

BETTER

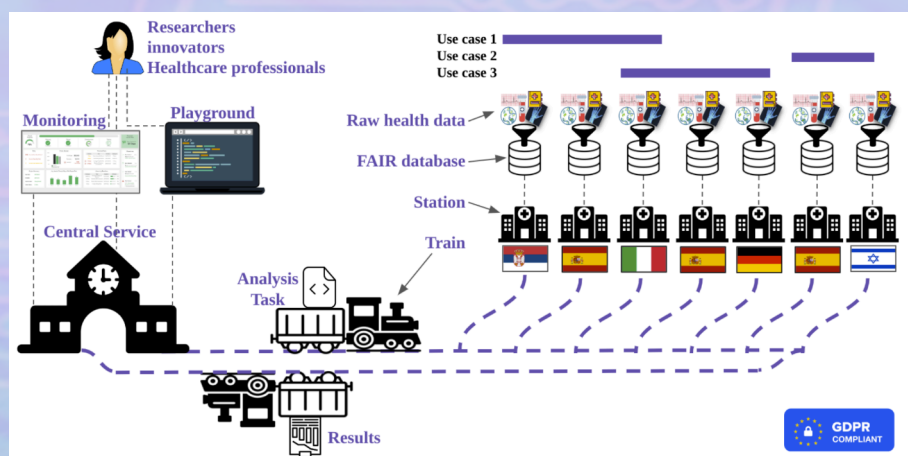
Problem

Medical studies depend on the amount of available patient data, crucially when it comes to rare diseases. The more data is available, the more accurate the results are. Nevertheless, the use of patient data for medical research is often limited to data sets available at a single medical centre. Data protection regulations prohibit data centralisation because of privacy risks like the accidental disclosure of personal data.

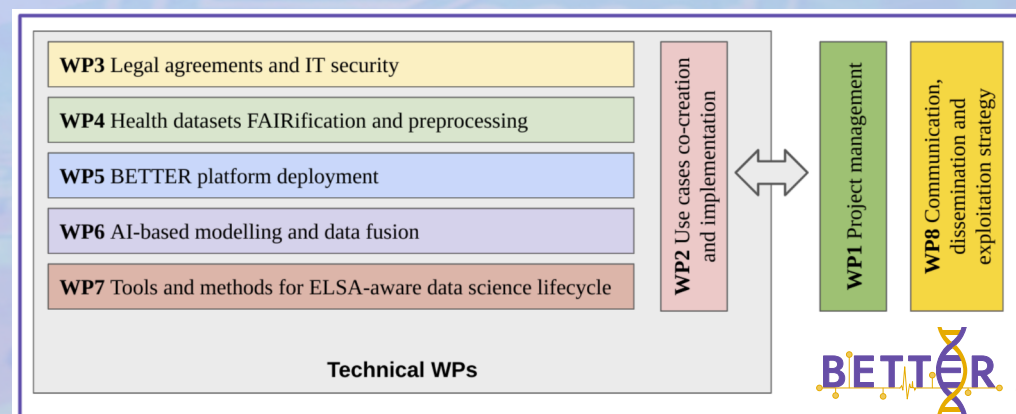
Proposed solution

The BETTER project is working towards a robust decentralised infrastructure which will empower researchers, innovators and healthcare professionals to exploit the full potential of larger sets of multi-source health data via tailored made AI tools useful to compare, integrate, and analyse in a secure, cost-effective fashion; with the very final aim of supporting improvement of citizen's health outcomes.

Concept



Work packages



Project objectives

- Objective 1:** Overcome cross-border barriers to health data integration, access, FAIRification, and preprocessing
- Objective 2:** Health data fusion and open data integration
- Objective 3:** Deploy a distributed analytics framework for cross-border data processing and analysis
- Objective 4:** Development of distributed tools leveraging artificial intelligence capabilities
- Objective 5:** Ethical, Legal and Societal aspects (ELSA) awareness in the AI lifecycle
- Objective 6:** Plan, coordinate, and implement 3 clinical Use Cases

Expected impacts

- Unique contribution 1:** In accordance with the European Health Data Space, BETTER enables medical centres in EU and beyond to make full use of a safe and secure exchange, use and reuse of health data
- Unique contribution 2:** Improved distributed framework for fusing and analysing real-world health data capable of scale-up and fostering innovation in multiple healthcare domains
- Unique contribution 3:** Release of AI based digital tools able to analyse health data sources advancing our understanding of the risk factors, causes, development and optimal treatment in disease areas
- Unique contribution 4:** Improving evidence-based understanding of three disease areas

Use cases

- BETTER involves **3 use cases** involving **7 medical centers**
- Use case 1:** Integration of genomic and phenotypic data from paediatric rare diseases to decipher pathways of intellectual disability
 - Use case 2:** Accelerate Inherited Retinal Dystrophies Diagnosis using AI
 - Use case 3:** Predicting the risk of self-harm and suicidal behaviors in patients with Autism Spectrum Disorders

Dissemination & Exploitation plan

- 10** Academic Workshop publications/ short papers;
- 15** Conference
- 10** Journal publications
- 1200** relevant organisations in **12** European markets engaged
- 25** events/workshops/webinars
- 3** business fairs
- 10** targeted blog posts