TIME TO ACCELERATE FOR CANCER SCREENING
TOGETHER AGAINST CANCER

Next Level for Cancer Screening: From Commitments to Continued Action for Early Cancer Detection

A report and policy action plan of the European Cancer Organisation Prevention, Early Detection and Screening Network

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Background: glossary of cancer screening terms and concepts

Cancer screening test

A cancer screening test is a medical test performed on a target population of asymptomatic individuals, aiming to identify those at increased likelihood of having cancer (with a 'positive' test result) from those who have a lower likelihood (with a 'negative' test result).

Importantly, certain cancer screening tests may capture pre-malignant lesions, thereby potentially contributing to reducing cancer incidence. Meanwhile, some asymptomatic cancers may go undetected due to inherent limitations of current screening methods.

Cancer screening test delivery

Delivery of a cancer screening test may take place:

- During visits to a general practitioner or health professional
- At a specialised screening centre or hospital, for more complex procedures
- At the community level, through mobile screening units or community outreach locations
- At home, through self-collection of the screening sample by the screened individual (self-collection)

Box 1: Commonly used cancer screening tests

For breast cancer screening:

- **Mammography:** medical imaging technique that uses low-dose X-rays to create detailed images of the breast
- **Breast ultrasound:** medical imagining technique used as complementary test for further evaluation of abnormalities seen on mammography
- **Supplementary MRI:** MRI is a medical imaging technique that uses powerful magnets, radio waves, and a computer to create highly detailed 3D images of organs and tissues inside the body. MRI is used as a supplementary test to mammography for women at high risk of breast cancer, including those with dense breast tissue

For cervical cancer screening:

- **Pap test:** collects cells from the cervix to look for precancerous or cancerous changes in cervical cells
- **HPV testing:** collects cells from the cervix to look for high-risk types of HPV that are known to cause cervical cancer

For colorectal cancer screening:

- Stool-based tests to detect blood using antibodies **(Fecal immunochemical test (FIT)**)
- Direct visualisation tests examining the entire colon **(colonoscopy)** or the rectum and lower colon **(flexible sigmoidoscopy)**

For prostate cancer screening:

- **Prostate-Specific Antigen (PSA) Test:** blood test that measures the level of PSA, a protein produced by the prostate. Elevated PSA levels may indicate prostate cancer and lead to further testing
- **MRI:** used as a follow-up to PSA testing to further confirm prostate cancer suspicion. Targeted prostate biopsy is applied to confirm diagnosis

For lung cancer screening:

- **Low-Dose Computed Tomography (LDCT):** uses low doses of radiation to create detailed images of the lungs, used to detect small nodules that may indicate early-stage lung cancer

Please note that this box includes the cancer screening tests referenced throughout the report, which may not correspond exactly to those recommended by European guidelines.

Cancer screening test performance

A cancer screening test may generate:

- **True positives**: people with cancer receiving a positive test result
- **True negatives**: people without cancer receiving a negative test result
- **False positives**: people without cancer receiving a positive test result
- **False negatives**: people with cancer receiving a negative screening result

The performance of a cancer screening test can therefore be assessed according to its:

- **Sensitivity**: The ability of the screening test to identify people with cancer as 'positive'
- **Specificity**: The ability of the screening test to identify people without cancer as 'negative'

Benefits and harms of cancer screening

As a medical intervention provided to a wide population of apparently healthy, asymptomatic individuals, most of whom don't have cancer, cancer screening bears both important potential benefits and harms:

Benefits:

- detecting cancer at an early or pre-cancerous stage, thereby potentially leading to reduced:
    - mortality: increasing patient survival from cancer
    - severity and morbidity: allowing for decreased impacts of the disease on the patient
    - incidence: preventing progression to a more advanced cancerous stage
- less aggressive and/or invasive treatment options, leading to improved quality of life

Harms:

- physical or psychological effects of the screening test
- consequences from false-positives: unnecessary follow-up examinations leading to potential complications, costs and anxiety for patients, as well as strains on the health system
- consequences from false negatives: not identifying cancer resulting in delayed diagnosis, and the public having decreased trust and confidence in the screening programme
- overdiagnosis: detection of cancer that would never harm the individual in their lifetime, leading to potential overtreatment and negative impacts for both patients and health systems

Cancer screening organisation

Cancer screening may be delivered through:

- An **organised cancer screening programme**: a resource-intensive public health activity including such elements as a documented policy on access to, and management of, screening, as well as systems for invitations and quality assurance
- A **population-based cancer screening programme**: a screening programme designed and managed at the central level (nationwide or regionally) to reach most of the population at risk according to the national screening policy
- A **pilot programme**: small-scale implementation of a screening programme to assess feasibility, acceptability, impact on health services, barriers and facilitators of participation
- **Opportunistic cancer screening**: screening performed outside of a population-based screening programme and without a systematic invitation mechanism, as a result of a recommendation made by a healthcare provider during a routine medical consultation, or by self-referral of individuals

Cancer screening interval

The interval between two screening rounds for each individual.

Cancer screening target population

The target population for a cancer screening programme corresponds to the total number of individuals eligible for that screening.

Eligibility conditions are typically linked to populations identified as being at high risk of developing cancer, based on age. Other criteria, such as genetic predisposition, family history or at-risk individual behaviours, are increasingly utilised to further target cancer screening efforts, as part of risk-adapted screening and following relevant clinical guidelines.

Cancer screening rate

Several rates may be used to measure the performance of cancer screening programmes:

- **Invitation rate**: the number of individuals invited to screening as a proportion of the target population for the screening test considered
- **Participation rate**: the number of individuals screened as a proportion to those invited to screening
- **Examination rate**: the number of individuals screened as a proportion of the eligible population for the screening test considered (equal to the product of the invitation rate and the participation rate)

Cancer screening rates may be reported via:

- **Programme data**: collected from national/regional cancer databases/registries
- **Survey data**: obtained from the implementation of international surveys in the given country or region

Due to their objective nature, programme data are considered the standard to assess cancer screening programmes' performance.

Cancer screening registry

A cancer screening registry is an information system (computerised or paper-based) that collects, utilises and stores cancer screening data on an individual basis for programme management and reporting. Well-functioning cancer screening registries are a key component of quality assurance systems required for cancer screening programmes.

Note: Definitions included in this glossary are adapted from the IARC CanScreen5 project and the World Health Organization (WHO) 2022 report on cancer screening.

Executive summary

Cancer screening is a key tool for the achievement of early detection of cancer, enabling best possible outcomes for cancer patients. Its evidence-based implementation is of primary importance to elevate cancer control across Europe.

Following up on the momentum created by Europe's Beating Cancer Plan and the 2022 EU Council Recommendations on cancer screening, the Time to Accelerate: for Cancer Screening campaign, led by the European Cancer Organisation, provides an overview of progress and remaining gaps in implementing cancer screening programmes across Europe.

By benchmarking national performance through the European Cancer Screening Policy Index and collecting real-life testimonies and good practices, the following **key findings** were identified:

- Despite strong EU frameworks, **implementation of organised cancer screening across Member States remains incomplete**
- **Social inequalities persist**, with access to screening still linked to income, education, and geography
- **New cancer screening programmes for prostate, lung and gastric cancers are progressing** through EU-supported pilot initiatives, which should translate into full-scale implementation across Member States
- Good practices show that **mobile screening units, self-collection kits, and culturally sensitive communication campaigns** improve cancer screening participation

Against this background, **the European Cancer Organisation calls for sustained EU and national action to ensure equitable access to early cancer detection for all, and long-term investment to secure the legacy of Europe's Beating Cancer Plan.**

Please note that the full set of campaign recommendations can be found in the 'Campaign Recommendations' section of this report, addressed to key authorities with decision-making capacity: EU Member States, Members of the European Parliament and the European Commission.

1. Ensure continuity and legacy of the EU's cancer framework post-2027

EU Member States should signal their commitment to continue Europe's Beating Cancer Plan and the EU Research Mission on Cancer and instruct the European Commission to secure this in the next Multiannual Financial Framework (MFF).

2. Embed cancer screening investment in the next Multiannual Financial Framework

The **European Parliament** and **EU Member States** should dedicate resources for cancer screening, including support for lower-capacity regions and cross-border cooperation. The new proposed 'National and Regional Partnership Plans' within the next EU multiannual financial framework should facilitate countries to make investments in high-quality screening infrastructures. Ring-fenced funding should be secured to maintain Europe's leadership in early detection of cancer and flagship initiatives such as PRAISE-U, SOLACE, TOGAS, EUCanScreen and CanScreen-ECIS should be supported.

3. Consolidate pan-European political commitment to cancer screening progress

The **European Commission** should update the 2022 Council Recommendations every five years and explore the involvement of non-EU countries. **EU Member States** should align national cancer control plans with EU goals, and develop comprehensive implementation plans covering governance, coordination, training, funding and system capacity.

4. Establish long-term best-practice sharing on cancer screening

The **European Commission** should establish a permanent EU Network of Screening Agencies, expand the EU Best Practice Portal on Public Health, and facilitate translation of best practices into national implementation through workshops, twinning and technical cooperation.

5. Strengthen monitoring systems for progress on cancer screening

The **European Commission** should commission independent implementation reports every five years and include guidance on cost-effective screening investment in the European Semester.

6. Fully deploy the potential of data for cancer screening advancement

The **European Commission** should prioritise cancer screening in the European Health Data Space, enable cross-border data access for quality assurance and research, and support Member States in strengthening health information systems and registries. **EU Member States** should establish population-based registries, ensure interoperability, collaborate with IARC through CanScreen-ECIS, and leverage data for diagnostic follow-up and care pathways.

7. Support cancer screening research

The **European Commission**, via Horizon Europe, should support research to optimise screening effectiveness and cost-effectiveness, extend risk-adapted screening, integrate AI for analysis, workflow and quality assurance, explore additional cancer screening programmes, and develop new early detection paradigms, including multi-cancer detection, biomarkers and liquid biopsy.

8. Focus attention on cancer screening quality

The **European Commission** should continue revising European guidelines and quality assurance schemes. **EU Member States** should ensure equitable access to best-in-class tests, invest in comprehensive quality systems, monitor performance, and continuously improve programmes.

9. Focus attention on cancer screening uptake

The **European Commission** should research barriers, run EU-wide campaigns, and uphold screening as a social and health right. **EU Member States** should guarantee free access to cancer screening, cover follow-up care, deploy self-collection, reach underserved groups, integrate communication strategies, capture participant experiences, and train professionals to communicate sensitively.

10. Invest in cancer early detection and diagnosis capacity

EU institutions should extend cancer screening policy to early detection of cancer more generally. The **European Commission** should support improved health literacy about early warning signs of cancer through an initiative such as creating a European Atlas of Cancer Warning Signs, taking inspiration from the success of the European Code Against Cancer. EU initiatives supporting national cancer registry improvement should provide a focus on stage-at-diagnosis reporting. **EU Member States** should map screening pathways, prioritise pathology, and strengthen early diagnosis through access, referral, and integrated care.

11. Strengthen and support the role of primary care in early detection

Building on templates created by Europe's Beating Cancer Plan, the **European Commission** should support primary care strengthening in early detection of cancer by initiatives such as the European Cancer Inequalities Registry and EU-supported training programmes. **EU Member States** should include primary care strengthening as part of cancer screening programmes' implementation plans, support the creation of multidisciplinary primary care centres and enhance integration with secondary care.

12. Promote integrated early detection across major NCDs

The **European Commission** should link the EU Cancer Screening Scheme with the Cardiovascular Health Plan and support pilots combining cancer screening with cardiovascular health checks.

Forewords

A Foreword from ECO's Prevention, Early Detection and Screening Network Co-chair, Isabel Rubio

EU cancer screening policy is one of Europe's public health success stories, showing what can be achieved when countries unite around a shared vision. Since the first EU Council Recommendations in 2003, breast cancer screening has been widely implemented across Europe, enabling hundreds of thousands of women to benefit from early detection and saving more than 20,000 lives every year. Yet, more remains to be done to allow cancer screening to reach its full potential, in line with the vision outlined in Europe's Beating Cancer Plan.

Grounded in the latest data on cancer screening across Europe, this report sets out a path for strengthening the organisation, quality, and impact of screening programmes. I urge EU and national policymakers alike to take these recommendations on board and support a long-term, coordinated EU action on cancer screening, for the benefit of all citizens.

A Foreword from ECO's Prevention, Early Detection and Screening Network Co-chair, Luis Seijo

Early detection saves lives. Detecting cancer at an early stage offers patients the best chance of successful treatment and improved quality of life. This is particularly true for lung cancer, one of Europe's most common and deadliest cancers. The updated EU Council Recommendations on cancer screening, adopted in 2022, marked a turning point by calling for the introduction of organised screening programmes for lung, prostate, and gastric cancers, in addition to the existing programmes for breast, cervical, and colorectal cancer.

However, this ambitious vision must now be matched by sustained action. Building on two decades of European collaboration in cancer screening policy, this report outlines the next steps needed to translate EU-level initiatives into effective implementation across all Member States. Together, we can make early cancer detection a reality for everyone in Europe.

1. Introduction

1.1 Cancer screening as part of early cancer detection

Early detection of cancer means identifying cancer at an initial stage, before it has grown large or spread to other parts of the body. It is a critical component of the cancer pathway and ranks among the most cost-effective strategies that health systems may implement to reduce the burden of cancer. Successful, evidence-based early cancer detection strategies allow for less progression and severity of the disease through timely access to cancer diagnosis and treatment options, thereby resulting in increased survival and quality of life for patients, and optimised use of resources for health systems.

There are two approaches for early detection:

- **screening**, which involves the systematic invitation of people who do not have symptoms (asymptomatic) in a target population identified as of higher risk of cancer, to undergo testing and detect abnormalities suggestive of cancer before symptoms appear; and,
- **early diagnosis**, which focuses on identifying cancer in individuals who are already experiencing symptoms.

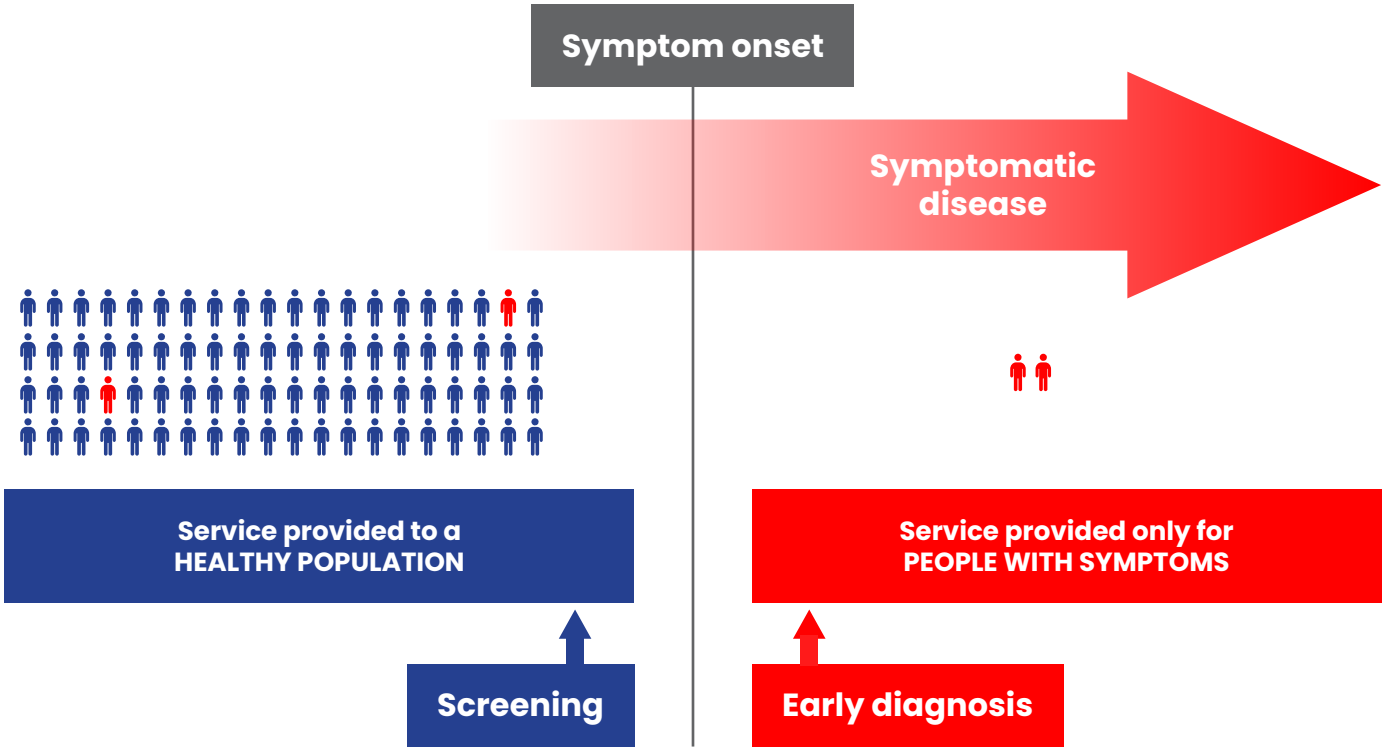


Figure 1: Comparison of screening and early diagnosis strategies (adapted from WHO Europe 'A short guide to cancer screening 2022')[1]

Sitting earlier in the cancer pathway, cancer screening allows for the detection of the disease at the least advanced stage possible, thereby maximising the benefits of early cancer detection on a wide population and greatly improving cancer outcomes. Meanwhile, early diagnosis programmes are less complex and utilise fewer resources from health systems, making them a relevant 'first-line' intervention for countries with limited resources.

Importantly, only certain types of cancer are eligible for cancer screening, and only a proportion of cases of a given cancer will be detected by screening. Therefore, in the European context, **cancer screening and early diagnosis go hand-in-hand as complementary strategies for the early detection of cancer**.

1.2 Cancer screening programmes as part of the cancer pathway

Screening may be implemented on a certain cancer type and a given population in an opportunistic fashion, through recommendation by a healthcare provider or proactive testing, or as part of an established, organised cancer screening programme in that country or region. Opportunistic screening is less effective than organised screening programmes at reducing the cancer burden and may also create a heightened burden for health systems and patients. **A cancer screening programme will only be effective if it is organised**. An international consensus was recently published on the essential criteria for an organised cancer screening programme (see Box 2).[2]

Box 2: Essential criteria for an organised cancer screening programme

1. Cancer screening programme has a protocol/guideline describing at least the target population, screening intervals, screening tests, referral pathway, and management of positive cases
2. There is a system in place for identifying the target population
3. There is a system in place for inviting eligible individuals for screening
4. Cancer screening programme has a policy framework from the health authorities defining governance structure, financing, goals and objectives of the programme
5. Performance of the screening programme should be evaluated with appropriate indicators
6. The protocol/guideline should at least describe: monitoring and evaluation
7. There is a system in place for notifying the results and informing about follow up
8. There is a system in place for sending recall notice to the non-compliant individuals
9. Auditing of the programme
10. A specified team/organisation is responsible for quality assurance/ improvement
11. Performance of the cancer screening programme is evaluated, published and widely disseminated on a regular basis
12. All activities along the screening pathway are planned, coordinated and evaluated through a quality improvement framework (quality assurance)
13. An evidence-based protocol/guideline developed in consensus with majority of stakeholders
14. An information system exists with appropriate linkages (between population databases, screening information, cancer registry, etc.) for screening implementation and evaluation
15. The screening programme has a provision of continued training for service providers
16. Performance of the screening programme should be evaluated with reference standards for the indicators

Accordingly, **a successful cancer screening programme must**:

- **Be population-based**, designed and managed to reach the population identified as at risk of the cancer in question and to ensure equitable access.
- Have a **robust implementation plan**, including:
  - A legal and governance framework
  - Leadership, coordination management including strong multidisciplinary collaboration between all relevant clinical and non-clinical professionals
  - Training of personnel
  - Health information systems such as a cancer screening registry for quality assurance and the continuous monitoring of procedures and personnel expertise
  - Adequate and sustainable funding
  - Health system capacity planning
  - Information and communication to the general population on cancer screening programme participation

Furthermore, implementing **cancer screening programmes requires all of the elements of the screening pathway to be in place**, including:

- The evidence-based identification of the population eligible for screening
- Invitation and information of eligible individuals, to be repeated according to an agreed frequency (screening interval)
- Testing using agreed methods
- Referral of individuals with a 'positive' test result for further diagnosis and reporting of 'negative' test results
- **Intervention, treatment and/or follow-up on the confirmed cancer cases**
- **Recording and reporting of outcomes to optimise the effectiveness and cost-effectiveness of the screening programme**

Finally, given the wide number of people included in a screening programme, the **benefits and harms of cancer screening must be established through robust evidence on the effectiveness and cost-effectiveness of the programme**. Benefits may indeed entail increased survival and quality of life, whilst potential harms include negative consequences from false-positive or false-negative results, overdiagnosis/overtreatment, and psychological impacts (at the individual level) and heightened resource demands (at the health system level).[1]

For these reasons, policies on screening programmes are grounded in the application of **Wilson and Jungner's criteria for responsible screening**, as established by the WHO, to assess the feasibility and effectiveness of screening programmes.[3]

Box 3: The Wilson and Jungner screening criteria

1. The condition sought should be an important health problem
2. There should be an accepted treatment for patients with recognised disease
3. Facilities for diagnosis and treatment should be available
4. There should be a recognisable latent or early symptomatic stage.
5. There should be a suitable test or examination
6. The test should be acceptable to the population
7. The natural history of the condition, including development from latent to declared disease, should be adequately understood
8. There should be an agreed policy on whom to treat as patients
9. The cost of case-finding (including diagnosis and treatment of patients diagnosed) should be economically balanced in relation to possible expenditure on medical care as a whole
10. Case-finding should be a continuing process and not a 'once and for all' project

1.3 Cancer screening as part of EU cancer action: policy context

Effective cancer screening policies in Europe are of increasing importance as the continent faces a growing cancer burden driven by an ageing population.

In this context, it is one of the four core pillars of Europe's Beating Cancer Plan, through the setup of an **EU Cancer Screening Scheme**. In December 2022, the Council of the European Union adopted a new recommendation on cancer screening, calling EU Member States to:

1. Continue and improve the implementation of previously recommended screening programmes on **breast, cervical** and **colorectal** cancer, by the EU Cancer Screening Scheme, so that 90% of the eligible population for these programmes is offered screening.
2. Explore the feasibility of implementing **lung, prostate** and **gastric** cancer screening programmes.

Table 1: Summary of EU Council Recommendations on Cancer Screening, December 2022[4]

Cancer-type	Target population	Type of test
Breast	• Women 50–69 years • Women 45–74 (lower and upper age suggested)	Mammography. Use digital mammography or digital breast tomosynthesis, and consider MRI for women with dense breasts
Cervical	Women 30–65 years	HPV testing
Colorectal	People 50–74 years	Quantitative faecal immunochemical testing (FIT), follow-up colonoscopy. Endoscopy may be adopted as a primary tool to implement combined strategies
Lung	50–75 (Current heavy smokers and ex-smokers)	Low-dose computed tomography (LDCT)
Prostate	Men up to 70	Prostate-specific antigen (PSA) testing, MRI as follow-up
Gastric	High incidence regions	Screening for Helicobacter pylori

In support to these Council Recommendations come a number of EU-supported initiatives:

Guidelines and quality assurance schemes developed by the European Commission Initiatives on Cancer Screening and Care (as detailed in **box 4**)

EU support to projects focused on piloting new screening programmes, collaboration between EU Member States, and an improvement of cancer screening data (as detailed in **box 5**)

However, translating these recommendations into actionable policies and practices across countries remains a complex challenge, as reflected in the **Cancer Screening Policy Index 2024**, which will also be analysed in this report.

Box 4: European Commission Initiatives on Cancer: Guidelines and quality assurance (QA) schemes

The **European Commission Directorate General for Health and Food Safety (DG SANTE)** and **Joint Research Centre (JRC)** have established the European Commission Initiative on Breast Cancer (ECIBC), European Commission Initiative on Cervical Cancer (EC-CvC) and the European Commission Initiative on Colorectal Cancer (ECICC). Within the framework of each of these initiatives, evidence-based guidelines on cancer prevention, screening and diagnosis are developed, alongside European quality assurance (QA) schemes covering the entire care pathway from screening until end-of live care that translate guidelines into structured sets of operational quality requirements for cancer services.

In response to the updated Council Recommendation of 2022, which expanded screening recommendations to include lung, prostate, and gastric cancers, the European Commission is currently setting up working groups for the Initiatives on Lung Cancer (EC-LuC) and Gastric Cancer (EC-GaC), and will shortly commence with Prostate Cancer (EC-PrC) aiming the development of the European guidelines and the QA schemes.

The evidence-based, up-to-date European guidelines and quality assurance schemes are considered in the Council Recommendation of 2022 as essential instruments to ensure that screening programmes implemented in the EU are timely, cost-effective, fully operational and quality proofed.

Currently, updated European guidelines for breast cancer screening and diagnosis are available and the first European QA scheme for breast care services has been published.. Moreover, the first recommendations for colorectal and cervical cancer screening were issued.

The key updates from these recent European guidelines issued by the above-mentioned Initiatives, as compared to the 2022 Council Recommendation are:

For breast cancer screening:

- For asymptomatic women with an average risk of breast cancer: suggesting using digital breast tomosynthesis over digital mammography in the context of an organised population-based screening programme.[5]
- For asymptomatic women with high mammographic breast density and a negative mammography: acknowledging the potential role of MRI but emphasise that more evidence is needed to fully establish its benefits, harms, and cost-effectiveness.[6]

For cervical cancer screening:

- The recent European guidelines suggest using HPV detection test starting at 25 years of age as primary screening test in asymptomatic populations with cervix. This is to be compared with HPV detection test starting at 30 years of age, as currently recommended in the EU Council recommendations, in the context of an organised population-based screening programme.[7]

Box 5: EU-funded initiatives supporting Member States in implementing updated screening recommendations

PRAISE-U: aiming to reduce prostate cancer mortality by developing and piloting a risk-stratified, personalised screening programmes.

SOLACE: aiming to implement and optimise lung cancer screening programs using low-dose computed tomography (LDCT).

TOGAS: aiming to assess gastric cancer screening feasibility in high-incidence areas.

EUCanScreen: a Joint Action aiming to assure sustainable implementation of high-quality screening for breast, cervical and colorectal cancers, as well as implementation of the recently recommended screening programmes – for lung, prostate and gastric cancers.

CanScreen-ECIS: aiming to develop and pilot a new cancer screening data management system to be integrated into the existing European Cancer Information System (ECIS).

Finally, the **5th European Code Against Cancer** (ECAC), published by IARC in October 2025, also further contributes to EU policy momentum on cancer screening.

Developed under Europe's Beating Cancer Plan and commissioned by the European Commission, the Code outlines **14 recommendations to the general population in the EU on ways to help prevent cancer,** based on current scientific evidence regarding personal behavioural factors, environmental factors, and medical interventions.

Similar to previous editions, the Code includes a recommendation on participation in cancer screening programmes. In this respect, a **key update was the inclusion of lung cancer screening as an officially recommended programme, alongside breast, colorectal and cervical screening**.[8]

Organised cancer screening programmes

Take part in organised cancer screening programmes, as recommended in your country, for:

- **bowel cancer**
- **breast cancer**
- **cervical cancer**
- **lung cancer**

1.4 Time to Accelerate for Cancer Screening

In this context, the **Time to Accelerate for Cancer Screening campaign** was launched at the 2023 European Cancer Summit, with the aim to join forces with cancer experts and partner organisations to document the state of cancer screening implementation across Europe and formulate a series of best practices for each one of the six cancers covered by the updated Council Recommendation.

The campaign has been established to **help ensure that all EU member countries play their role in delivering the shared commitments represented by the Council Recommendations on cancer screening**, and that all citizens in the EU benefit from the best policies for early detection of cancer. However, the challenges are multiple and complex. Implementing and updating national screening strategies requires the support of civil society, the involvement of experts and healthcare professionals and public authorities to monitor developments and secure progress.

The campaign followed three main objectives:

1. **Benchmarking national progress on implementing cancer screening, through the development of the European Cancer Screening Policy Index**

This exercise has involved international experts representing leading projects, societies and patient groups in the field, to put together a clear and concise index on the implementation of national cancer screening policies that tracks the current state of cancer screening in Europe to support policymakers and track progress.

2. **Learning from national experiences and humanising the topic of cancer screening, through the collection of good practices and testimonials from health experts and patient advocates**

This reflects input from healthcare professionals currently involved in breast, cervical, colorectal, lung, prostate and gastric cancer screening, indicating how the current practice of performing these screenings can be improved, made more inclusive, effective and efficient. These powerful narratives were essential to understanding the challenges that healthcare professionals face every day. In addition, the personal testimonials of cancer patients drew attention to the significant impact of their experiences with cancer screening and early diagnosis on their overall care pathway, as well as opportunities that were missed in that regard. These powerful stories show us that the daily challenges faced by citizens and patients for early cancer detection are many and systemic changes are still required to ensure universal access to the earliest cancer detection possible.

3. **Facilitating consensus-building with all stakeholders to outline policy recommendations**

Finally, ECO has been working to align national screening plans and support EU efforts to implement cancer screening as defined by Europe's Beating Cancer Plan. As a result, the Time to Accelerate for Cancer Screening campaign has continued the good practice of creating dialogue with national and European policymakers and acting as a facilitator to create synergies where possible and establish uniform policy recommendations. This included a series of country visits aimed at supporting national progress in cancer screening policy.

2. Campaign results

2.1. The European Cancer Screening Policy Index: revealing progress and gaps in cancer screening organisation

The European Cancer Screening Policy Index[9] represents a new impactful tool to benchmark national policy progress

The **European Cancer Screening Policy Index** is a benchmarking tool designed to **track** and **compare national progress** in **implementing cancer screening policies**. Its composite scores include factors such as:

- The inclusion of cancer screening in national cancer plans
- The existence of cancer screening registries
- The presence of organised cancer screening programmes and alignment with European guidelines when it comes to target population, screening interval and type of test provided
- Differences in cancer screening participation according to social determinants (education, income and rural/urban differences)

By highlighting differences between countries, the Index provides a clear picture of where improvements are needed. It supports the objectives of Europe's Beating Cancer Plan, particularly the ambition to expand access to effective screening and has already begun to inform national strategies and policy discussions.

The Index was launched at the European Cancer Summit in November 2024. Since then, its usefulness has been demonstrated through its uptake at the national level, use by advocacy groups and professional organisations and influence on related policy discussions. Regular updates to the Index will be conducted to ensure its continuous relevance in supporting national translation of EU cancer screening policy ambitions.

For more information on the methodology and sources used to develop the Index, please refer to **Annex 2**.

The Index reveals the persistent extent of the discrepancies between European countries on cancer screening policy implementation

The Index highlights **significant differences in how European countries implement cancer screening policies**. Results show a clear divide: countries either score below 50% or above 60%, with no country in the mid-range. For example, Bulgaria and Romania have the lowest scores in the EU, 26,1% and 34,7%, respectively, which could be related to the absence of population-based cancer screening programmes. In contrast, most other EU countries have established such programmes, contributing to higher scores. This pattern highlights an ongoing asymmetry in screening efforts across Europe, with some countries still in the early stages of implementing structured programs. Lower national scores point to areas where additional support, capacity-building and resource allocation can help strengthen screening efforts.

Table 2: Overall country scores from the European Cancer Screening Policy Index

0–50%	Bulgaria: 26,1%	Romania: 34,7%	Greece: 44,8%	
50–60%	None			
60–70%	Cyprus: 63,6%	Latvia: 63,6%	Slovakia: 68,0%	Luxembourg: 68,5%
	Austria: 68,7%	Poland; 69,4%		
70–80%	Lithuania: 72,7%	Hungary: 73,5%	Iceland: 76,8%	Belgium: 78,3%
	Estonia: 79,9%			
80–90%	Italy: 80,5%	Malta: 80,9%	Croatia: 81,7%	Germany: 83,6%
	Spain: 84,0%	Ireland: 84,3%	The Netherlands: 85,6%	Sweden: 85,7%
	Finland: 86,1%	France: 86,6%	Czechia: 87,1%	Denmark: 87,1%
	Norway: 88,6%			
90–100%	Portugal: 90,8%	Slovenia: 91,2%		

These discrepancies can be explained by a range of factors including unequal implementation of organised cancer screening programmes and differential levels of social inequalities in cancer screening access, as detailed below. It is also critical to highlight the large-ranging differences that are still being observed in coverage rates achieved by cancer screening programmes, ranging from 9% to 83% for breast cancer screening, 12% to 85% for cervical cancer screening, and 3% to 79% for colorectal cancer screening.

Organised cancer screening programmes are still not uniformly implemented in Europe

The Index shows that organised, population-based cancer screening programmes are still not consistently implemented across Europe. Despite the 2003 EU Council recommendation promoting organised, population-based screening for breast, cervical, and colorectal cancers, some countries have yet to fully adopt this approach. Bulgaria, Lithuania, and Romania are the only Member States without population-based programmes covering all three cancer types.

However, **some countries that still rely on opportunistic screening**, such as Lithuania, are considering a transition to organised, population-based programmes. In this respect, a national pilot was launched in 2023 for breast, cervical and colorectal cancer screening in Lithuania. By the end of the project, Lithuania plans to fully transition to a nationwide and centralised model.

Table 3 – Countries without nationwide organised population-based screening programmes

Country	For breast cancer	For cervical cancer	For colorectal cancer
Austria		X	X
Brussels region in Belgium		X	
Bulgaria	X	X	X
Cyprus		X	
Greece		X	X
Latvia			X
Lithuania	X	X	X
Luxembourg		X	
Romania	X	X	X

Cancer screening programmes are differentially affected by country-to-country differences

The index highlights disparities across Europe in the implementation of cancer screening programmes, with cervical and colorectal screening facing greater challenges than breast screening. While Romania records the lowest breast cancer screening score at 35%, the gaps are far more severe for cervical and colorectal programmes: Luxembourg reports just 5,2% for cervical cancer screening and Bulgaria only 0,7% for colorectal screening.

These differences could partially be explained by the nature of the procedures. Mammography is relatively quick, externally performed, and has been established for longer, giving countries more time to build trust and refine delivery systems. In contrast, cervical smears[10] and colonoscopies[11] are perceived as more intrusive and uncomfortable, creating cultural, psychological, and societal barriers to participation. Factors such as stigma, limited awareness, and anxiety about both the procedure and the possibility of a diagnosis further reduce uptake. These perceptions are influenced by a variety of factors, including social norms, stigma, limited awareness and anxiety about both the procedure and the possibility of a diagnosis.

Programme timing also plays a role. Breast cancer screening initiatives were introduced earlier in many European countries, allowing more time to build public trust, improve systems, and overcome initial barriers. In contrast, cervical and colorectal programmes are often newer and still confronting implementation and acceptance hurdles.

Older cancer screening programmes tend to perform better, but some countries have progressed faster than others

As detailed in **Annex 3**, when exploring the **relationship between national performance scores of individual screening programmes** and their **year of initiation**, the findings suggest, as expected, that **earlier implementation is often associated with better performance**.

For **cervical cancer,** countries that launched programmes earlier tend to perform better today. Finland and Sweden, which began screening in the 1960s, are among the top performers, while countries with more recent implementation, like Romania, lag behind. This reflects the importance of time in building up systems, promoting participation, and overcoming barriers. A similar, though less consistent, trend appears in **breast cancer** screening. Countries like Sweden, which introduced screening in the 1980s, achieve higher scores than those that started more recently. In contrast, for **colorectal cancer**, there is no clear link between the start date and performance. This could be since colorectal screening is generally newer across Europe and faces greater cultural and procedural challenges.

It is also interesting to examine cases where more recently implemented programmes are already outperforming some of the older ones, as in the case of **Austria's breast cancer screening**. Austria achieved a relatively high-performance score despite introducing its organised programme only in 2014, later than many other countries. This success likely reflects a combination of strong healthcare infrastructure, high population coverage, good health literacy and the ability to leverage lessons learned from other European

programmes to implement best practices rapidly. The programme also benefits from using well-established extramural radiology institutes, ensuring accessibility and minimal travel distances for women, which contributes to consistent participation across urban and rural areas. The programme is run centrally by the Austrian Breast Cancer Early Detection Programme, and funded by the federal government, the provinces and the social insurance fund.[12]

On the other hand, there are examples of countries with well-established screening programmes that are underperforming. For instance, Italy introduced organised cancer screening in 1989 yet currently reports a moderate performance score. This outcome reflects deep-rooted challenges such as regional disparities with stronger screening coverage in the north than in the south, fragmented programme implementation and low participation levels in certain areas.[13]

Unorganised cancer screening means higher inequality

Unorganised cancer screening is associated with higher levels of social inequality in access to care. This is clearly seen in Bulgaria and Romania, which have the lowest equity scores (below 21%) among all countries studied. Notably, these are two of the three countries that lack organised screening programmes for all three cancer types. This pattern highlights how the absence of structured, nationwide screening systems can lead to unequal access, particularly affecting disadvantaged groups.

Table 4 – Five countries with the highest levels of social inequalities in cancer screening access

Country	Social inequalities performance score
Bulgaria	19,5%
Romania	20,5%
Cyprus	65,6%
Poland	68,6%
Greece	69,3%

In practice, this means for instance that:

- In **Bulgaria**, for breast cancer screening, 46,5% of women with lower education report never having been screened, compared with only 10,5% among women with higher education.[14]
- In **Romania**, for cervical cancer screening, 35,5% of women living in urban areas report never having been screened, while in rural areas this figure rises to 57,3%.[15]

Screening gaps across Europe: lessons from the highest and lowest performers

Table 5 – Highest and lowest performers European Cancer Screening Policy Index

Country	Score
Bulgaria	19,5%
Romania	20,5%
Portugal	90,8%
Slovenia	91,2%

Bulgaria

Bulgaria faces ongoing difficulties with cancer screening, standing out in the EU for its lack of organised and population-wide screening for breast, colorectal and cervical cancers. As a result, participation in screening remains among the lowest in Europe. However, it is important to highlight that the country's National Cancer Plan 2021–2027[16] sets out the ambition to launch population-based screening for these three cancer types, together with prostate cancer. An example of cancer screening practices in the country that are not being fully aligned with EU recommendations is on cervical cancer, where the Pap test is still used instead of the HPV DNA test recommended for its higher sensitivity and specificity.

Romania

Similarly to Bulgaria, Romania does not yet have fully implemented, nationwide cancer screening programmes; most current activities are fragmented into pilot projects, with participation rates remaining low. It is worth highlighting, however, that plans for revising cervical cancer screening include the introduction of primary HPV testing, a strategy that aligns with European recommendations and represents a positive development for future screening efforts.

Portugal

Portugal provides nationwide screening programmes for breast, cervical, and colorectal cancers, which have contributed to the country's strong performance. One of the keys to the success of these programmes in Portugal is the high level of public trust in healthcare professionals as well as the central role of primary care services and the Portuguese Cancer League (in a public-private partnership) that help increase geographical coverage, awareness and participation

The current proposal of the National Cancer Control Strategy for 2021–2030 aims to expand access to cancer screening programmes, implement new screening programmes, and identify and certify healthcare units capable of providing an integrated and effective response.[17]

Slovenia

Slovenia is the top performer, with centrally managed, population-based screening programmes for cervical, colorectal and breast cancer. All three are aligned with European quality guidelines and are fully covered by social health insurance.
The cervical cancer screening programme (ZORA) and the breast cancer screening programme (DORA) are managed by the *Institute of Oncology Ljubljana*, while the colorectal cancer screening programme (Svit) is overseen by the *National Institute of Public Health*.[18]
All programmes consistently achieve high participation rates each year, with this centralised management approach playing a key role in the country's success in cancer prevention and early diagnosis.

New cancer screening programmes: steady but unequal progress on implementing prostate, lung and gastric cancer screening

Following the 2022 Council Recommendations, which expanded the scope of the organised cancer screening beyond breast, cervical and colorectal cancers, progress has been steady but remains uneven across Member States. EU4Health projects **PRAISE-U, SOLACE** and **TOGAS** are playing a key role in supporting this transition by supporting pilots in multiple countries, there by generating evidence and helping prepare for wider roll-out.

For **prostate cancer**, several countries have screening pilots ongoing, including those supported by the PRAISE-U project in Spain, Poland, Lithuania and Ireland, which are piloting or rolling out organised screening based on PSA testing combined with risk-stratification tools. This represents a shift away from opportunistic testing, yet full nationwide programmes remain limited. Key challenges include balancing potential mortality reduction with the risks of overdiagnosis and overtreatment, as well as ensuring cost-effective implementation.

For **lung cancer**, strong evidence demonstrates that low-dose CT (LDCT) screening reduces lung cancer mortality among high-risk groups, particularly heavy current and former smokers. A number of countries, including Croatia, Czechia, Poland and the UK, have already launched programmes, and Germany will begin national roll-out. Several countries have lung cancer screening pilots ongoing, including those supported by the SOLACE project in Croatia, Czechia, Estonia, France, Germany, Greece, Hungary, Ireland, Italy, Poland and Spain to assess feasibility and integration with national healthcare systems.

For **gastric cancer**, pilots are underway, supported by the TOGAS project in Slovenia, Ireland, Latvia, Poland, Croatia, Romania, France, Germany, the Netherlands, Portugal, Lithuania and Spain, assessing potential population-based Helicobacter pylori test-and-treat programmes and endoscopic screening for high-risk groups, while also evaluating cost-effectiveness and ethical considerations.

2.2. Screening testimonies and good practices: highlighting challenges and opportunities in cancer screening programmes' performance

Beyond their level of organisation, there are two critical challenges in the performance of cancer screening programmes:

- **Achieving high and equitable levels of participation by their target population**
- **Ensuring optimal quality in their delivery**

Screening experiences and good practices collected through the Time To Accelerate for cancer screening campaign shine a light on the relevance of these challenges across Europe, as well as on opportunities to overcome them.

2.2.1 Screening experiences: real-life inequalities and quality issues

2.2.1.1 Overall results

The campaign collected a total of **141 testimonies from patients and citizens with lived experiences of cancer screening**. They highlight key challenges related to **income inequality**, **geographic location**, and, in the case of breast cancer, **breast density**, which impact early diagnosis and treatment options.

Many respondents who could afford private care avoided potentially fatal delays, while some of those relying on public healthcare experienced life-threatening waits. Rural residents face further barriers with limited access to screening. Most notably, the vast number of testimonials about dense breast tissue underscores gaps in cancer detection, with many tumours remaining hidden in standard mammograms.

2.2.1.2 Income Inequalities

Several participants shared stories of being able to afford private healthcare, which saved their lives. One respondent noticed her nipple turning inwards and sought immediate care, but the public health system doctor dismissed the issue as non-urgent. She could afford to seek private treatment, where she insisted on a specific ultrasound angle where she felt discomfort, revealing a large tumour, 2 mm from the chest wall. Another respondent, unable to get quick action from the public health system due to a low PSA score, chose to pay for a private prostatectomy and received prompt treatment. **These examples show that wealthier individuals can access quicker, life-saving diagnostics**, while **others face delays in public health systems**, potentially **worsening outcomes**.

2.2.1.3 Accessibility (Urban vs. Rural)

A **stark divide exists between those living in urban and rural areas** when it comes to **screening access**. Some participants, especially those in **rural areas, faced significant barriers**, needing to **travel long distances or take expensive trips to reach screening facilities**. One respondent from a rural area had to advocate for BRCA (BReast CAncer gene) testing based on her family history after being denied locally. It wasn't until she transferred to an urban centre, where she received better care, that she was found to be BRCA2 positive. Meanwhile, mobile screening initiatives in urban settings are proving to be successful, with one respondent noting how convenient and accessible it was to get screened in a supermarket car park. This approach could help increase screening uptake, particularly for people who may have missed screening appointments due to travel difficulties or conflicting commitments.

2.2.1.4 Breast cancer detection challenges for women with dense breasts

A large number of responses reported **problems with dense breast tissue**, a condition that **significantly complicates cancer detection**. A striking number of respondents stated that mammograms, the standard screening tool, repeatedly failed to detect tumours in dense breasts. One participant had routine mammograms for eight years before an MRI finally revealed cancer in both breasts – lobular cancer in one and ductal cancer in the other. Another respondent had a 'clear' mammogram, only to be diagnosed a year later with Stage 4 metastatic invasive lobular carcinoma (ILC). Respondents expressed frustration at the limitations of mammograms for dense breasts and called for the use of MRIs, which, although more expensive, could detect cancer at earlier stages. Others found mammography to be uncomfortable and woman-unfriendly, suggesting that the compression of breasts between plates could be unpleasant and advocating for more comfortable approaches to cancer detection.

'I had a mastectomy in 2021 at the age of 56. Since I was 40, I had been seeing a private breast consultant due to an inverted nipple and my mother's history of breast cancer. Despite regular mammograms, my lobular cancer was only discovered at age 56 through a breast check mammogram. After my mastectomy, I reviewed my medical records and discovered I had dense breasts, which I wasn't informed about. Dense breast tissue can mask cancer, and I feel let down by my consultant for not offering additional imaging over the years. Had I known about my dense breast tissue and lobular cancer risk, more could have been done earlier.' – Breast cancer survivor, Ireland

A selection of testimonials is publicly available here.

Box 6: Dense breast tissues and breast cancer screening

Breasts contain glandular tissue, fibrous connective tissue and fatty breast tissue. Breast density is a term that describes the relative amount of these different types of breast tissue as seen on a mammogram. **Dense breast** tissue has relatively high amounts of glandular tissue and fibrous connective tissue and relatively low amounts of fatty breast tissue.[19]

Because both dense tissue and tumours appear white on mammograms, it can be challenging to differentiate between the two, increasing the risk of missing abnormalities, which may lead to a higher chance of false-negative results.[20]

In light of this, the 2022 Council Recommendations on Cancer Screening advise that MRI should be considered for women with extremely dense breasts as a supplementary test to standard mammography. This reflected previous calls made by the European Society of Breast Imaging (EUSOBI) for a screening breast MRI being offered to women aged 50 to 70 years with extremely dense breasts every two to four years.[21]

As discussed in **Box 4**, while recent European guidelines acknowledge the potential role of MRI screening for asymptomatic women with dense breasts and a negative mammogram, they emphasise that more evidence is needed to fully establish its benefits, harms, and cost-effectiveness.

2.2.2 Good practices: success stories in addressing cancer screening participation

2.2.2.1 Overall results

There is a range of available information in the literature regarding **successful interventions to boost cancer screening participation**. These include[22, 23, 24, 25]:

- Adjusting practices for invitations and reminders to targeted participants for cancer screening programmes
- Collaborating with primary care professionals in conveying information about cancer screening
- Focusing specific attention on individuals and communities not participating in screening programmes
- Navigation interventions and other targeted outreach activities
- Providing alternative, better accepted, cancer screening tests

Among the wide range of good practices submitted to ECO and included on the ECO website, three themes of such interventions came across most strongly:

- **The use of mobile screening units**;
- **Self-collection testing**
- **Awareness campaigns and communication to encourage participation in cancer screening** – including communication before, during and after screening tests

2.2.2.2 Meeting the screening uptake challenge: Mobile screening units

Mobile Screening Units: the good practice explained

Mobile screening units provide an alternative route to the delivery of cancer screening, outside of hospitals and other fixed clinical sites. They may take the form of vans, recreational vehicles, or other traveling clinics that are staffed by health workers and outfitted with equipment for early detection.

Mobile screening units have been implemented in multiple countries over the last decades. Their use addresses several challenges for cancer screening participation, including the lack of infrastructure in underserved areas, high distances and travel times to clinical sites. Studies have shown their impact in raising cancer screening rates among underserved populations, by taking services directly into the heart of communities. [26, 27,28]

Mobile Screening Units: examples and success stories

Throughout the good practice collection exercise, several impactful examples of the deployment of mobile screening units have been collected:

- **ThisVanCan**: a collaboration between Greater Manchester Cancer Alliance and The Christie NHS Foundation Trust, uses a mobile health clinic to enhance prostate cancer awareness and screening among men over 45, thanks to which over 600 men underwent PSA blood tests, with 80% of scheduled appointments completed on board the mobile unit[29]
- A **mobile mammography unit in Greece** was deployed by the Hellenic Cancer Society (HCS) and the Central Union of Hellenic Municipalities (KEDE) to provide free preventive mammograms to women across various regions, particularly targeting those from vulnerable social groups, such as the long-term unemployed and those facing financial hardships[30]

In addition, the ongoing **SOLACE EU4Health project**, focused on lung cancer screening, has also focused on access to screening for remote communities, including by providing transportation to screening facilities or using mobile screening units.[31]

Also, the **PRAISE-U EU4Health** project has used the 'Urobus' to reach participants in remote rural and mining communities to perform the first step of the screening algorithm (the PSA test).[32]

Finally, a mobile unit was also used to raise awareness on liver screening, which is presently out of the scope of the EU recommendations on cancer screening. As part of the European Liver Screening Week 2024 organised by the European Liver Patient Association (ELPA) together with its members from France (SOS hepatitis) and the UK (Liver4Life), a van was parked in front of the European Parliament, providing free liver health checks, educational materials and a liver health questionnaire.

Mobile Screening Units: reflections and way forward

Altogether, these initiatives exemplify the potential of mobile screening units to help screening programmes reach underserved and remote populations, including rural and low-income communities. They constitute one of the several targeted outreach activities that may be conducted for that purpose, along with patient navigation as another example.

In order for them to effectively address cancer screening inequalities, such outreach activities should be tailored to their target population and run in a culturally-sensitive fashion. They should be designed in collaboration with local stakeholders and community representatives and address relevant barriers to their access to cancer screening, including cancer stigma and concerns about the consequences of a cancer diagnosis. Crucially, the effectiveness and cost-effectiveness of these interventions should be established, and seamless continuity of care should be guaranteed for those receiving a positive screening test result. In the latter regard, particular attention should be paid to the financial barriers to access to care and the emotional impact of the cancer experience, of particular relevance in low-income populations.

'In previous years, I had to travel to the next town for breast cancer screening, which meant an expensive taxi ride and a significant time commitment. Recently, I had a screening in a mobile unit located in a supermarket car park, and it was simple, quick, and within walking distance from my house. The latest equipment was used. I believe this will increase screening uptake for those who may not have been able to travel to the next town.'
– Breast cancer patient, UK

2.2.2.3 Meeting the screening uptake challenge: Self-collection

Self-collection: the good practice explained

Self-collection, corresponding to the self-collection of the screening sample by the screened individual, provides an alternative to the delivery of cancer screening tests at a healthcare facility. It is relevant to address barriers that some individuals or groups may face in accessing standard facilities, because they live in countries or remote areas with fewer provisions, or have a disability, or where there are cultural barriers or previous traumatic experiences.[33]

Self-collection is presently possible for:

- **Cervical cancer screening**, through **HPV self-sampling**, whereby people with a cervix may collect the cervical sample required for HPV testing[34]
- **Colorectal cancer screening,** through faecal immunochemical test (FIT), whereby people may collect a stool sample at home and mail it to a laboratory for analysis

In both cases, self-collection relies on the use of self-collection kits, that may either be provided at a clinic or directly delivered to eligible people at their homes. Studies indicate a positive impact of self-collection kits on cancer screening participation, best achieved when distributing kits to everyone (send-to-all) than relying on people to opt in, and coupling kits with easy-to-understand information.[35, 36]

Self-collection: examples and success stories

Two countries come up as examples where the deployment of HPV self sampling has shown a particularly positive impact on cervical cancer screening participation:

- **In Denmark**, the Copenhagen Initiative for Self-collection reached almost 24,000 previously non-participating women, addressing known barriers for cervical cancer screening participation in the country, including embarrassment, logistical obstacles, or the belief that screening is unnecessary[37]
- **In Sweden**, evidence from a randomised trial of over 10,000 women showed that self-collection achieved participation rates of 34.1% among long-term non-attenders—well above Pap smear uptake.[38] This followed the implementation of self-collection into the national cervical cancer screening programme in order to ensure its continuity during the COVID-19 pandemic; building on this, Sweden formally regulated self-collection as a routine option in 2022.

In both cases, self-collection was coupled with HPV genotyping, allowing clinicians to directly identify high-risk types of HPV, there-by reducing unnecessary follow-up examinations and enabling a precise, efficient, and patient-centred programme.[30]

Self-collection: reflections and way forward

The two above country examples provide practical cases of how self-collection can successfully address some of the challenges to cancer screening uptake. Accordingly, self-collection is now recommended for implementation by the European Guidelines on Colorectal and Cervical Cancer produced by the Joint Research Centre (JRC) of the European Commission as a strategy to improve equity in cancer screening.[39,40]

Its evidence-based implementation may therefore form an important component of fully functional cervical and colorectal cancer screening programmes. This should pay particular attention to:

- Prioritising groups with low screening rates out of cultural, religious, physical or geographical barriers to access screening
- Addressing the known challenges of higher rates of abnormal results from self-collection and loss to follow-up after testing, through robust referral pathways

'I haven't had a cancer detectable through screenings, but I firmly believe cancer screenings are crucial, especially cervical cancer screening. Cervical cancer can be prevented if women participate in screenings and take the HPV vaccine. However, in Finland, a new issue has emerged. The cervical cancer screening invitation letter no longer includes a date and time for the screening; women must now book the appointment themselves. This change could lead to fewer women attending screenings, as booking might seem too difficult or time-consuming. When a specific time and date are provided, women are more likely to write it down and go. This change could result in more cervical cancer cases, which is concerning.' – Cervical cancer, Finland

2.2.2.4 Meeting the screening uptake challenge: Awareness and communication campaigns

Awareness and communication campaigns: the good practice explained

Public awareness and communication campaigns are of particular relevance to elevating cancer screening participation, as part of the interventions addressing low levels of health literacy, which are an independent predictor of cancer screening participation rates.[41] Many citizens lack knowledge about the benefits of early detection, underestimate their personal risk, or feel anxiety about the procedures involved.

The European Code Against Cancer forms an important evidence base for these efforts. Developed since 1987 by the International Agency for Research on Cancer with support from the European Commission, the Code consists of twelve recommendations to the public on actions that individual citizens may take to help prevent cancer, including participation in recommended cancer screening programmes. The Code recommendations are based on a thorough expert review of available literature and evidence and a fifth edition is expected for publication in 2025.[42]

Awareness and communication campaigns: examples and success stories

The following initiatives have been brought to the attention of the European Cancer Organisation as part of the Time To Accelerate for Cancer Screening campaign:

- The use of **Facebook to boost colorectal cancer screening participation in deprived urban areas of France**: during this feasibility study conducted over two months, social media messages reached nearly 40,000 people, 4,000 of whom logged on to learn more about the screening programme. It was estimated that the full deployment of this approach might lead to 2,000–4,500 eligible participants taking a screening test, accounting for up to 11% of the local screening activity.[43]
- The 'Fofi Gennimata' breast cancer screening programme in Greece, where SMS notifications were sent to over 500,000 newly eligible participants aged 45–49 and 70–74, inviting them for free digital mammography screening tests.[44]
- The **PrEvCan campaign**, launched in 2022 by the European Oncology Nursing Society (EONS) in partnership with the European Society for Medical Oncology (ESMO) as a coordinated awareness effort on the recommendations from the European Code Against Cancer, including participation in cancer screening programmes.[45] The campaign had the support of more than 60 partner organisations and provided multilingual resources, community outreach, and cross-sector collaboration to extend its reach.

Awareness and communication campaigns: reflections and ways forward

Information and communication account for the core workstreams of organised cancer screening programmes according to international standards.1 Collected good practices exemplify the value of public awareness and communication campaigns for that purpose.

Importantly, information included in these campaigns should be evidence-based and unbiased, so people can make an informed decision on their participation in cancer screening programmes. Messaging and channels used should be tailored to the target populations envisioned, including their cultural or health literacy barriers to participating in screening, such as cancer fear and stigma. Multicomponent strategies are of particular relevance to reach multiple populations with messages on cancer screening uptake; collaboration with adequately trained healthcare professionals and community leaders is also important for their delivery.

Box 7: The case for equal access to cancer screening and early detection for all women

The ECO *Women and Cancer* policy paper highlights how gender norms and domestic responsibilities often lead women to delay or forego their own healthcare, including participation in screening.

This contributes to late diagnosis of breast and cervical cancers, which remain among the most common cancers in women, with global screening rates still worryingly low—just 54% of women have ever had a mammogram and fewer than 30% a cervical test in the past three years.

Barriers such as cost, lack of awareness, and limited infrastructure are compounded by education gaps, underscoring the need for **targeted awareness campaigns** that reach women early, leverage civil society, and prioritise accessible, culturally sensitive information to improve screening uptake.

'Cancer screening can save lives. I went for a mammogram and was diagnosed with early-stage breast cancer. Treat your mammography once a year as a very important date. Do not miss out. The earlier the tumour is detected, the better the outcome.' – Citizen testimony, Germany

The ECO good practice portal on cancer screening is available here. Further submissions of good practices are welcome on an ongoing basis.

2.3 Country visits: deploying cancer screening data intelligence for national policy impact

The organisation and implementation of cancer screening programmes remains a national competence in the EU. Beyond sustaining EU policy momentum, national policy outreach is therefore critical to drive cancer screening progress in the current context.

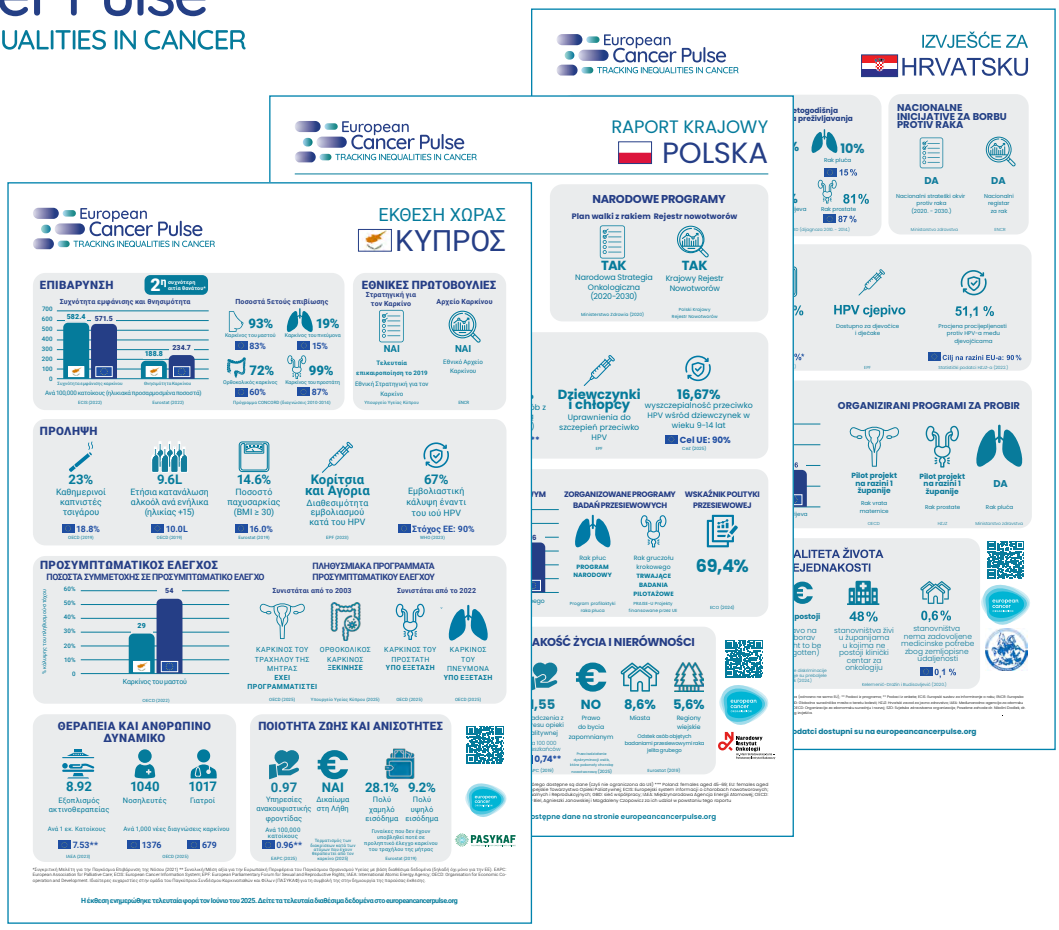
On this basis, the Time To Accelerate for Cancer Screening campaign supported a series of 11 country visits throughout 2024 and 2025, organised as national policy events bringing together key cancer community stakeholders and decision-makers from the country. Each visit featured the launch of a European Cancer Pulse **Country Report**, as a one-page infographics of key country-specific data on the national cancer policy status as compared to European average values. Each Country Report included the latest available information on cancer screening policy advancement, including:

- **Coverage rates** from organised cancer screening programmes (breast, cervical and colorectal cancer)
- **Implementation status** and progress towards organised roll-out for other screening programmes, including for prostate and lung cancer

Through the Country Reports, these visits created an important opportunity to engage national-level stakeholders, generate strong media attention to country-specific priorities, and discuss how efforts at the national level could best align with EU-level objectives in cancer control and early detection.

All the European Cancer Pulse Country Reports are available here:

European Cancer Pulse
TRACKING INEQUALITIES IN CANCER



Core highlights on cancer screening from the Time To Accelerate Country Visits are summarised below.

Country	Feature of cancer screening on the visit	Key relevant findings from the country report	National cancer screening developments after the visit
 **Greece, February 2024**	• Presentation at 8th Annual Event of the Hellenic Cancer Federation (ELLOK) • Meetings with key stakeholders in cancer care delivery, including Deputy Minister for Health, **Marios Themistocleous**, and General Secretary for Health Services, Lilian Venetia Vildiridi	• **High cancer screening coverage rates** being reported • **Dominating opportunistic approach for cancer screening organisation**, potentially limiting data comparability with other European countries • High **social inequalities** in access to cancer screening	• Presentation of National Screening Programme 'Prolamvano', including provisions for organised **breast, cervical and colorectal cancer screening**, as well as cardiovascular examinations • Establishment of an implementation framework for **lung cancer screening**, including national guidelines, a quality assurance scheme and a training curriculum for healthcare professionals, which was further discussed at a policy dialogue held by ELLOK with the ECHoS project[46] • Progress with the establishment of a National Cancer Control Plan and **National Cancer Registry**, both expected to strongly support cancer screening implementation
 **Bulgaria, March 2024**	• Presentation at a dedicated event organised in the national Parliament palace • Participation from EU Cancer Mission Board member Prof. **Jeliazko Arabadjiev, MP Rositsa Vassileva Pandova-Yovkova** and multiple stakeholders from the Bulgarian cancer community • Intervention by ECO on national Bulgarian television	• Overall **absence of organised cancer screening programmes** in the country • Low coverage rates and high differences in cancer screening access between rural areas and cities	• Continued efforts towards organised cancer screening programmes in the country as part of the implementation of the 2021–2027 National Cancer Plan • Successful first campaign conducted from March to June 2024 for **colorectal cancer screening**[47]

Country	Feature of cancer screening on the visit	Key relevant findings from the country report	National cancer screening developments after the visit
 **UK, April 2024**	• Presentation at a dedicated event on the Mansion House in London, organised with **Rt Hon the Lord Mayor of The City of London, Michael Mainelli** • Particular focus given to the opportunity for the UK to enhance its collaborations with EU cancer screening efforts	• Significant **differences between devolved UK nations** on cancer screening coverages rates • National **progress towards organised lung cancer screening**	• Progress towards the development of a new **National Cancer Control Plan** for England, which is expected to address cancer screening • Update of cancer screening guidelines in England, with a focus being given to targeted, risk-based approaches
 **Italy, April 2024**	• Presentation at a dedicated event at the Giustiniani Palace of the Senate of the Republic in Rome • Participation from **Senator Francesco Boccia, MEP Alessandra Moretti and multiple national experts in cancer screening**	• Extensive **differences between the North and the South** of the country on cancer screening coverage rates • National **progress towards organised prostate and lung cancer screening**	• Continued efforts towards organised prostate and lung cancer screening • Initiation of a **prostate cancer screening** pilot and a lung cancer screening programme in the Lombardy region
 **Ireland, April 2024**	• Presentation at Joint Euro-American Forum on Cancer organised in Dublin together with the All-Island Cancer Research Institute • Participation from the **Minister of Health Stephen Donnelly**	• Overall **strong performance** from Ireland in cancer screening • High coverage rates and ongoing pilots for in spite of recent challenges in public trust in the programmes to be addressed through improved communication	• Funding announced for the **National Cancer Strategy** as part of the 2025 national budget, including a focus on cancer screening • Extension of breast and colorectal cancer screening programmes to older age groups and additional staff to meet cancer screening demand[48]

Country	Feature of cancer screening on the visit	Key relevant findings from the country report	National cancer screening developments after the visit
 **Spain, May 2024**	• Presentation at an event held in Madrid jointly with Fundacion ECO, including senior figures of the Spanish cancer community. • Intervention by ECO on national Spanish television • Special hearing held at the **Spanish Senate**	• Low overall coverage for colorectal cancer screening • Extensive **differences between autonomous communities** • National progress towards organised **lung cancer screening**	• Continued regular refinement of national guidelines for optimised cancer screening implementation, such as in the case of cervical cancer screening, differentiating between vaccinated and unvaccinated women • Strong engagement of the general population to demand improved transparency on screening programmes' processes
 **France, May 2024**	• Presentation at an event held at the Curie Institute in Paris • Participation from with Cancer Mission Board Vice-Chair **Christine Chomienne**, the French Health Minister Frédéric Valletoux and the French National Cancer Institute • Multiple features of the ECO Country Report and its cancer screening findings on national French television	• **Low coverage for breast and colorectal cancer screening** • National progress towards organised **lung cancer screening** • Absence of a **national cancer registry**	• Roll-out of a national pilot for **lung cancer screening** • Progress towards the establishment of a **national cancer registry** • Deployment of wide-ranging **government communication campaigns** raising cancer screening participation rates
 **Slovakia, May 2024**	• Presentation at an event in Bratislava organised jointly with OnkoAlliance Slovakia, • Participation from Health Minister **Zuzana Dolinková** and **MP Vladimír Baláž**, Chairman of the Healthcare Committee at the Slovak Parliament	• **Low coverage rates** across organised cancer screening programmes • Lack of progress towards organised prostate and lung cancer screening	• Continued advocacy efforts from key national cancer leaders towards cancer screening policy advancement • Promised expansion of screening programmes from the Health Ministry, • Delay of a lung cancer screening pilot • Participation in the EUCanScreen Joint Action, planned to assist progress for cancer screening in Slovakia

Country	Feature of cancer screening on the visit	Key relevant findings from the country report	National cancer screening developments after the visit
 **Croatia, May 2024**	• Presentation at an event in Zagreb featuring European Commission Vice-President **Dubravka Šuica** along with senior Croatian cancer leaders	• Leading position in Europe for the implementation of organised **lung cancer screening** • Lack of an organised programme for **cervical cancer screening**	• Evaluation and optimisation of the national **lung cancer screening** programme • Progress towards organised **prostate cancer screening**, through a local pilot in Zagreb and a national awareness campaign
 **Poland, May 2025**	• Presentation at first Cancer Mission Fair held in Warsaw by the ECHoS project • Participation from **Senator Agnieszka Gorgoń-Komor** and **Prof. Piotr Rutkowski**, Director for the National Oncology Strategy	• Overall **low cancer screening coverage rates** associated with poor health literacy • Leading position in Europe for the implementation of organised **lung cancer screening**	First **Cancer Mission Hub** launched in Poland, expected to help address the country's issues in cancer control, including in respect to cancer screening
 **Cyprus, July 2025**	• Presentation at an event held in Nicosia jointly with PASYKAF • Participation from featuring the Cyprus Minister of Health **Michael Damianos**, the Former European Commissioner for Health and Food **Safety Stella Kyriakides, MP Marina Nikolaou** and numerous senior Cyprus cancer leaders	• **Only one fully deployed organised cancer screening programme** for breast cancer, with a low coverage • Welcome initiation of organised colorectal cancer screening in 2025	Preparation for implementation of nationwide population-based screening programs for cervical and prostate cancer by the Cyprus Ministry of Health[49]

3. Campaign recommendations

As the Europe's Beating Cancer Plan (EBCP) and the EU Cancer Mission near the end of their current mandates, EU institutions must seize this crucial moment to reinforce their legacy. Building upon EU-supported initiatives, national health authorities also have a crucial role to play in translating EU goals into reality for citizens and cancer patients.

The progress showcased in this Report on cancer screening implementation — catalysed by EU-level frameworks, funding, and collaboration — is a clear demonstration of the value of European action in health. However, to consolidate and expand these results, a long-term strategic and financial commitment to cancer screening and early diagnosis across Europe is needed.

To that end, the European Cancer Organisation recommends that EU institutions and Member States:

1. Ensure continuity and legacy of the EU's cancer framework post-2027

It is recommended that EU Member States:

- Signal their desire for long-term continuation of Europe's Beating Cancer Plan and the EU Research Mission on Cancer and instruct the European Commission to make provision for this of the next EU multiannual financial framework.

2. Embed cancer screening investment in the next EU multi-annual financial framework

It is recommended that the European Parliament and EU Member States:

- Agree dedicated resources for cancer screening programmes under the next MFF, including tailored support for lower-capacity regions and cross-border cooperation.
- Ensure that the new 'National Plans' element of the proposed multi-annual financial framework 2028–34 is explicit and clear as a facility to support EU member states to invest in critical infrastructures that underpin quality cancer screening programmes.
- Work with the Commission to achieve ring-fenced funding within the health component of the new EU Competitiveness focus and the cancer screening and early detection goals of Europe's Beating Cancer Plan. This should include securing Europe's role as a global leader in the adoption of new technologies and science for the purposes of early detection of cancer.
- Confirm the intention to maintain the EU Research Mission on Cancer within the proposed 'moonshots' of Horizon Europe, due to take effect from 2030 onwards. A European cancer moonshot should include ambitious and inspiring goals on early detection of cancer, founded upon expert knowledge of the most promising emerging opportunities.
- Build upon flagship EU-supported initiatives on cancer screening (such as PRAISE-U, SOLACE, TOGAS, EUCanScreen and CanScreen-ECIS) and continue to provide adequate funding to maintain the learnings and infrastructures developed through these coordinated actions, as well as longitudinal data collection monitoring screening programme quality and effectiveness in general.

3. Consolidate pan-European political commitment to cancer screening progress

It is recommended that the European Commission:

- In recognition of a fast-developing field of science and practice, propose updates of the 2022 Council Recommendations on Cancer Screening every 5 years to optimise and expand present cancer screening programmes, based on a public consultation and a review of the latest scientific evidence and practice
- Proactively explore the involvement of non-EU countries (e.g. Norway, Western Balkans, Ukraine, Moldova, UK) in the EU Cancer Screening Scheme

It is recommended that EU Member States:

- Reflect goals and advice from the 2022 EU Council recommendations on cancer screening into their national cancer control plans
- Host and support an annual, multi-stakeholder European Cancer Screening and Early Detection Policy Summit to review implementation progress and challenges
- Develop and strengthen comprehensive implementation plans for organised, population-based cancer screening programmes including: legal and governance frameworks; leadership, coordination and management; training of personnel; adequate and sustainable funding; and health system capacity planning

- Where a country has no current pilot or national programme for a recommended cancer screening programme, a strategy for addressing this gap be developed and published, including where EU-level support can facilitate progress.
- Where a country has already developed and tested a new screening programme at pilot stage, criteria should be developed and published for converting the pilot into national roll-out, leveraging the outcomes and tools made available from prominent EU-supported initiatives.

4. Establish long-term best-practice sharing on cancer screening

It is recommended that the European Commission:

- Establish a permanent EU Network of Screening Agencies, building upon the ongoing EUCanScreen Joint Action, as a formal EU-level structure to support knowledge exchange, technical assistance, and capacity building between national screening bodies
- Expand and regularly update the cancer screening section of the EU Best Practice Portal on Public Health[50] to reflect emerging evidence, implementation models, and transferable practices, and communicate its agreed entries widely and in a targeted fashion.
- Facilitate translation of best practices into national implementation through EU-supported workshops, twinning programmes, and technical cooperation

5. Strengthen monitoring systems for progress on cancer screening

It is recommended that the European Commission:

- Commission a full implementation report on the status of cancer screening programmes across Europe every 5 years, informing its proposal for an update of the Council Recommendations
- Include specific guidance on cost-effective and sustainable cancer screening investment as part of the country recommendations made yearly to EU Member States during the European Semester process

6. Fully deploy the potential of data for cancer screening advancement

It is recommended that the European Commission:

- Prioritise cancer screening as a key use case in the implementation of the European Health Data Space (EHDS), enabling secure, cross-border access to screening data for quality assurance, research, and system improvement, including through the European Cancer Imaging Initiative
- Support Member States in creating and strengthening adequate health information systems, including cancer screening registries, and ensure their interoperability

It is recommended that EU Member States:

- Include the establishment of population-based cancer screening registries as a critical element of their cancer screening programmes' implementation plans, enabling systematic management of cancer screening invitations, reminders and follow-up, as well as cancer screening programmes' quality assurance
- Proactively collaborate with the International Agency for Research on Cancer to implement the new CanScreen-ECIS cancer screening data management, enabling harmonisation of cancer screening data across Europe and timely analysis of progress achieved
- Ensure that data collected through cancer screening programmes are effectively leveraged to support diagnostic follow-up and care pathways for individuals with positive screening results. This requires establishing robust data connectivity and interoperability across healthcare systems

7. Support cancer screening research

It is recommended that the European Commission, via the Horizon Europe research programme, supports research into:

- the optimisation of cancer screening effectiveness and cost-effectiveness, including through the extension of risk-adapted screening, health service optimisation in screening delivery
- the development and integration of Artificial Intelligence to enhance screening, including improved image analysis, risk stratification, workflow optimisation and data-driven quality assurance. The use of AI should also be accompanied by work on ensuring good governance, trust and ethical use of AI tools in the screening context
- the potential evidence-based future inclusion of additional cancer types in recommended cancer screening programmes, such as liver and skin cancer
- new paradigms for early detection of cancer, such as the potential for multi-cancer early detection and the use of biomarkers and of liquid biopsy

8. Focus attention on cancer screening quality

It is recommended that the European Commission:

- Keep supporting the regular revision of European guidelines and quality assurance schemes on organised cancer screening programmes, based on the latest scientific evidence
- Include comprehensive guidance on cancer screening programmes quality assurance in the regular revisions of its Council Recommendations
- Include monitoring of the uptake of EU-supported cancer screening guidelines and quality assurance schemes by EU Member States in the scope of the regular implementation reports

It is recommended that EU Member States:

- Ensure equitable evidence-based access to best-in-class screening tests including giving consideration to the effectiveness and cost-effectiveness of HPV testing for cervical cancer screening, HPV genotyping and supplementary MRI for women with extremely dense breasts in breast cancer screening
- Invest in the set-up of comprehensive quality assurance systems for their organised cancer screening programmes, including continuous monitoring of screening processes both at the provider and at the system level via Key Performance Indicators, regular evaluation of outcomes and new evidence, and adequate improvements in programme organisation

9. Focus attention on cancer screening uptake

It is recommended that the European Commission:

- Support research into barriers to accessing cancer screening access and the reasons for low programme uptake
- Conduct regular pan-European information campaigns about cancer screening
- Take adequate steps to uphold access to cancer screening for all who need it as a European social and health right

It is recommended that EU Member States:

- Guarantee access to recommended cancer screening programmes free of charge for all individuals of the target population
- Secure public coverage for diagnosis, treatment and follow-up care required following a positive screening result, as well as adequate supportive schemes for the emotional and financial strain caused by the disease to patients and their families, with a focus on lower income populations
- Accelerate the deployment of self-collection in cervical and colorectal cancer screening programmes, including adequate follow-up mechanisms
- Include specific action on cancer screening access among underserved and marginalised groups in their national cancer control plans, including through the deployment of mobile cancer screening units in rural areas, participant navigation and other targeted and culturally sensitive outreach activities addressing stigma. Qualitative research is necessary for this alongside the medical/clinical data.
- Integrate information and communication into their cancer screening programmes' implementation plans, including unbiased information, tailored messaging to different perceptions of cancer and levels of health literacy, and diverse dissemination channels such as social media
- Develop appropriate mechanisms for capturing the experiences of participants in cancer screening programmes and deploying them for programme improvement
- Provide dedicated training to primary care professionals and community health workers to communicate about cancer screening with skills to recognise and sensitively address fears and concerns

10. Invest in cancer early detection and diagnosis capacity

It is recommended that all EU institutions:

- Extend all EU cancer screening policy initiatives to early detection at large, including early diagnosis programmes, through the next EU Council Recommendations on Early Detection of Cancer

It is recommended that the European Commission:

- Support the establishment of a European Atlas of Cancer Warning Signs inspired by the European Code Against Cancer, as a new public literacy tool on cancer symptoms
- Implement standardised reporting of stage at diagnosis data for major cancer types from all EU Member States as the best outcome measure of early detection of cancer across Europe
- Provide dedicated financial support to primary care strengthening and integration as a crucial enabler for successful cancer early detection

It is recommended that EU Member States:

- Mapping the entire screening pathway to their health system as part of their cancer screening programmes' implementation plans, including processes and capacity for referral of positive test results and conducting diagnosis, treatment and follow-up in an integrated fashion with cancer screening programmes

- Recognise the crucial role of pathology in enabling early detection of cancer as well as high-quality diagnosis, including by validating innovative tools and approaches, by prioritising the addressing of pathology workforce shortages and skill needs
- Strengthen early diagnosis programmes through proven interventions such as on primary care access and capacity, referral pathways and integrated care

11. Strengthen and support the role of primary care in early detection of cancer

It is recommended that the European Commission:

- Incorporate primary care strengthening and integration as part of all its initiatives on early detection of cancer, including its recognition as a crucial enabler for successful cancer early detection, and dedicated financial support addressing known issues such as symptom overlap and rarity, short appointments and referral barriers among others
- Give strong attention to supporting primary care strengthening initiatives as part of a renewed EU Action Plan for the Health and Care Workforce, building on templates created by Europe's Beating Cancer Plan, such as training programmes
- Monitor access to primary care across EU Member States as part of the European Cancer Inequalities Registry and other mechanisms aimed at cross-country benchmarking of cancer systems

It is recommended that EU Member States:

- Include primary care strengthening as part of their national initiatives for early detection of cancer, such as national cancer control plans and cancer screening programmes' implementation plans
- Support the creation of primary care centres with multidisciplinary teams to address patients' early detection needs holistically, and enhance referral pathways and service integration with secondary cancer care

12. Promote integrated early detection across major NCDs

It is recommended that the European Commission:

- Integrate within the Cardiovascular Health Plan an explicit connection between the EU Cancer Screening Scheme and the early detection of cardiovascular conditions
- Provide financial support to the piloting of joint cancer screening examinations and cardiovascular health checks across EU Member States

Considerations for the future

Liver cancer screening

Although population-based liver cancer screening is not yet widely implemented, risk-stratified approaches – particularly for individuals with chronic hepatitis B or C, cirrhosis, or other liver diseases – offer an important opportunity for earlier detection.

There is increasing interest and ongoing research into targeted liver cancer screening pathways as a cost-effective measure in high-risk populations, and international guidelines are beginning to reflect this. The integration of liver cancer screening in national strategies should be considered by EU Member States, particularly in regions with higher disease burden. Cited value from mobile screening has included the ability to target key groups such as sex workers and drug users.

A holistic approach to liver cancer prevention is also important, recognising that screening should not only aim to detect cancer at an early stage but also identify and manage metabolic and inflammatory conditions that increase risk. Addressing these factors can help prevent or postpone the onset of carcinoma and strengthen overall liver health.

Further EU-supported research is needed to evaluate implementation models, cost-effectiveness, and best practices across Member States. The European Commission and EU Cancer Mission should prioritise this area in their long-term agenda, including by supporting guidelines development, data collection, and professional training.

Skin cancer screening

Skin cancer, particularly melanoma, has seen a rapid rise in incidence across Europe, yet early detection greatly improves outcomes. Secondary skin cancer prevention can be achieved through skin examination, resulting in improved survival and quality of life. A multi-faceted strategy, including screening, is needed to reduce the burden of skin cancer in Europe.

Current early detection efforts are fragmented across countries, and there is no unified EU guidance. There is potential for digital technologies to enhance early detection and triage, especially in remote or underserved areas. Greater EU coordination could accelerate the safe and cost-effective deployment of such tools.

In this context, the European Academy of Dermatology and Venereology recommends EU support to cross-border research and pilot projects focused on skin cancer detection and the launch a European

feasibility study of harmonised risk-based screening approaches.[51] Skin cancer considerations should also be included in the ongoing work of the EU Cancer Screening Scheme and Best Practice Portal.

Multi-cancer early detection

Multi-cancer early detection (MCED) technologies – such as blood-based tests using genomic or methylation signals – represent a new opportunity for screening. These tools could enable earlier identification of multiple cancer types through a single test, especially those for which no organised screening currently exists.

MCED is a fast-evolving field, with several promising trials underway globally. However, real-world evidence, validation, and health system integration are critical challenges. EU institutions and Member States should work together to assess scientific progress, regulatory pathways, and potential health economic impacts of these innovations.

Future research frameworks should prioritise MCED development through joint investment, data-sharing mechanisms, and stakeholder engagement. Policymakers must also ensure public trust, transparency, and ethical safeguards as the technologies advance toward clinical use.

4. Annexes

Annex 1: Methodology

European Cancer Screening Policy Index development

Key concepts

The development of this tool was guided by a set of core principles to ensure its relevance, feasibility and alignment with existing efforts in the field. These key concepts form the foundation of the methodological approach described in the following sections.

- **Built on existing initiatives:** builds upon existing, validated sources and frameworks, ensuring comparability with standardised data
- **Focused indicator selection:** based on a carefully selected, limited set of indicators chosen for their policy relevance and potential actionable insights
- **Co-creation with experts and stakeholders:** developed through an inclusive and participatory process involving international experts and community representatives

Establishment of an expert group

The development of the workstream was guided by an **expert group**, including professional societies, patient groups and EU-Projects relevant to the cancer types included in the research. The Expert Group includes representatives from the European Association of Urology (EAU), the European Respiratory Society (ERS), the European Society of Coloproctology (ESCP), the European Society of Digestive Oncology (ESDO), the European Society of Radiology (ESR), the European Society of Breast Imaging (EUSOBI), the European Society of Breast Cancer Specialists (EUSOMA), the International Papillomavirus Society (IPVS), United European Gastroenterology (UEG), Digestive Cancer Europe (DiCE), Europa Donna, Europa Uomo, Lung Cancer Europe (LuCE), the International Agency for Research on Cancer (IARC) and the EU-funded projects PRAISE-U, SOLACE, TOGAS and CanScreen-ECIS.

Policy Index development

Literature review

The development of the Policy Index began with a review of the most recent literature, projects, and screening initiatives. To ensure a comprehensive review, key databases were searched, using a combination of terms, including *'cancer screening', 'cancer screening policies', and 'cancer screening implementation'*, covering both the **previously recommended screening programmes in the EU**, breast, cervical, and colorectal cancer, and the **newly recommended programmes** — lung, gastric, and prostate cancer. Grey literature was also reviewed, incorporating publications and indicators from sources such as the Organisation for Economic Co-operation and Development (OECD), the International Agency for Research on Cancer (IARC), the Eurostat database, and the PRAISE-U, SOLACE, TOGAS and CanScreen-ECIS EU-funded projects.

Selection of cancer screening indicators

Indicators

Based on the literature review, the framework for the index was developed and submitted for review by the expert group. The final agreed index framework was organised in the following categories, including indicators identified as readily available across countries:

1. **Overarching cancer screening** (national policy on cancer screening and cancer registries)
2. **Performance of previously recommended cancer screening programmes – breast, cervical and colorectal** (coverage, type of organisation, coverage rate, target age group, interval, type of test and invitation strategy)
3. **Progress on newly recommended cancer screening programmes – lung, gastric and prostate** (existence of recommendation and implementation)
4. **Social inequalities in cancer screening access** (based on the level of education, income and urbanisation)

Data sources, analysis and scoring

Please see annex 2.

Collection of screening experiences and good practices

As part of the activities within the Time to Accelerate: for Cancer Screening campaign, the collection of good practices and lived experiences provided insights into aspects of cancer screening, from awareness-raising and recruitment campaigns, the use of new technologies to facilitate early diagnosis, to tools facilitating population participation. The testimonies collected from healthcare professionals and citizens engaged in the cancer screening process were essential in understanding the challenges that cancer care providers face every day. They also provide insights into how the current practice of performing these screenings can be improved, made more inclusive, effective and efficient.

The main objectives of the two surveys were:

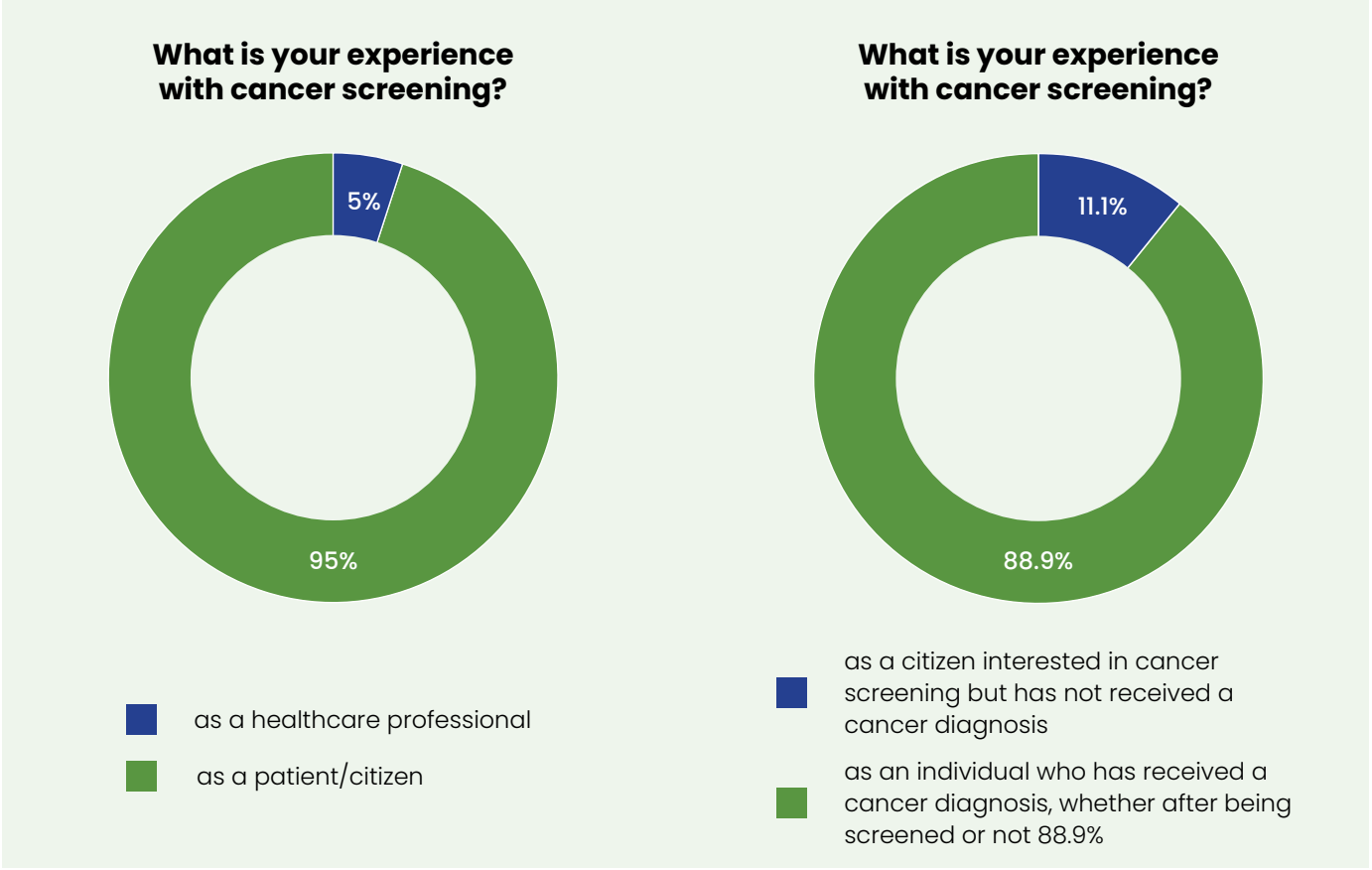
- To collect the opinions of oncology professionals, patient advocates and others on national screening programmes;
- Document and evaluate good practices indicated by patients and the community;
- Map and understand the lived experiences of professionals and individuals engaged in the cancer screening process, whether they have received a diagnosis or not
- Identify the main challenges in the implementation of cancer screening programmes across Europe as perceived by the individuals directly involved in them
- To promote recommendations on the cancer screening process, considering the whole continuum and pathway of early detection

More information can be found on the dedicated webpage: https://www.europeancancer.org/screening

Screening experiences

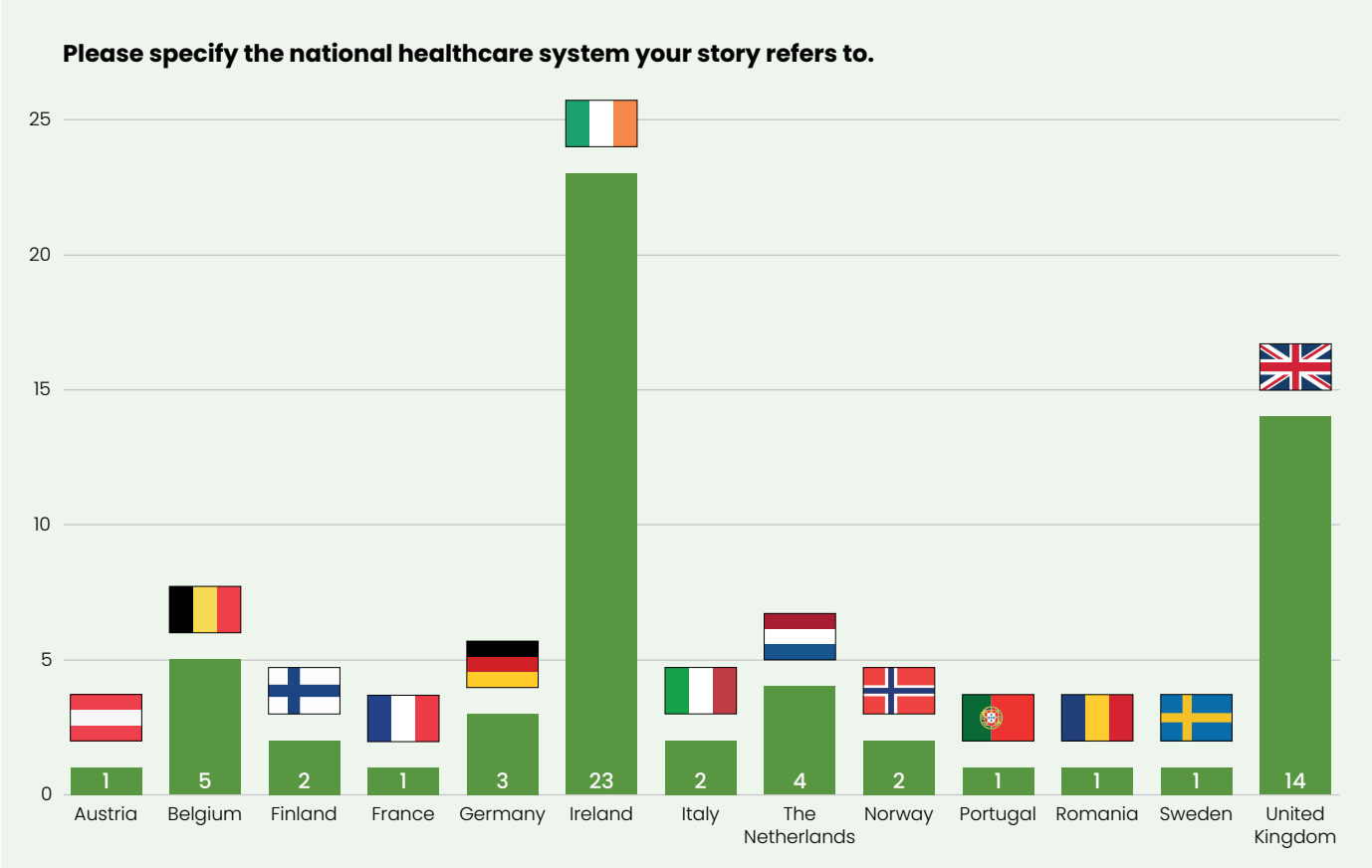
To understand the experience of individuals interacting with cancer screening programmes across Europe. ECO collected testimonials from 141 responses, from patients and citizens. The personal accounts were collected between May and June 2024 via an online form. All the stories are provided anonymously, with information about the country of screening being optionally provided.

The respondents were asked to select their status medical professional or citizen, then, redirected to a series of questions adapted to their perspective. Individuals not connected to the healthcare system were asked to disclose if they have received a cancer diagnosis as a result of taking part in a screening programme (or not) or if they are simply replying out of interest in cancer screening. Then, they were asked to describe a positive and/or a negative interaction with cancer screening, similar to the healthcare professionals, and optionally mention the country in which the screening took place.



Citizens, patients and medical professionals could optionally disclose the country where they practice, their level of interaction with cancer screening programmes and reveal accounts of cancer screening going well as well as wrong.

A selection of testimonials is publicly available here.



Good practices collection

In order to bring forward good practices for consideration the following process was conducted.

Launched in April 2024, the Cancer Screening Practices Across Europe survey received 70 valid replies from more than 10 European countries. The survey, opened for inputs for 8 weeks – until **June 2024** was uniformly distributed between cancer professionals, patients or patient advocates, and other people with experience and interest in cancer screening. The majority of the participants were cancer professionals, about 50% including pathologists, cancer nurses, radiologists and cancer surgeons. In addition, the views of screening experts and healthcare professionals were also collected and analysed during the initiatives carried out by ECO, with the support of national screening experts.

Thereafter a series of one-to-one interviews with identified experts was conducted, from ECO Member Societies, experts included in the campaign and national experts. These interviews helped consolidate the preliminary results and validate the partial results obtained from the survey. In addition, they provided information on good practices developed, through pilot projects, or recently developed/updated national programmes of Member States on how to improve national screening.

The good practices identified were further scrutinised through desktop research and validated through a subsequent literature review as well as a three-week consultation period to more than 20 healthcare professionals societies and patient groups. These results are collected in section 2.2.

Limitations

European Cancer Screening Policy Index development

Composite policy indices are subject to methodological choices, such as indicator selection, weighting, and data interpretation, which may influence outcomes and therefore constitute a limitation in this exercise. Moreover, composite indices bear the risk of oversimplifying complex policy landscapes.

In the present case, equal weighting was applied to all indicators selected within a given category, which simplified the overall scoring process but may be subject to discussion as to whether their respective importance can be considered equal.

In addition, the Index captures a snapshot of cancer screening policies at a specific time, without reflecting ongoing progress or changes. It is therefore necessary to keep updating it regularly to capture dynamic shifts in policy.

The main limitation of the work concerned data availability. While the initial aim was to cover the entire WHO European Region, the lack of pan-European comparable data meant the scope had to be limited to the EU-27 plus Norway and Iceland. Certain topics, such as supplementary MRI for women with extremely dense breasts and early diagnosis beyond screening, could not be included due to the absence of available data. Additionally, differences between programme-based and survey-based coverage data posed challenges for comparability.

While social inequalities in access to screening were considered, factors like ethnicity, sexual orientation, and disability were not included due to data limitations, potentially underrepresenting disparities in marginalised groups.

Nevertheless, these limitations do not lessen the significance of the findings, instead, they highlight the need for harmonised cancer screening data collection across the EU.

Screening experiences

While the survey and the campaign have received a significant number of responses describing both best practices and lived experiences, certain limitations should be addressed.

For the collection of testimonies from individuals having gone through the process of cancer screening, results have shown that the survey was overwhelmingly completed in English-speaking countries (23 from Ireland and 14 from the UK), as well as in countries with high or very high proficiency in English (The Netherlands, Finland, and Belgium). The county choice may also reflect an uneven distribution of promotion capacity by the European Cancer Organisation's stakeholders, with certain partners having more resources to amplify the survey. The survey also spread predominantly amongst breast cancer patients, with a significant presence of testimonials from individuals with dense breasts.

Good practices

For the collection of good practices from healthcare professionals, a particular limitation observed was a lower level of input on gastric cancer screening. This aligns with the relative limited amount of pilots and experiences in that field, as compared to other areas of cancer screening, at the time of the development of this report. In order to inform the recommendations, the ECO team used its extensive network to interview experts and diversify the respondents' sample.

As the survey to collect good practice on screening was designed to be completed anonymously, some missing data resulted in limited responses, reflecting the representation of screening implementation – e.g. more and comprehensive responses on breast, cervical and colorectal.

Through the country visits performed by ECO in 2024, it was also possible to add input from country experts to fill in some missing areas and to validate answers received from the survey.

Annex 2: Detail on data sources, analysis and scoring for the European Cancer Screening Policy Index

Indicator and source table

Cancer type	Indicator	Values	Scoring	Source
1. Overarching				
N/A	Cancer screening policy	Optimal/ Aligned/ Insufficient	**Optimal:** all 6 recommended cancer screening programs mentioned in the National Cancer Plan (NCP) **Aligned:** at least all 3 previously recommended cancer screening programmes in the NCP **Insufficient:** only some of the 3 previously recommended cancer screening programs in the NCP	National Cancer Plans, International Cancer Control Partnership, National Health Authorities and Experts
N/A	Cancer screening registration	Y/N	**Yes** 100% **No** 0% *Based on IARC's definition*	National Health Authorities and Experts

Cancer type	Indicator	Values	Scoring	Source
2. Performance of previously recommended screening programmes				
Breast	Coverage	Aligned/ Insufficient/ None	**Aligned:** National or regional (all regions covered) **Insufficient:** Regional (only some regions covered) **None**	OECD report – Beating Cancer Inequalities in Europe
	Type of organisation	Population-based/Non-population based	**100%:** Population-based **0%:** Non-population-based	
	Coverage rate	Percentage	0–100% *	
	Target age group	Optimal/ Aligned/ Insufficient	**Optimal:** 45–74 years **Aligned:** 50–69 years **Insufficient**: <50–69 years	
	Screening interval	Aligned/ Insufficient	**Aligned:** every 2 years approx. **Insufficient:** more than 2 years	
	Type of test	Aligned/ Sufficient	**Aligned:** digital mammography **Sufficient:** mammography	
	Invitation strategy	Multiple/One/ None	*Not included in the scoring due to the absence of EU recommendations, only informative* **Multiple:** Variety of channels, including email, phone calls, digital platforms **One:** 1 communication channel **None**	

Cancer type	Indicator	Values	Scoring	Source
Cervical	Coverage	Aligned/ Insufficient/ None	**Aligned:** National or regional (all regions covered) **Insufficient:** Regional (only some regions covered) **None**	OECD report – Beating Cancer Inequalities in Europe
	Type of organisation	Population-based/Non-population based	**100%:** Population-based **0%:** Non-population-based	
	Coverage rate	Percentage	0–100%*	
	Target age group	Optimal/ Aligned/ Insufficient	**Optimal**: 30–65 years, with wider target age ranges included **Sufficient:** age range with < 10 years difference from 30–65 years target age range **Insufficient:** age range with > 10 years difference from 30–65 target age range	
	Screening interval	Aligned/ Insufficient	**Aligned:** 5 years or more for HPV DNA testing; 3–5 years for cytology-based-screening **Insufficient:** very irregular HPV DNA testing and/or cytology	
	Type of test	Optimal/ Aligned/ Sufficient	**Optimal:** HPV DNA testing/cytology for all and self-collection offered **Aligned:** HPV DNA testing/cytology **Sufficient:** Cytology	
	Invitation strategy	Multiple/One/ None	*Not included in the scoring due to the absence of EU recommendations, only informative* **Multiple:** Variety of channels, including email, phone calls, digital platforms **One:** 1 communication channel **None**	

Cancer type	Indicator	Values	Scoring	Source
Cervical	Self-collection	Y/N	*Not included in the scoring, but considered in the 'Type of test', with inclusion being considered as Optimal*	OECD report – Beating Cancer Inequalities in Europe
Colorectal	Coverage	Aligned/ Insufficient/ None	**Aligned:** National or regional (all regions covered) **Insufficient:** Regional (only some regions covered) None	OECD report – Beating Cancer Inequalities in Europe
	Type of organisation	Population-based/Non-population based	**100%:** Population-based **0%:** Non-population-based	
	Coverage rate	Percentage	**0–100%***	
	Target age group	Optimal/ Aligned/ Insufficient	**Optimal:** 50–74 years, with wider target age ranges included **Sufficient:** age range with < 10 years difference from 50–74 years target age range **Insufficient:** age range with > 10 years difference from 50–74 target age range	
	Screening interval	Aligned/ Insufficient	**Aligned:** Every 2 years if the screening test is the guaiac-based faecal occult blood test (gFOBT) or the fecal immunochemical test (FIT); Every 10 years or more if the screening test is flexible sigmoidoscopy or colonoscopy **Insufficient:** very irregular screening, i.e. one time	

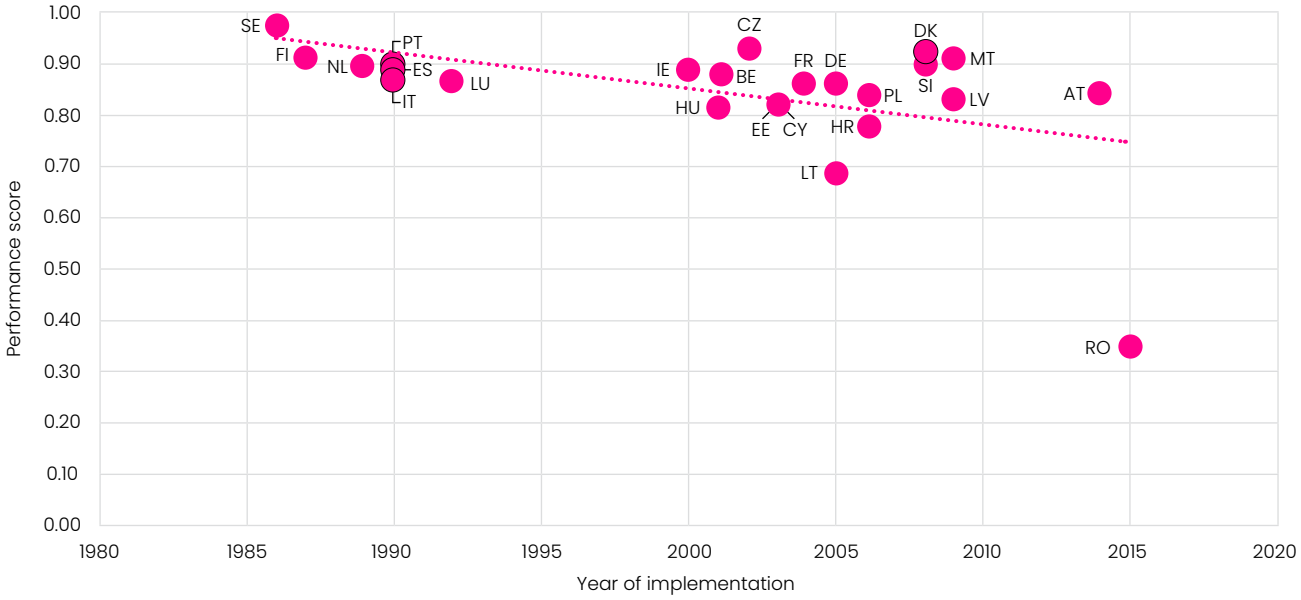
Cancer type	Indicator	Values	Scoring	Source
Colorectal (cont.)	Type of test	Optimal/ Aligned/ Insufficient	**Optimal:** FIT/ and colonoscopy and self-collection offered **Aligned:** Quantitative faecal immunochemical testing (FIT)/ gFOBT with optional referral to follow-up colonoscopy. Endoscopy may be adopted as a primary tool to implement combined strategies **Insufficient:** only gFOBT	OECD report – Beating Cancer Inequalities in Europe
	Invitation strategy	Multiple/One/ None	*Not included in the scoring due to the absence of EU recommendations, only informative* **Multiple:** Variety of channels, including email, phone calls, digital platforms **One:** 1 communication channel **None**	
	Self-collection	Y/N	*Not included in the scoring, but considered in the Indicator 'Type of test', with inclusion being considered as Optimal*	

Cancer type	Indicator	Values	Scoring	Source
3. Progress on newly recommended screening programmes				
Prostate	Existence of recommendation	Recommended /not recommended	*Not included in the scoring*	PRAISE-U
	Implementation pilot	Ongoing/ planned/ under discussion/ not planned yet		
4. Social inequalities in cancer screening access				
N/A	Education	Percentage	Average of Concentration Indices in self-reported cancer screening between different levels of education (primary, secondary and tertiary), for the 3 previously recommended cancer screening programmes	Eurostat
N/A	Income		Average of Concentration Indices in self-reported cancer screening between individuals from different income levels (very low, low, middle, high and very high) for the 3 previously recommended cancer screening programmes	
N/A	Urbanisation		Average of Concentration Indices in self-reported cancer screening between individuals with different degrees of urbanisation (cities, towns, suburbs and rural areas), for the 3 previously recommended cancer screening programmes	

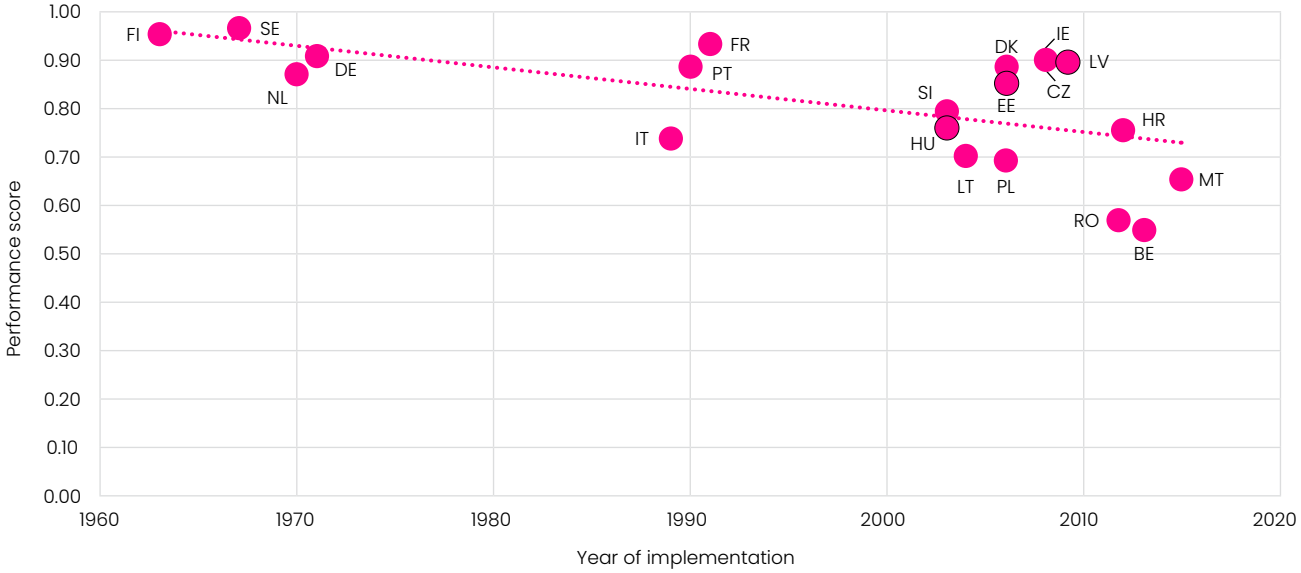
*Data presented here include a combination of **programme-based and survey-based sources**, reflecting the lack of fully available programme data for some countries. This mixture may **limit direct comparability** across countries.

Annex 3: Correlations between performance scores and years of initiation of national cancer screening programmes

Annex 3.1: Correlation of the year of implementation (screening programme) with performance score for breast cancer screening



Annex 3.2: Correlation of the year of implementation (screening programme) with performance score for cervical cancer screening



Pearson correlations were conducted to assess the relationship between the year of implementation of national cancer screening programmes and their current performance. The year of initiation was sourced from the European Commission's report 'Cancer Screening in the European Union' *(2017),*[52] and performance scores were drawn from the Index.

For breast cancer screening (annex 3.1), a moderate negative correlation was observed ($R = -0.5$), indicating that countries that implemented screening later tended to have slightly lower performance scores, although this correlation was not statistically significant ($p > 0.05$).

For cervical cancer screening (annex 3.2), a moderate negative correlation was also observed ($R = -0.6$), and in this case the correlation was statistically significant ($p < 0.05$), suggesting that later implementation was meaningfully associated with lower performance scores.

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