- Identify challenges and barriers to the effective future implementation of the UNCAN.eu and the ECPDC platforms at national and European levels and propose operational solutions to overcome them.

- Identify population subgroups with poor digital skills and geographical areas with limited digital resources that might prevent the use of those platforms and propose solutions to reduce the digital divide.

The involvement of cancer research centres, digital infrastructures, public health bodies, policy makers and cancer patient organisations will ensure that the UNCAN.eu and ECPDC platforms will deliver effective outcomes for researchers, clinicians, healthcare providers, cancer patients, survivors, and caregivers.

Due consideration should be given to EU-funded initiatives, infrastructures and projects such as: EOSC4cancer[168] canSERV[169], the European Cancer Information System[170], and the successful proposals resulting from the topics; HORIZON-MISS-2024-CANCER-01-01, HORIZON-MISS-2024-CANCER-01-06.

This topic requires the effective contribution of Social Sciences and Humanities (SSH) disciplines and the involvement of SSH experts, institutions as well as the inclusion of relevant SSH expertise, to produce meaningful and significant effects enhancing the societal impact of the related research activities.

The Commission will facilitate coordination. Therefore, successful proposals should include a budget for networking, attendance at meetings, and potential joint activities without the prerequisite to give details of these at this stage. Examples are: organising joint workshops, establishing best practices, joint communication or citizen engagement activities with projects funded under other clusters and pillars of Horizon Europe, or other EU programmes, as appropriate. Successful proposals will be asked to join the 'Understanding' and ‘Quality of Life’ clusters for the Mission on Cancer established in 2022 and 2023. The details of joint activities will be defined during the grant agreement preparation phase and during the life of the project.

HORIZON-MISS-2024-CANCER-01-03: Accessible and affordable tests to advance early detection of heritable cancers in European regions

Specific conditions	
Expected EU contribution per project	The Commission estimates that an EU contribution of between EUR 10.00 and 12.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.

168 https://eosc4cancer.eu/
169 https://www.canserv.eu/
170 https://ecis.jrc.ec.europa.eu/info/cancer_registries.html

Indicative budget	The total indicative budget for the topic is EUR 35.00 million.
Type of Action	Innovation Actions
Eligibility conditions	The conditions are described in General Annex B. The following exceptions apply: The following additional eligibility criteria apply: A written commitment is required from the supportive administrative entity of the geographical area in which the action proposed will be implemented, expressed by a letter of intent annexed to the proposal and signed by that entity.
Technology Readiness Level	Activities are expected to achieve TRL 5 to 7 by the end of the project – see General Annex B.
Award criteria	The criteria are described in General Annex D. The following exceptions apply: The thresholds for each criterion will be 4 (Excellence), 4 (Impact) and 3 (Implementation). The cumulative threshold will be 12.
Procedure	The procedure is described in General Annex F. The following exceptions apply: In order to ensure a balanced Cancer Mission project portfolio and to achieve the Mission's goal, grants will be awarded to applications not only in order of ranking but also to one application that fully addresses cancer in children, adolescents or young adults (meaning people between birth and the age of 24), provided that the application attains all thresholds.

Expected Outcome: For an increasing number of cancers with underlying heritable genetic risk, early detection and diagnosis are possible. Moreover, cancer incidence and mortality across Europe are increasing and show substantial variation, with Central and Eastern European regions and countries particularly affected[171]. Decisive action on early detection using easy-to-use, specific and sensitive, affordable and accessible genetic multi-omics[172] or other biomarker-based tests[173] will contribute to diagnosing and treating cancer with an underlying heritable genetic risk at an earlier, potentially curable stage, and with fewer side-effects.

Proposals should aim to deliver results through validating, piloting, and upscaling genetic, multi-omics, or other biomarker-based tests for early detection of cancers with underlying heritable genetic risk in routine healthcare, which are directed and tailored towards and contribute to all of the following expected outcomes:

171 Cancer inequalities registry: https://cancer-inequalities.jrc.ec.europa.eu/

172 Such as (epi)genomics, transcriptomics, proteomics, metabolomics, integrated omics.

173 Test to detect cancer before the onset of disease. Tests to detect treatment resistance or relapse were the focus of the EIC Accelerator Challenge: Novel biomarker-based assays to guide personalised cancer treatment.

- People and their families at heritable genetic risk of developing cancer, will benefit from the outcomes of evidence-based, tailored, affordable and accessible early detection, based on accessible and affordable tests;

- Civil society, foundations, and innovators will seize opportunities to respectively co-create, support or commercialise early detection programmes based on genetic, multi-omics or other biomarker-based tests.

- Regional[174], and national policymakers and authorities in Member States and Associated Countries will engage in piloting, scaling up or implementing suitable early detection and treatment of people and their families with underlying heritable genetic risk in European regions based on genetic, multi-omics or other biomarker-based accessible and affordable tests, including legislative policies.

Scope: There is a need to validate, pilot, and upscale easy-to-use genetic, multi-omics or other biomarker-based tests for early detection of cancers with an underlying heritable genetic risk, for uptake in regional or national healthcare systems. Proposals should address all of the following:

- Validate easy-to-use, affordable and accessible genetic, multi-omics or other biomarker-based cancer tests for early detection of cancers with an underlying heritable genetic risk for uptake in regional or national healthcare systems. Validation may include for example clinical studies, socio-economic or technological feasibility studies.

- Stratify the to-be-tested population by sex, gender, age or other determinants.

- Be compliant with GDPR and take into account socio-economic status, limited health literacy, limited awareness of disease symptoms and access for people in remote and rural areas[175].

- Tests can be based on, for example, polygenic cancer risk scores, algorithms, machine learning, biomarkers, cell lines, organoids, liquid biopsies, medical devices, or wearables and other digital applications.

- Co-create with end-users, including (citizens, and health professionals, such as psychologists) living in the targeted regions, aspects such as the innovation life cycle, priority definition, design, development, testing and piloting stages as well as risk assessment, counselling, health education, and acceptability.

- Extensively pilot and upscale genetic, multi-omics or other biomarker-based testing for use in early detection programmes in at least three regions across at least three different Member States or Associated Countries. One of the three targeted regions should be within the following Member States: Bulgaria, Croatia, Cyprus, Czech Republic,

174 Such as Managing authorities in regions: https://ec.europa.eu/regional_policy/in-your-country/managing-authorities_en; ERRIN - https://errin.eu/ and EUREGHA – https://www.euregha.net/Background - Regions - Eurostat (europa.eu).

175 For example, by considering mobile or digital healthcare services or working with a patient navigator.

Estonia, Greece, Hungary, Latvia, Lithuania, Malta, Poland, Portugal, Romania, Slovakia or Slovenia.

- Preferably work together with one of the EIT-Health KIC networks[176] to establish appropriate contacts, and support relevant entrepreneurship, education, training, capacity building or innovation aspects for interested stakeholders in the targeted regions.

This topic requires the effective contribution of Social Sciences and Humanities (SSH) disciplines and the involvement of SSH experts, institutions as well as the inclusion of relevant SSH expertise, in order to produce meaningful and significant effects enhancing the societal impact of the related research activities.

Successful results are expected to be communicated to the Knowledge Centre on Cancer (KCC)[177] to foster their uptake within the EU.

The Commission will facilitate coordination. Therefore, successful proposals will be asked to join the 'Prevention and Early Detection' cluster for the Mission on Cancer established in 2022[178] and should include a budget for networking, attendance at meetings, and potential joint activities without the prerequisite to give details of these at this stage. Examples are: organising joint workshops, establishing best practices, joint communication or citizen engagement activities with projects funded under other clusters and pillars of Horizon Europe, or other EU programmes, as appropriate. The details of joint activities will be defined during the grant agreement preparation phase and during the life of the project.

HORIZON-MISS-2024-CANCER-01-04: Support a pragmatic clinical trial programme by cancer charities

Specific conditions	
Expected EU contribution per project	The Commission estimates that an EU contribution of around EUR 3.00 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
Indicative budget	The total indicative budget for the topic is EUR 3.00 million.
Type of Action	Coordination and Support Actions
Award criteria	The criteria are described in General Annex D. The following exceptions apply:

176 https://eithealth.eu/in-your-region/

177 Hosted by the European Commission's Joint Research Centre (JRC). Especially through the ’European Guidelines and Quality Assurance Schemes for Breast, Colorectal and Cervical Cancer Screening and Diagnosis‘, and the 'European Cancer Information System (ECIS)’ and the 'European Cancer Inequalities Registry (ECIR)', see https://knowledge4policy.ec.europa.eu/cancer_en.

178 In order to address the objectives of the Mission on Cancer, participants will collaborate in project clusters to leverage EU-funding, increase networking across sectors and disciplines, and establish a portfolio of Cancer Mission R&I and policy actions.