

European Platform on Rare Disease Registration (EU RD Platform)

European Rare Disease Registry Infrastructure (ERDRI)

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European Commission's Strategy for Rare Diseases

Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on "Rare Diseases: Europe's challenges" (2008)



To improve recognition and visibility on rare diseases

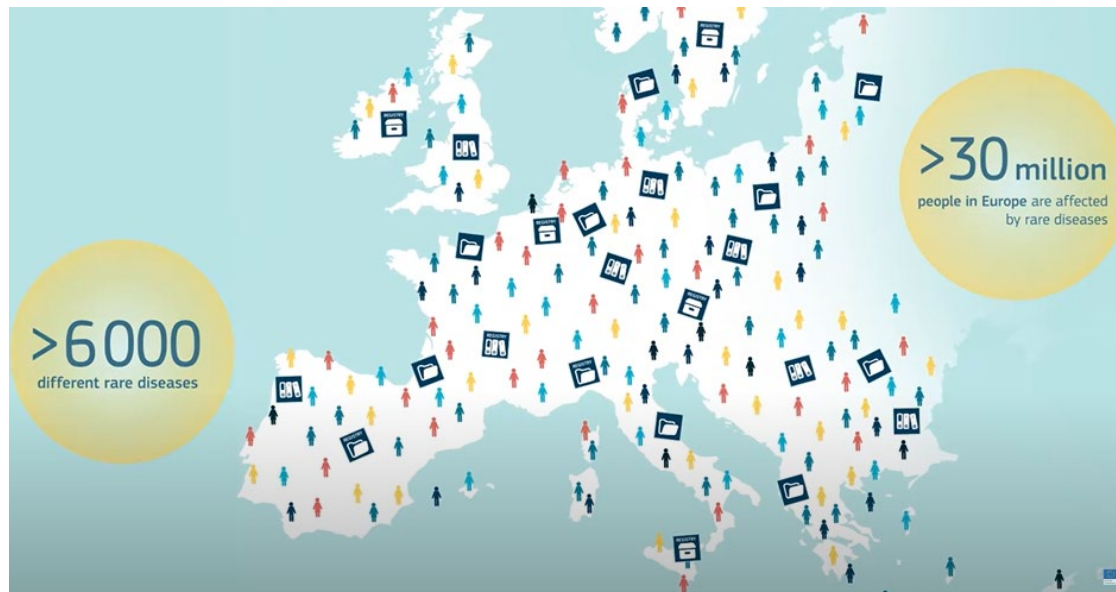


To support policies on rare diseases in the EU Member States



To develop European cooperation, coordination and regulation for rare diseases

Some Facts about Rare Diseases



Why and EU RD Platform for Rare Disease Registries?

To cope with the extreme fragmentation of data sources across EU Member States

- Lack of interoperability severely limits the registries' potential
- No standardised data collection for most RDs

To reach interoperability between registries

Semantic interoperability

Standardised data collection and exchange

Make data FAIR

Data linkage

Data transfer

Reach the critical number of patients for

- Studies (epidemiological, clinical, translational, pharmacological, quality of care, etc.)
- Research

European Platform on Rare Disease Registration (EU RD Platform)

Aim of the Platform

The EU RD Platform copes with the fragmentation of rare disease patients data contained in hundreds of registries across Europe.

[The objectives of the EU RD Platform >](#)

Searchable, findable rare disease registry data



European Rare Disease
Registry Infrastructure
(ERDRI)



European standards
for data collection
and data sharing



Trainings,
Resources
and Latest news

Data repository



Surveillance
of Congenital Anomalies
in Europe

<https://eu-rd-platform.jrc.ec.europa.eu>



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europa

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[Read more >](#)

Searchable, findable rare disease registry data



Data repository



Set of Common Data Elements (CDE)

https://eu-rd-platform.jrc.ec.europa.eu/set-of-common-data-elements_en



EUROPEAN PLATFORM ON RARE DISEASE REGISTRATION (EU RD Platform)

SET OF COMMON DATA ELEMENTS FOR RARE DISEASES REGISTRATION

GROUP	ELEMENT N°	ELEMENT NAME	ELEMENT DESCRIPTION	CODING	COMMENT
1. Identification	1.1	Pseudonym	Patient's pseudonym	• String	Data element platform.eu/elements/1.1.1
	1.2	Date of birth	Patient's date of birth	• Date (dd/mm/yyyy)	
2. Personal information	2.1	Sex	Patient's sex at birth	• Female • Male • Undetermined • Missing (unknown)	
	2.2	Patient's status	Patient alive or dead	• Alive • Dead • Lost in follow-up • Deceased	If dead then answer question 1.2
3. Patient data	3.1	Date of death	Patient's date of death	• Date (dd/mm/yyyy)	
	3.2	First contact with specialised centre	Date of first contact with specialised centre	• Date (dd/mm/yyyy)	
4. Core pathway	4.1				
	4.2				

5. Disease history	5.1	Age at onset	Age at which symptoms/signs first appeared	• Anatomical • At birth • Date (dd/mm/yyyy) • Undetermined	
	5.2	Age at diagnosis	Age at which diagnosis was made	• Anatomical • At birth • Date (dd/mm/yyyy) • Undetermined	
6. Diagnosis	6.1	Diagnosis of the rare disease	Diagnosis related by the specialised centre	Clinical code (strongly recommended - see link / Alpha code / ICD-10 code / ICD-9-CM code / ICD-11 code	http://www.eurocat.org/en/terminology/terminology
	6.2	Genetic diagnosis	Genetic diagnosis related by the specialised centre	Genomic specification of mutations (HGVS) (strongly recommended - see link / HGVS / OMIM code	http://www.hgvs.org
7. Research	7.1	Undiagnosed case	How the undiagnosed case is defined	• Phenotype (PHO) • Genotype (GEO)	
	7.2	Agreement to be contacted for research purposes	Patient's permission exists for being contacted for research purposes	• YES • NO	
8. Usability	8.1	Consent to the reuse of data	Patient's consent exists for further data to be reused for other research purposes	• YES • NO	
	8.2	Biological sample	Patient's biological sample available for research	• YES • NO	If YES answer question 7.4
9. Link to a biobank	9.1	Link to a biobank	Biological sample stored in a biobank	• YES (if appropriate use link) • NO	http://www.eurocat.org/en/terminology/terminology
	9.2	Classification of functioning/disability	Patient's disability profile according to International Classification of Functioning and Disability (ICF)	• Disability profile / Score	http://www.who.int/classifications/icf/index.html



EUROPEAN PLATFORM ON RARE DISEASE REGISTRATION (EU RD Platform)

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GROUP	ELEMENT N°	ELEMENT NAME	ELEMENT DESCRIPTION	CODING	COMMENT
1. Pseudonym	1.1.	Pseudonym	Patient's pseudonym	<ul style="list-style-type: none">String	https://eu-rd-platform.jrc.ec.europa.eu/erdri/pseudonymisation-tool_en
2. Personal Information	2.1.	Date of birth	Patient's date of birth	<ul style="list-style-type: none">Date (dd/mm/yyyy)	
	2.2.	Sex	Patient's sex at birth	<ul style="list-style-type: none">FemaleMaleUndeterminedFoetus (Unknown)	
3. Patient Status	3.1.	Patient's status	Patient alive or dead	<ul style="list-style-type: none">AliveDeadLost in follow-upOpted-out	If dead then answer question 3.2
	3.2.	Date of death	Patient's date of death	<ul style="list-style-type: none">Date (dd/mm/yyyy)	
4. Care pathway	4.1.	First contact with specialised centre	Date of first contact with specialised centre	<ul style="list-style-type: none">Date (dd/mm/yyyy)	

5. Disease history	5.1.	Age at onset	Age at which symptoms/signs first appeared	<ul style="list-style-type: none"> • Antenatal • At birth • Date (dd/mm/yyyy) • Undetermined 	
	5.2.	Age at diagnosis	Age at which diagnosis was made	<ul style="list-style-type: none"> • Antenatal • At birth • Date (dd/mm/yyyy) • Undetermined 	
6 Diagnosis	6.1.	Diagnosis of the rare disease	Diagnosis retained by the specialised centre	Orpha code (strongly recommended – see link) / Alpha code/ ICD-9 code/ ICD-9-CM code / ICD-10 code	http://www.orphadata.org/cgi-bin/inc/product1.inc.php
	6.2.	Genetic diagnosis	Genetic diagnosis retained by the specialised centre	International classification of mutations (HGVS) (strongly recommended – see link) / HGNC / OMIM code	http://www.hgvs.org
	6.3	Undiagnosed case	How the undiagnosed case is defined	<ul style="list-style-type: none"> • Phenotype (HPO) • Genotype (HGVS) 	
7. Research	7.1.	Agreement to be contacted for research purposes	Patient's permission exists for being contacted for research purposes	<ul style="list-style-type: none"> • YES • NO 	
	7.2.	Consent to the reuse of data	Patient's consent exists for his/her data to be reused for other research purposes	<ul style="list-style-type: none"> • YES • NO 	
	7.3.	Biological sample	Patient's biological sample available for research	<ul style="list-style-type: none"> • YES • NO 	If YES answer question 7.4
	7.4.	Link to a biobank	Biological sample stored in a biobank	<ul style="list-style-type: none"> • YES (if appropriate use link) • NO 	https://directory.bbmri-eric.eu
8.Disability	8.1.	Classification of functioning/disability	Patient's disability profile according to International Classification of Functioning and Disability (ICF)	<ul style="list-style-type: none"> • Disability profile / Score 	http://www.who.int/classifications/icf/whodasii/en/

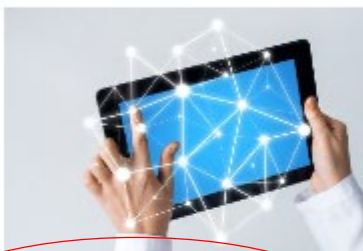
European Platform on Rare Disease Registration (EU RD Platform)

Aim of the Platform

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[Read more >](#)

Searchable, findable rare disease registry data



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ERDRI characteristics



Ensures DISCOVERABILITY of DATA from participating RD registries via the ERDRI Search tool



Registries remain owners of their data and decide about use of the data

The main components of ERDRI

European Commission > EU Science Hub > European Platform on Rare Disease Registration > ERDRI

ERDRI

European Rare Disease Registry Infrastructure (ERDRI)



European Directory of Registries (ERDRI.dor)

Overview of rare disease registries in Europe including their characteristics



Central Metadata Repository (ERDRI.mdr)

Database containing the data elements used by rare disease registries



Search Broker (ERDRI.sebro)

ERDRI.sebro allows researchers to retrieve metadata of interest



Pseudonymisation tool (ERDRI.spider)

Service offering registries at local level the solution for patient pseudonymisation

European Rare Disease Registry Infrastructure (ERDRI)

The European Directory of Registries (ERDRI.dor)



European Directory of Registries (ERDRI.dor)

Overview of rare disease registries in Europe including their characteristics

List of participating RD registries with their main characteristics and description

Descriptive metadata - eight sections with 38 data fields related to a registry of which 23 are obligatory

- specific rare disease addressed
- scope
- operating institution
- contact information

Data input is performed by registry owners

List of the data elements collected by the registries according to the ERDRI.mdr:
registry-specific data scheme

The European Directory of RD registries - ERDRI.dor

ERDRI.dor - European Directory of Registries

Home **Search** Help ▾



Webtools | Leaflet | Credit: EC-GISCO, © UN-FAO for the administrative boundaries | Disclaimer

Registry Name/Description

Search **List all**

- Ongoing campaign in recruiting new registries
- ERN network registries

- Clickable map
- “List all” function
- Search function

ERDRI.dor - European Directory of Registries

Home Search Show disabled registries Add registry Help ▾

▼ Search

Registry's Name,
Registry's Subject

Responsible for the
registry

Rare disease

Country

Year of the
recruitment

Last edit before

 years

Type of Registry

- ☐ Epidemiology
- ☐ Clinical Registry
- ☐ Basic Research
- ☐ Pharmacological Research
- ☐ Patient Registry
- ☐ Healthcare planning
- ☐ Economic evaluation
- ☐ Has a biobank

Directory of Registries - ERDRI.dor

General information of the registry

Name *

Acronym/Short name *

Used as 'name' for the registry namespace in ERDRI.mdr

Medical area *

Type *

☐ Epidemiology

☐ Patient driven

☐ Clinical

☐ Healthcare planning

☐ Basic Research

☐ Economic evaluation

☐ HCP contributing to a central registry

☐ Other type

Other type (please specify)

Data provider *

☐ University hospital

☐ Patient

☐ Non university hospital

☐ Family of patient

☐ Research Institution

☐ Other

If other data provider, please explain

Is member of a [European Reference Network](#) *

Is member of

☐ Eurocat

Description *

Short description of the registry scope

(500 characters remaining)

Website

Sponsors

European Rare Blood Disorders Platform

General information of the registry

Acronym/Short name	ENROL
Registry domain	ERDRI
Medical area	Rare Haematological Disorders
Type	Epidemiology, Patient driven, Healthcare planning
Data provider	University hospital, Non university hospital
Description	Registry developed for ERN-EuroBloodNet aiming to monitor members' activity in terms of number of patients clinical and basic research by the identification of trials cohorts.
Is member of:	ERN EuroBloodNet
Is member of Eurocat?	No
Website	https://eurobloodnet.eu/enrol/enrol/
Sponsors	

Directory of Registries - ERDRI.dor

Rare diseases *

Search by orphacode

If your registry is dealing with a complex disease for which an orphacode does not exist, please [contact us](#) in order to enable the ICD-10 code field.

Input by orphacode

Enter a list of orphacodes in the textbox below. Separate codes by either a new line, blanks, commas or semicolons and then press 'Add' to process the list.

+ Add

Orphacode / disease

Does your registry deal with any cancers? *

▼

European Rare Blood Disorders Platform

➤ [General information of the registry](#)

▼ [Rare diseases](#)

Orphacode / disease	Orphanumber / ICD-10 code
Rare hematologic disease	97992
Rare hereditary hemochromatosis	220489

Does your registry deal with any cancers? Yes

Orphacode / disease	Orphanumber / ICD-10 code
Tumor of hematopoietic and lymphoid tissues	68347

Directory of Registries - ERDRI.dor

Structure

Inclusion and exclusion criteria

(1,000 characters remaining)

Recruitment area *

Name of the recruitment area *

(Country, state or region)

Recruitment start/end date

DD/MM/YYYY

to

Current number of cases *

at

Number of Data Elements
collected *

Technical solution (software) *
used

Other software (please specify)

Data management

Link to the privacy policy

Ethical review committee

Availability for future
collaborations/studies

European Rare Blood Disorders Platform

➤ [General information of the registry](#)

➤ [Rare diseases](#)

▼ [Structure](#)

Inclusion and exclusion criteria

Recruitment area

International

Name of the recruitment area

ERN-EuroBloodNet Member States

Recruitment

Current number of cases

0 at 25/06/2019

Number of Data Elements
collected

47

Technical solution (software)
used

REDCap

Data management

central

Link to the privacy policy

Ethical review committee

Approved

Availability for future
collaborations/studies

Directory of Registries - ERDRI.dor

Registry information

Institution *	<input type="text"/>	
Facility	<input type="text"/>	
Department *	<input type="text"/>	
Street & number *	<input type="text"/>	
Postcode City *	<input type="text"/>	<input type="text"/>
Country *	<input type="text"/>	▼
Other country (please specify)	<input type="text"/>	

European Rare Blood Disorders Platform

➤ [General information of the registry](#)

➤ [Rare diseases](#)

➤ [Structure](#)

▼ [Registry information](#)

Institution	Vall d'Hebron Research Institute - University Hosp Vall d'Hebron
-------------	--

Facility	
----------	--

Department	Translational research in child and adolescent cancer
------------	---

Street & number	Passeig Vall d'Hebron, 119-129
-----------------	--------------------------------

Postcode City	08035 Barcelona
---------------	-----------------


Country	Spain
---------	-------

First name *	<input type="text"/>
Last name *	<input type="text"/>
Title	<input type="text"/> ▼
Academic title/degree	<input type="text"/>
Position	<input type="text"/>
E-Mail address *	<input type="text"/>
Phone number *	<input type="text"/>

ERDRI.mdr (Central Metadata Repository)

▼ [ERDRI.mdr \(Central Metadata Repository\)](#)

Registry namespace

Registry namespace	enrol 
--------------------	---

ERDRI.spider (Pseudonymisation tool)

Center ID	<input type="text" value="Enter the Center ID for SPIDER"/>
Center certificate (pem)	<div><div>Enter the center PEM certificate for SPIDER</div><div></div></div>
Data Protection Officer	<div><div>Full name and contact information of the Data Protection Officer, if any</div><div></div></div>
Allowed users (e-mail)	<div><div>e-mail addresses separated by comma (,), semicolon (;) or new lines</div><div></div></div>

Biobanks

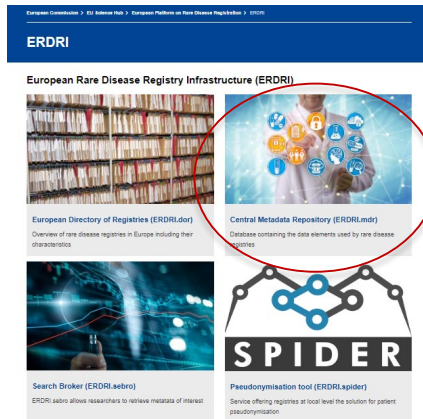
Biobank name	Registry of biobanks	Biobank identifier	+
--------------	----------------------	--------------------	---

Additional components

Name of the component	Component described in	Relationship	+
-----------------------	------------------------	--------------	---

ERDRI.mdr

Central Metadata Repository ERDRI.mdr



Metadata = Data about data

Key:value pairs

Designation / Definition / Measurement unit + range

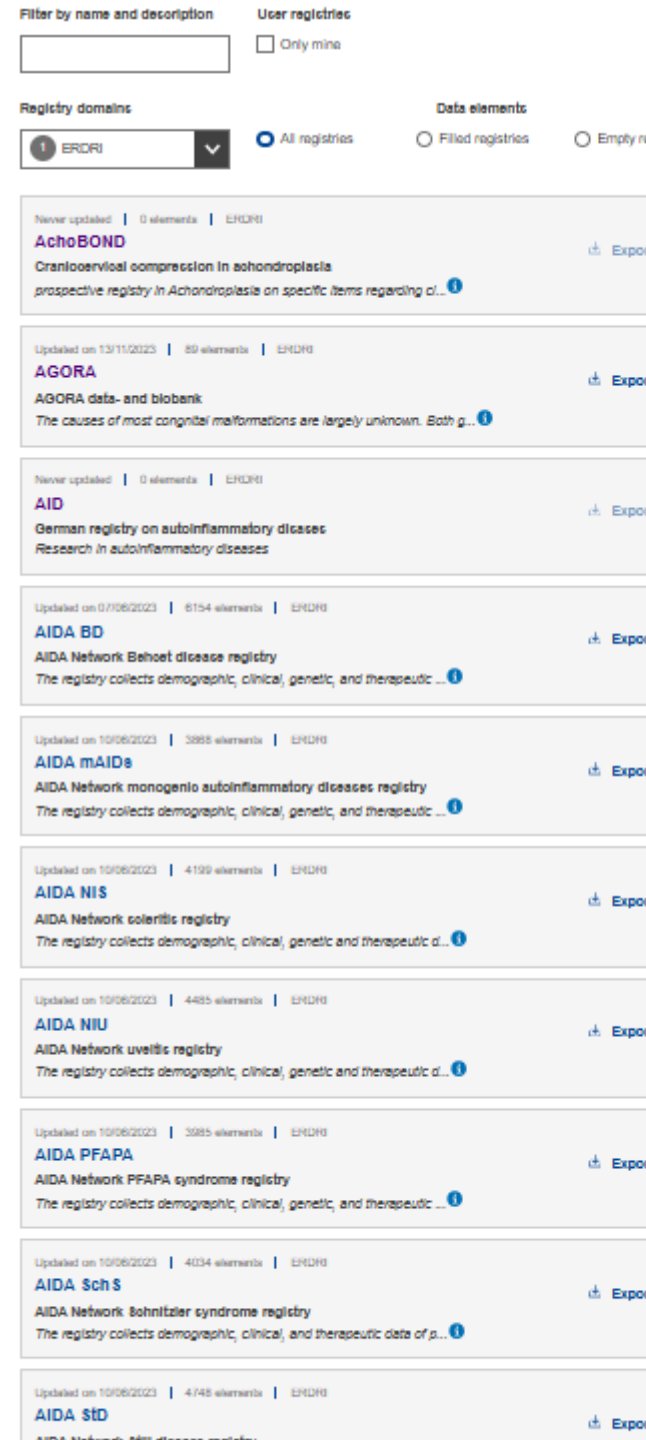
Collection of metadata on all data elements collected by participating registries

Semantic
Interoperability

common
definitions for
data elements

Human
readability

Machine
readability
Semantic web
technologies



ERDRI.mdr – metadata input

[Home](#) [Search](#) [Help](#)

Upload methods

You can upload your registry's **ENROL** metadata here using one of the following methods according to the software of your registry.

The imported metadata will be opened in **Draft** mode. You will then be able to review, edit, save or discard the changes.

- **REDCap based registry**

Upload file

Only Excel XLSX or CSV files



Choose file

- **Castor based registry**

Upload XML file

Only XML files



Choose file

- **For all other registries: use the dedicated Excel structured file**

You can download the **template** and, as an example, the set of **Common Data Elements (CDS)**

Upload file

Only Excel XLSX files

Choose file

Variable Group			Variable			
Group Name*	Group Description*	Measurement rate*	Field name*	Name*	Description*	Type*
Pseudonym	Patient's pseudonym	One-time	pseudonym	Pseudonym	Patient's pseudonym	Text
STOP						
Personal information	Patient's personal information	One-time	dateofbirth	Date of birth	Patient's date of birth	Date
			sex	Sex	Patient's sex at birth	Text
STOP						
Patient status	Patient's status	Repeated	patientstatus	Patient's status	Patient alive or dead	Text
			dateofdeath	Date of death	Patient's date of death	Date
STOP						
Care pathway	Care pathway of the	One-time	firstcontactwithspecialisedcentre	First contact with specialised centre	Date of first contact with specialised centre	Date
STOP						
Disease history	Disease history of the patient	One-time	ageatonsset	Age at onset	Age at which symptoms/signs first appeared	Text
			dateofmanifestationsgeatonsset	Date of manifestation at onset	The date of manifestation at onset	Date
			ageatdiagnosis	Age at diagnosis	Age at which diagnosis was made	Text



European
Commission

ENROL

European Rare Blood Disorders Platform

Registry developed for ERN-EuroBloodNet aiming to monitor members' activity in terms of number of patients and engage clinical and basic research by the identification of trials cohorts.

- This registry contains 132 variables
- Current version updated on 07/11/2024 by Sara Reidel
- [Descriptive information in ERDRI.dor](#)
- Domain: ERDRI



+ Add Variable + Add Group



Variable group: One-time | 18 elements |

patient_registration

patient_registration

+ Add Variable + Add Group ≡ Move  Edit  Delete

Variable | Text | record_id

record_id

Record ID

≡ Move  Edit  Delete

Variable | Text | globaluniqueid

globaluniqueid

Patient's pseudonym

1 validation rule + Show

≡ Move  Edit  Delete



The main components of ERDRI

European Commission > EU Science Hub > European Platform on Rare Disease Registration > ERDRI

ERDRI

European Rare Disease Registry Infrastructure (ERDRI)



European Directory of Registries (ERDRI.dor)

Overview of rare disease registries in Europe including their characteristics



Central Metadata Repository (ERDRI.mdr)

Database containing the data elements used by rare disease registries



Search Broker (ERDRI.sebro)

ERDRI.sebro allows researchers to retrieve metadata of interest



Pseudonymisation tool (ERDRI.spider)

Service offering registries at local level the solution for patient pseudonymisation

ERDRI.sebro - Search Broker

Home Help

The European Rare Disease Registry Infrastructure (ERDRI) provides a search tool (ERDRI.sebro) that allows any user to retrieve metadata (data elements) of interest within the ERDRI participating registries via ERDRI.sebro's connection to ERDRI.mdr and ERDRI.dor. Once the registries containing the metadata of interest to a user have been identified, a contact form through the EU RD Platform allows the user to expose to those registries the project for which the corresponding patients data are needed for.

Registry Country Type of Registry

Operational in year Biobank ☐ Has a biobank

--- Rare Disease

Search by code or description Selected codes

--- Data element(s)

Any of these texts Variables containing any of them. Separate texts using capital OR: e.g. manifestation OR diagnosis

All these texts Only variables containing all of them. Separate texts using capital AND: e.g. first contact AND specialised

Registries: 1

View in ERDRI.dor | View in ERDRI.mdr | Italy | Paediatric Oncology

Paediatric Rare Tumours Network – European Registry

PARTNER

Registry types: Clinical

Rare diseases:

Selected registries: 0

https://eu-rd-platform.jrc.ec.europa.eu/search_broker

User inserts keywords



DOR and MDR are queried



Registries matching the request are identified

DOR: >70 var

MDR: >20 var

FILTERS

RESULTS

 Search

 Clear filters

Registries: 1

[View in ERDRI.dor](#) | [View in ERDRI.mdr](#) | [Italy](#) | [Paediatric Oncology](#)

Paediatric Rare Tumours Network – European Registry


PARTNER


Registry types: Clinical

Rare diseases: 3398

Show variables (2) ▾

Remove from contact list

 Proceed

 Clear contact list

Selected registries: 1

- Paediatric Rare Tumours Network – European Registry

ERDRI.sebro - Search Broker

Home

Help

Please provide your contact information below and describe the reason why you wish to get in contact with these registr(y)ies

Contact

Name or organization *

Email *

Contact message *

Please provide as much detail as possible about the information/data you are requesting from the selected registries and the project/study you need these for.

Selected registries: 1

- Paediatric Rare Tumours Network – European Registry

Request/study proposal - contact with the registries

ERDRI Spider

Reachable from the ERDRI homepage

► <https://eu-rd-platform.jrc.ec.europa.eu/erdri>



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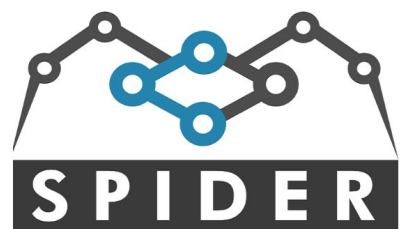
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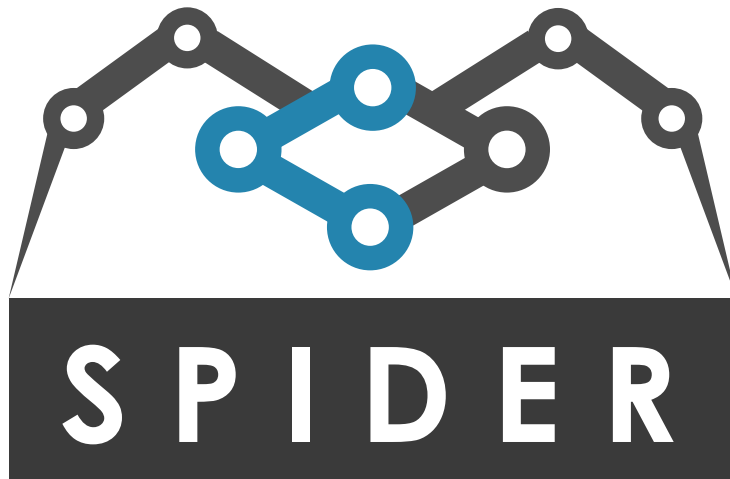


Pseudonymisation tool (ERDRI.spider)

Service offering registries at local level the solution for patient pseudonymisation



Main Functionalities



Spider



Share



Network



policy enforcement

Does NOT have access to patient data!



Pseudonym **GENERATION**



Pseudonym **LINKAGE**



Encrypted pseudonymised data
TRANSFER

Prerequisites

- ✓ *Have a EU Login account*
- ✓ *Be "verified" according to the [ERDRI User Access Guide](#)*
- ✓ *Fill registry information in ERDRI.dor according to [ERDRI.dor User Guide](#)*
- ✓ *Fill metadata information in ERDRI.mdr [ERDRI.mdr User Guide](#)*
- ✓ *Be a registry owner or be added by a registry owner in the Allowed users (e-mail)" field in the "SPIDER information" section of the ERDRI.dor*



Allowed users (e-mail)

registry.owner@example.com
additional.user.one@example.com
additional.user.two@example.com

Resources

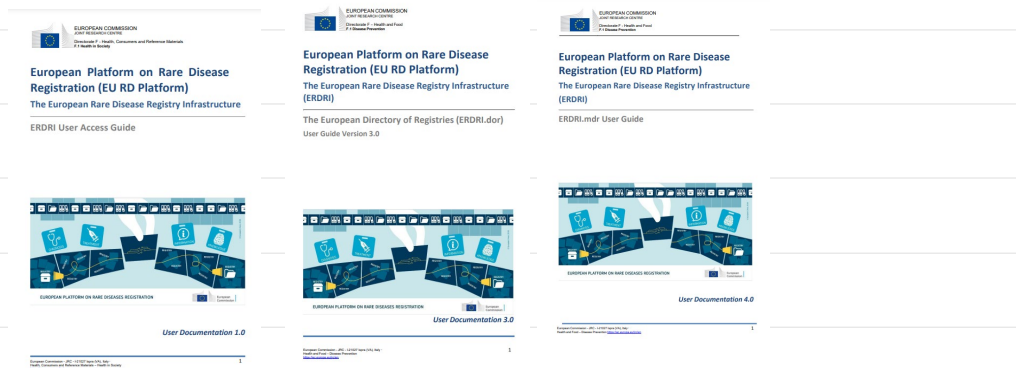
Manuals and instruction videos

[ERDRI User access guide](#) | PDF

[ERDRI.dor User documentation](#) | PDF

[ERDRI.mdr User documentation](#) | PDF

[ERDRI.mdr Video tutorial](#)



SPIDER presentation video

<https://eu-rd-platform.jrc.ec.europa.eu/spider/>

Please watch these short video tutorials to get started with SPIDER:

- [Tutorial 1 - create a cryptographic archive](#)
- [Tutorial 2 - allow a user to access SPIDER](#)
- [Tutorial 3 - access SPIDER](#)
- [Tutorial 4 - generate a pseudonym for a patient](#)
- [Tutorial 5 - generate pseudonyms for a list of patients](#)
- [Tutorial 6 - enter medical data of a patient](#)
- [Tutorial 7 - enter medical data of a patient list](#)
- [Tutorial 8 - create patient groups](#)
- [Tutorial 9 - set pseudonym linkage policies](#)
- [Tutorial 10 - find additional data sources for a patient](#)
- [Tutorial 11 - request data on a mutual patient](#)
- [Tutorial 12 - share data on a mutual patient](#)
- [Tutorial 13 - share data on a patient, no matter if mutual or not](#)
- [Tutorial 14 - manage received pseudonymised data on patients, no matter if mutual or not](#)

The [FAQ page](#) provides more information on the topics covered in the video tutorials.

Frequently asked questions

Frequently asked questions >

https://eu-rd-platform.jrc.ec.europa.eu/erdri-description_en#inline-nav-5

Thank you



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