The European Health Data and Evidence Network (EHDEN) Project

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INNOVATIVE MEDICINES INITIATIVE

2.5 billion €

2.5 billion €

efpia

> 5 billion €

IMI 1 (2008-2014)
2 bn € budget
59 projects

IMI 2 (2014-2024)
3.3 bn € budget
More ambitious, more open & greater scope

EHDEN Project Facts
Start date: 1st Nov 2018
End date: 30th Apr 2024
Total duration: 66 months

Total budget: 28,917,357€
IMI2 Funding: 14,105,750€ (7M Harmonization Fund)
EFPIA contribution: 14,811,607€ (10M Harmonization Fund)
EHDEN had its Kick-Off Meeting in January
Vision
The European Health Data & Evidence Network (EHDEN) aspires to be the trusted observational research ecosystem to enable better health decisions, outcomes and care.

Mission
Our 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 a common data model.
EHDEN will build on expertise and tools from prior IMI projects, such as EMIF, and will collaborate intensively with the global OHDSI community.
BUILDING THE ECO-SYSTEM: PUTTING THE PIECES TOGETHER

Harmonisation  Outcomes
Infrastructure  Ecosystem
The aim is to map 100 million health records across the EU via a common data model (OMOP), supporting research within a federated network, the BD4BO IMI2 programme, and outcomes-based healthcare.

- Standards development within OHDSI
- Certified & qualified Small to Medium-sized Enterprises (SMEs) in the EU
- Harmonisation fund to support mapping to CDM
THE EHDEN OPEN CALL PROCESS

EHDEN’s Data Source Prioritisation Committee governs the scope of the open calls for data sources.

**Community of data sources**

- Tailored for project objectives and sustainability

**Open calls**

- Series of in-project calls across the EU

**Grant awarding**

- Grant applications are evaluated via a pre-defined set of criteria
- Data source prioritisation committee, consisting of both internal and external experts, ranks the grant applications

**Supporting SMEs**

- Widespread geographic coverage of Europe by certified SMEs is desired.

**Open calls**

- Series of in-project calls across the EU
- Focusing on SMEs able to support mapping and sustainability

**Training & Certification**

- Training and certification will ensure high-quality mapping procedures
- SME certification committee prioritizes SMEs for training and certification

**EH DEN Harmonisation fund**

(Up to 100,000 € / grant)

- Data sources can choose the SME they want to work with from the pool of EHDEN certified SMEs
- SMEs performing mappings will be paid by the data sources, via a grant from the harmonisation fund
- Payments are milestone based

**Workshop**

**Mapping Cycle**

- Mapping
- Source Data Evaluation
- Share of Mapping Process

- Mapped data sources are encouraged to be active members of the EHDEN community, participating in research studies.
OPEN CALL FOR DATA SOURCES

• Call will be initiated before the Summer.

• Different types of grants (max 100,000 Euro): Full Mapping, Mapping Extension, Mapping Validation.

• Data Sources from the following countries are eligible:

  EU Member States: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, United Kingdom

  H2020 associated countries: Albania, Armenia, Bosnia and Herzegovina, Faroe Islands, Georgia, Iceland, Israel, Moldova, Montenegro, North Macedonia, Norway, Serbia, Switzerland, Tunisia, Turkey, Ukraine
**VALUE PROPOSITION FOR DATA SOURCES**

What’s in it for me?

Financial support for uptake, extension and validation of mappings ([EHDEN grants](#)).

Facilitates *scientific collaboration*, facilitates the connections with peers by becoming part of a thriving *academic network and community*.

**Scientific independence**: freedom to perform studies following own approval procedures.

Increased capability for *analysis* thanks to a host of *open source tools* to use.

**Faster** performing studies, improved performance, accelerated research (months/years to days): **undertake more studies in less time**.

Increased *transparency* of analyses and *reproducibility*, enabling studies to be easily ‘transposed’ to other data sources for multiplied impact (e.g. in publications).

Increased *visibility* for your data, expanding opportunities to be approached for sponsored studies helping long term sustainability of the data source with stable revenue streams.

Platform for *training* of young researchers and new staff.
SME Certification Procedure: Pilot Call

SME Call Process Overview

Open Call
You will be able to submit applications for the open call for SMEs from the 1st of April until the 30th of April via the EHDEN website.

Evaluation
Following an eligibility check, applications will be evaluated by the SME certification committee.

Training & Certification
Certification and training of selected SMEs in all necessary competencies.

Eligibility Criteria
The call is open to Small and Medium-sized Enterprises under the official EU definition:

- Less than 250 staff headcount.
- \( \leq 50 \text{m } € \text{ turnover or } \leq 43 \text{m } € \text{ balance sheet total.} \)
- Legally established as a business and based in an EU member state or H2020 associated country.

For more details, see bit.ly/EU_SME
What’s in it for me?

- Possibility to contribute to a change of paradigm benefiting health of citizens
- Free training and certification
- Expand your existing market
- Contribute to the creation of emerging, new markets for data sciences
- Early adopters will gain a competitive advantage on a specialised skill set
- Short-term income generation to offset skill investment
- Synergic ecosystem facilitates exposure and brand recognition with key stakeholders
- Open source community boosts opportunities
EHDEN’s aim is that all selected SMEs as companies will obtain all the necessary competencies to work with a data source within the EHDEN federated network following the established quality standards.

Training topics include, but are not limited to:
- The EHDEN project and its objectives
- OMOP-CDM and the Standardized Vocabularies
- ETL steps and their implementation with OHDSI tools and approaches developed in EHDEN.
- Fundamentals of proper documentation of the ETL process to assure transparency and reproducibility.
- Expertise in the installation and use of the OHDSI Tools for federated data analyses

The course material will be made available through our online learning platform, the EHDEN academy (https://academy.ehden.eu).

The final step in the certification program is a face-to-face training and assessment.

Once the SME receives the certificate it obtains the following privileges:
- Member of the EHDEN SME Community
- Listed in the Certified SME Catalogue
- Use of the EHDEN Certification Badge

Following certification, SMEs can support and map data sources which have received an EHDEN grant.
Building the eco-system: Infrastructure

- Build the infrastructure to enable federated studies on an unprecedented scale in Europe
- Leverage and further develop OHDSI and other tools for high quality analyses
- Use Case driven development
- Ensure interoperability on a global level
WORK IN PROGRESS: THE EHDEN PORTAL

- The EHDEN Portal will integrate all the tools used in EHDEN, e.g. Central Atlas Instance, Arachne Central, EHDEN Academy, etc.

- It will host a Database Catalogue that can be maintained by the data custodians themselves containing a landing page per data with meta data, a questionnaire with, advanced search functionality, documents and publications, etc.

- Authorisation and Authentication using Single Sign On where possible.

- And more..
EHDEN is developing the EHDEN Academy (academy.ehden.eu): an online learning platform that will host courses from OHDSI and EHDEN.

It will contain: Video Lectures, Quizzes, SQL Questions, OHDSI-IN-A-BOX VM integration, and more..
BUILDING THE ECO-SYSTEM: OUTCOMES

- Incorporation of outcome standards (ICHOM)
- Supporting outcomes-based research and medicine
- Demonstrate the additive value of EHDEN through use cases
BUILDING THE ECO-SYSTEM: ECOSYSTEM

• A trusted federated data network expanding beyond EHDEN project lifetime
• European-wide network of certified SMEs
• Enable new and augmented health services during and after EHDEN
• Stimulate active collaboration within the community
• Sustainability is a responsibility of all stakeholders
KEY COMPONENTS FOR EHDEN
# Work Package Structure

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<th>WP1: Evidence Workflow Development</th>
<th>WP2: Outcome Driven Healthcare</th>
<th>WP3: Personalized Medicine</th>
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<tr>
<td>Incorporating the use cases for supporting development and validation of the EHDEN socio-technical approach, inclusive of BD4BO projects</td>
<td>Related to all activities specific to e.g. BD4BO projects outcome focus, and ICHOM standards incorporation</td>
<td>Focusing on the support of outcomes/value based healthcare, inclusive of clinical prediction models, with the incorporation of ‘novel’ patient data</td>
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**WP4: Technical Implementation**

Key priority is socio-technical development of the EHDEN federated framework and relevant services

**WP5: Data Workflow Implementation & Service Deployment**

Development, oversight and evaluation of the ecosystem development from SME qualification/certification to data source engagement, OMOP CDM mapping and evaluation

**WP6: Outreach and Sustainability**

Ensuring the development of value propositions for key stakeholders, and developing the sustainable operational model for EHDEN during and post IMI phase

**WP7: Project Management and Dissemination**

Concentrating on intra-project project management, internal communications and external dissemination, and responding to IMI deliverables
This project has received funding from the Innovative Medicines Initiative 2 Joint Undertaking (JU) under grant agreement No 806968. The JU receives support from the European Union’s Horizon 2020 research and innovation programme and EFPIA.