INTRODUCTION

The ambition of the European Health Data & Evidence Network (EHDEN) is to become 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, sustainable federated network of data sources standardized to a common data model. Central to EHDEN is the standardization of health data to the OMOP common data model and the adoption of analytical tools developed by the international Observational Health Data Sciences and Informatics (OHDSI) open science collaboration.

One of EHDEN’s challenging goal is the harmonization of 100 million anonymized health records across multiple data sources. This effort is complemented by the implementation of services and tools that perform data standardization, enable data discovery and carry-out analytical pipelines, as well as tools that facilitate sharing study results. Furthermore, stakeholder engagement and training is a key concern to be pursued in EHDEN. The project will support other IMI2 projects within a wider Big Data for Better Outcomes programme, other IMI and non-IMI projects and will collaborate strongly with other key stakeholders in Europe, such as the European Medicines Agency.

The EHDEN portal is a one-stop shop that advertises all EHDEN related functionalities and exposes all tools and services developed under the EHDEN umbrella. It will provide access to several applications to enable large-scale federated data analyses of health care data. This includes, for example, a database catalogue, an e-learning environment, tools for study implementation and a tool for study execution in the federated data network.

MATERIALS AND METHODS

The EHDEN portal is built based on the MONTRA architecture [1], that supported the EMIF Catalogue as well [2]. Its modular design enables on-the-fly linkage to the following tools and services currently under development within EHDEN:

- **Database Catalogue** – an inventory of data sources mapped to OMOP CDM within EHDEN, enriched by relevant meta-data

- **ATLAS** – an open-source tool developed by OHDSI to conduct scientific analyses on standardized observational data converted to OMOP CDM

- **ARACHNE** – a tool developed for conduct federated collaborative research studies across healthcare organizations, data owners and researchers

- **EHDEN academy** – an e-learning environment for training all stakeholders in the use of tools and processes developed in the project

RESULTS

![Image of EHDEN portal]

- **OHDSI collaboration** and open-source tools adoption are at the core of the EHDEN project

- The EHDEN portal is the umbrella that covers all EHDEN-related functionalities and allows their quick exploration

- This portal leverages on the work developed for the EMIF project and shares the architecture of the EMIF Platform

- The portal is currently under development by the EHDEN team and will become available to external stakeholders later in the project

- Further design improvements are undergoing, mainly at the database view level

CONCLUSION

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References
