

Advancing Precision Medicine for Europe's Cancer Patients with AI-powered Imaging

ESIRI EUROPEAN SOCIETY
OF RADIOLOGY

A Thematic
Network led by
the European
Society of
Radiology



/ Core group



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/ Background & Policy context

**Large
burden of
cancer on
society**

**2.7 million
in 2020
(EU)**

Europe accounts for
**1/10th of the world's
population but 25%
of global cancer
cases**

**Each year
1.3 million
cancer
deaths
in Europe**

If **no action
taken**, number of
people newly
diagnosed increase to
over 3.4 million by
2040

EC

**AI-powered precision
medicine**

holds **promise in advancing cancer
care** and **reducing the burden** of
cancer **on individuals and society**

builds upon **advancements**
in both **oncology & AI**, leading to
**more personalised treatment
strategies**

/ Background & Policy context

- / TN contributes to the full implementation of Europe's Beating Cancer Plan (EUCAIM)
- / Builds upon EU health policy priorities
- / Ties in with relevant elements of AI Act and EHDS

Europe's Beating Cancer Plan

Prevention

Addressing key risk factors

Early detection

Improving access, quality, diagnostics

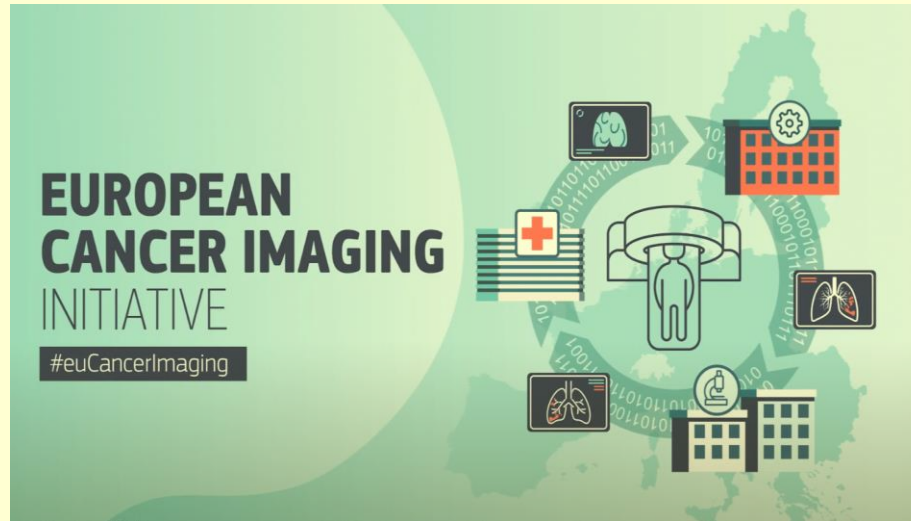
Diagnosis and treatment

Ensuring integrated, comprehensive care

Quality of life

Improving support, rehabilitation, integration

The European Cancer Imaging Initiative,
one of the flagships of
Europe's Beating Cancer Plan



EU's Digital Decade Policy

EU's digital health policies



EU Artificial Intelligence Act

EUROPEAN HEALTH DATA SPACE

#EUDigitalHealth



Elements of the joint statement

✓ Vision

- ✓ Common vision of signatories of joint statement

✓ **Relation to EU policy areas** and synergies with ongoing EU health and digital actions

- ✓ Europe's Beating Cancer Plan
- ✓ European Cancer Imaging Initiative

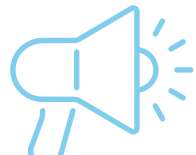
✓ **Call for Action**

- ✓ Actions committed to by signatories of joint statement to
- ✓ facilitate AI powered precision medicine in cancer care and identified areas where EU institutions and Member States are called to action



Vision

- 👁️ Advance **Precision Medicine** for Europe's cancer patients
- 👁️ Contribute to full implementation of **Europe's Beating Cancer Plan** (flagship project: EUCAIM), **EU Cancer Mission** and **EU's digital health policies**
- 👁️ Bring **integrated diagnostics** into the clinic
- 👁️ Promote the development of accurate **AI-powered integrated diagnostic models** providing healthcare providers with accurate predictors of treatment outcome
- 👁️ **Improve patient outcomes** while keeping cancer care affordable and accessible by enhancing personalised treatment



Call for Action

Action

The signatories of this Joint Statement call on:



1. Review and validate **existing literature** into AI powered promising predictive biomarkers

/ the **research communities**

/ to **systematically review existing literature** to guide future research

/ to focus on **clinical validation studies** to strengthen the evidence for clinical translation



2. Consider AI-powered imaging in in-vivo **clinical cancer trials**

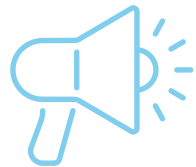
/ the **cancer research community**, to incorporate AI - imaging biomarkers in **in-vivo clinical cancer trials**



3. Improve the results of **cancer screening programmes** by AI-powered imaging

/ the **cancer research community** to evaluate **imaging biomarkers in screening programmes**

/ the **EU institutions** to suggest stronger **interdisciplinarity** in any cancer-related **funding** measures



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Action

The signatories of this Joint Statement call on:



4. Ensure **interdisciplinary stakeholder engagement** in the development and implementation of strategies for multimodal AI in clinics

/ **Research institutes, cancer organisations & networks to ensure interdisciplinarity and include** medical professionals, patients, scientists, industry partners, ethicists, regulators, policymakers **in their governing bodies**



5. Develop a comprehensive **strategy for research on innovative AI-powered solutions**

/ **Stakeholder groups** to develop a **comprehensive strategy to guide research that spans the entire AI pathway**; from innovation to validation in real-world settings and clinical implementation

/ the **EU to support research** aimed at developing and validating **multimodal AI tools, HTA & post market surveillance**

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Action

The signatories of this Joint Statement call on:



6. Enhance **data quality and infrastructure** in healthcare and research institutions to **leverage AI-powered multimodal solutions**

- / **Medical societies (incl ESR and EANM) & research community** to develop **strategies for data quality and infrastructure**
- / **the EU, Member States and funding bodies** to support healthcare and research institutions in **enhancing their overall data management capabilities**



8. Ensure **seamless integration of AI-generated results into clinical workflows**

- / Medical societies & research community to **develop standards-based interoperability for end-user IT systems**,
- / the **EU** to **incentivise healthcare institutions and IT vendors to adopt these standards** through targeted funding initiatives and regulatory measures.

Action



7. **Improve the coordination and accessibility of healthcare data** for AI development and validation

The signatories of this Joint Statement call on:

- / **the EC to connect the EHDS and HDAB with related professional societies and EUCAIM** to discuss metrics of data quality; to **establish links with EU-funded initiatives** (e.g. European Network of Cancer Registries, ERICs and EDICs)
- / Stakeholders to be **in constant dialogue to ensure that the EHDS will meet the needs of AI in healthcare**
- / **the EU to support research** how to connect data stored in different repositories; to **recognise the value of integrating platforms** such as **EUCAIM**
- / to **define a European governance framework** to oversee the management of data access & coordination

Action

The signatories of this Joint Statement call on:



9. Establish **clear guidelines for regulatory compliance of AI-powered solutions in clinical care**

/ the **EU** to develop comprehensive **healthcare-specific guidelines for regulatory compliance of AI-solutions** in clinics and engage regulators & stakeholders to **align AI evaluation processes with existing medical device regulations**



10. Integration of AI technology in healthcare: **building trust** and ensuring **safety and transparency**

/ **Stakeholders** to develop strategies on how to **build trust through Transparency & Education**

/ the **EC** to support research in **explainable AI, promote open science practices, support social sciences and humanities (SSH)** aspects of AI tools and **training of professionals in AI**

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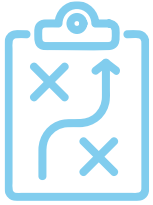
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Roadmap towards implementation

- Invitation to join TN, incl. proposal document and invitation to **Pitch Webinar** posted on EUHPP Thematic Network platform on 13 June
- **ESR Press Release** sent out on 14 June
- Stakeholders contacted via email
- Presentation in Pitch **Webinar**, 24 June
- Presentation of main elements of Joint Statement in **Stakeholder Webinar**, 11 September
- **Promotion of EU HPP Annual meeting** on Platform and through ESR contacts/social media
- Draft statement posted on platform **for public consultation**, 23 October – 3 November
- **Final Joint Statement published on platform** on 11 November and sent via email to **stakeholders for endorsement**
- Throughout the cycle: Correspondence with potential stakeholders



Endorsements received so far

European medical/scientific societies



Comprehensive cancer centres and universities in Europe





Endorsements received so far

Patient organisations



Other European/national health stakeholders



EUROPEAN UNION OF MEDICAL SPECIALISTS
The advocate of medical specialists



National radiological societies





Endorsements received so far

European industry associations



AI innovators / companies



Individuals

Priv.-Doz. Dr. med. Adrien Holzgreve, MHBA



Next steps

- 📍 **Requests for endorsement** will continue
- 📍 **31 December:** deadline for endorsements – please contact us by 18 December
- 📍 **15 January:** deadline for sending final Joint Statement with endorsements to EU HPP team
- 📍 **After 15 January:** promotion through TN comm channels
- 📍 **20 January:** transformation of TN into an **Exchange Network (accessible to all Platform members)**

- > **Key outcome: Joint Statement endorsed by broad variety of stakeholders**
- > **Transforming Thematic Network into Exchange Network**



Join our community of endorsers

/ **Stakeholders interested in endorsing the Joint Statement, please join our network on the EU HPP**

1. Click on Thematic Networks

REQUEST ACCESS TO A NETWORK
Enter the platform >

How to be part of this community?

1

Infographic: the Platform at a glance!
What are the benefits for you? Take a look at the infographic to learn about this health stakeholder community: how to register, promote your initiatives, subscribe to the newsletter, co-organise webinars and more!

EU Health Policy Platform

The **EU Health Policy Platform** is an interactive tool to stimulate discussion about public health concerns and provide an easy way for stakeholders to share knowledge and good practices. The Platform invites you to exchange with others, pool your expertise in Joint Statements and disseminate actions among a wide audience.

Register and get involved in European Health Policy!

AGORA
Common online space to boost discussion on health related issues, publish news and events.

THEMATIC NETWORKS
Collaborative networks bringing together stakeholder organisations to produce Joint Statements on health-related topics.

RESTRICTED NETWORKS
Networks moderated by health stakeholders, the Commission and/or Member States on a specific health-related topic and created upon request by Platform.

2. Click on “Participate” or access through the QR code:



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This Thematic Network is led by the European Society of Radiology (ESR) and builds upon the... [read more](#) ▾

[Participate >](#)

Participate to this network



Contact us at

internationalaffairs@myesr.org

Thank you

Let's work together to leverage the potential of AI
and improve cancer care
for Europe's patients

The Netherlands Cancer Institute, Amsterdam
European Society of Radiology

Contact: internationalaffairs@myesr.org