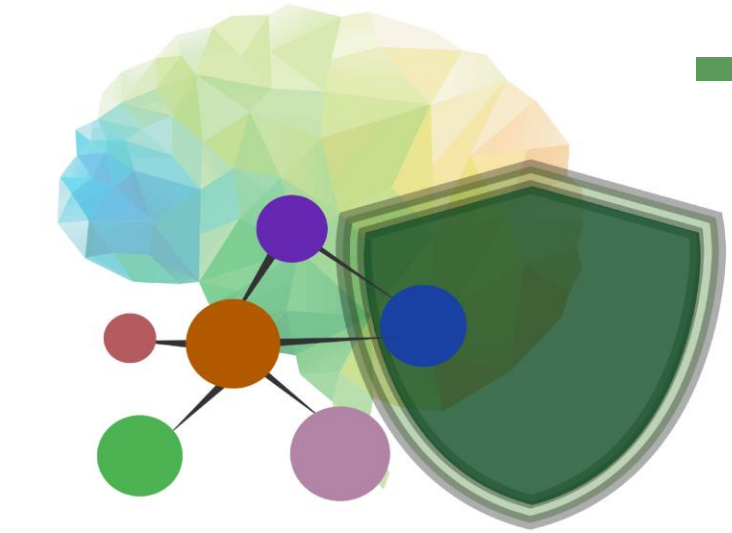
SECURED NEWSLETTER

ISSUE #4 | MARCH 2025



SECURED OPEN CALL WINNERS

Page 2 presents the results of the SECURED Open Call proposals' evaluation process.

EVENTS & NEWS

Pages 3-6 include upcoming events and provide the current update of the project from October 2024 until March 2025.

BASIC INFO

Page 7 provides initial information regarding the project, including the members of the Consortium, basic facts of the project and social media platforms.

WELCOME

Welcome to the fourth newsletter of the SCALING UP SECURE PROCESSING, ANONYMIZATION AND GENERATION OF HEALTH DATA FOR EU CROSS BORDER COLLABORATIVE RESEARCH AND INNOVATION EU project, formally named also as SECURED.

In this newsletter we present the project's Open Call selected proposals that are now entering their implementation phase, the upcoming Webinar in Synthetic Data Generation Tools for Medical Education, the upcoming 1st SECURED Open Day in Madrid, events where the SECURED project was highlighted as well as recent scientific publications developed in the context of the project.

SECURED OPEN CALL WINNERS

SECURED OPEN CALL EVALUATION PROCESS RESULTS

We are pleased to announce that the evaluation of the Open Call proposals has been completed, the results have been communicated to the applicants, and the implementation period is now starting.

After a thorough review and ranking of all submitted proposals, we have selected the following five proposals for funding:

1. **Advanced Healthcare Data Anonymization Platform (InviseeAI)** – PRIVACT P.C.
   Focus: Leveraging advanced anonymization techniques to create a scalable healthcare data anonymization platform.
2. **Enhancing GDM Management Using Synthetic Data** – ARISTOTLE UNIVERSITY OF THESSALONIKI
   Focus: Using synthetic data and machine learning to enhance the management of Gestational Diabetes Mellitus (GDM).
3. **Robokid: AI-Based Crisis Simulation for Child Support Handlers** – Kék Vonal Gyermekkrízis Alapítvány
   Focus: Developing AI-driven crisis simulation tools for professionals supporting children in crisis.
4. **Cancer Patient Synthetic Data Generation for Quality of Life (CaPSyDeL)** – Care Across Ltd
   Focus: Generating synthetic data to enhance the quality of life for cancer patients through predictive analytics.
5. **Privacy-Preserving Predictive Inference via FHE and Verifiable Credentials in Health Contexts** – Fundación para la Investigación Biomédica del Hospital Universitario Ramón y Cajal
   Focus: Enabling secure, privacy-preserving health data sharing and personalized analytics by combining FHE and Verifiable Credentials in a decentralized framework.

These proposals align with SECURED's objectives and demonstrate strong innovation, feasibility, and impact potential.

For more detailed information, read the **Final Evaluation Report**.

Funded by the European Union (Grant Agreement Nr. 101095717, SECURED Project). Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the Health and Digital Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

EVENTS & NEWS

SYNTHETIC DATA GENERATION TOOLS FOR MEDICAL EDUCATION WEBINAR

2 April 2025, 15:00 – 17:00 CET

We are pleased to invite you to the first webinar of the SECURED project on **Synthetic Data Generation Tools for Medical Education**. Join us to discover how synthetic data is revolutionizing medical education in this free, live webinar featuring four innovative AI tools designed to support teaching, training, and research — all while ensuring privacy and ethical data use.

What to Expect:

- Presentations from our expert speakers, each showcasing a different synthetic health-data generator
- Insights into how these tools can be used in educational settings
- A preview of how to access these tools through the SECURED Innohub
- Q&A session with the developers and researchers behind the tools

Whether you're an educator, researcher, or healthcare professional, this is a unique opportunity to explore new ways of working with health data safely and effectively.

Agenda & Speakers:

15:00–15:05 — Welcome | Gerasimos Artelaris (ISI)

15:05–15:15 — Introduction to SECURED Innohub | Christos Avgerinos (Catalink)

15:15–15:45 — Synthetic data generation for Mammograms | Dr. Alberto Gutierrez Torre (BSC)

15:45–16:05 — Synthetic cardiotocography (CTG) data generation | Dr. Gergely Ács (BME)

16:05–16:25 — Balanced Chest X-ray data generation | Dr. Alice Héliou (Thales)

16:25–16:45 — Missing MRI slice reconstruction | Ioannis N. Tzortzis (ICCS)

16:45 – 17:00 — Q&A session

Follow the link below to **register**:
https://secured-project.eu/news/events/sdg-webinar/

Funded by the European Union (Grant Agreement Nr. 101095717, SECURED Project). Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the Health and Digital Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

1ST SECURED OPEN DAY

Madrid, 8-9 April 2025, Niño Jesús Hospital

The first **Open Day** of the **SECURED project** will take place on **April 9**, hosted by the **Niño Jesús University Children's Hospital** in Madrid. This event is organized by one of SECURED's active pilots and will showcase the real-world application of secure, privacy-preserving technologies in pediatric care.

The **Child Telemonitoring Pilot** leverages data collected from clinical sensors to predict critical health situations in children. Using tools developed by the SECURED project, the project aims to implement effective cybersecurity techniques and protect clinical data within the hospital. Additionally, it ensures this sensitive data is **anonymized, synthetically enhanced**, and can be used securely for **AI and medical training**.

*"The hospital is validating the tools developed with data gathered from clinical sensors monitoring children in the pediatric ICU," says **Andrés Castillo Sanz**, Director of Technological Innovation at the Niño Jesús University Children's Hospital. "By using the most advanced AI algorithms, it's possible to predict in advance when a child may enter a critical condition, giving doctors and healthcare professionals enough time and information to act early and prevent life-threatening situations."*

The SECURED project, funded by the European Union's Horizon Europe research and innovation programme, develops tools for scalable secure multiparty computation, data anonymization, and synthetic data generation. It aims to remove key barriers to the safe, large-scale use of personal health data within Europe.

What to Expect

- **April 8** – *Knowledge Exchange Session*: A pre-event session will bring together clinicians and researchers to explore how Spanish universities can support hospitals in applying AI technologies.
- **April 9** – *Open Day*: The Technological Innovation department of the Niño Jesús University Children's Hospital will demonstrate the benefits and features of the Child Telemonitoring Pilot that is already being implemented by using the SECURED tools.

This event is an excellent opportunity for medical professionals, researchers and innovators to explore cutting-edge technologies and the future in health care.

You can find the event's agenda at the following link:
https://secured-project.eu/news/events/secured-1st-open-day/

Funded by the European Union (Grant Agreement Nr. 101095717, SECURED Project). Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the Health and Digital Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

Synthetic data generation for medical education Workshop

Budapest, 2-3 October 2024

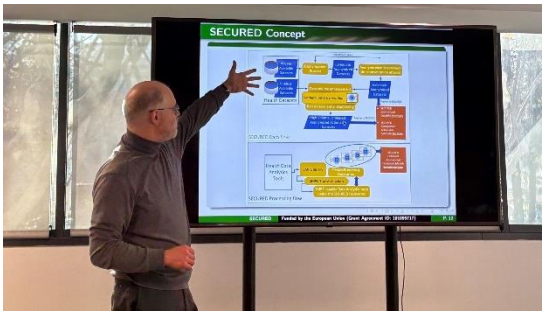
At the SECURED project's workshop on **Synthetic Data Generation for Medical Education** held on October 2–3, 2024, we showcased advanced methods for generating synthetic image data in cardiotocography (CTG), mammography, chest X-rays, and skull (brain) MRI imaging.

Participants also engaged in hands-on demonstrations, exploring synthetic data generation tools and offering direct feedback to developers.

A heartfelt thank you to **Semmelweis University Health Services Management Training Centre** for flawlessly hosting and organizing this exceptional event!
Check the workshop **photo gallery**.

SECURED Workshop at HiPEAC 2025

Barcelona, 22 January 2025



On January 22, 2025, the **SECURED** consortium successfully hosted the **Scaling Up Secure Processing, Anonymization, and Generation of Health Data** workshop at **HiPEAC 2025**. This event brought together experts from academia, industry, and the research community to discuss cutting-edge privacy-preserving technologies and their applications in healthcare AI and data analytics.

The workshop showcased the latest advancements in **scaling up secure multi-party computation, data anonymization, and synthetic data generation**. These technologies are crucial for ensuring privacy and security in **AI-driven healthcare solutions**, such as **real-time tumor classification** and **pediatric telemonitoring**.

Speakers from the **SECURED project** and the **Flute Project** (another initiative funded under the HORIZON-HLTH-2022-IND-13 call) shared their latest research and demonstrated real-world applications of privacy-preserving AI. The event provided a valuable opportunity for attendees to exchange ideas, discuss challenges, and explore future collaborations in this rapidly evolving field.

The workshop underscored the need for:

- **Scalability in privacy-preserving computation** to handle large and complex medical datasets.
- **Ethical and legal frameworks** to facilitate secure data sharing while ensuring compliance with regulations.
- **Collaboration between researchers, healthcare professionals, and policymakers** to translate these technologies into practical healthcare solutions.

Read more

Funded by the European Union (Grant Agreement Nr. 101095717, SECURED Project). Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the Health and Digital Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

SECURED project at the Health Data Summit 2025

Brussels, March 19-20, 2025

SECURED Project joined the **HEALTHDATA4EU Cluster** at the **Health Data Summit 2025** in Brussels on March 19-20, 2025, organized by The European Institute for Innovation Through Health Data.

The HEALTHDATA4EU Cluster hosted a dedicated session on **Data Quality in the Era of Synthetic Data**.

Our Project Coordinator, **Francesco Regazzoni** (University of Amsterdam), presented our work on synthetic data generation, sharing key insights on improving data quality and maximizing its impact in healthcare.

SECURED Project 4th Plenary Meeting

The **SECURED** consortium held its **4th plenary meeting** on January 15-16 at the **Thales Research and Technology** facilities in Paris, France.

Over the course of two days, SECURED partners discussed the project's progress in all areas, including progress in synthetic data generation, incorporating insights from our recent workshop in Budapest, advancements in the SECURED InnoHub design and integration, Open Call selection results and commencement of implementation phase, Data Anonymization Research, Design and Assessment, Private Health Data Processing for Unbiased AI solutions, and validation and demonstration of use cases.

Read more

Latest Publications

Journal Articles

- Tzortzis, I. N., Gutierrez-Torre, A., Sykiotis, S., Agulló, F., Bakalos, N., Doulamis, A., ... & Berral, J. L. (2025). **Towards generalizable Federated Learning in Medical Imaging: A real-world case study on mammography data.** *Computational and Structural Biotechnology Journal*. https://doi.org/10.1016/j.csbj.2025.03.031

Conference Proceedings

- Aguelal, H. and Palmieri, P. (2025). **De-Anonymization of Health Data: A Survey of Practical Attacks, Vulnerabilities and Challenges**. In *Proceedings of the 11th International Conference on Information Systems Security and Privacy - Volume 2: ICISSP*; SciTePress, pages 595-606. DOI: 10.5220/0013274200003899.

Funded by the European Union (Grant Agreement Nr. 101095717, SECURED Project). Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the Health and Digital Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

CONSORTIUM

The SECURED project is bringing together 17 partners from 9 different European countries highlighting the expertise to successfully accomplish the neds and goals of the project.

More info on the consortium here

PROJECT BASIC INFORMATION

Title: SCALING UP SECURE PROCESSING, ANONYMIZATION AND GENERATION OF HEALTH DATA FOR EU CROSS BORDER COLLABORATIVE RESEARCH AND INNOVATION

Acronym: SECURED

GA No: 101095717

Start: 01 January 2023

End: 31 December 2025

Topic: HORIZON-HLTH-2022-IND-13-02

Type of action: HORIZON-RIA

Project Coordinator: Francesco Regazzoni

Project Coordinator Institute: University of Amsterdam

STAY CONNECTED

https://secured-project.eu/ | @securedeuproject | @SecuredEU | securedeuproject | secured-project

Funded by the European Union (Grant Agreement Nr. 101095717, SECURED Project). Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the Health and Digital Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.