

# ABOUT SANO

Sano's mission is to advance excellent science that leads to improved medicine and healthcare services, ultimately having a positive impact on people's well-being through the application of computational and data-intensive methods. Sano is an independent research foundation, established with the financial support of two major grants:

1. **Teaming for Excellence** from the European Commission, aimed at creating the structure and institution to conduct high-level research.
2. **IRAP (International Research Agendas Programme)**, which directly funds research activities, including scientific and technical personnel.

These grants enable Sano to pursue cutting-edge research and innovation in the healthcare sector, fostering a collaborative environment for scientists and researchers to make significant advancements in medicine.

## Ways to Collaborate with Sano:

### Research

- **Commissioned Research:** We offer customized research projects tailored to meet your specific needs. Our team conducts thorough investigations, delivering valuable insights and actionable recommendations.
- **Joint Research for Knowledge Discovery and Dissemination:** We engage in collaborative research initiatives aimed at uncovering and sharing new knowledge. Emphasizing OpenAccess and OpenSource principles, we ensure the accessibility and broad dissemination of our research findings.
- **Joint Research for Technology Development:** We collaborate with partners to create and develop new technologies. These shared research efforts lead to groundbreaking innovations, with joint implementation planned for later stages. Various risk and cost-balancing models can be explored to meet the needs of all parties involved.

**Consulting and Expert Advice** We offer consulting services across a broad range of areas, drawing upon our extensive expertise and experience. Whether you need specialized knowledge in medical research, technological development, or market trends, our consulting services provide valuable insights, guidance, and recommendations to optimize your strategies and overcome complex challenges.

**Education** Sano provides educational programs designed for students, engineers, and medical professionals. Our offerings include summer schools, workshops, and specialized training sessions. Participants gain comprehensive knowledge, practical skills, and the latest industry insights to enhance their expertise in the field.

**Community Building** Our community-building efforts involve creating spaces and events that foster collaboration, knowledge sharing, and idea exchange among experts from different sectors. We aim to build an equitable and just future through informed decision-making and policy development. Key aspects include:

- **Collaboration and Knowledge Sharing:** We bring together experts from academia, policymaking, and the general public to encourage idea exchange and promote informed decision-making.
- **Policy Development:** We engage in developing policy frameworks to build trust and foster AI adoption in healthcare. We also focus on creating data policies and infrastructures to facilitate seamless access and sharing of high-quality, harmonized data.
- **Data Interoperability:** We work towards advancing data interoperability by defining data format standards, ensuring consistent data generation and transfer across market participants.
- **Skills and Literacy:** We advance AI skills among healthcare professionals and digital health literacy among citizens, empowering individuals to leverage the benefits of AI and data-driven technologies.
- **Enhancing Social Value:** We collaborate with stakeholders to modify practices, policies, and laws, ensuring that data-driven technologies align with societal needs and values.

## Results of Our Research with Market Potential

### Computer Vision Data Team

- Tool for summarizing radiological findings in text to support radiologists
- Prototype of an EEG-based diagnostic support system for epilepsy screening/monitoring

### Personal Health Data Science Team

- Development of CACTUS, a stratification tool, into a Software-as-a-Service (SaaS) solution for personalized medicine
- Data visualization process for transforming CACTUS knowledge data into visually compelling representations



### Healthcare Informatics Team

- VR simulator for fetoscopic spina bifida repair surgery, used during the Fetoscopic Interventions Course at the Royal Society of Obstetricians and Gynecologists
- Deep learning for estimating fetal weight throughout pregnancy from fetal abdominal ultrasound
- AI support system for fetal surgery for blood flow correction in Twin-to-Twin Transfusion Syndrome
- Prototype of a VR/AR system for 3D visualization of imaging data for pre-operative planning and intra-operative navigation

### Extreme-scale Data and Computing Team

- Federated Learning tools for medical data to build machine learning models using data from multiple hospitals
- Digital twin model based on blood flow simulation for bypass surgery

We believe that by working together, we can achieve remarkable advancements in healthcare. We look forward to the possibility of collaborating with you to make a meaningful impact in this field. Please feel free to contact us to discuss how we can work together.

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