



## Improving Health Research in EU through FAIR Data

**Celia Alvarez-Romero**<sup>1</sup>, Alicia Martinez-Garcia<sup>1</sup>, Shanmugasundaram Venkataraman<sup>2</sup>, Carlos Luis Parra-Calderón<sup>1</sup>

<sup>1</sup> Group for Research and Innovation in Biomedical Informatics, Biomedical Engineering, and Health Economy. Institute of Biomedicine of Seville, Virgen del Rocio University Hospital. Spain.

<sup>2</sup> Digital Curation Centre, University of Edinburgh. United Kingdom.

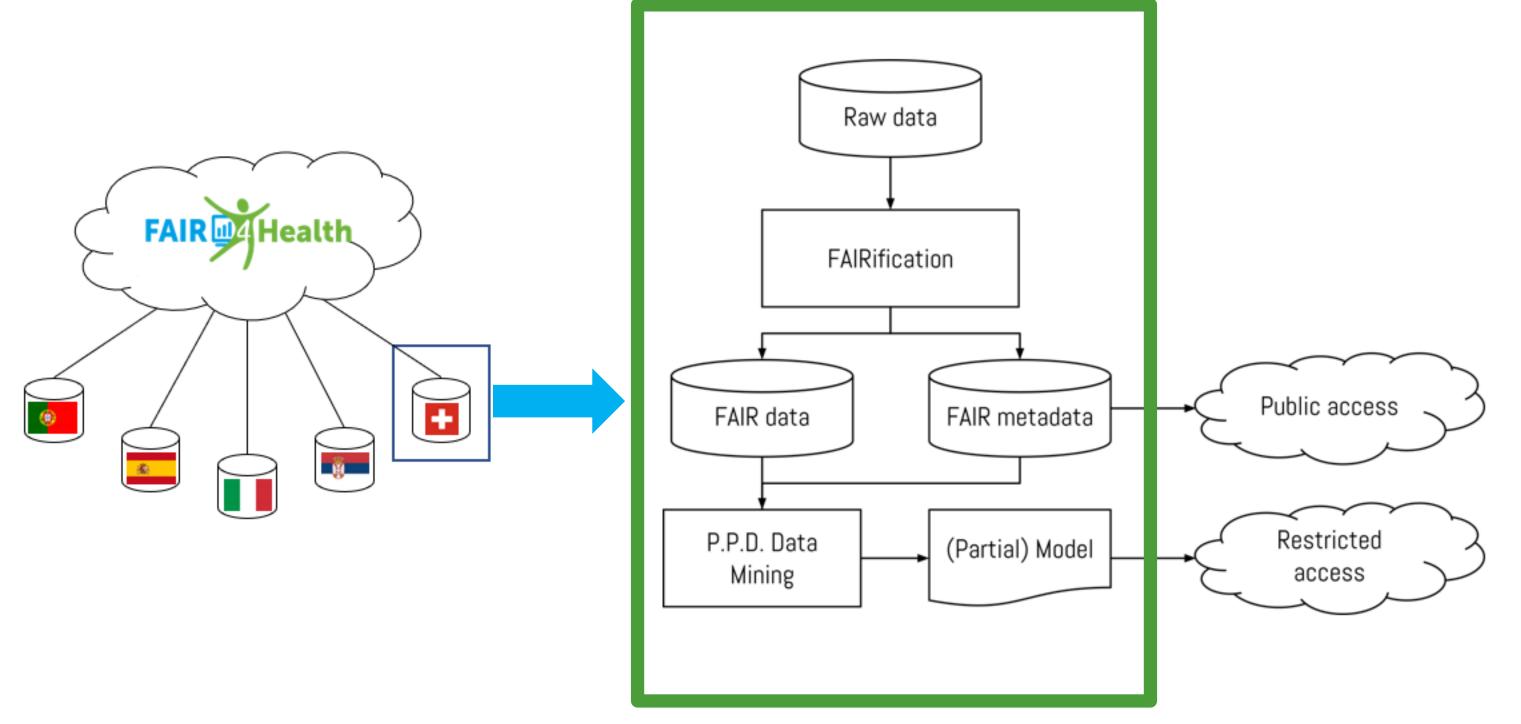
#### Introduction

The main purpose of FAIR4Health is to facilitate and encourage European Union Health Research community to FAIRify, share and reuse their datasets derived from publically funded research initiatives through the demonstration of the potential impact that such a strategy will have on health outcomes and health and social care research.

- 1. OUTREACH STRATEGY AT EU LEVEL
- 2. FAIR DATA CERTIFICATION ROADMAP
- 3. TECHNOLOGICAL PLATFORM
  TO SUPPORT THE FAIRIFICATION
- 4. DEMONSTRATE POTENTIAL IMPACT

### **Material and Methods**

For reusing the available health research data, it is necessary to adopt actions to make data Findable, Accessible, Interoperable and Reusable (FAIR).



- A comprehensive analysis of FAIR Data Policy implementation in health research has been performed to study the current barriers (ethical, legal, cultural, ...).
- Specifications and protocols for the FAIRification of EU open research data in health research have been gathered for the design and development of the FAIR4Health platform and agents.
- FAIR4Health Pathfinder Case Studies design, implementation and demonstration:

#1 Identification of multimorbidity patterns and polypharmacy correlation on the risk of mortality in elderly

#2 Early prediction service for 30days readmission risk in patients with Chronic Obstructive Pulmonary Disease

#### **Results and Conclusions**

- →An effective outreach strategy at the EU level has been designed and implemented based on trust building and shared benefit to encourage research institutions to join the FAIR4Health Open Community and FAIRify, share and reuse their publicly funded research datasets.
- →A set of guidelines to inform about Research Data Alliance recommendations to set the foundations for a FAIR data certification roadmap to guarantee high quality data.
- →An intuitive, user-centered technological platform to enable the translation from raw (meta)data to FAIR (meta)data and support the FAIRification workflow.
- → The potential impact of the implementation of such a FAIR data strategy will have in terms of health outcomes and health research.

# Join the FAIR4Health Open Community!

#### Access to:

- PPDDM models generated in the project.
- Documents related to the HL7 FHIR Implementation Guidelines that are being developed for FAIR4Health, and the possibility to participate in their development.

#### It provides:

- "Priority" access: they will be primary contacts.
- Invitations to the initiatives that arise from FAIR4Health in the RDA.
- Invitations to workshops and other events, especially those organized by EFMI (European Federation for Medical Informatics).
- Invitations to the final plenary of the project at the end of 2021 in Seville.
- Newsletters providing periodic news about the status of the project.
   https://www.fair4health.eu/en/membership

