



HORIZON EUROPE CANCER MISSION CLUSTER 1 - HEALTH

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The Israel Innovation Authority

Innovation Divisions



Technological Infrastructure



Startup



Growth



Societal Challenges



Advanced Manufacturing



International Collaborations & ISERD

Different Needs Require Different Policies and Tools

Research infrastructure, disruptive technologies

Maintaining a sufficient deal flow of tech startups and helping them reach fundable milestones

Helping tech firms grow in Israel

Supporting tech solutions for societal and public goals

Pushing the manufacturing industries to a sustainable competitive path

Enabling the Israeli technology industry to find its path in the global arena

Participating Countries

27 Member States (MS)

 Austria (AT)	 France (FR)	 Malta (MT)
 Belgium (BE)	 Germany (DE)	 Netherlands (NL)
 Bulgaria (BG)	 Greece (GR/EL)	 Poland (PL)
 Croatia (HR)	 Hungary (HU)	 Portugal (PT)
 Cyprus (CY)	 Ireland (IE)	 Romania (RO)
 Czech Republic (CZ)	 Italy (IT)	 Slovakia (SK)
 Denmark (DK)	 Latvia (LV)	 Slovenia (SI)
 Estonia (EE)	 Lithuania (LT)	 Spain (ES)
 Finland (FI)	 Luxembourg (LU)	 Sweden (SE)

15 (+2) Associated Countries (AC)

 Albania (AL)	 Montenegro (ME)
 Armenia (AM)	 Norway (NO)
 Bosnia and Herzegovina (BA)	 Serbia (RS)
 Faroe Islands (FO)	 Switzerland (CH)
 Georgia (GE)	 Kosovo (XK)
 Iceland (IS)	 Turkey (TR)
 Israel (IL)	 United Kingdom (UK)
 Macedonia (MK)	 Ukraine (UA)
 Moldova (MD)	

[Click here to check association status](#)

Conditions for Participation

- **MINIMUM CONDITION**, general rule, at least **Three** independent participants (any legal entity) from **Three** different MS or AC, with at least one MS
- **ADDITIONAL CONDITIONS** can be established by the Scientific Programme or Work Programme (number or type of participant, place of establishment)





Mission on Cancer

Challenges

- **2.7 million people** in the EU are **diagnosed** each year
- **1.3 million people die** from cancer each year (this no. will increase)
- **Total cost of cancer** in Europe in 2018: €199 billion

GOAL

Improve the lives of more than 3 million people by 2030, through prevention, cure and for those affected by cancer including their families, to live longer and better, jointly with the **Europe's Beating Cancer Plan**

Four Mission objectives

1. Understanding cancer
2. Prevention & early detection
3. Diagnosis and treatment
4. Quality of life



Concrete actions

- Horizon Europe to provide €378.2 million (2021-23)
- A strategic R&I agenda & **governance**
- UNCAN.eu platform (2023)
- Cancer Patient Digital Centre (2023)
- Network of Comprehensive Cancer Infrastructures (2025)

A mission is a portfolio of actions across disciplines intended to achieve a **bold, inspirational and measurable goal** within a set timeframe, with **impact** for society and policy making as well as relevance for a significant part of the European population and wide range of European citizens.

HORIZON-MISS-2021-CANCER-02-01: Develop new methods and technologies for cancer screening and early detection – RIA €M4-15 x 10 | 26/04/2022 | TRL 4 ≤

AIM: Develop and validate min./non-invasive cancer screening and detection methodologies for everyday medical practice and population-based screening programmes, including enhanced participation of the target population.

Deliver results directed, tailored towards and contributing to all the following

Expected outcomes:

- **Faster, earlier, more precise, personalised, accessible and affordable screening and early detection of cancer**
- **Health policy makers will have the evidence to allow reviewing their population-based screening programmes and include new, evidence-based screening and early detection methods, technologies and solutions**



Technology Readiness Level (TRL)

- TRL 1 – Basic principles observed
- TRL 2 – Technology concept formulated
- TRL 3 – Experimental proof of concept
- TRL 4 – Technology validated in lab
- TRL 5 – Technology validated in relevant environment
- TRL 6 – Technology demonstrated in relevant environment
- TRL 7 – System prototype demonstration in operational environment
- TRL 8 – System complete and qualified
- TRL 9 – Actual system proven in operational environment

HORIZON-MISS-2021-CANCER-02-01: Develop new methods and technologies for cancer screening and early detection - RIA €M4-15 x 10 | 26/04/2022 | Starts at TRL 4 ≤

Scope - address all the following :

- **Develop and validate non-invasive (or min.-invasive) cancer screening and detection methodologies**, including 'integrated diagnostics' based on, for example **imaging, tissue, fluid or exhaled breath gas biomarkers, also using AI and agile screening methodologies (e.g. self-sampling, for use in mobile screening, digital apps, non- or minimally invasive)**, duly considering digital and health literacy of people.
- **Assess the potential uptake of these methods and technologies in national health systems**
 - Identify the **target population** and **consider implementation needs** (incl. health workforce skills)
 - Consider the solutions' **effectiveness, affordability and accessibility** to enhance participation of the target population.
- Consider the use of **living labs** or other implementation research models that use open knowledge and innovation systems and support end-user engagement.
- Consider the influence of **age and early-life factors and determinants; genetic risk; socioeconomic status; behavioural and lifestyle risk factors; environmental factors; social, cultural, sex and gender aspects, including inequalities; reflect differences within and between countries and regions**

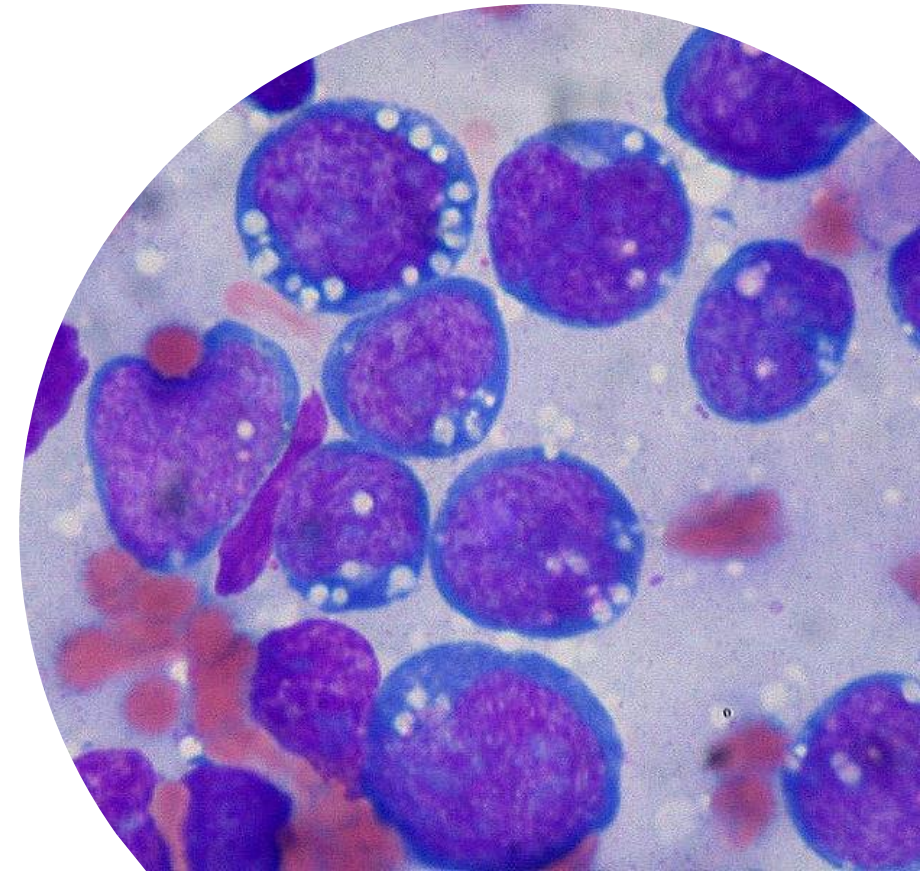
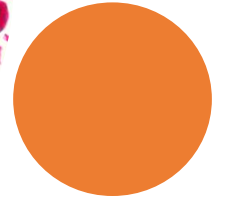
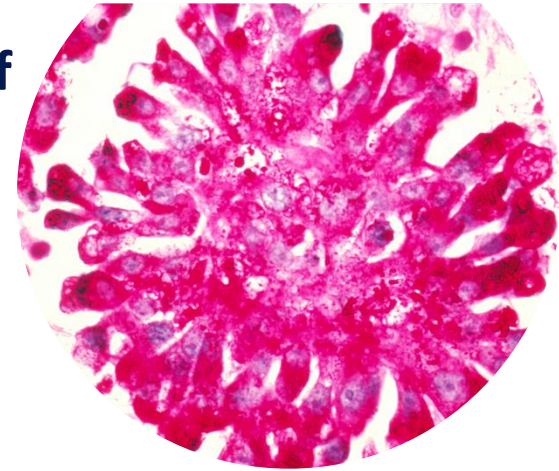
HORIZON-MISS-2021-CANCER-02-03: Better understanding of the impact of risk factors and health determinants on the development and progression of cancer – RIA €M4-15 x 6 | 26/04/2022

AIM: Boost better understanding of cancer, new dimension in innovative research, including high-potential, disruptive and high-risk projects

Deliver results directed, tailored towards and contributing to all the following

Expected outcomes:

- Professionals **understand which risk factors and determinants spur the development and progression of cancer and how**
- Researchers and innovators **support the development of the UNCAN.EU platform by producing, integrating and correlating comprehensive data from multiple sources**
- Health Policy Makers **use the improved understanding of risk factors and determinants in the design of cancer-related health policies in the EU-27 and AC and beyond, for prevention, screening and early detection**



HORIZON-MISS-2021-CANCER-02-03: Better understanding of the impact of risk factors and health determinants on the development and progression of cancer –

RIA €M4-15 x 6 | 26/04/2022

Scope - address all the following:

- Develop a systematic understanding of **cellular processes with a focus on the transition from a healthy state to cancer initiation and progression**, at the individual or population level
- Demonstrate access to and use of multiple comprehensive databases in and well beyond health research and health domains, such as **lifestyle, omics, clinical, indoor and outdoor exposure, environmental, urban areas and sprawl, climate, agricultural crop and land use, geo-positioning, and remote sensing**. Build on longitudinal cohorts, case-control studies, biobanks, registries and many other initiatives, and use state-of-the-art digital tools for data analyses and modelling
- Analyse and integrate existing knowledge and high-quality data from biomedical and clinical studies, using **computer modelling, AI, machine learning, etc. to identify factors and determinants triggering the transition from healthy state to the initiation and progression of poorly understood cancers** and cancer subtypes, including in children and adolescents
- Consider the influence of age, including **in-utero and early-life factors and determinants; environmental factors; genetic and epigenetic risk; socio-economic status; behavioural, including lifestyle risk factors; as well as social, cultural, sex and gender aspect including inequalities**

┌ New service for Israeli applicants – └ Get help from an IIA Evaluator

What kind of Help is offered (under limited resources)?

- Develop the project concept
- Partner search and consortia building
- Feedback on proposal drafts, till submission

What should I do in order to enjoy this service?

- Think of a project idea relevant to the call topic text (expected outcomes and scope)
- Think of relevant partners
- Submit an R&I consortia project summary (freestyle or ask for a template form)

Partnership: Innovative Health Initiative



- [Innovative Health Initiative | IHI Innovative Health Initiative \(europa.eu\)](#)
- Launch event 26 January 2022, 10:30-13:00



Innovative Health Initiative (IHI)

	IHI	Topic title	Action	Deadline	Project size	Nr of projects
IHI	Single stage	Innovative patient-facing care pathways for patients with neurodegenerative diseases and comorbidities	t.b.d.	t.b.d.	t.b.d.	t.b.d.
	Single stage	Next generation imaging and image-guided diagnosis and therapy for cancer				
	Single stage	Precision oncology: Innovative patient-centric, multi-modal therapies against cancer				
	Single stage	Access and integration of heterogeneous health data for improved health care in diseases areas of high unmet public health need				
	Two stage	New tools for prediction, prevention and monitoring of cardio-metabolic diseases including secondary manifestations to enable timely intervention				
	Two stage	Strengthening EU clinical development excellence and innovation attractiveness: Harmonised methodology to promote the uptake of early feasibility studies (EFS)				