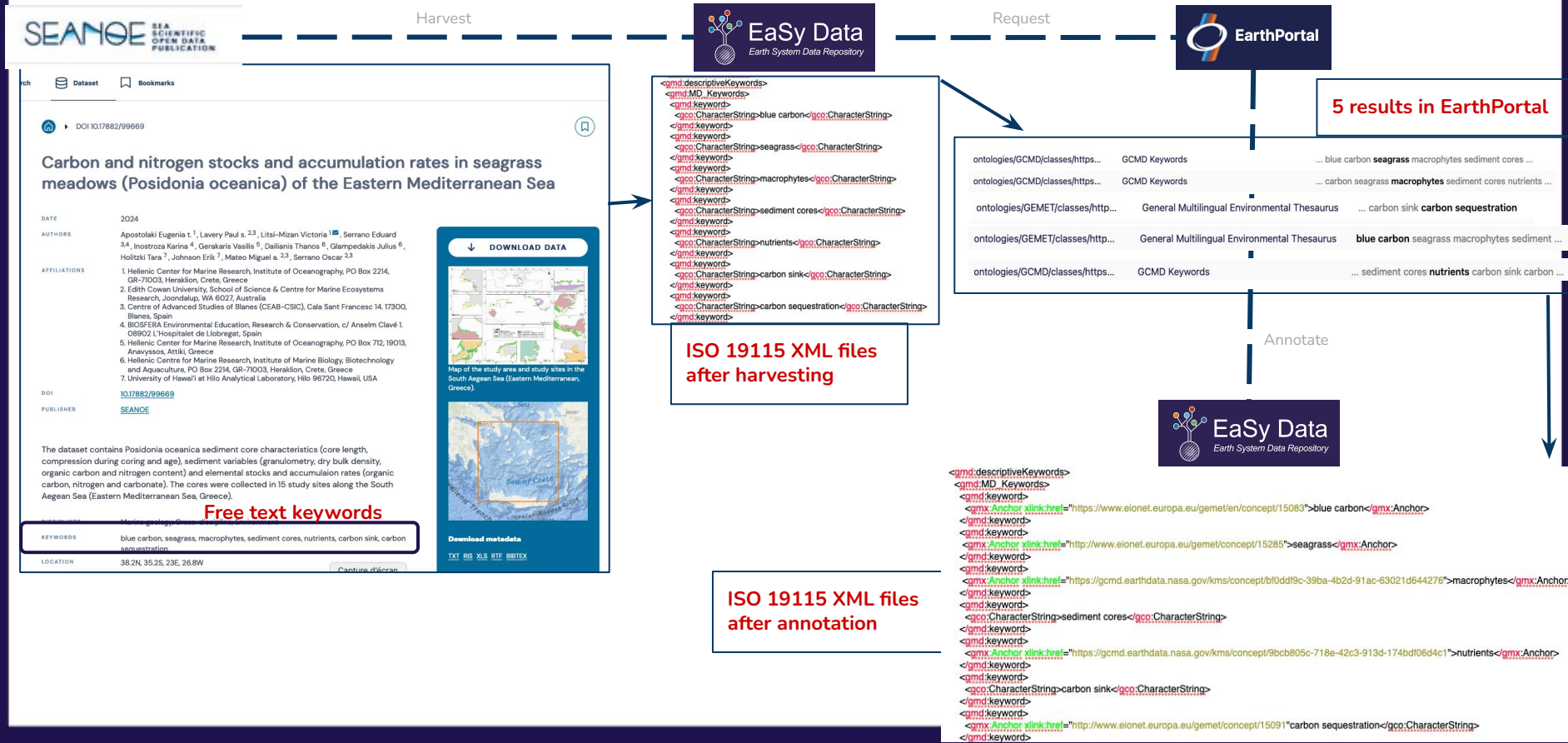
L'URL du registre

<https://data.earthportal.eu/>

Utiliser l'EarthPortal dans les catalogues des pôles de données pour :

- Améliorer la saisie des fiches de métadonnées
- Améliorer le moissonnage des autres catalogues
- Améliorer la recherche des utilisateurs

Moissonnage : Annoter les éléments de métadonnées en texte libre des catalogues moissonnés avec des URI de vocabulaires



Harvest



Request



Dataset DOI: 10.17882/99669

Carbon and nitrogen stocks and accumulation rates in seagrass meadows (*Posidonia oceanica*) of the Eastern Mediterranean Sea

DATE: 2024

AUTHORS: Apostolaki Eugenia 1, Lavery Paul s, 2,3, Litsi-Mizan Victoria 1, Serrano Eduard 3,4, Inostroza Karina 4, Gerakaris Vasilis 5, Dailianis Thanos 6, Glampedakis Julius 6, Holitzki Tara 7, Johnson Erik 7, Mateo Miguel a, 2,3, Serrano Oscar 2,3

AFFILIATIONS: 1. Hellenic Center for Marine Research, Institute of Oceanography, PO Box 2214, GR-71003, Heraklion, Crete, Greece; 2. Edith Cowan University, School of Science & Centre for Marine Ecosystems Research, Joondalup, WA 6027, Australia; 3. Centre of Advanced Studies of Blanes (CEAB-CSIC), Cala Sant Francesc 14, 17300, Blanes, Spain; 4. BIOSFERA Environmental Education, Research & Conservation, c/ Anselm Clavé 1, 08902 L'Hoipitall de Llobregat, Spain; 5. Hellenic Center for Marine Research, Institute of Oceanography, PO Box 712, 19013, Anavyssos, Attiki, Greece; 6. Hellenic Centre for Marine Research, Institute of Marine Biology, Biotechnology and Aquaculture, PO Box 2234, GR-71003, Heraklion, Crete, Greece; 7. University of Hawaii at Hilo Analytical Laboratory, Hilo 96720, Hawaii, USA

DOI: 10.17882/99669

PUBLISHER: SEANOE

The dataset contains *Posidonia oceanica* sediment core characteristics (core length, compression during coring and age), sediment variables (granulometry, dry bulk density, organic carbon and nitrogen content) and elemental stocks and accumulation rates (organic carbon, nitrogen and carbonate). The cores were collected in 15 study sites along the South Aegean Sea (Eastern Mediterranean Sea, Greece).

Free text keywords

blue carbon, seagrass, macrophytes, sediment cores, nutrients, carbon sink, carbon sequestration

LOCATION: 38.2N, 35.2S, 23E, 28.8W

Download metadata: TXT, RIS, XLS, RTF, BIBTEX

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<gmd:MD_Keywords>
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</gmd:descriptiveKeywords>
```

ISO 1915 XML files after harvesting

ontologies/GCMD/classes/https...	GCMD Keywords	... blue carbon seagrass macrophytes sediment cores ...
ontologies/GCMD/classes/https...	GCMD Keywords	... carbon seagrass macrophytes sediment cores nutrients ...
ontologies/GEMET/classes/http...	General Multilingual Environmental Thesaurus	... carbon sink carbon sequestration
ontologies/GEMET/classes/http...	General Multilingual Environmental Thesaurus	blue carbon seagrass macrophytes sediment ...
ontologies/GCMD/classes/https...	GCMD Keywords	... sediment cores nutrients carbon sink carbon ...



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</gmd:descriptiveKeywords>
```

ISO 1915 XML files after annotation

Recherche :

Utiliser les correspondances trouvées dans le EarthPortal pour proposer une recherche améliorée



Recherche de ressources

La sélection se fera sur l'intersection globale de l'ensemble des filtres.

Recherche

- Types de métadonnées
- Toutes (2)
 - Dépôts (1)
 - Jeux de données (1)

Thématiques Terre Solide (2)

- Mots-clés
- Faille (2) **Few results**
 - Processus tectoniques (2)
 - Séisme (2)

Find more results?



Résultats de la recherche

← Agrandir le tableau Affichage 1-2 de 2 résultats

TITRE	DERNIÈRE MODIFICATION
High-resolution co-seismic fault offsets and rupture traces of the 2023 Türkiye earthquakes using satellite imagery (Sentinel-2)	2024-03-20
Mw7.8 and Mw7.6, February 6, 2023 earthquake sequence (Türkiye) -- rupture trace, offset and width	

Résultats de la recherche

← Agrandir le tableau Affichage 1-2 de 2 résultats

TITRE	DERNIÈRE MODIFICATION
Hyblean Plateau Dataset - SupMat egosphere-2024-85	2024-08-02
INTERSEISMIC AND LONG-TERM DEFORMATION OF SOUTHEASTERN SICILY DRIVEN BY THE IONIAN SLAB ROLL-BACK	2024-08-02

2 more results

Recherche de ressources

La sélection se fera sur l'intersection globale de l'ensemble des filtres.

Recherche

- Types de métadonnées
- Toutes (2)
 - Dépôts (1)
 - Jeux de données (1)

Thématiques Terre Solide (2)

- Mots-clés
- Faille active (2)

EaSy Data Unified Thesaurus (EASY_DATA_VOCAB)

Last submission date June 19, 2024

Summary Concepts Properties Schemes Collections Notes Mappings Widgets Sparql

Jump to Filter

Dropset size distribution

- Fault
- Fault plane
- Gamma ray
- Geodetic station
- Glacier
- Gravimetric station
- Gravitational acceleration
- Ground acceleration
- Groundwater ammonium concentration

Mapping to

Mapping to	Ontology	Relations	Source	Type	Actions
Fault >	FAULT_FOI		LOOM	Internal	
c_fbb472a4	https://service.poleterresolide.fr/voc/FOI		SKOS:EXACT_MATCH	External	
c_ade232c0	https://terra-vocabulary.org/nci/DataTerraRepositoryFairIncubator/motsClefs		SKOS:NARROW_MATCH	External	
fault >	SWEET		LOOM	Internal	



EaSy Data Unified Thesaurus (EASY_DATA_VOCAB)

Last submission date June 19, 2024

Summary Concepts Properties Schemes Collections Notes Mappings Widgets Sparql

Jump to Filter

Keyword

- Aboveground terrestrial plant mass
- Active fault
- Actual evapotranspiration
- Air relative humidity
- Aminomethylphosphonic acid

ID

Preferred name

Active fault

In schemes

<https://terra-vocabulary.org/nci/DataTerraRepositoryFairIncubator/motsClefs>