

This webinar is presented in partnership with

DATA-CAN
The Health Data Research Hub for Cancer



Groundshot: a pan-European, patient-centered, and data-driven approach to tackling cancer : a *Lancet Oncology* Commission



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Beating Cancer: The Need for Action

- Europe is facing a **cancer crisis**
 - **COVID-19** pandemic and subsequent **national lockdowns**
 - the **Russian Invasion** of Ukraine
 - The global **economic downturn**
- We need to **Act Now**
- Critically **challenge today's efforts** and **how we might do better** in the future.
- **Data into intelligence** informing **12 Recommendations**.
- **Call for Action: Reimagine cancer research and its implementation across Europe**
- Addressing the realities **“on the ground”**

THE LANCET
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November, 2022 www.thelancet.com/oncology

European Groundshot—addressing Europe's cancer research challenges: a *Lancet Oncology* Commission



“Too often, opinion, even expert opinion, has trumped data in the genesis and implementation of cancer research policies...analysing these data and deploying the resulting evidence...will help nurture a cancer research culture that delivers pragmatic, patient-focused solutions for Europe.”

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DATA EATS OPINION FOR LUNCH

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Our 70:35 Vision – 70% Long Term Cancer survival by 2035

- This is **not shooting for the moon**, it is firmly **grounded in reality** (hence the **Groundshot**)
- Help **achieve our 70:35 Vision**; 70% long term survival by 2035 for the 20M people in Europe living with cancer (**Recommendation 1**)
- **Patients treated in research-active hospitals** have better outcomes than those who are not.
- Research is **not a luxury**, it is an **essential and integral part** of modern European cancer care.

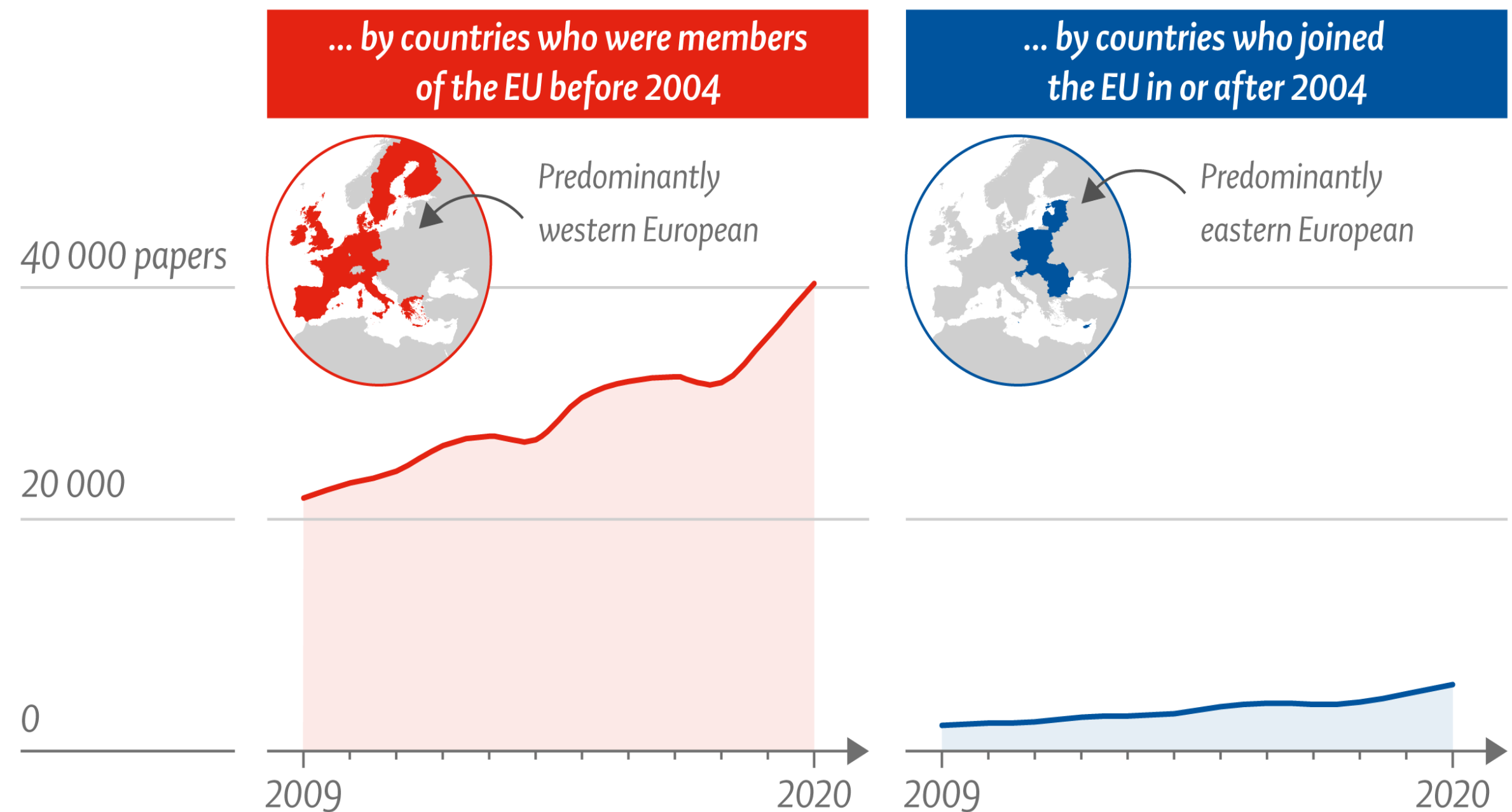


Closing the Cancer Divide

- **EU15 : doubling of cancer research**
- **EU13 : Stagnation**, little or no progress
- Direct impact on **survival and outcomes**
- **Capacity-building, directed funding, and twinning** to enhance research activity, quality, and translation
- All citizens and patients, **no matter where they live**, to benefit equally from advances in cancer research
(Recommendations 2, 3)

Cancer research is booming in western Europe, but is stagnant in eastern Europe

Number of cancer research papers published...



Addressing the Funding Gap

- **Significant mismatch** in cancer research funding between Europe and US
- **Europe:** ~€26 per head on cancer research
- **USA:** per capita spend is €234
- **Double** European cancer research budget to **€50 per head** by 2030 (**Recommendation 4**)
- Not **what** you spend, it's **how** you spend it
- Need to invest where the **investment is most needed**



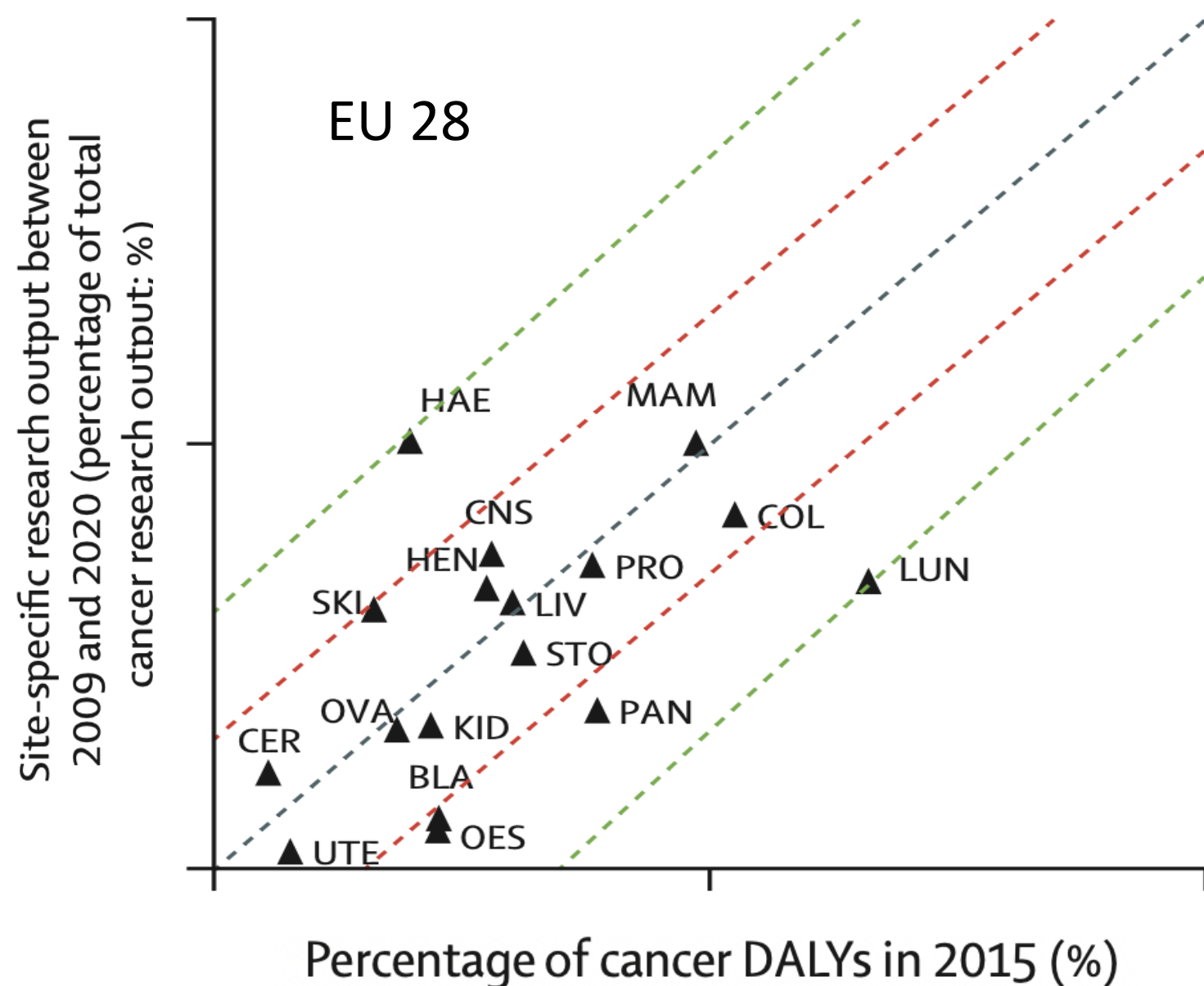
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Groundshot—levelling up cancer outcomes in Europe: a *Lancet Oncology* Commission

Widen the cancer research portfolio in Europe

- Too narrow focus on discovery science and biopharmaceutical research
- need to embrace a **more comprehensive research portfolio**,
 - **all disease phases**, from prevention and early diagnosis to survivorship
 - **all cancer types**, proportionate to cancer incidence and burden
 - **all modalities** of cancer treatment and care, including non-systemic treatment interventions
- need for a greater emphasis on **health policy** and **systems research**, including **implementation science**

Align cancer research to European cancer incidence and burden



- Make **decisions based on data intelligence**, not opinion

- **Follow the data** and act on what it tells us

Most frequent cancers: breast, colorectal, lung and prostate

Highest cancer mortality: lung, colorectal, breast and pancreas

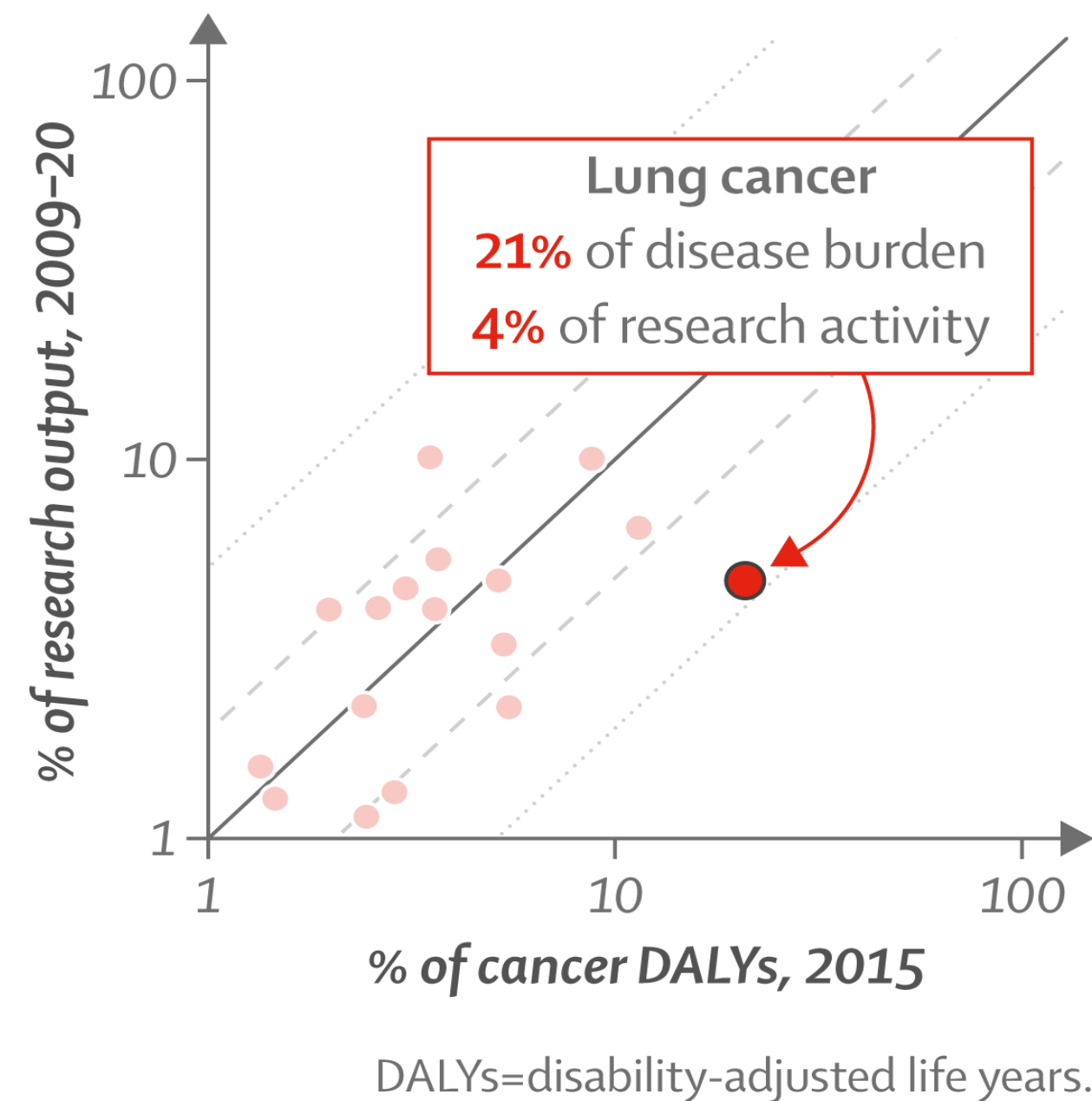
Research activity compared to the **relative disease burden**

in line with expected (e.g., breast and H&N cancer)

- higher than expected (e.g., haemato-oncology, CNS)

Make decisions based on data intelligence, not opinion

Lung cancer merits greater research attention than it currently receives



- **Follow the data** and act on what it tells us

Most frequent cancers: breast, colorectal, lung and prostate

Highest cancer mortality: lung, colorectal, breast and pancreas

Research activity compared to **relative disease burden**

- in line with expected (e.g., breast and H&N cancer)
- higher than expected (e.g., haemato-oncology, CNS)
- **some major cancer anatomical sites are severely under-researched** (e.g., colorectal, pancreas and **lung** cancer)

Gender equality in cancer research – time to end the discrimination

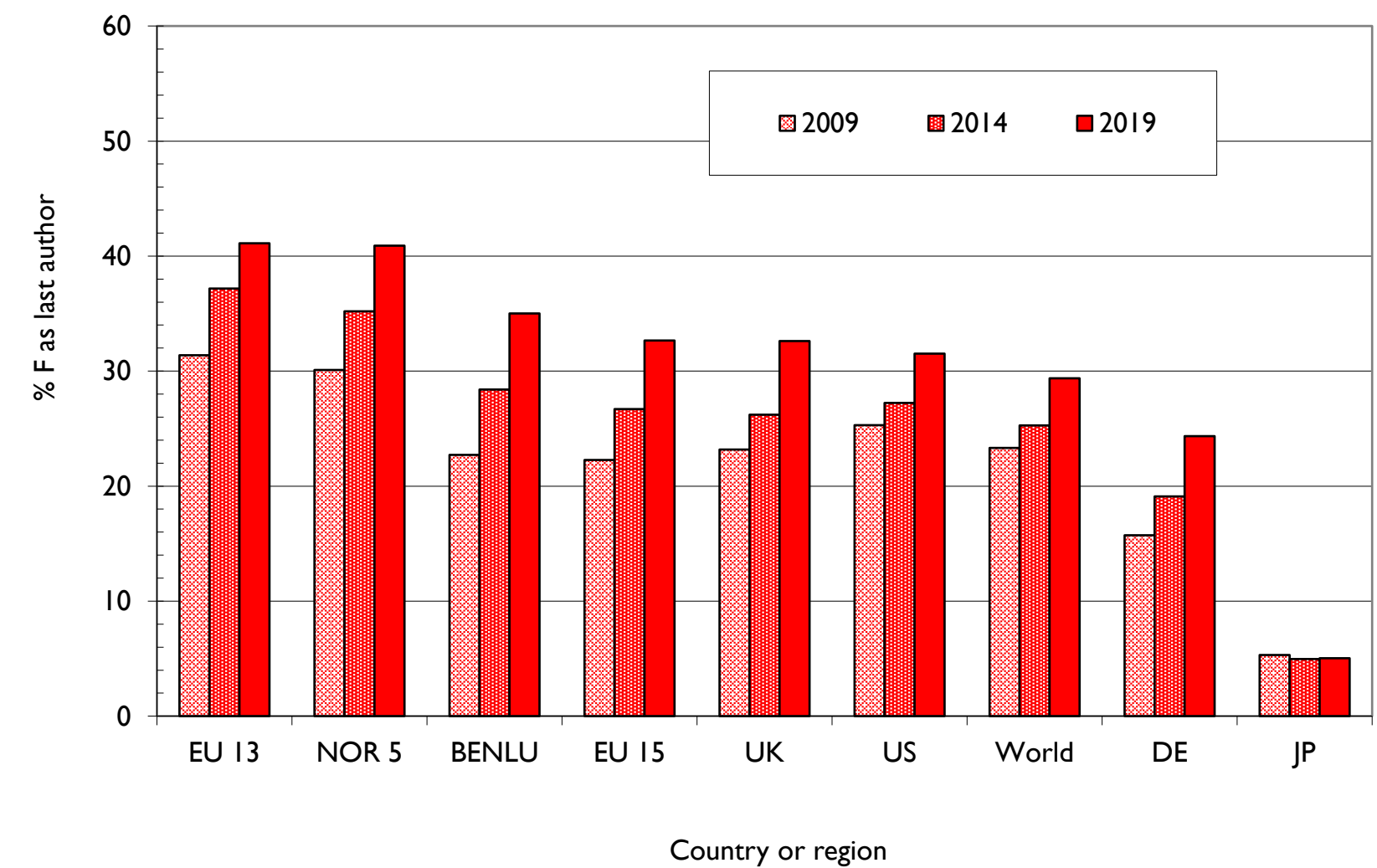
Disappointing figures particularly on **senior author female publications** in cancer research

Similar story for **research funding - 65% M v 35% F**

Learn from **CEE** and **Nordic** countries

Must develop **proactive mechanisms** to enhance gender equality in cancer research

Increase female senior authorship from **33% to 45% by 2028 (Recommendation 6)**



Mandating a Step Change in Prevention, Screening and Early Diagnosis Research

Substantial mismatch in funding focus

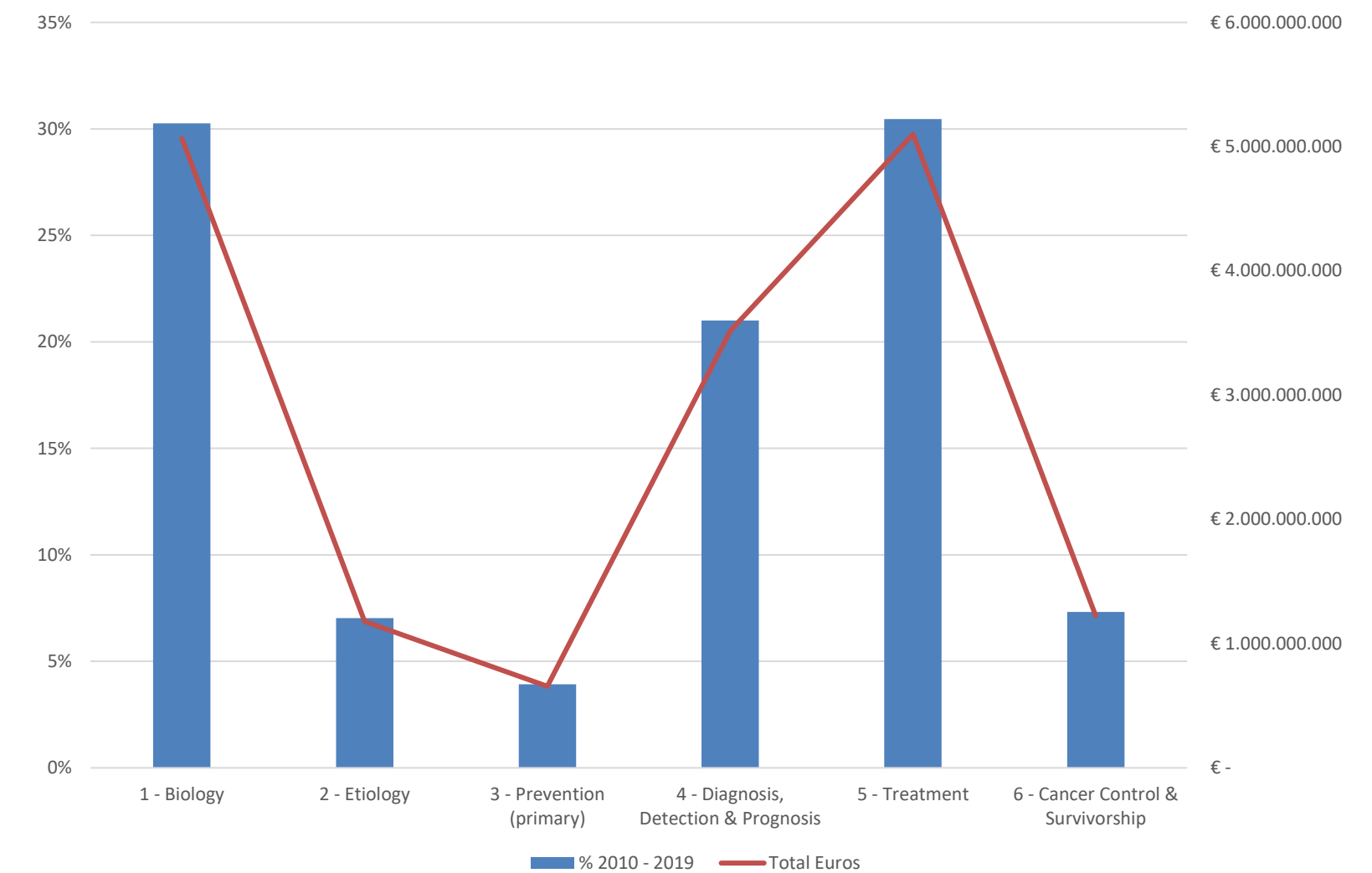
Need to **shift the dial (Recommendation 7)**

Significantly **increase spend** on prevention research

Fully implement new screening recommendations

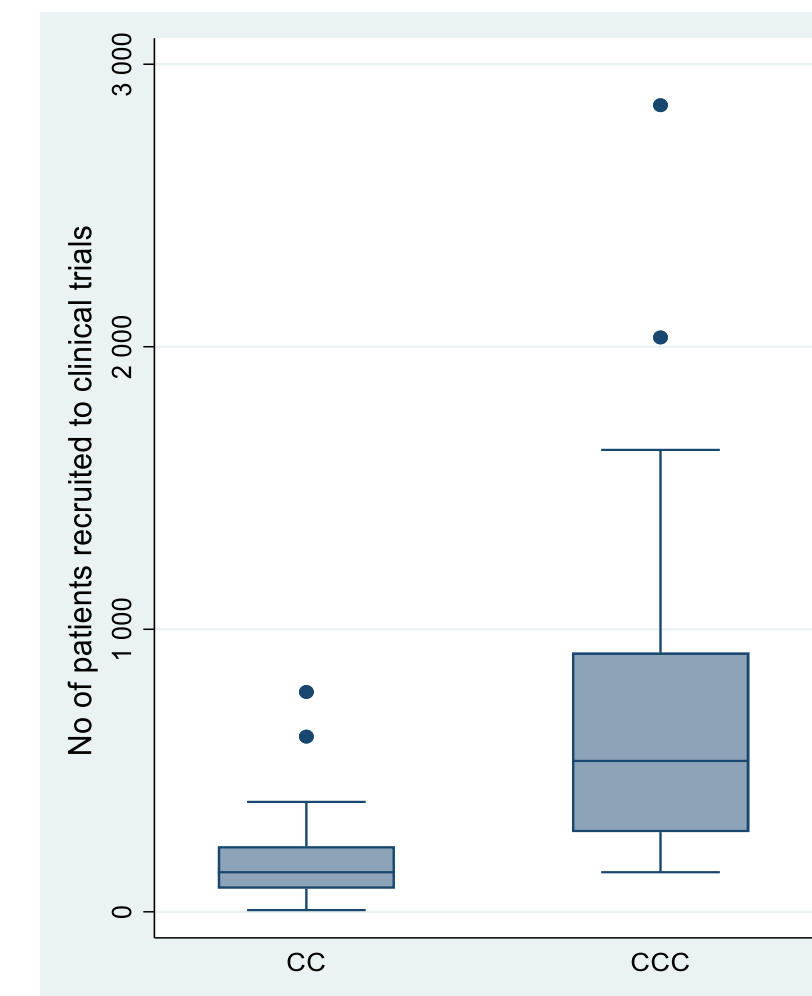
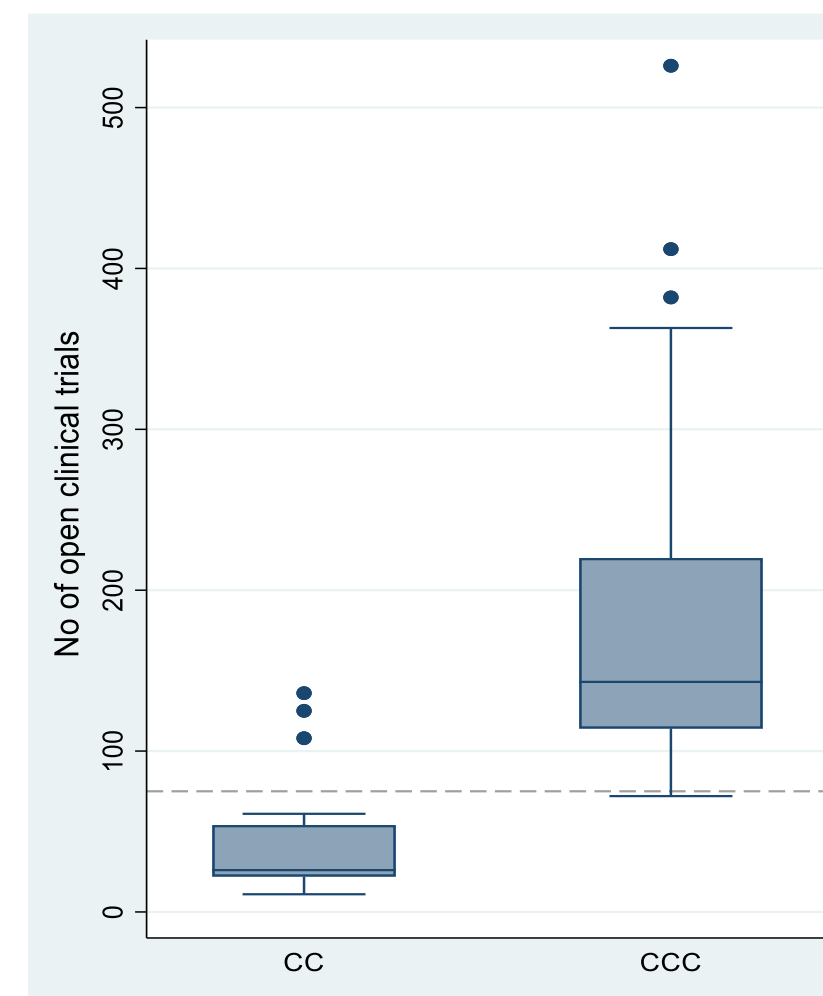
Eliminate HPV-driven cancers by 2030

Embed new technologies to **enhance detection of cancer at its earliest stage** including liquid biopsies



Research as the driver of better cancer care

- We need to **work together**
- **Comprehensive Cancer Centres** as drivers of research and innovation and their **implementation** into better cancer care (**Recommendation 8**)
- *“Less breakthrough; more follow through”*
- **Harnessing** the strengths of Europe by **leveraging infrastructure and expertise** to be **more than the sum of our parts**



More focus on surgical and radiotherapy is needed

- **Surgery**, and most notably **radiotherapy**, lag behind systemic treatment modalities in research effort overall
- **50% of patients** with cancer have an **evidence-based indication** for radiotherapy and/or surgery as their most effective cancer treatments
- Yet we **significantly under-invest** in surgical and radiotherapy research

	Papers published between 2012 and 2021				Percentage of all cancer research papers published in each group				Relative contribution of OECI-accredited centres*
	World	EUR32	EUR19	OECI-accredited centres	World	EUR32	EUR19	OECI-accredited centres	
Discovery science and genetics	231 878	65 807	50 684	15 225	19.0%	17.0%	16.8%	19.2%	1.14
Biomarkers	178 687	54 756	43 333	13 390	14.6%	14.1%	14.4%	16.8%	1.17
Epidemiology	145 846	45 863	37 831	11 964	11.9%	11.8%	12.6%	15.1%	1.20
Surgery	139 851	44 644	35 098	8 202	11.4%	11.5%	11.7%	10.3%	0.89
Chemotherapy	134 263	39 530	31 391	8 769	11.0%	10.2%	10.4%	11.0%	1.06
Pathology	110 035	38 054	29 532	7 423	9.0%	9.8%	9.8%	9.3%	0.95
Diagnosis	74 670	26 402	20 486	5 157	6.1%	6.8%	6.8%	6.5%	0.95
Radiotherapy	69 546	25 505	17 632	5 496	5.7%	6.6%	5.9%	6.9%	1.18
Targeted therapy	53 565	19 262	15 509	5 303	4.4%	5.0%	5.1%	6.7%	1.30
Paediatrics	52 860	17 506	13 980	3 681	4.3%	4.5%	4.6%	4.6%	1.00
Clinical trials	34 102	13 462	11 365	4 769	2.8%	3.5%	3.8%	6.0%	1.59
Quality-of-life	30 006	12 388	9 743	1 866	2.5%	3.2%	3.2%	2.3%	0.73
Screening	24 463	8 610	7 142	2 030	2.0%	2.2%	2.4%	2.6%	1.08
Palliative care	20 535	7 645	5 844	1 540	1.7%	2.0%	1.9%	1.9%	1.00
Total cancer research papers published	1 223 049	387 125	301 239	79 471

Prioritising 20 Million Europeans Living Beyond a Cancer Diagnosis

- Survivorship **under-researched** and **underfunded**
- Need for a **European Survivorship Research and Innovation Plan (Recommendation 9)**
- **Three Pillars** to the plan
 - Medical
 - Socio-economic
 - Politico-legal
- **Avoid Financial Toxicity** through the **Right To Be Forgotten**
- Need for a **European Cancer Survivorship Day**



Don't Let Cancer Become the Forgotten C in the Fight against COVID

- **Follow the data!**
- **Accelerate the research response** to the indirect effects of the COVID-19 pandemic on cancer (**Recommendation 10**)
- **Establish, by 2023, a near real-time dashboard** that captures and quantifies the effects of the COVID-19 pandemic on all aspects of the cancer pathway
- **Deploy** this accurate and timely cancer intelligence **to mitigate** the effects of the pandemic **and build future resilience**



Impact of Covid-19 on Cancer screening



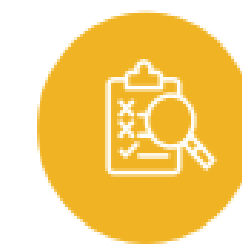
Impact of Covid-19 on Cancer treatment



Impact of Covid-19 on Cancer patients seen



Impact of Covid-19 on Cancer workforce



Impact of Covid-19 on Cancer diagnosis



Impact of Covid-19 on Cancer patients

Data Intelligence: Impact on cancer screening and diagnosis



Impact of Covid-19 on Cancer screening

100 million Cancer screening tests were **not performed** in Europe as a result of the pandemic



Impact of Covid-19 on Cancer diagnosis

1 million Cancer patients could be undiagnosed due to the presentational/diagnostic backlog

We are in a race against time to find those missing cancer diagnoses
THE LANCET Oncology

The best science for better lives

Mitigating the Impact of the War In Ukraine on Cancer

- Build on the work of the European Cancer Organisation and American Society of Clinical Oncology **Special Network on the Impact of the War in Ukraine on Cancer**
- Collect **monthly data intelligence** on the effects of the conflict on patients, cancer services, medicines, supply shortages, and workforce gaps, **in Ukraine and in neighbouring countries;**
- Develop a plan, by 2023, on how best to **mitigate the effects** of the conflict on **cancer clinical trials activity** across Europe (**Recommendation 11**)

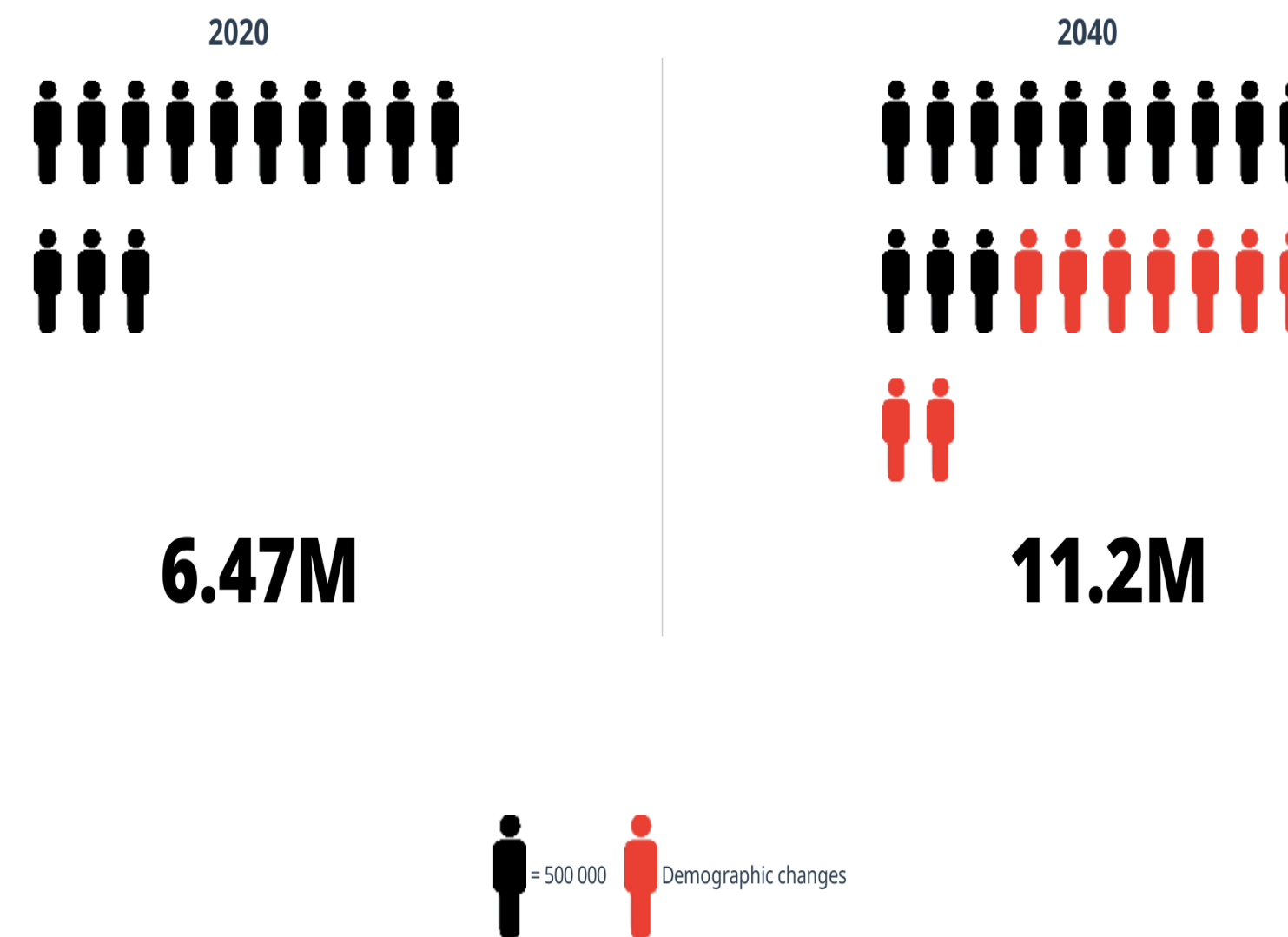
	Number of RCTs published*	Total cancer research output†	Percentage of total research output‡
Lower-middle-income countries			
India	42	27 601	67%
Ukraine	39	801	2%
Philippines	23	384	1%
Egypt	12	6262	15%
Georgia	6	78	<1%
Total	84	35	..
Upper-middle-income countries			
Russia	115	4835	2%
Brazil	94	15 272	7%
Romania	62	3457	2%
China	56	154 373	69%
Mexico	56	4126	2%
Total	182	182 063	..

RCT=randomised controlled trial. *One RCT could involve one or more countries. †Total number of cancer research papers published. ‡Percentage of total research output that are RCTs; percentages do not add up to 100% because data are exclusive to countries

Table 7: Top five country-level participation in global RCTs published between 2014 and 2017 by World Bank income category compared with their total cancer research outputs between 2014 and 2017

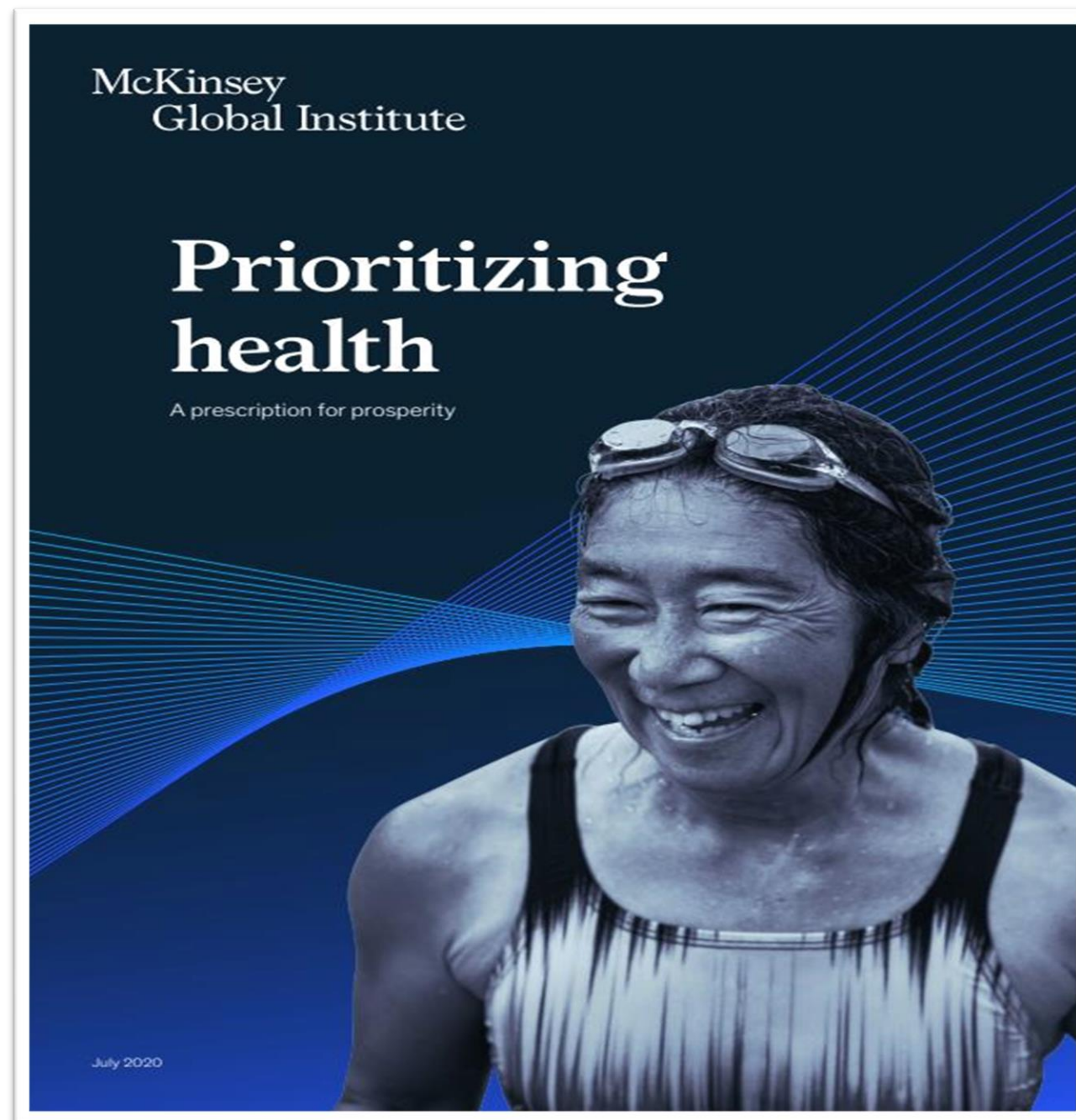
Empowering an equitable global cancer agenda

- Lets not be insular – we need to **empower** European cancer researchers to drive an **equitable global cancer research agenda**, with particular emphasis on LMICs (**Recommendation 12**)
- **Increase cancer research activity** between Europe and global partners **by 50%** by 2025
- Develop innovative funding mechanisms to **encourage a 50% uplift by 2024** in support for joint research between European and LMICs
- **Double collaborative research** activity between Europe and LMICs **by 2027**



Deaths from cancer in LMIC 2020, with projections to 2040

Health and health-related research must not be seen as an expense, but an investment



creating a virtuous cycle of improved health and higher incomes. Economists estimate that about one-third of economic growth in advanced economies in the past century could be attributed to improvements in the health of global populations. Research focused on more recent years has found that health contributed almost as much to income growth as education.

The best part is that focusing on known health improvements could deliver an incremental economic benefit of \$2 to \$4 for each \$1 invested (Exhibit 5).

1. Make healthy growth a social and economic priority
2. Keep health on everyone's agenda
3. Transform healthcare systems
4. Double down on innovation

The *Lancet Oncology* European Groundshot Commission on cancer research makes 12 realistic recommendations for achieving impactful change

- 1** Double implementation science and health services research activity by 2024
- 2** Ensure all Europeans benefit from cancer research no matter where they live
- 3** Increase cancer research capacity and capability in eastern Europe by 25% by 2025
- 4** Double cancer research funding in Europe to 50€ per head by 2030
- 5** Mitigate Brexit by facilitating UK involvement in European cancer research
- 6** Enhance gender equality in cancer research
- 7** Implement research advances to eradicate HPV-driven cancers by 2030
- 8** Deploy comprehensive cancer centres as powerhouses for cancer research and its translation into superior clinical care
- 9** Establish a European Cancer Survivorship Research Plan by 2023
- 10** Deliver a data dashboard to capture and mitigate in real time the impact of COVID-19 on cancer by 2023
- 11** Ensure clinical trial activity is maintained and enhanced in central and eastern Europe despite the impact of the war in Ukraine
- 12** Double collaborative cancer research between Europe and low-income and middle-income countries by 2027

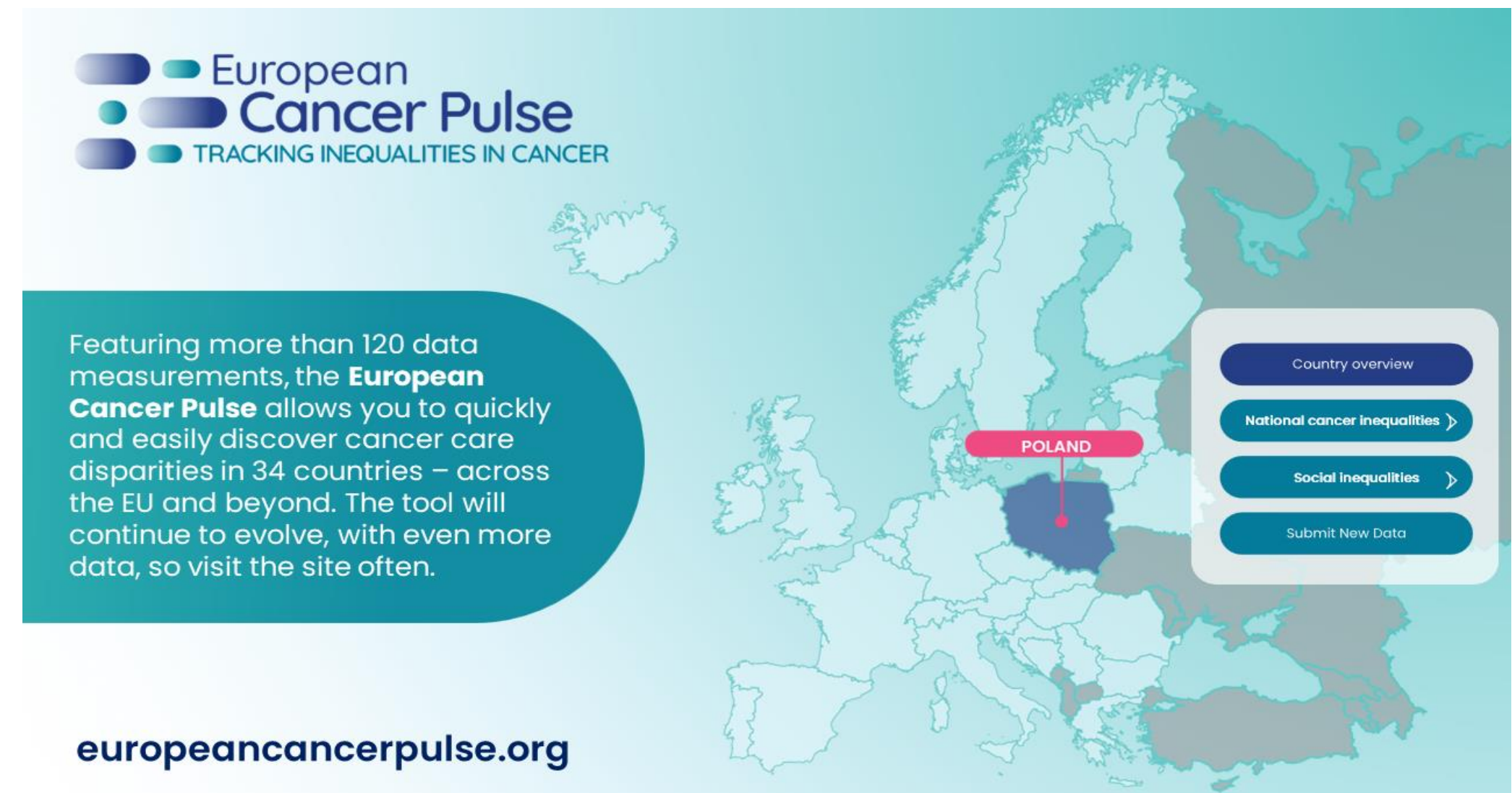


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The European Cancer Pulse: Tracking Inequalities in Cancer Care in Europe

- Data visualisation tool **mapping inequalities in cancer care** across the WHO European region
- Includes more than **120 data measurements, across 34 countries**
- Tracks inequalities in:
 - All **EU and non-EU European countries**
 - All **areas of the cancer pathway and cancer policies**
 - All **areas of social inequalities** across all marginalised communities
 - All **types of available data sources**

Couespel N, Venegoni E, Lawler M. The European Cancer Pulse: tracking inequalities in cancer control for citizen benefit *Lancet Oncology* May;24(5):441-442



<https://www.europeancancer.org/pulse>

Dipping into the data



National Cancer Plan

Only **12 out of 27** EU-27 countries have an **updated national cancer plan**.



Diagnosis

- Only **8%** of Dutch citizens experience **difficulties to find information about cancer symptoms**, versus **40%** in **Bulgaria**
- **UK** has only **1.0 CT scanners per 100,000 inhabitants** compared to **3.5** in **Germany**.



Medical Personnel

- **Sweden** has almost **6 (5.7) oncologists per 100,000 inhabitants**, while **Malta** has less than **2 (1.8)**.
- **Norway** has **1788 nurses per 100,000 inhabitants**, versus **338** in **Greece**.

Insights from the:



Cancer Survivorship

Only **5 out of 27** of EU-27 countries have legal implementation of **right to be forgotten** for cancer patients' access to financial services.



Healthcare Spending

Romania is spending only **70€ per capita on cancer care**, versus **260€** in **Austria**.

Driving Change

The gaps are mapped and assessed, we now **need to FOLLOW THE DATA and make change happen.**

The **patient voice** can be a positive **disruptive force.**

A **patient-centred approach** to cancer research is crucial to bridging health research, policy, and clinical practice.

Great Opportunity for Europe-US initiative to address the global impact of cancer

