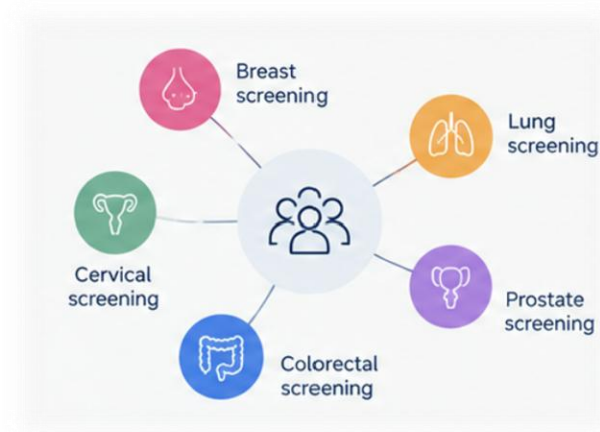
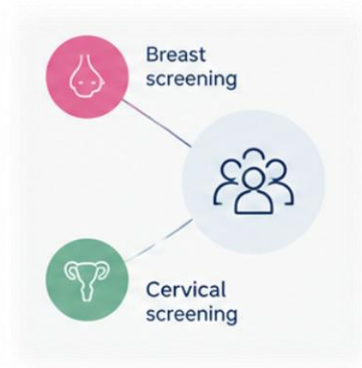


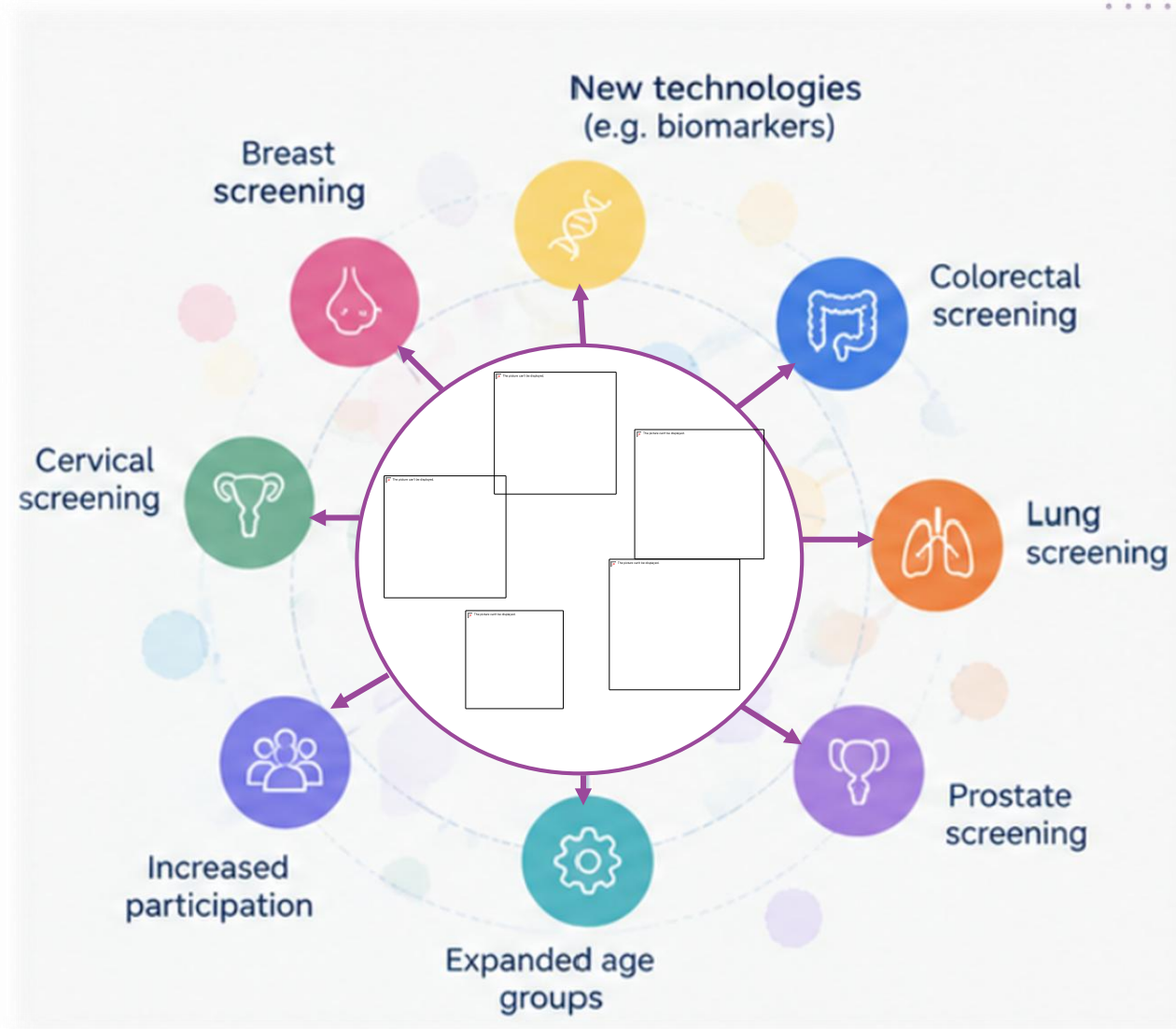
Prioritisation Modelling in EUCanScreen

More opportunities to detect cancer earlier



More opportunities, but also more choices

We cannot do everything

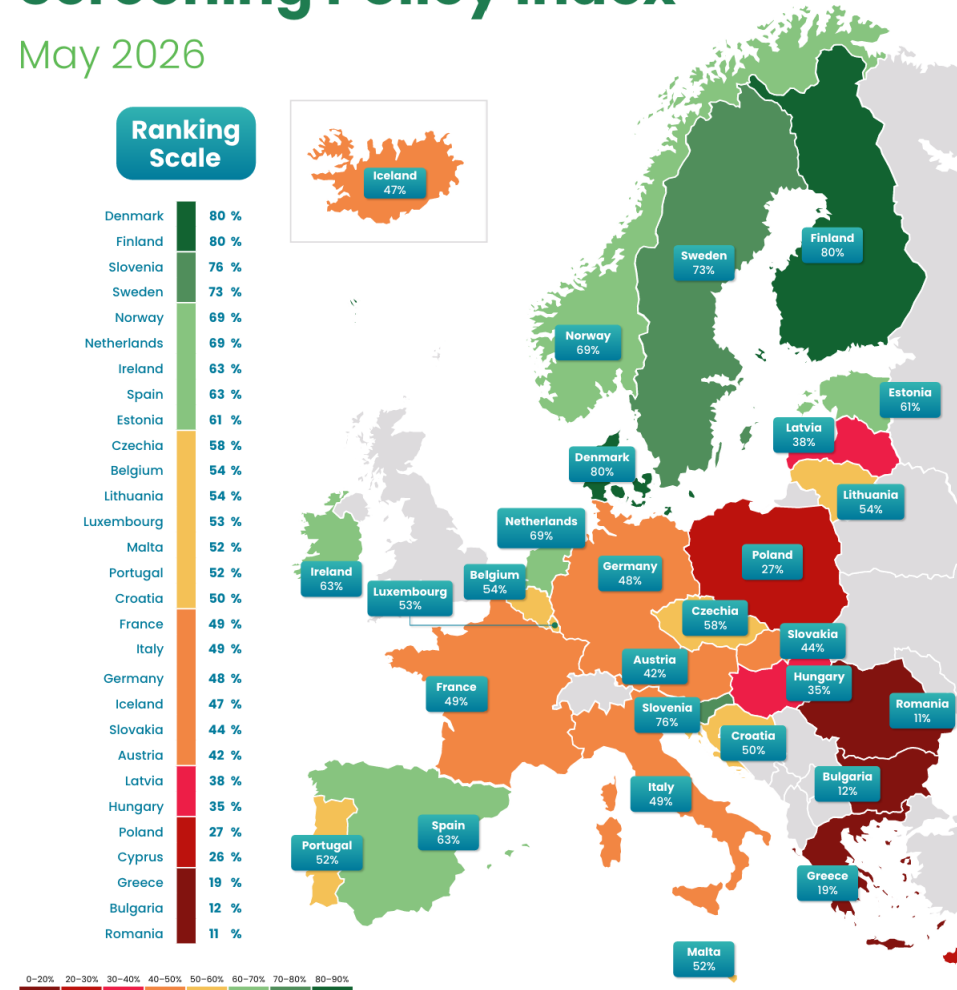


One size does not fit all



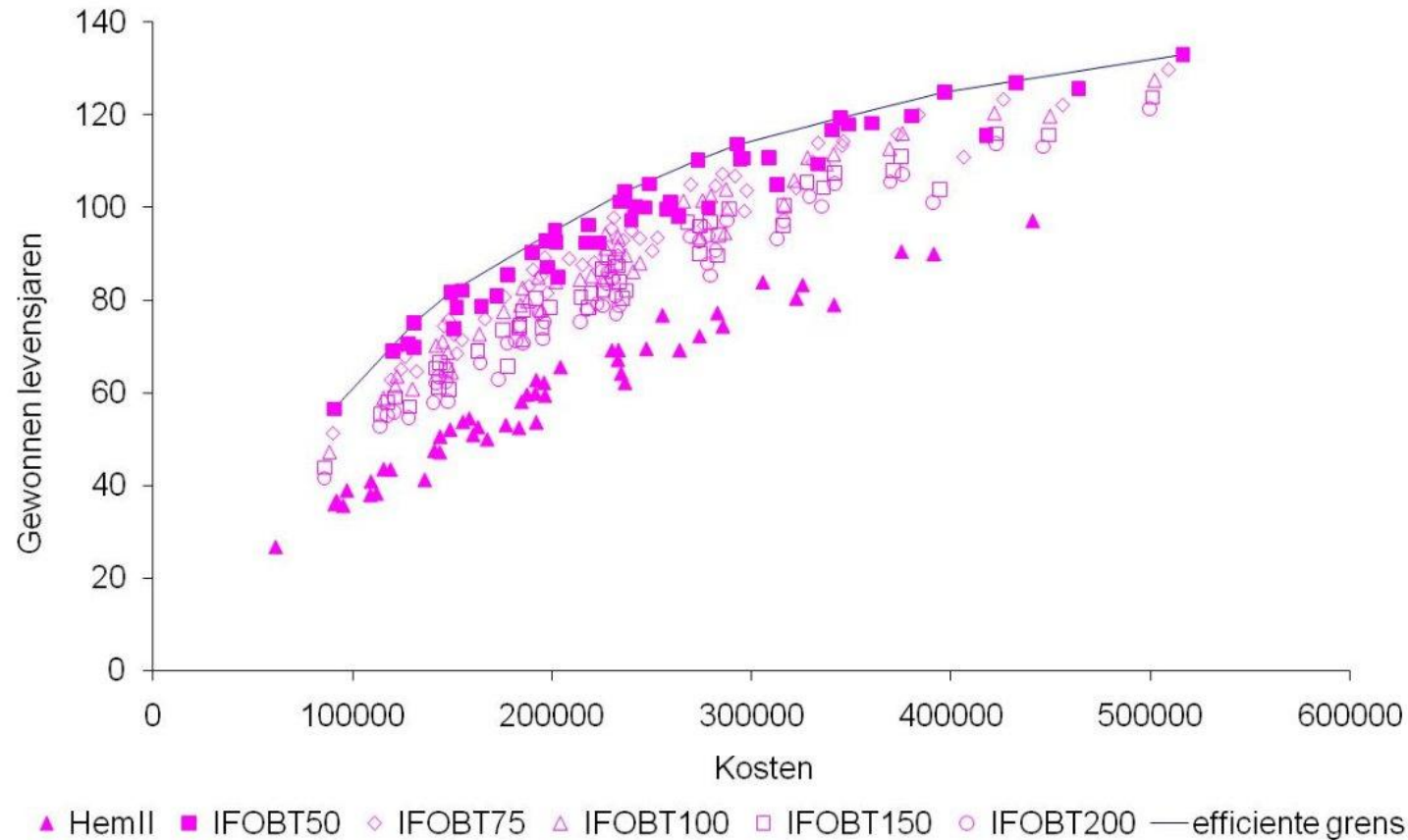
European Cancer Screening Policy Index

May 2026



Countries are not starting from the same point.

Cost-effectiveness analyses

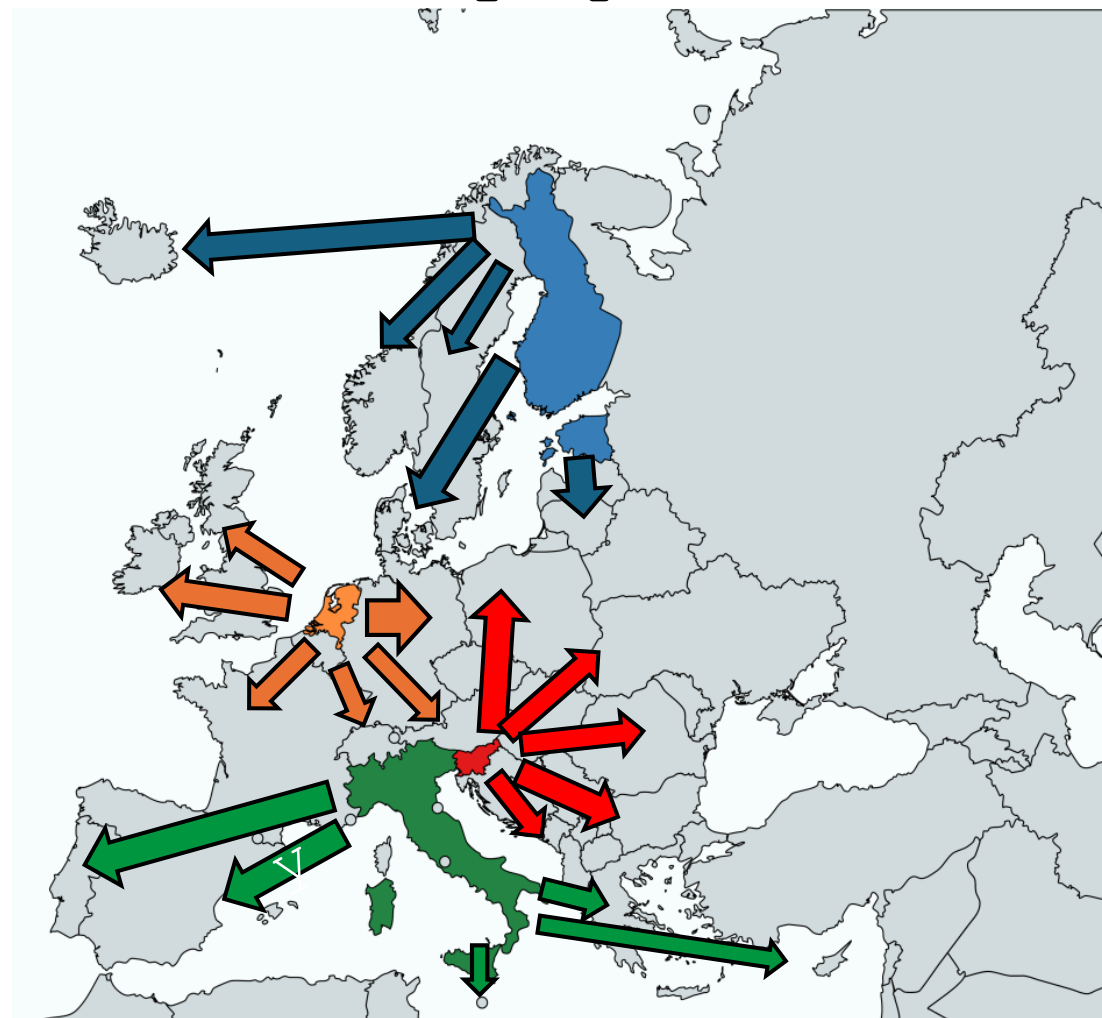


Model calibration

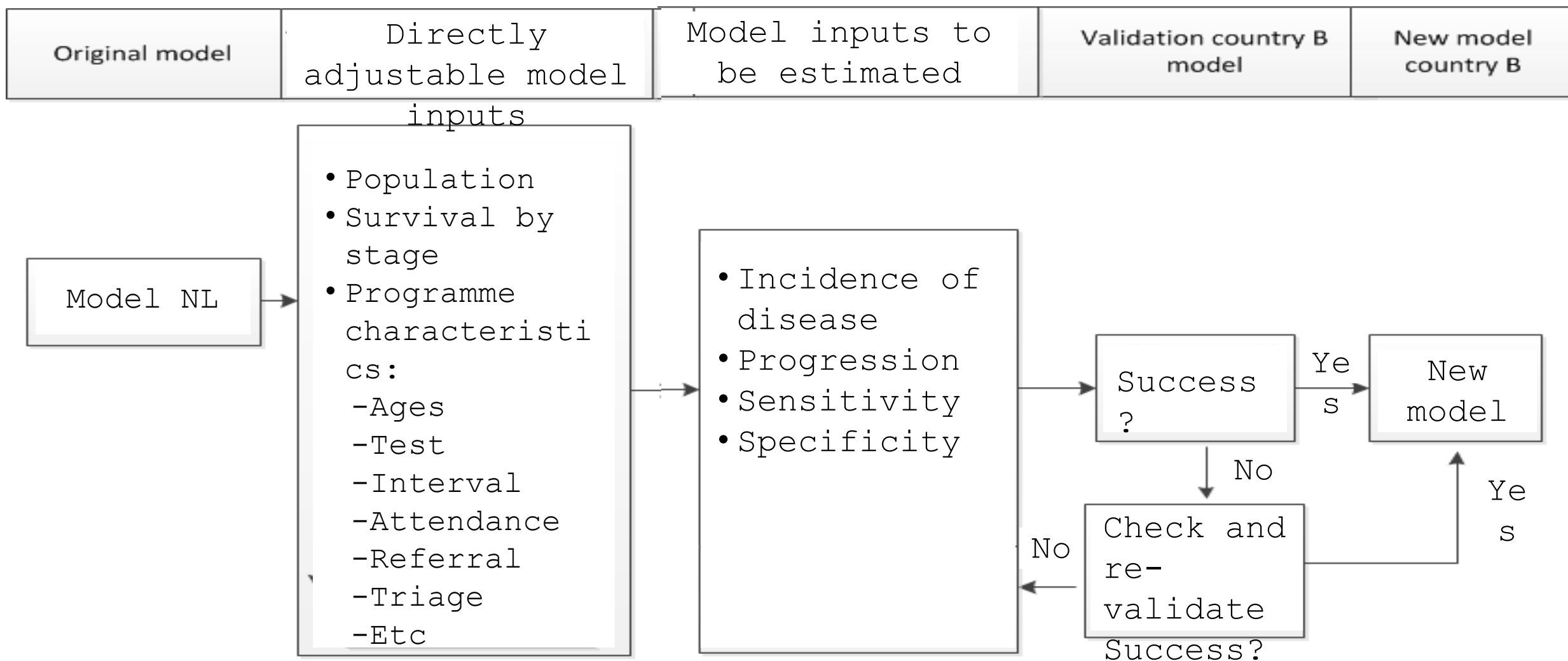
One model version



Country-specific models



Model calibration



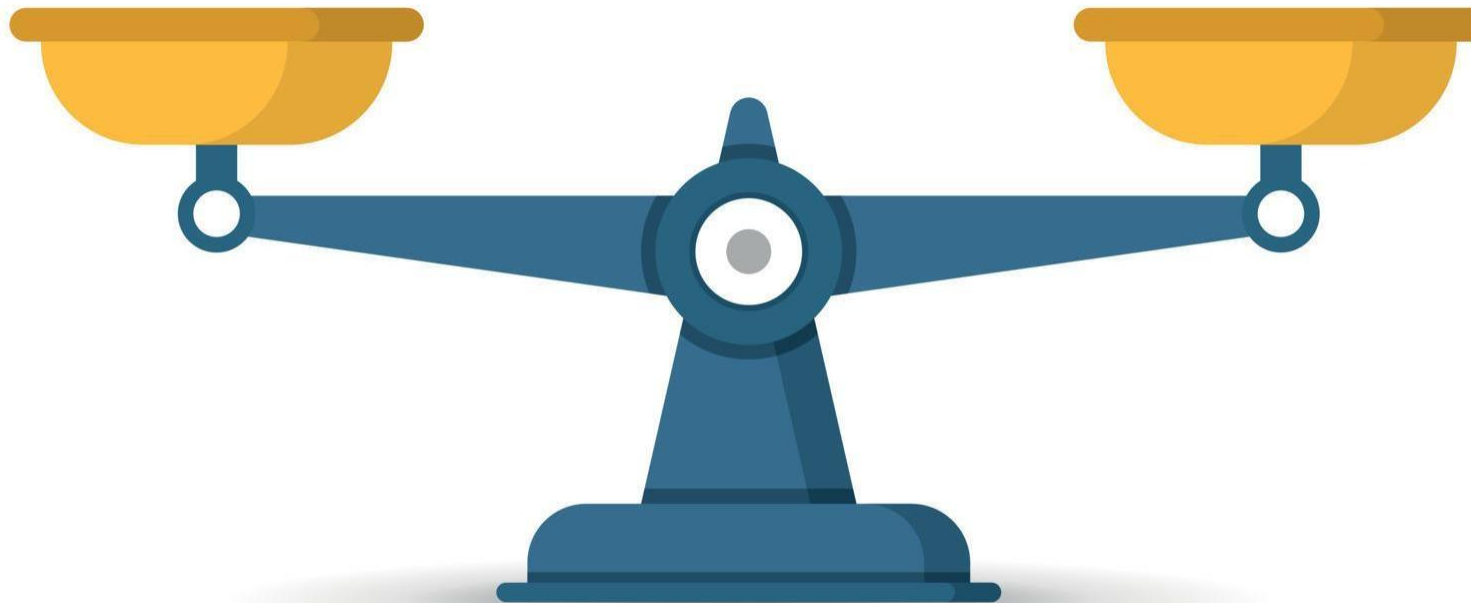
Beyond cost-effectiveness



Equity Safety Sustainability of the program need of intervention

Benefits and clinical effectiveness Severity Impact on environment

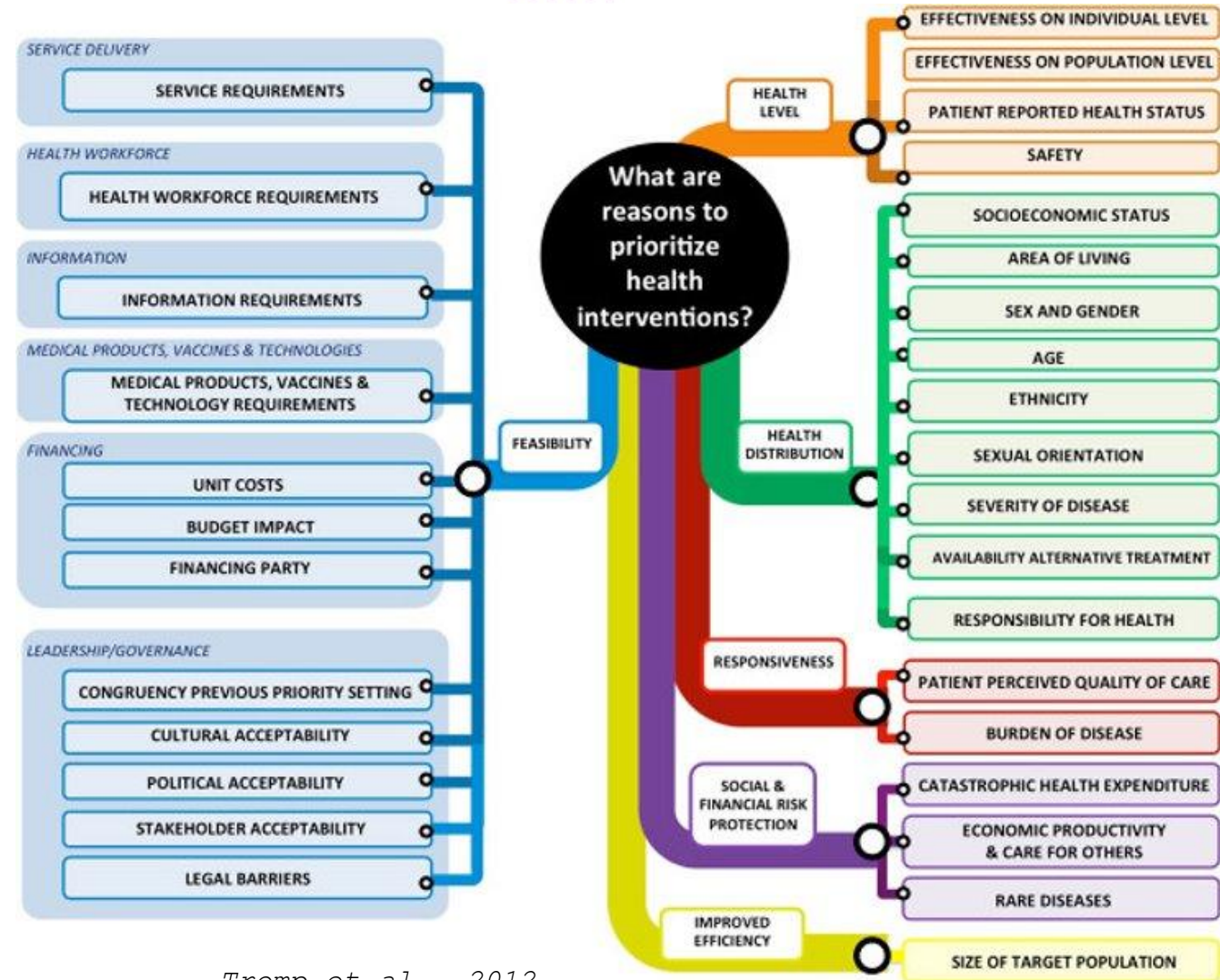
Economic impact Acceptability Harms



Scoping review

What is important to reach decisions about prioritisation?

- Mapped by a scoping review done by CPO team
 - On frameworks and tools developed for prioritisation of public health interventions
- 66 selected papers -> 7 specifically focused on cancer screening programs
- Wide range of prioritisation tools
- Limited number of clearly defined frameworks, most of them being limited in scope



Prioritisation framework

- In the context of the Joint Action project EUCanScreen, CPO and Erasmus MC worked on a new framework for prioritizing screening strategies
- Example: should I implement lung cancer screening or extend the targeted age range for breast cancer screening? What do I consider when making this choice?
- The domains were selected through the scoping review done by CPO



Domains

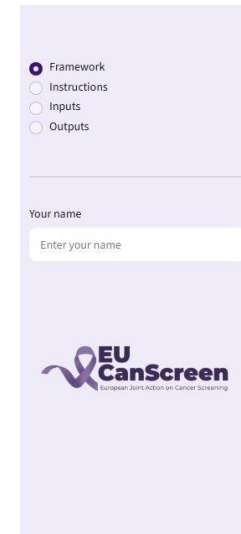
1. Benefits and clinical effectiveness
2. Safety and harms
3. Severity of the problem and need for intervention
4. Efficiency and economic impact
5. Sustainability of the program
6. Equity and fairness
7. Acceptability
8. Societal and strategic considerations



The decision aid



- Interactive tool based on the prioritization framework that collects and synthesizes data for all selected strategies
- Tool aids the user in choosing which strategy to implement, toughing upon quantitative and qualitative aspects of each strategy
- The data for each strategy is partly derived from modelling outputs, and partly from user inputs
- Synthesis of modelling, ethical and practical concerns



The screenshot shows the 'Framework' tab selected in the top navigation bar. Below the navigation bar, there is a section for 'Your name' with a text input field containing the placeholder 'Enter your name'. At the bottom of the page, the EU CanScreen logo is displayed.

The prioritization framework

What is the prioritization framework?

What is the prioritization framework?

The goal of the framework is to help decision makers reach informed and data-driven decisions when considering different screening interventions. The decision aid helps to quantify and visualize possible screening interventions, aiding priority setting in cancer screening.

The framework is divided into eight domains, which summarise decision-criteria commonly considered in prioritization of healthcare interventions by a scoping review. Each domain has at least one subdomain, and each subdomain is measured by one or more metrics. Subdomains were selected to represent different dimensions of each domain and to assign metrics to conceptual groups. The metrics selected will have to be the same across strategies compared. Some metrics have been derived from the MISCAN model outputs (and are provided as placeholders), but the user will be able to supplement these with their own values.

Qualitative measures are assigned a score through questions, which are scored on a Likert scale.

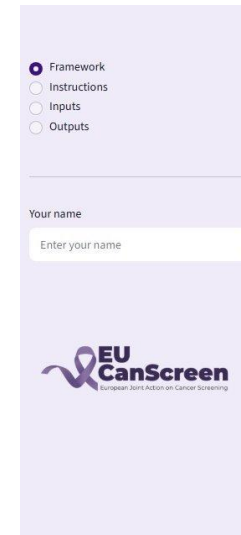
The decision aid - inputs

- User of the decision aid defines the strategies that he/she wants to compare

For example:

1. Implement a new screening program (lung cancer)
2. Extend screening age for breast cancer
3. Extend screening age for colorectal cancer

- Each domain consists of a set of metrics that enable its quantification
 - Metrics can be both quantitative and qualitative



The screenshot shows the 'Framework' tab selected in the decision aid interface. It includes a navigation menu with 'Framework', 'Instructions', 'Inputs', and 'Outputs'. Below the menu is a form for 'Your name' with a placeholder 'Enter your name'. The EU CanScreen logo is visible at the bottom of the sidebar.

The prioritization framework

What is the prioritization framework?

What is the prioritization framework?

The goal of the framework is to help decision makers reach informed and data-driven decisions when considering different screening interventions. The decision aid helps to quantify and visualize possible screening interventions, aiding priority setting in cancer screening.

The framework is divided into eight domains, which summarise decision-criteria commonly considered in prioritization of healthcare interventions by a scoping review. Each domain has at least one subdomain, and each subdomain is measured by one or more metrics. Subdomains were selected to represent different dimensions of each domain and to assign metrics to conceptual groups. The metrics selected will have to be the same across strategies compared. Some metrics have been derived from the MISCAN model outputs (and are provided as placeholders), but the user will be able to supplement these with their own values.

Qualitative measures are assigned a score through questions, which are scored on a Likert scale.

The decision aid - inputs



Domain	Sub-domains	Metrics	Strategy 1 (lung)	Strategy 2 (breast)	Strategy 3 (colorectal)
1. BENEFITS AND CLINICAL EFFECTIVENESS	Life extension	Life Years Gained (LYG)	41.2	6	2
		Improvement in mortality	4.3	0.5	1
		Improvement in incidence	0	0	3
		<i>(<u>min</u> two metrics required)</i>			
	Quality-of-life improvement	QALYs gained	34.2	6	4

The decision aid – inputs



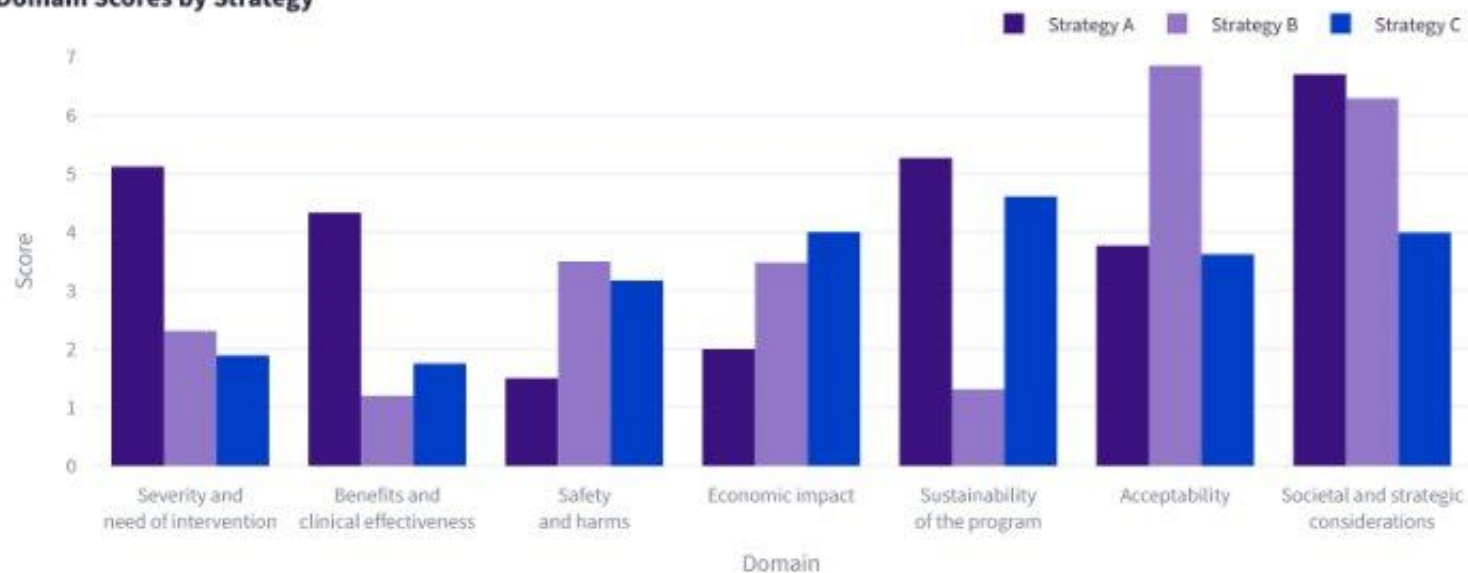
TRAINING	Staffing levels and competencies are adequate to deliver goals (including QA).	Organizational capacity	Major staffing gaps; goals unattainable.	Some staff but insufficient skills/coverage.	Adequate in parts; gaps in key roles (QA, data, navigation).	Adequate staffing and competencies with training and backup coverage.	Strong staffing resilience: succession plans, cross-training, retention, and surge capacity for peaks.
	To what extent would additional training be required for existing professionals?		Extensive (long-term or highly specialized training)	Moderate (structured training, limited duration)	Minimal (short refresher or update)	None (no additional training is requested)	
	Training needs are assessed regularly (by role and site) using data (QA findings, errors, performance gaps).	Capacity building & training planning	No training needs assessment.	Informal or one-off assessment only.	Occasional assessments but not linked to training plans.	Routine needs assessment linked to training plans and priorities.	Continuous, data-driven needs assessment that demonstrably closes performance gaps.

The decision aid - output

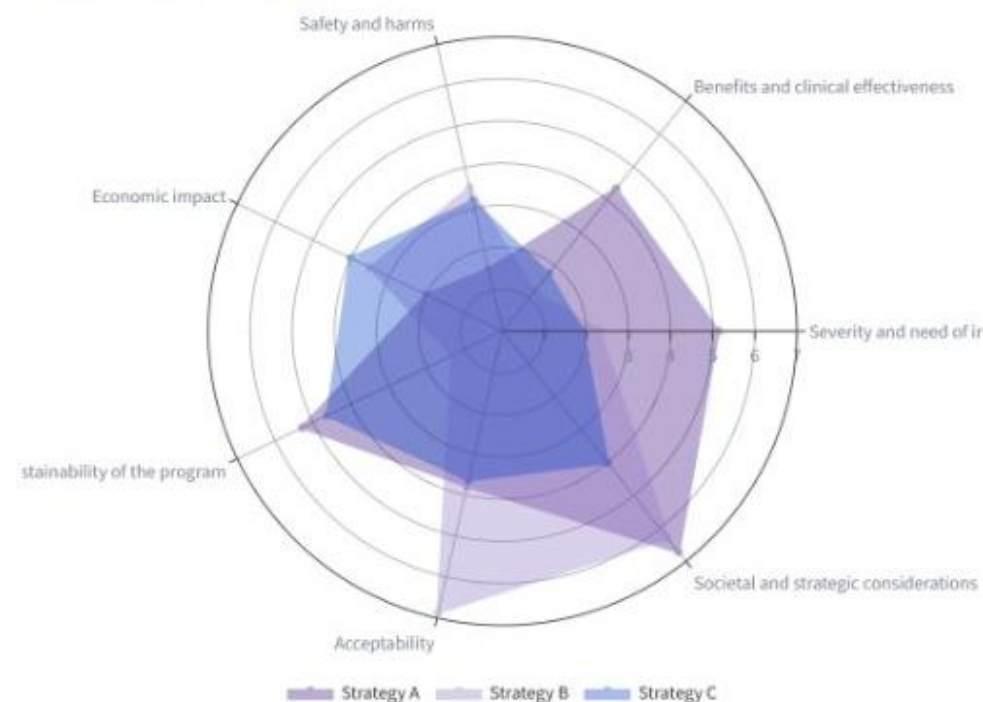
- For all strategies considered the tool outputs a score for each of the prioritization domains



Domain Scores by Strategy



Domain Scores — Radar Overview



Benefits of using the decision aid

- Facilitates a data-driven process
- It considers both quantitative and qualitative aspect (selected through scoping review)
- It provides an aggregation method for the large amount of aspects considered
- It aids in bridging data-driven decision making and real-life prioritization

Current status



- The draft version of the prioritization framework has been presented
 - during the WP4 kick-off meeting in Bled (March 2026)
 - during the MediCASE cost-action training course in Turin (July 2026)
- Plan for testing the tool in the context of the TSM are ongoing





Thank you

d.m.n.vandenberg@erasmusmc.nl



Co-funded by
the European Union