European Cancer Imaging Initiative - Joining forces to save lives

(Vienna, 14 February 2025) – On 6 February 2025, the European Commission, together with the European Society of Radiology (ESR), and the European Federation for Cancer Images (EUCAIM) brought together 160 leading experts from policymaking, research, healthcare, and industry to explore how the European Cancer Imaging Initiative harnesses health data and Artificial Intelligence to advance cancer detection and treatment.

The European Cancer Imaging Initiative is a core element of the Europe's Beating Cancer Plan and implemented by EUCAIM through the development of Cancer Image Europe, a pan-European federated infrastructure for cancer images. Two years into the project, the infrastructure has been set up and will provide secure access to unprecedented volume of high quality, standardised cancer imaging datasets, thus unlocking the potential of AI-driven solutions for earlier and more precise cancer detection, improved treatment planning and enhanced patient outcomes. The event reviewed the mid-term achievements, discussed next steps, sustainability and stakeholder engagement and was placed in the context of the European AI Act and the European Health Data Space (EHDS) regulations.

Thomas Skordas, Deputy Director-General of DG CNECT, kicked off the event, highlighting that access to data fuels AI development and that Cancer Image Europe has already achieved significant progress and is making data available in a safe and privacy-preserving manner. Lorena Boix-Alonso, Deputy Director-General of DG SANTE, reminded in her opening statement "*Every minute 5 people in the EU find out that they have cancer. Finding out early enough is precisely what is crucial. [...] Between 30-50% of cases are preventable. Early detection can improve outcomes for many cancer types. AI models trained on high-quality cancer images can become excellent tools for early detection of cancer. For example, in mammography AI has increased detection rates by 29% according to a recent Lancet study. The potential is even higher, and we need Europe to become a global leader in AI.*"

Deputy Prime Minister and Minister of Health of the Czech Republic, Vlastimil Válek emphasised the potential of advancing cancer management and care in Europe through AI-based innovation in radiology. Juan Fernando Muñoz Montalvo, General Secretary of Digital Health, Information and Innovation at the Spanish National Health System at the Spanish Ministry of Health, commended EUCAIM as a precursor of EHDS implementation and a key driver of the AI Act implementation and highlighted the lead role of Spain in providing political and institutional support to ensuring the long-term sustainability of the infrastructure. Spain has also promoted a Member State declaration of support to recognise the vital role of imaging in advancing precision medicine.

The ESR also reiterated its full support of the European Cancer Imaging Initiative. Prof. Carlo Catalano, Chair of the ESR Board of Directors emphasised that "*success requires interdisciplinary collaboration among radiologists, clinical societies, AI developers, patients, policymakers, and innovators, with initiatives like EUCAIM leading the way. A supportive policy environment and investment in infrastructure are key to realizing AI's full potential for European healthcare*."

During the event, Prof. Luis Martí-Bonmatí, EUCAIM's Scientific Coordinator, highlighted key milestones and achievements, including the launch of the platform's data search engine, the onboarding of new data providers and the integration of AI tools for model validation and traceability. "*We started this pan-European federated multi-country infrastructure, which is linking cancer images and tools at the national and European levels to foster AI solutions for precision medicine. Cancer Image Europe is an accelerator that will facilitate medical research and innovation within the European Health Data Space to better understand, diagnose and fight cancer*."

Ensuring the availability of high-quality, structured and interoperable cancer imaging data is critical for developing robust AI-based innovations. Experts from the EUCAIM project emphasized that imaging data alone is not enough; metadata, clinical annotations and interoperability frameworks are essential for AI models to be effective in clinical practice. Prof. Katrine Riklund, Umea University, who co-leads the clinical use cases in EUCAIM, emphasised "*Healthcare is not about providing anyone with high quality data. We are there to take care of our patients. Today we need AI development to make cancer care better than it was yesterday. We need to increase the collaboration, not only between different types of researchers inside a hospital or country, but also between countries.*"

Technical lead experts from EUCAIM highlighted that high-quality data is key and that metadata and annotations are crucial for clinical context. EUCAIM provides the necessary tools for data preparation, de-identification and standardisation, ensuring that AI models are built on reliable and well-structured data. The need for computational power was also emphasised as was the role of AI Factories to enhance our readiness for an AI-driven future.

Paving the way for the future of Cancer Imaging

A major milestone regarding a European approach for cancer image data is the ESR-led EU Health Policy Platform Thematic Network "Advancing Precision Medicine for Europe's Cancer Patients with AI-powered Imaging" and the resulting [Joint Statement](#), co-led by EUCAIM and endorsed by over 80 stakeholder organisations. This statement underscores the collective commitment to advancing AI-powered precision medicine for cancer patients in Europe, ensuring that AI models are trustworthy, generalizable and ready for clinical deployment.

Furthermore, the proposed establishment of a European Digital Infrastructure Consortium (EDIC) was discussed, which would secure long-term sustainability and governance of Cancer Image Europe platform to accelerate the development, benchmarking, certification and deployment of Artificial Intelligence (AI)-based cancer management tools for personalised medicine.

A Platform That's Already Powering AI Innovation

EUCAIM's Cancer Image Europe platform is operational, with its data search engine live, federated processing functionalities being expanded, and new data continuously onboarded. Prof. Ignacio Blanquer, EUCAIM technical coordinator, informed that EUCAIM has already developed a data search engine for cancer imaging data. *"Ensuring traceability of AI models built on EUCAIM is crucial for their clinical trustworthiness",* he said. EUCAIM remains dedicated to fostering innovation, supporting researchers, and ensuring that cutting-edge AI tools can be deployed into clinical workflows in the future.

Priit Salumaa from Better Medicine, an innovative medical imaging AI company, underscored that EUCAIM is key in providing access to a large amount of high-quality data needed to innovate and in addressing two key problems: "*Cancer is often diagnosed incidentally or simply too late. Half of radiologists' work is spent on repetitive tasks that could be automated. These are two key problems that must be solved.*"

The European Cancer Imaging Initiative is actively shaping the future of AI in cancer care - empowering clinicians, accelerating research and innovation, and ultimately improving patient outcomes. Inclusiveness and stakeholder engagement are key to its success as highlighted by Monika Hierath, Executive Manager of project coordinator EIBIR. **"***An exchange with stakeholders at all levels, including clinicians, AI researchers, innovators, policymakers, and patients, is necessary to ensure that the outcomes of the EUCAIM project lead to measurable health benefits for citizens through precision medicine.*"

Contact information

For more information about EUCAIM and the Cancer Image Europe platform and to get engaged, please visit www.cancerimage.eu or contact contact@cancerimage.eu.

Photos available upon request via contact@cancerimage.eu.

European Commission event page, including access to the recording of the event: https://digital-strategy.ec.europa.eu/en/library/european-commission-held-european-cancer-imaging-initiative-joining-forces-save-lives-event