



Privacy compliant health data as a service for AI development

*Grant Agreement Number: 101095384*

# PHASE IV AI General-purpose Presentation

Dissemination purposes

**Duration:** 1 October 2023 – 30 September 2026 (36 months)

**Call topic:** [HORIZON-HLTH-2022-IND-13-02](#) – Scaling up multi-party computation, data anonymisation techniques, and synthetic data generation

**Project Coordinator:** University of Turku, Finland, 20 partners

- 15 partners and 5 associated partners

**Geographical Coverage:** 10 countries

**EU:** Finland, Austria, Belgium, Italy, Luxemburg, Portugal, Spain

**Third countries:** Switzerland, Turkey, United Kingdom

**EU budget:** 6.6M€

**Project website:** <https://www.phase4ai-project.eu>



PHASE IV AI incorporates:

- Leading Universities and Research Centres
- Technology Providers
- End users

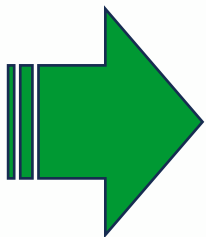


Artificial intelligence (AI) enables data-driven innovations in health care.

AI systems, which process vast amounts of data quickly and in detail, show promise both as a tool for preventive health care and clinical decision-making.

However, the ***distributed storage*** and ***limited access to health data*** form a barrier to innovation, as developing trustworthy AI systems requires large datasets for training and validation.

The availability of ***anonymous datasets*** would increase the adoption of AI-powered tools by supporting health technology assessments and education.



**Secure, privacy compliant data utilization is key for unlocking the full potential of AI and data analytics**



Establishing an integrated project workflow based on several development cycles, active reporting and efficient implementation.



Generating privacy compliant, individual-level health data to support the development of innovative health technologies.



Advancing the conditions for the effective, cross-border utilization of real-world evidence through multi-party computation.



Facilitating the GDPR-compliant secondary use of health data, especially for industry-based research, development, and innovation.



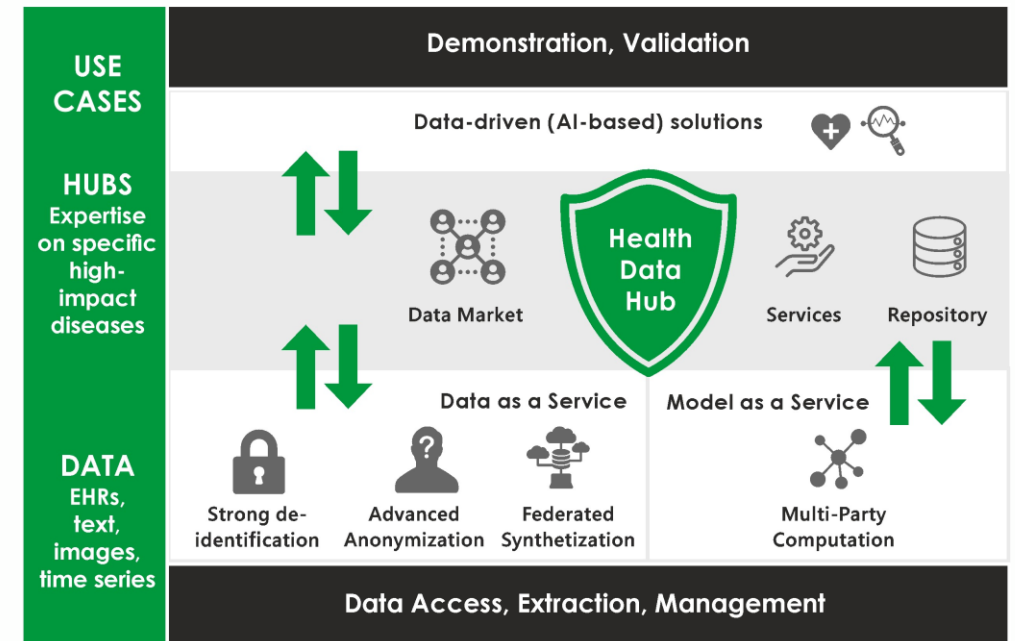
Promoting the uptake of breakthrough technologies through testing and validation in real-world use cases.



Developing practical data market solutions and concepts for the competitive and sustainable European health industry.

## PHASE IV AI increases the availability of real-world evidence by providing privacy compliant health data as a service

- ❖ Improved methods for privacy-preserving data synthesis (e.g. EHRs and medical images)
- ❖ Easy to use and configurable data services to enable AI developers' access to larger pools of decentralized de-identified data through multi-party computing
- ❖ Availability of anonymous data on demand
- ❖ Creation of a Data Market facilitating data sharing & monetization including incentives-based provision of data to the services
- ❖ Integration of the Data Market & the data service ecosystem as a X-European Health Data Hub in the European Health Data Space
- ❖ Validation of the results with real-world use-cases focusing on high impact diseases, cancer types in particular.





## Use Case 1 - Lung cancer

- Lung Cancer is the deadliest cancer and accounts for 20.4% of total deaths for cancer, with yearly 2.200.000 new cases worldwide and 477.000 in Europe.
- Early detection of lung cancer significantly improves the chances of patient survival.



## Use Case 2 – Prostate cancer

- Prostate cancer is the most common cancer in men by incidence in Europe accounting for 24% of all new cancers with 450.000 new cases diagnosed and 107.300 deaths.
- Funding PCa research is however relatively limited and slowly progressing compared to other major cancer types.



## Use Case 3 – Ischemic stroke

- Ischemic stroke is the second most common cause of death and accounts for over 400.000 deaths yearly in the EU.
- Treatment of ischemic stroke is time dependent and delays in treatment may have significant impacts of patient's life.



Contribution to global standards for health data through the enhancement of common European standards contributing to GDPR compliant guidelines and rules for data anonymisation.



Access to advanced secure data processing tools to test and develop robust data-driven digital solutions and services in response to the needs of researchers, clinicians, and health systems at large.



Development of cross-border health data hub facilitating the innovation process by providing a secure, trustable testing environment for innovators.



Clinicians, patients, and individuals use a larger variety of high-quality data tools and services for wellbeing, prevention, diagnosis, treatment, and follow-up of care.



Researchers and innovators have more opportunities for testing and developing GDPR compliant data driven solutions based on actual needs of the health care environments.

Join our community to get the latest updates on:

- PHASE IV AI platform and its applications
- Real world use cases of the platform focusing on high impact diseases, cancer types in particular.
- New publications
- Invitation to our demos, workshops and conferences.

Join the PHASE IV AI community to get access to:

- Early adopter opportunities
- Unique use cases
- Tools available for use



**PHASE IV AI Website &  
Social Media**

[www.phase4ai-project.eu](http://www.phase4ai-project.eu)





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## Thank you for your attention!



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