The **Scientific Advice Mechanism**

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How the **Scientific Advice Mechanism (SAM)** works

The Group of Chief Scientific Advisors (GCSA)

SAPEA
Science Advice for Policy by European Academies

Science Advice for Policy by European Academies (SAPEA) consortium

A **secretariat** in the European Commission

Three pillars ensure that the advice is based on multidisciplinary top science

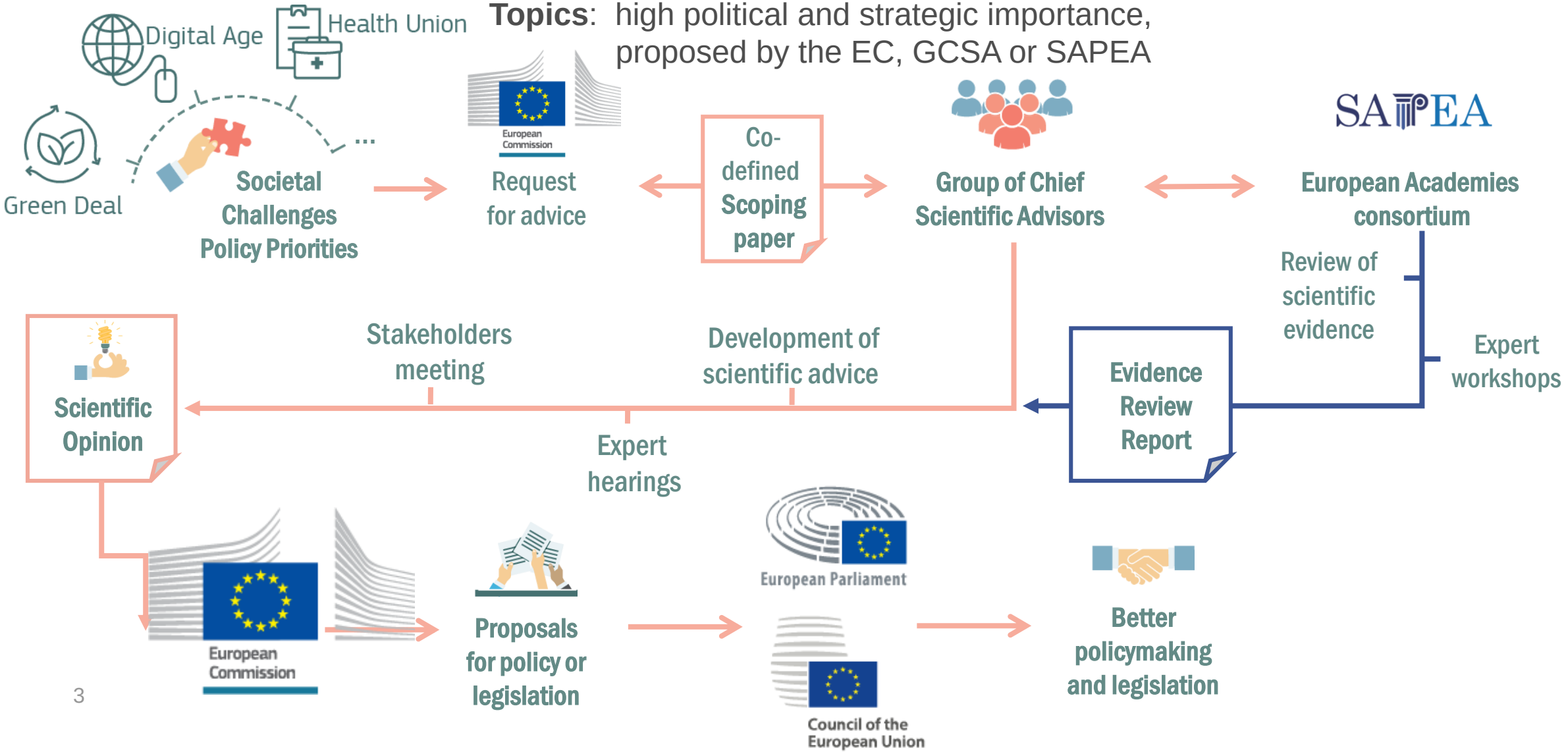
Scientific advice for well-informed policy and better regulation

Transparent and as free from bias as possible

Complementary to other scientific advice bodies in and beyond the EU institutions

European Commission

The process of developing a Scientific Opinion



Cancer Screening Topic

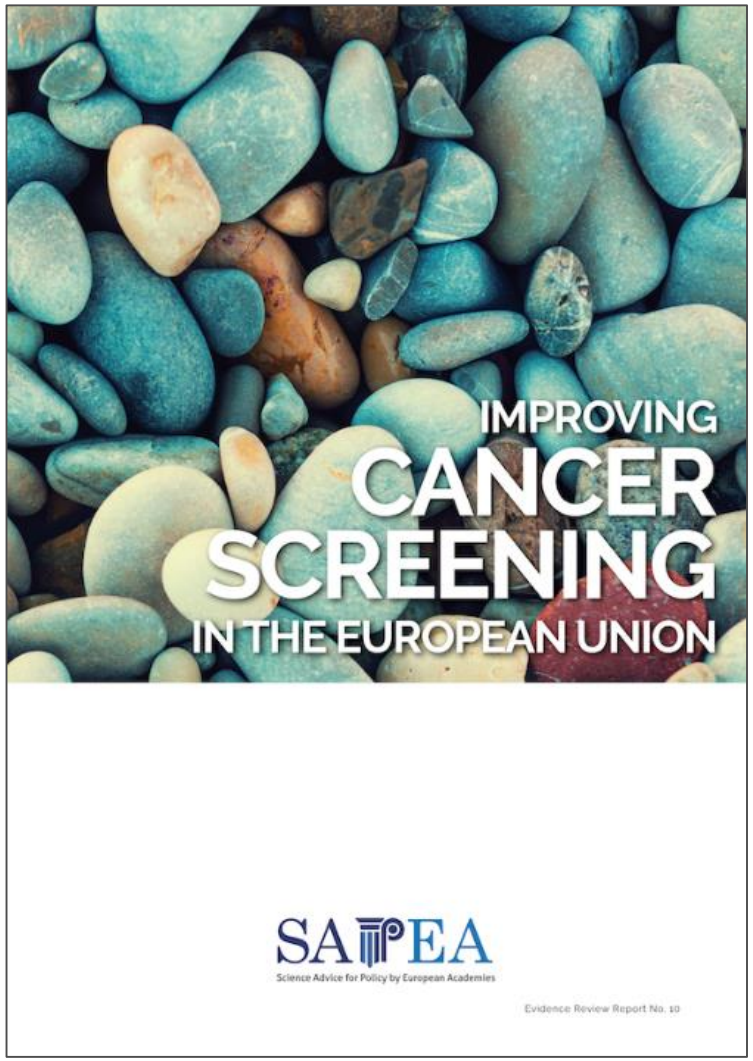
Initiated by FEAM President George Griffin (blood based screening, novel technologies) 2.5 years ago.

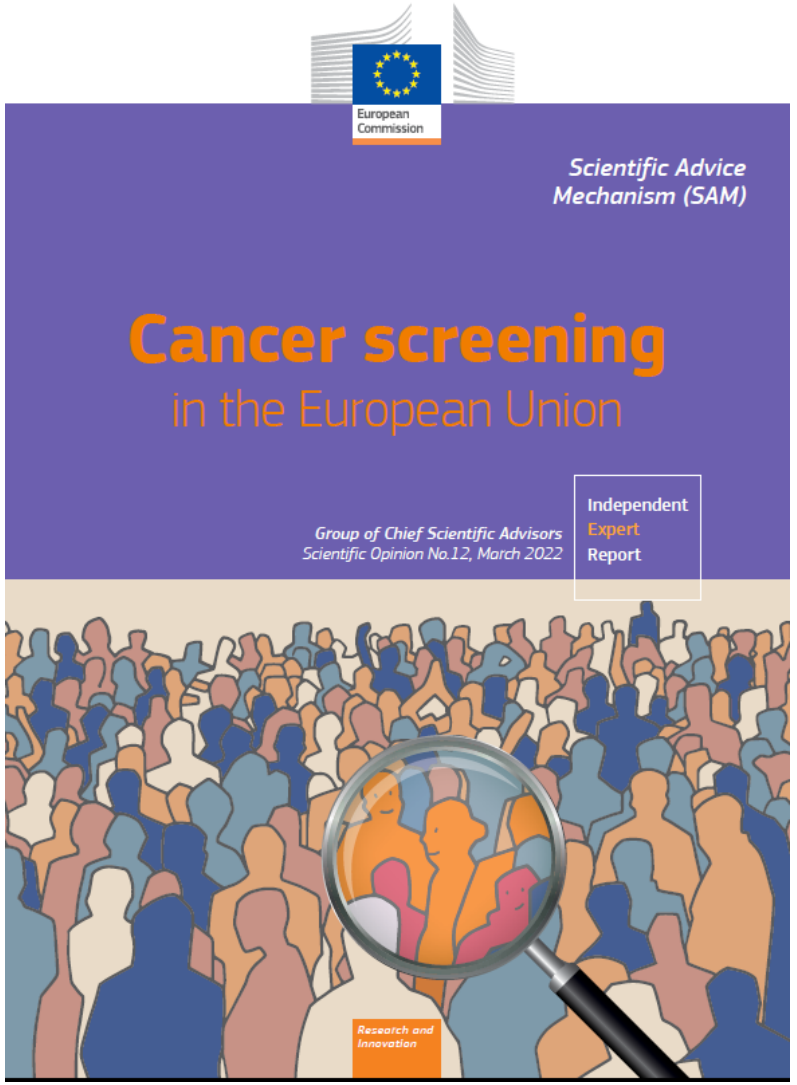
Europe's Beating Cancer Plan : top priority, a key pillar of a stronger European Health Union
It tackles the entire disease pathway: (1) prevention; (2) early detection; (3) diagnosis and treatment; and (4) quality of life of cancer patients and survivors.

Cancer screening Scoping paper (DG SANTE – GCSA) May 2021
Update the 2003 Council Recommendations on Cancer Screening

SAPEA workshops from Sept. 2021

Evidence gathering and synthesis





March 2, 2022

publication of the SAPEA report and Scientific Opinion

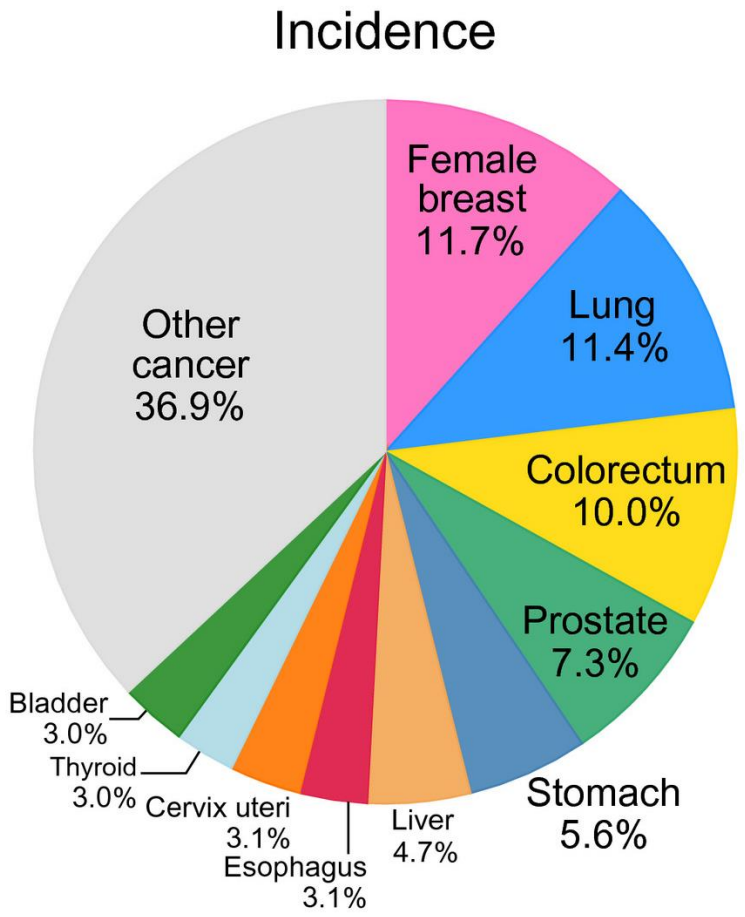
Cancer Screening in the EU

Scoping questions to SAM

1 How can cancer screening programmes targeting breast, cervical and colorectal cancers be improved throughout the EU?

2 What is the scientific basis extending such screening programmes to other cancers e.g. lung, prostate and gastric cancers, and ensuring their feasibility throughout the EU?

3 Which are the main scientific elements to consider, and best practices to promote, for optimising risk-based cancer screening and early diagnosis throughout the EU?



Recommendation 1:

Improve existing screening programmes for breast, cervical and colorectal cancer

1.1 **Improve the participation of citizens in existing cancer screening programmes** by **making access to screening easy** (e.g. through self-sampling, home-based testing), by providing information through decision-making aids and through shared decision-making between citizens and clinicians.

1.2 **Ensure that best practices and standards are developed and applied** in screening, along with staff training and continuous monitoring and evaluation for quality assurance.

1.3 For **breast cancer,** extend **screening for women below the age of 50** with mammography or digital breast tomosynthesis and for women with dense breasts with magnetic resonance imaging (MRI).

1.4 For **cervical cancer**, **prioritise screening by testing for human papilloma virus (HPV)** and support its eradication through the uptake of vaccination against HPV below 15 years of age.

1.5 For **colorectal cancer**, **use faecal immunochemical testing (FIT)** as the preferred triage test for referring individuals for follow-up colonoscopy.

Recommendation 2:

Extend population-screening programmes to additional cancers

2.1 **Extend screening programmes to lung cancer using low-dose computed tomography** for current and ex-smokers, particularly in the light of the high numbers of deaths caused by this disease and the strength of the evidence.

2.2 **Extend screening programmes to prostate cancer using prostate specific antigen (PSA)-based cancer screening**, in combination with additional MRI scanning as a follow-up test, as there is good evidence that screening with PSA testing can reduce deaths from prostate cancer.

2.3 For **gastric cancer**, population-based **screen and treat programmes for *Helicobacter pylori*** are only recommended in regions with intermediate to high gastric cancer incidence.

2.4 At present, neither the experts nor the literature review finds scientific grounds for recommending population-based endoscopic screening for oesophageal cancer and ultrasound and CA125 screening for ovarian cancer.

Recommendation 3:

Take advantage of the rapidly developing science and technology to optimise early diagnosis and risk-based cancer screening

3.1 Develop a system of "**living guidelines**" that can be rapidly modified and updated in response to scientific findings.

3.2 **Further develop and implement risk-stratified screening** in order to improve the harm-benefit ratio of screening programmes.

3.3 Ensure **preparedness for the introduction of new screening methods**, in particular for less invasive and blood-based cancer screening where large-scale clinical trials are expected to yield results for multiple cancer screenings in the coming years.

3.4 Support the establishment of **biobanks** appropriate for biomarker-based cancer screening research.

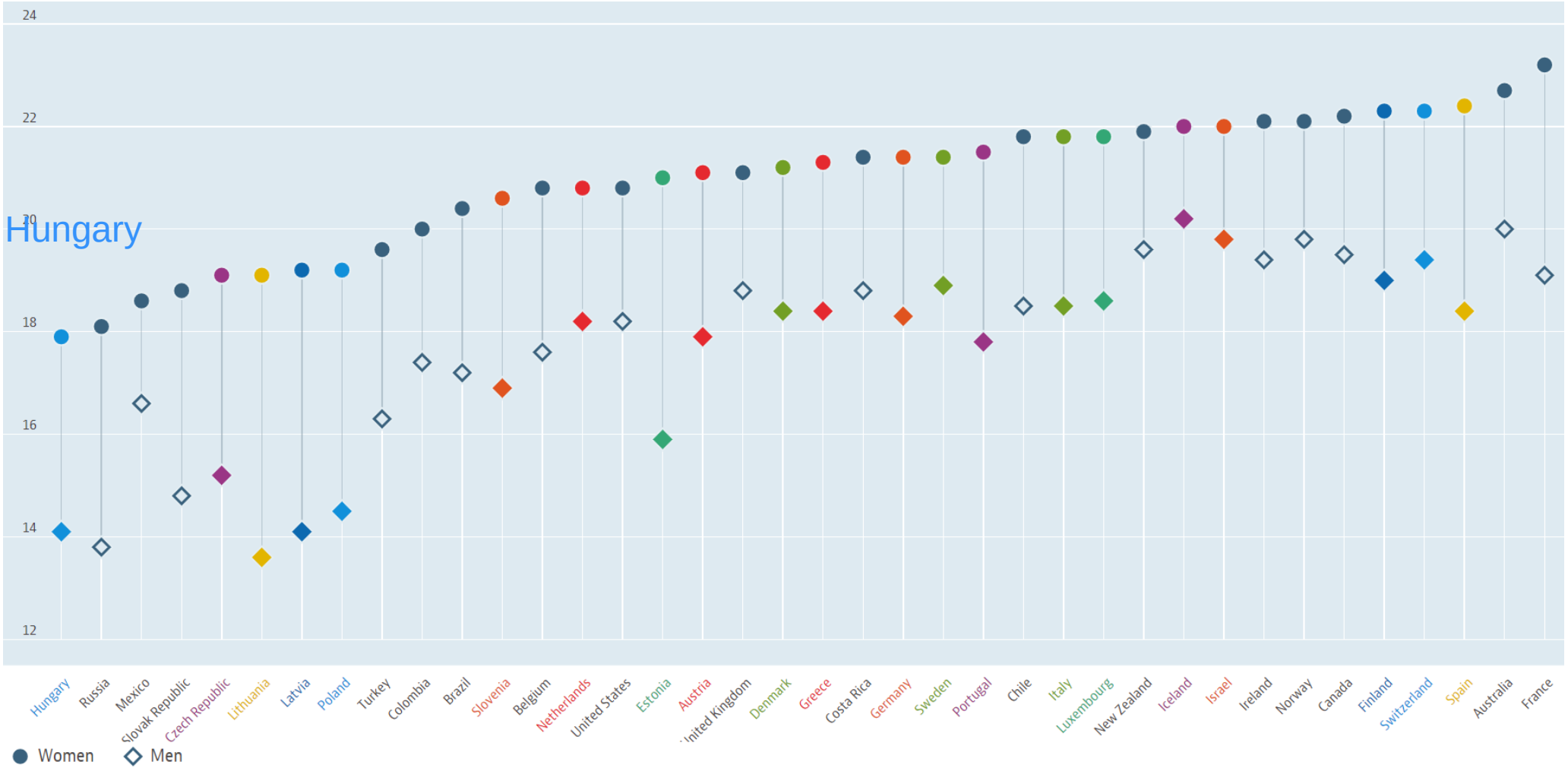
3.5 Support **the harmonisation of protocols and quality assurance** within and between countries

Health of Hungarians

Life expectancy at birth in 2019

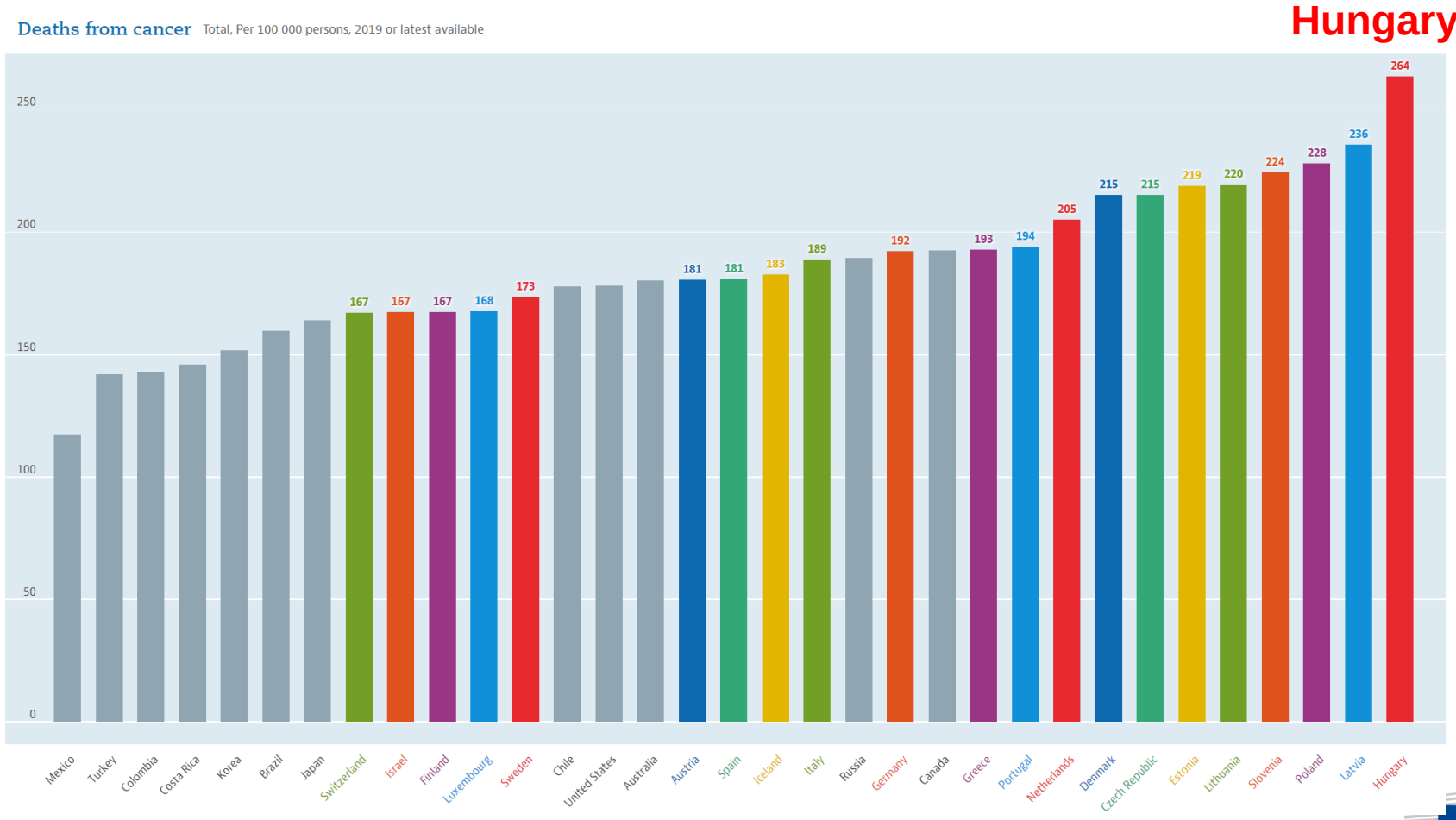
	Men	Women	Birth rate	Death rate
Switzerland	81.9 years	85.6 years	10.0 ‰	7.9 ‰
Sweden	81.3 years	84.7 years	11.1 ‰	8.6 ‰
Hungary	72.9 years	79.3 years	9.5 ‰	13.3 ‰

Life expectancy at 65 (OECD 2020)

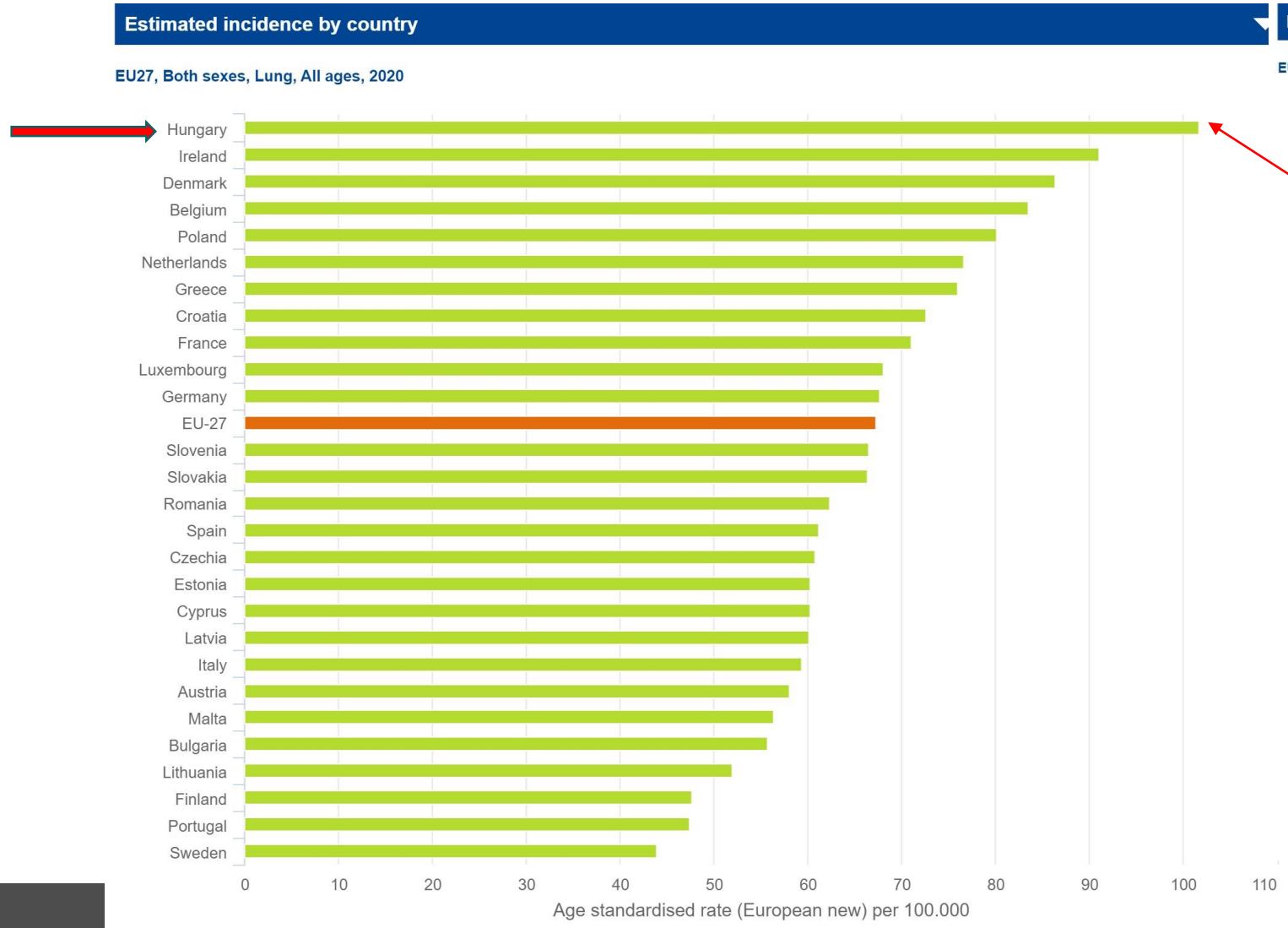


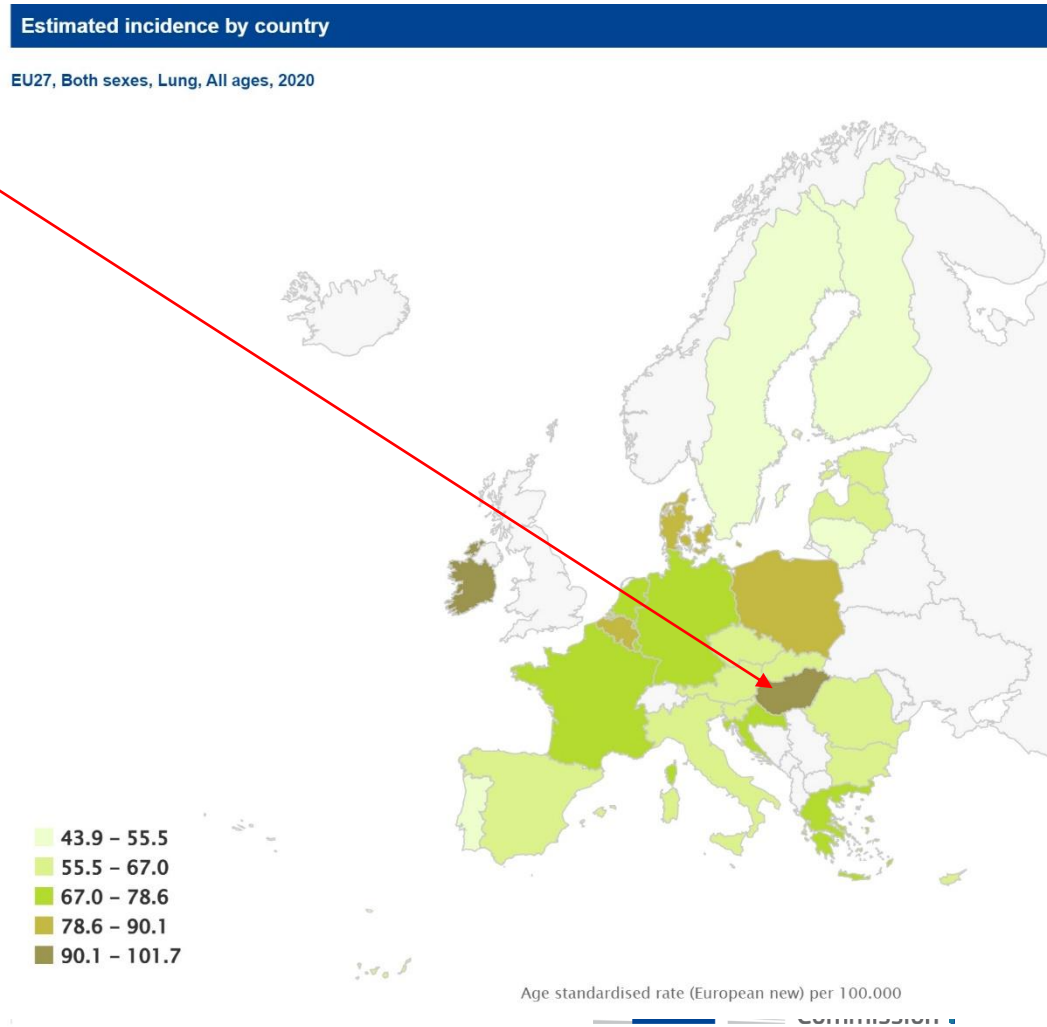
Death from cancer (OECD)

Hungary

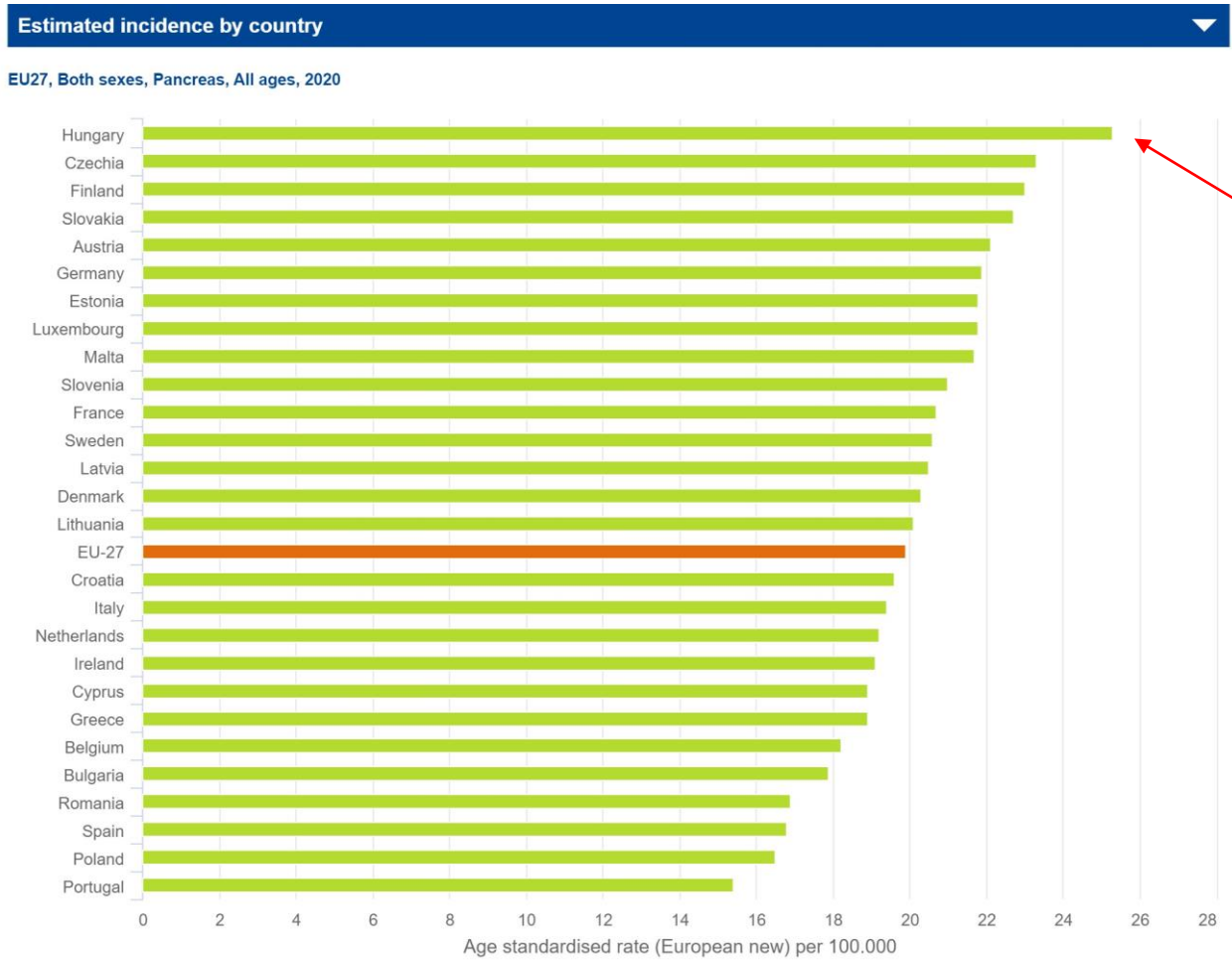


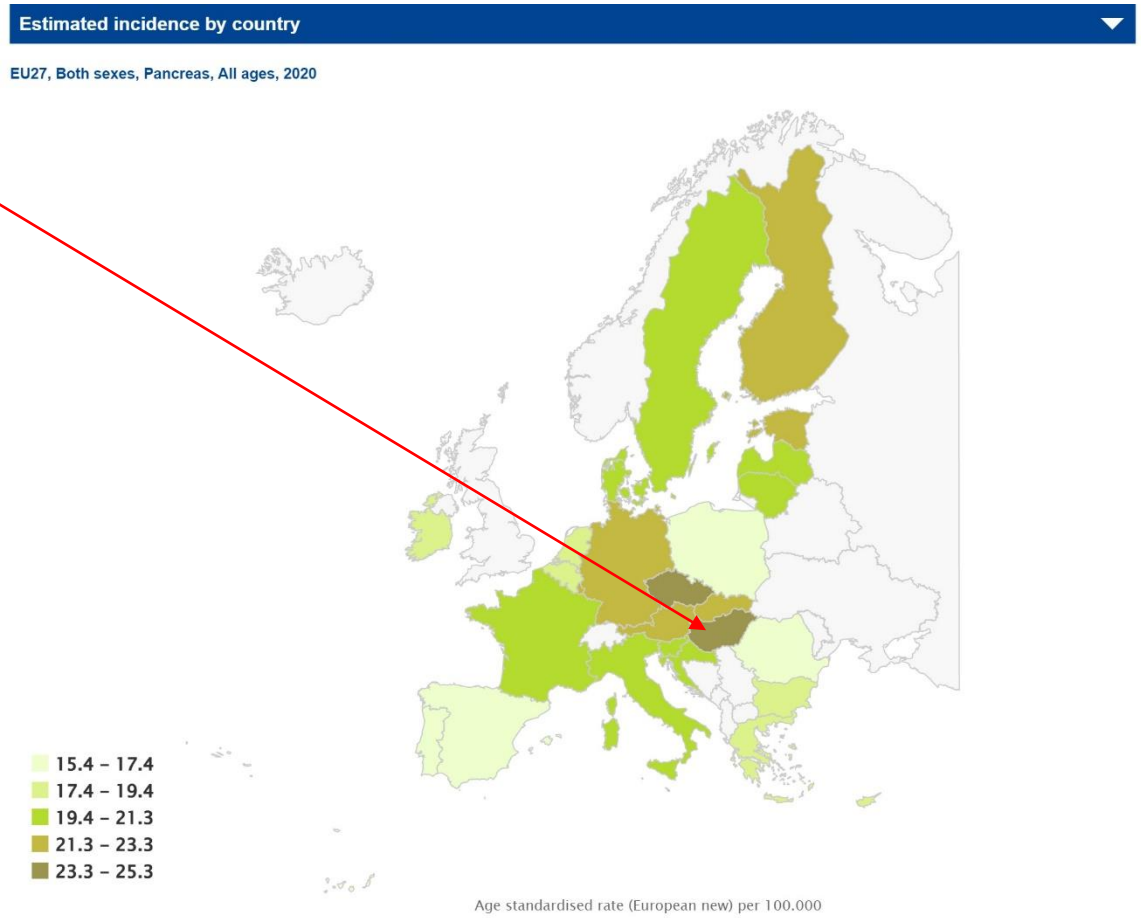
Lung cancer


Estimated incidence by country
EU27, Both sexes, Lung, All ages, 2020
Hungary
Ireland
Denmark
Belgium
Poland
Netherlands
Greece
Croatia
France
Luxembourg
Germany
EU-27
Slovenia
Slovakia
Romania
Spain
Czechia
Estonia
Cyprus
Latvia
Italy
Austria
Malta
Bulgaria
Lithuania
Finland
Portugal
Sweden
0
10
20
30
40
50
60
70
80
90
100
110
Age standardised rate (European new) per 100.000

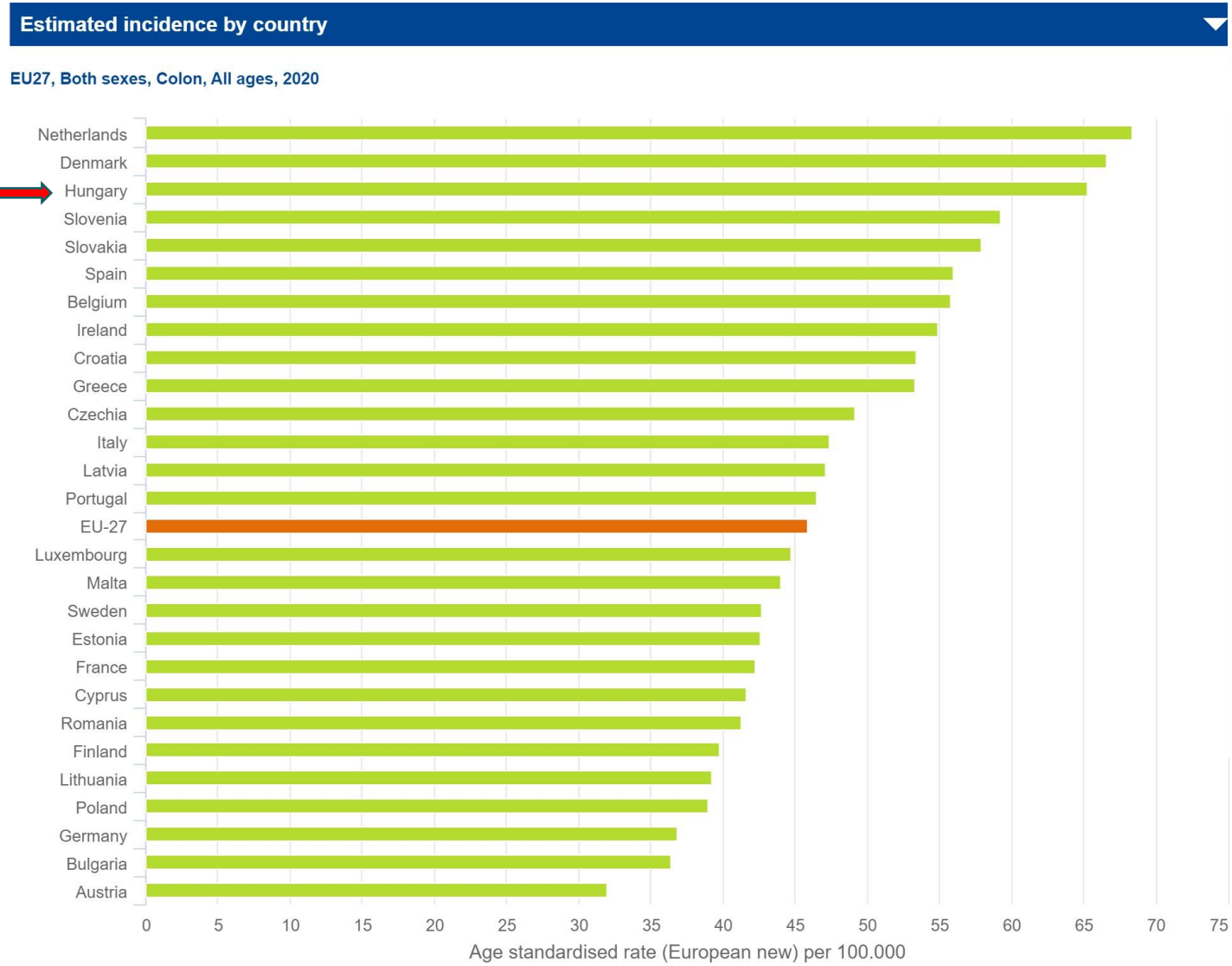

Estimated incidence by country
EU27, Both sexes, Lung, All ages, 2020
43.9 – 55.5
55.5 – 67.0
67.0 – 78.6
78.6 – 90.1
90.1 – 101.7
Age standardised rate (European new) per 100.000

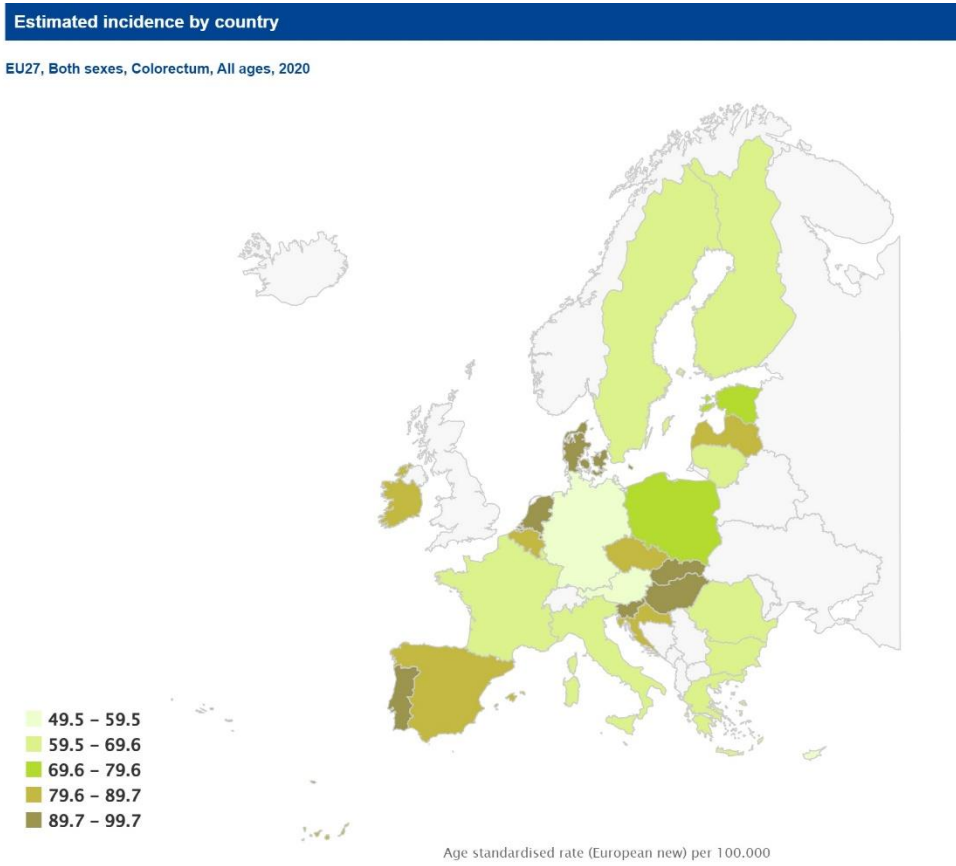
Pancreas cancer





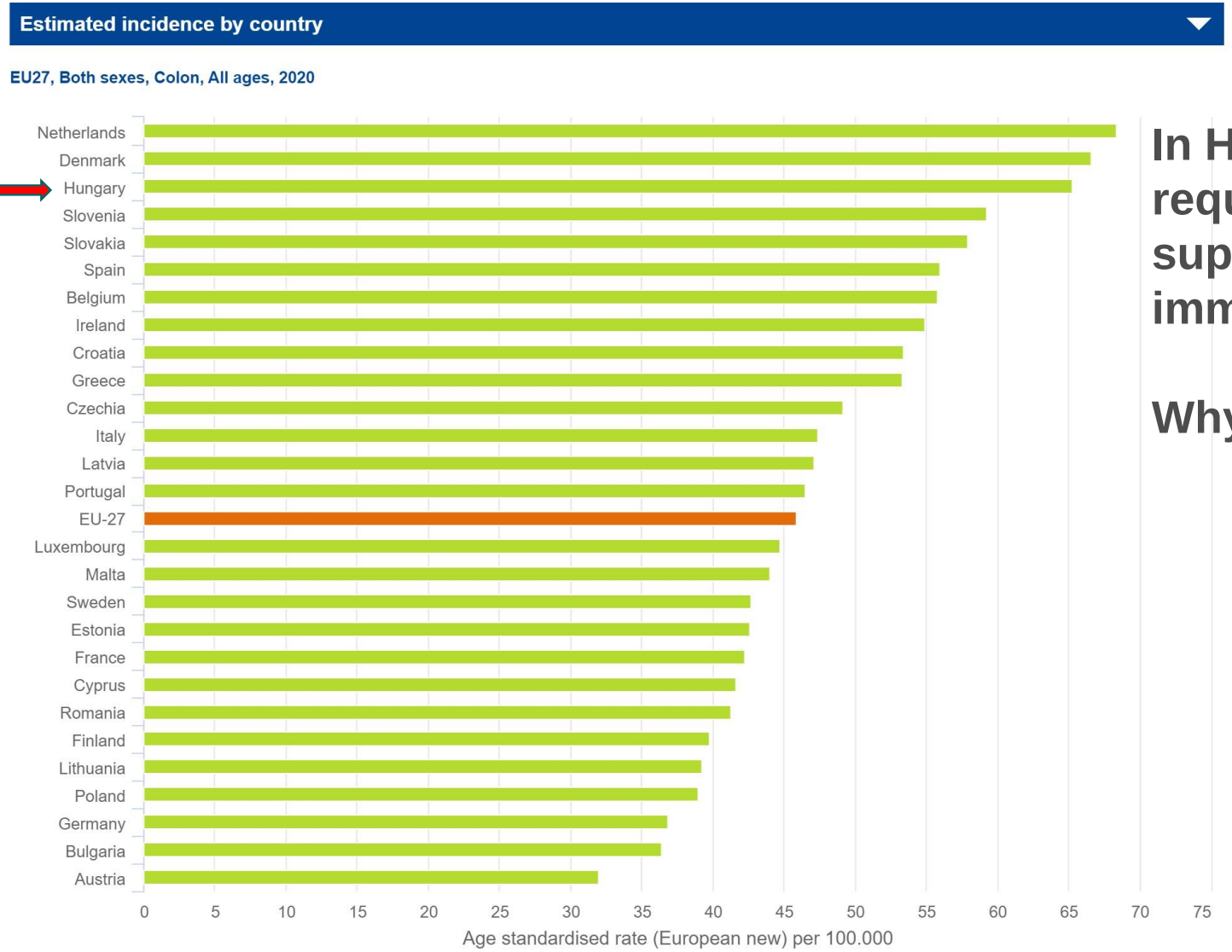
Colorectal cancer





European Commission

Colorectal cancer



In Hungary, a less reliable test (gFOBT) requiring 3 samples is used and supported instead of a stool immunochemical test (FIT).

Why? When will FIT replace this?

European Commission

Why are Hungarians more vulnerable than other EU countries?

What measures can be taken to reduce the number of cancer cases and increase the survival of cancer patients?

We wish you a successful implementation of the upcoming revised Council Recommendations on Cancer Screening and saving more life.

Thank you for your attention!