



# EHDEN

EUROPEAN HEALTH DATA & EVIDENCE NETWORK

## The European Health Data and Evidence Network portal - a one-stop shop in EHDEN

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- What is EHDEN?
- EHDEN Portal predecessor – EMIF Platform
- EHDEN Portal components
- Demo

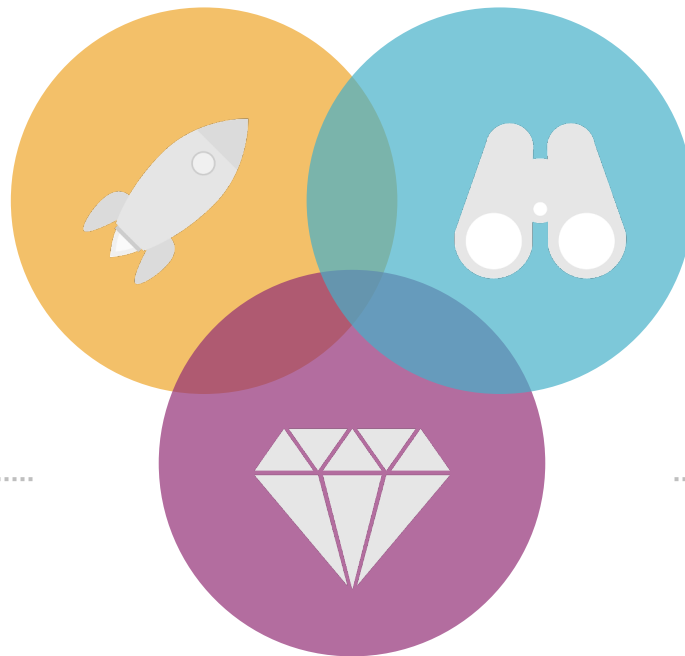


# MISSION & VISION

## Mission

Develop a federated network, standardized to a common data model that more smartly manages and shares research methodologies, and expands education in open science and collaboration.

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## Vision

The European Health Data & Evidence Network (EHDEN) aspires to be the trusted observational research ecosystem to enable **better health decisions, outcomes and care**

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Community

Education

Sustainability

## Values

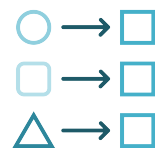
Open science

Quality

Inclusiveness



# OBJECTIVES



## Harmonization

Harmonise in excess of **100 million** anonymised **health records** to the OMOP common data model, supported by an ecosystem of certified SMEs, and technical architecture for a federated network



## Evidence

Impact our understanding of, and improvement of, clinical **outcomes for patients** within diverse healthcare systems in the EU



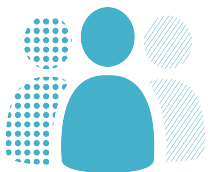
## Community

Establish a self-sustaining **open science collaboration** in Europe, supporting academia, industry, regulators, payers, government, NGOs and others



# EHDEN HIT THE GROUND RUNNING

## Collaborators



Main developers  
of many of the  
OHDSI tools are  
EHDEN partners



## Findable



Database  
Catalogue

## Accessible



ATLAS



## Interoperable



OMOP CDM



## Reusable



Remote research  
environment



ATLAS



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## Interoperable



OMOP CDM



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Remote research  
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ATLAS



# EHDEN'S PREDECESSOR – EMIF

## EMIF-Metabolic

Identify predictions of metabolic complications in obesity



## EMIF-AD

Identify predictions of Alzheimer's disease in the pre-clinical and prodromal phase



## EMIF-Platform

A framework for evaluating, enhancing and providing access to human health data across Europe - support research using human data in general.



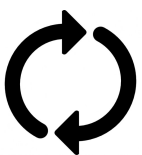
- [www.emif.eu](http://www.emif.eu)
- 14 European countries
- 58 partners
- €56 million worth of resources
- 3 projects in one
- 5 year project (2013 – 2017)

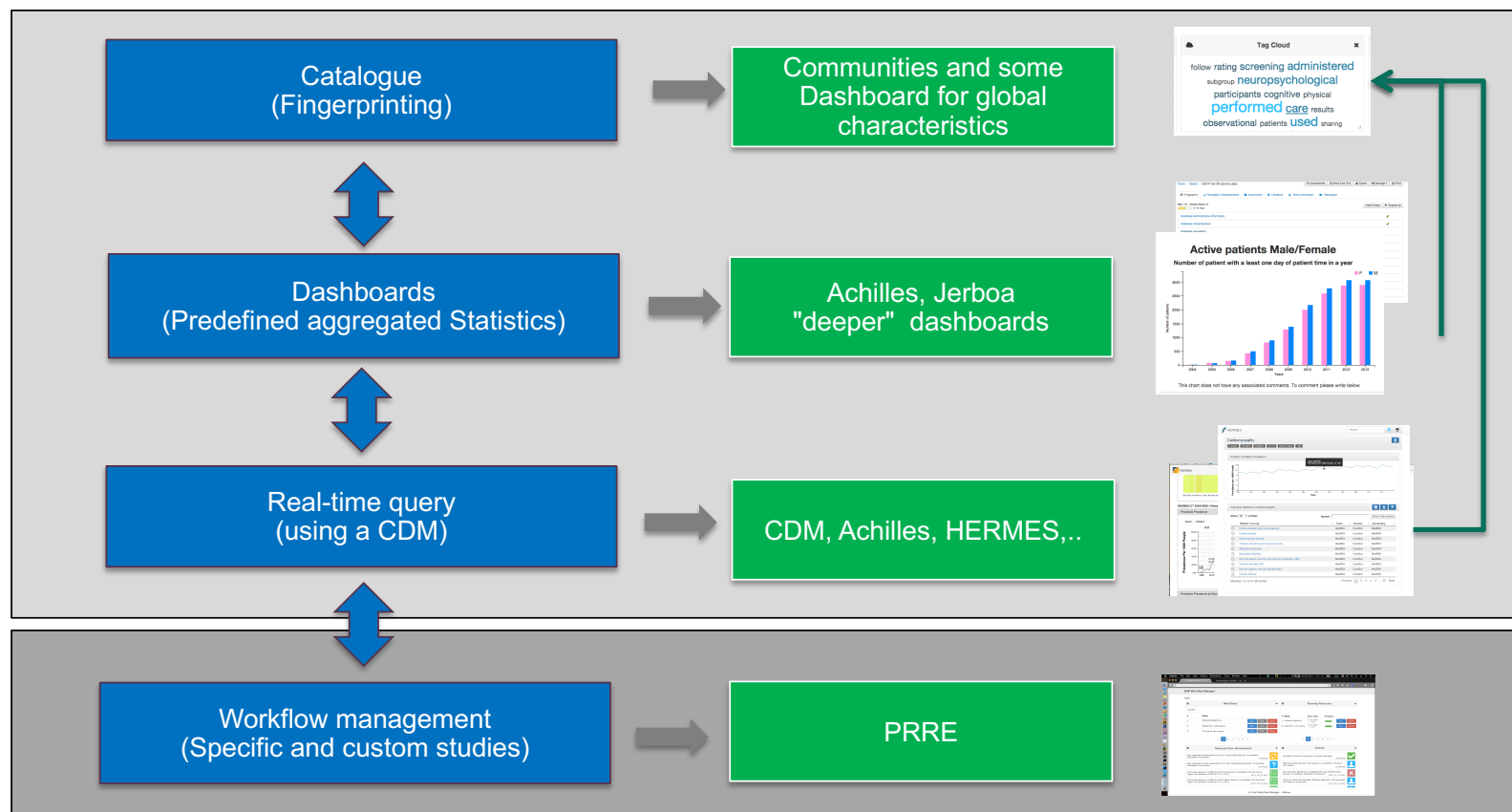


  
Discover

  
Assess

  
Access

  
(Re)use







# EMIF PLATFORM

Home

Administrator

HOME

PORTAL

ABOUT

HISTORY

FAQ

HELP

CONTACT

DEVELOPERS

ADMIN

ADMIN PANEL

IMPORT

EXPORT

REQUEST A NEW COMMUNITY

**ELECTRONIC HEALTH RECORD DATA**  
15 entries  
EMIF-EHR intends to explore how the massive data available in pan-European EHR systems can improve biomedical research.  
More  
OPEN

**ALZHEIMER'S DISEASE COHORTS**  
47 entries  
The overall aim of EMIF-AD is to build an IF for studies on neurodegeneration in order to discover and validate AD biomarkers.  
More  
OPEN

**EPAD**  
22 entries  
EPAD aims to develop an infrastructure to undertake adaptive studies for early and accurate decisions on the development of drug candidates or combinations.  
Leave  
More  
OPEN

**ADVANCE**  
105 entries  
Accelerated development of vaccine benefit-risk collaboration in Europe

**MOCHA - Models of Child Health Appraised.**  
148 entries  
A Study of Primary Healthcare in 30 European countries

**Dementias Platform UK**  
37 entries  
Dementias Platform UK (DPUK) forms a central pillar in the delivery of the UK Prime Minister's dementia challenge.

- [www.emif-catalogue.eu](http://www.emif-catalogue.eu)
- 9 communities
- 825 users
- 490 databases
- data from more than 40 million subjects from 6 EU countries
- 60,000 subjects in AD cohorts
- 94,000 subjects in metabolic cohorts



CAPICE



PIONEER






- MONTRA<sup>1</sup> was planned as a Rapid Application Development system - to allow fast deployment for a specific use case.
- Thinking of a data skeleton as a questionnaire, we have implemented a schema that contains questions and answers about one or more data entities.
- Within the data catalogue created with a given schema CRUD operations are automatically available for registered users.
- It supports third-party components and allows users, with adequate permissions, to extend its functionalities without having to deal with its base code (plugins).

<sup>1</sup>Silva, L.B., Trifan, A. and Oliveira, J.L., 2018. Montra: An agile architecture for data publishing and discovery. Computer methods and programs in biomedicine, 160, pp.33-42.






## The European Health Data & Evidence Network Portal

The European Health Data & Evidence Network (EHDEN) project aspires to be the trusted observational research ecosystem to enable better health decisions, outcomes and care. Its mission is to provide a new paradigm for the discovery and analysis of health data in Europe, by building a large-scale, federated network of data sources standardized to the OMOP common data model.

[LOGIN](#)


### Applications available

The EHDEN Portal provides access to several applications that enable observational research. It is still under development and some features are not final.




#### Academy

The EHDEN Academy is an e-learning environment whose aim is to train all stakeholders in the project in the use of the tools and processes that are being adopted in EHDEN.



#### Atlas




ATLAS is a unified web interface that attempts to integrate features from various OMOP applications into a single cohesive experience. It currently includes functionality for searching and navigating the vocabulary within the OMOP Common Data Model (CDM). In addition to the search and navigation capabilities, it also includes...



#### Arachne


Arachne, an infrastructure solution for distributed query execution, including error handling and query refinement, and automated result aggregation and distribution. Arachne includes mechanisms for data protection and corporate governance.

The diagram illustrates the EHDEN Portal architecture. A central vertical box labeled "EHDEN Portal" contains an icon of a document with an envelope. To its right, a vertical stack of five boxes represents the core components: "Study Designer" (with a logo), "EHDEN Network Study Workflow Platform" (with the ARACHNE logo and tagline "enabling network research"), "Database Catalogue", "Dashboards", and "EHDEN Academy". To the right of this stack, a stack of three document icons is labeled "Characterization reports".



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Administrator



- DATABASE CATALOGUE
- MANAGE 2
- NETWORK DASHBOARD
- ARACHNE
- ACADEMY
- ATLAS
- API INFORMATION

PORTAL


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- CONTACT
- DEVELOPERS

EHDEN PORTAL

Free text search EHDEN




## Welcome to the EHDEN Portal




Region	Data Value
North America	1,000,000
South America	50,000
Africa	33,000
Europe	2,000,000
Asia	10,000



# DATABASE CATALOGUE



Alina Trifan

 DATABASE CATALOGUE

Databases

Search

Custom view



Dashboard

New Entry

API INFORMATION

EHDEN PORTAL

Free text search EHDEN



EHDEN / All

Compare

Export

Print

Selected databases: 0

Acronym	Name	Institution name	Department name	Last update	Select
Filter	Filter	Filter	Filter	Filter	?
DEMO	<b>DRAFT</b> Database for DEMO purposes	UAVR	DETI	2019-10-04	<input type="checkbox"/>
IPCI	Integrated Primary Care Information	Erasmus MC	Medical Informatics	2019-10-02	<input type="checkbox"/>

« 1 »

Show 5 items per page



# DATABASE CATALOGUE

B	D	E	F	M
Text/Question	Data type	Value list	Help text/Description	Include in Advanced Search
<b>Database General Information</b>			The database view provides general information about the database, for example, name, institution, data held and main responsibilities.	Yes
Acronym	open-button			Yes
Name	open			Yes
Institution Name	open			Yes
In the last 3 years, the main financial support has been obtained through;	choice-multiple-freeform	Funding by Own Institution{...} National/Regional/Municipal Public Funding{...} European Public Funding{...} Funding From Industry / Contract Research{...} Funding From Public/ Private Partnership{...} Funds From Patients Organisations, Charity and Foundations{...} Other, Please Specify{...}	In the past three years (2010-2012), what has been the source of funding for the data base. For each source of funding, please provide a rough estimate of the percentage of the total funding of the data base that came from that funding source. If you have a source of funding not specified in the list, please describe that source together with the percentage of total funding.	Yes
<b>Database population</b>	comment			Yes
Location	location		Introduce the cities, part of the country, or country from the subjects of cohort	Yes
Population Size (N)	numeric		Introduce the total involved subjects in your cohort	Yes

## 1.01. Acronym

## 1.02. Name

## 1.03. Institution name

## 1.11. In the last 3 years, the main financial support has been obtained through;

- ☐ Funding by Own Institution  
☒ National/Regional/Municipal Public Funding  
☒ European Public Funding  
☒ Funding From Industry / Contract Research  
☒ Funding From Public/ Private Partnership  
☒ Funds From Patients Organisations, Charity and Foundations  
☐ Other, Please Specify

## 1.12. Database population

### 1.12.01. Location


Introduce the cities, part of the country, or country from the subjects of cohort

### 1.12.02. Population Size

Introduce the total involved subjects in your cohort



# DATABASE CATALOGUE - API



Alina Trifan

**DATABASE CATALOGUE**

- Databases
- Search
- Custom view
- Dashboard
- New Entry
- API INFORMATION**

**EHDEN PORTAL**

Free text search EHDEN

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Selected databases: 0

EHDEN / All

Acronym	Name	Institution name	Department name	Last update	Select
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« 1 »

Show 5 items per page



Administrator

DATABASE CATALOGUE

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ARACHNE

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EHDEN PORTAL

Free text search EHDEN

@ Unsubscribe Manage

Fingerprint Documents Achilles Uploader Literature

Hits: 69 Unique Views: 20 Filled: 4.7 %

DATABASE GENERAL INFORMATION

Provide general information about a database, such as the name, acronym, institution details and main responsables

1.01. Acronym

DEMO

1.02. Name

Database for DEMO what-data-capture-processes-are-useds

1.03. Institution name

UAVR

1.04. Department name

DETI

1.05. URL of the database website (if available)

1.06. Unit/centre website(if available)

Summary Collapse Show




1. Database General Informati... 21%

2. Database Description (1/13) 7%

4. Technical Details (0/7) 0%

5. Data Governance and Ethics... 0%

6. Publications (0/3) 0%


  

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# DATABASE CATALOGUE – BOOLEAN AND FREE SEARCH



Administrator

**DATABASE CATALOGUE**

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**EHDEN PORTAL**

EHDEN / All / DEMO

@ Unsubscribe Manage

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🔗


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🔗

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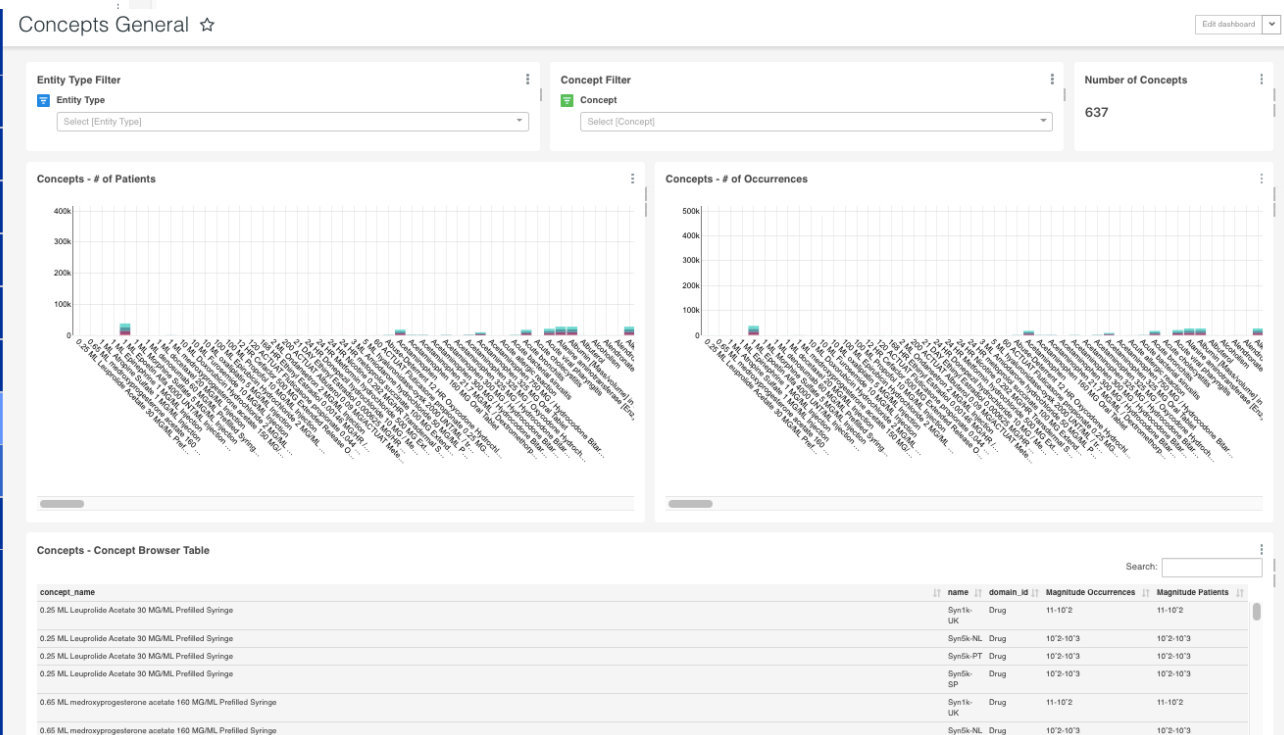
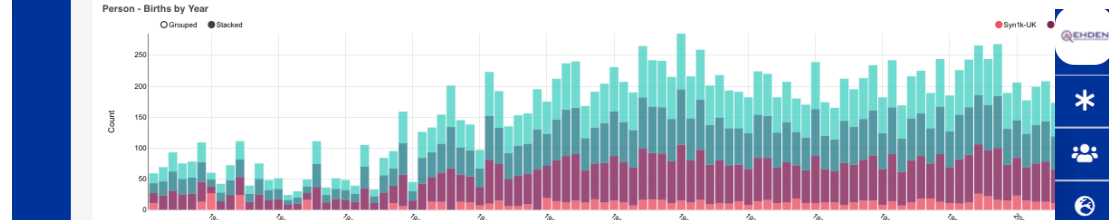
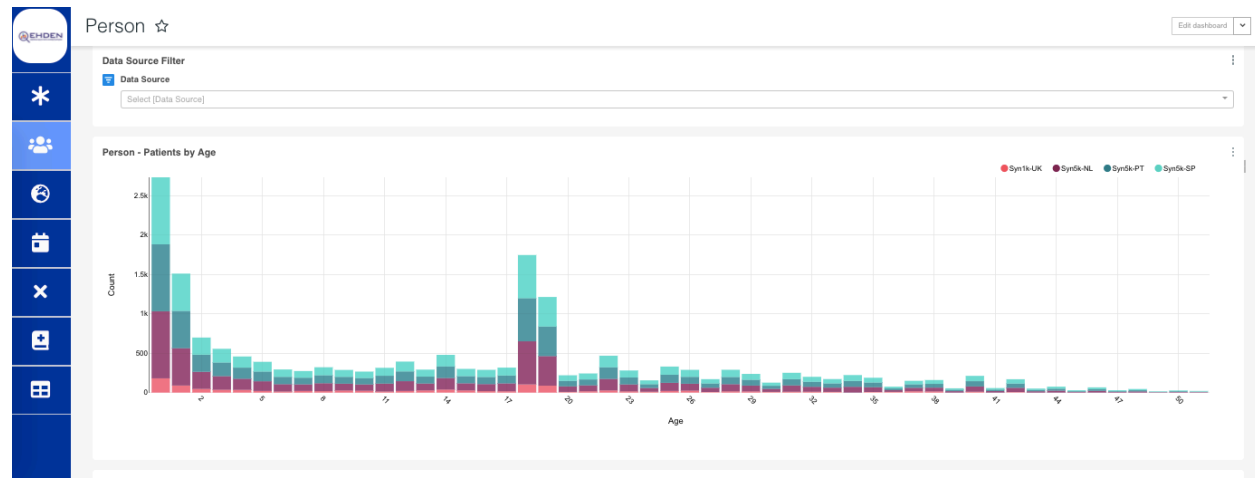


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5. Data Governance and Ethics...	0%	
6. Publications (0/3)	0%	



# NETWORK DASHBOARDS





<https://portal.ehden.eu/>