

# A European-wide Cancer Mission How to make it a success?

Anton Berns

President European Academy of Cancer Sciences

Brussels, July 1, 2020

# Cancer in Europe: The problem

- **Steady increase in cancer incidence (due to an aging population) with still a large fraction of patients dying from cancer.**
  - **EU 28 2018: 3.0 mio cases 1.41 mio deaths. 30% increase by 2040.**
- **Steep growth of number of patients living with cancer requiring monitoring/treatment/dealing with side-effects (health, socio-economic aspects).**
- **Increasing demand on personnel; skyrocketing costs of cancer medicines.**
  - **Even rich European countries cannot afford this.**
- **Inequalities in access to cancer care among and within countries.**

# Define reachable goals for the Cancer Mission

- **Patients diagnosed in 2030:**  
75% of cancer patients survive 10 years or longer with a good quality of life (in countries with well-developed healthcare system).
- **Research**
  - Identify individuals at risk (genetics, exposure, lifestyle, socio-economics).
  - Effective primary prevention (mitigate risks, vaccination, chemoprevention).
  - Improved early detection and treatments (less side effects).
  - Implementation leading to swift and equal access to these treatment.
  - Patient in central position with prominent attention to survivorship (quality of life, rehabilitation, psychosocial and socio-economic aspects).
  - Outcomes research to assess benefits for patients and healthcare systems.
- **Infrastructures**
  - A range of defined structures of sufficient critical mass to provide a stimulating environment for investigators to address the research questions.

# Preventable cancers

## Europe

**New cancer cases (Year 2018)**  
4.23 million

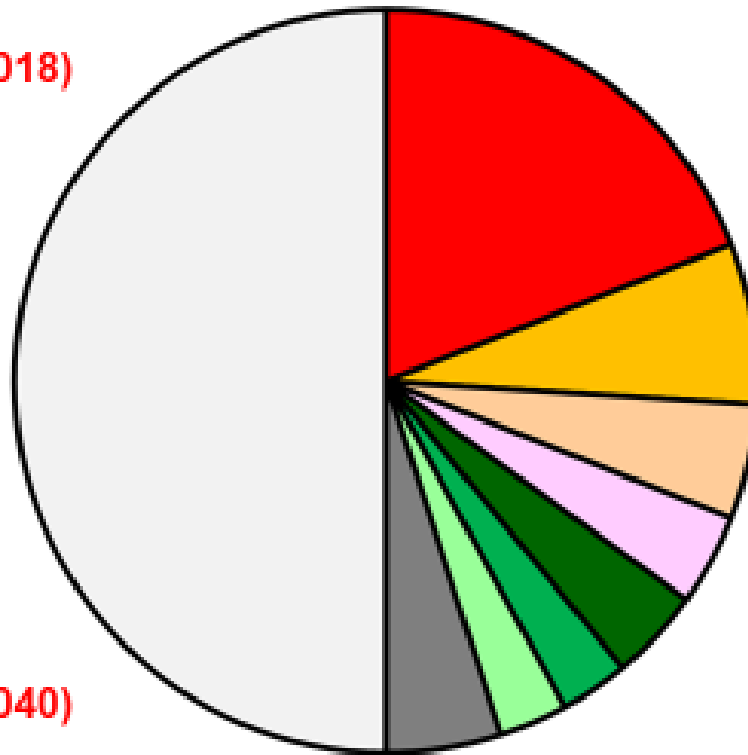


**Total from/to**  
About 100 million

**New cancer cases (Year 2040)**  
5.21 million



*... would have been preventable through primary prevention on ...*



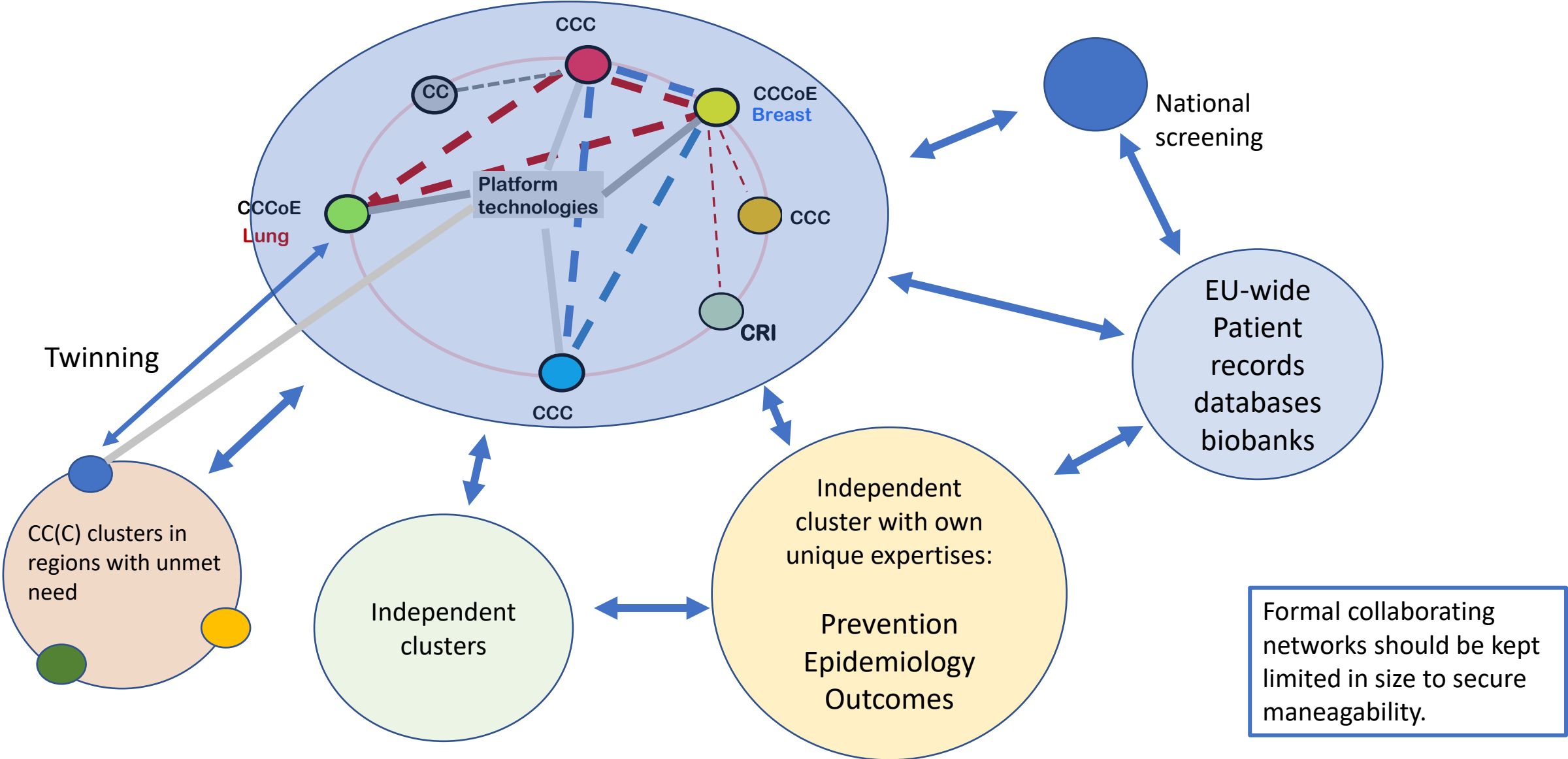
- Tobacco
- Obesity/Inactivity
- Diet
- Alcohol
- Infections
- Radiations
- Occupation & Environment
- Not preventable
- Unknown

# The infrastructural building blocks for improvement

- **Comprehensive Cancer Centres (CCCs):** high-quality expertise and critical mass bridging the basic, translational and clinical research continuum. OECl accredited.
- **CCC of Excellence (CCCoE):** with unique, internationally-leading expertise. EACS designated.
- **Clinical Centres** with high quality service provisions for cancer patients. OECl accredited.
- **Cancer research Institutes (CRIs):** innovative research in interaction with clinical sites.
- **Entities with focus on Prevention research.**
- **Entities with focus on Outcomes research.**
- **PI-led research groups** embedded in these infrastructures.
- **Societies/associations of professionals, patient organisations, funding agents, charities.**



# Collaboration between clusters of CCCs and twinning



# Specific Initiatives

- **Assure that the continuum of cancer research and care is adequately covered.**
  - Funding incentives for all aspects of the research continuum.
  - Attention for specific areas such as paediatric and geriatric oncology.
  - High profile expert board to advise on legal measures (exposure reduction, socio-economics).
- **Incentivise cancer centres to acquire critical mass and to commit to quality standards.**
  - Promote accreditation (CCC and CCCoE) and creation of sustainable networks between such centres.
  - Specific assistance for centres in areas with unmet need and their “twinning” with expert centres.
  - Encourage outreach to other stakeholders (pharma, hospitals, patient organisations).
  - Involve societies and associations of experts, patients and charities (education, training, capacity building).
- **Since real breakthroughs primarily come from creative investigators, install a program to support innovative PI-led projects (ERC and SynergyERC like).**



# EACS as feeder for the Mission

- **Prominent membership representing all academic disciplines acting in the cancer research and cancer care continuum.**
- **Its fellows are often leading members of the societies acting in the cancer field.**
- **Well-positioned: Initiator (with Cancer Core, Prevention Core and Patient Organisations) of an EU-wide discussion how to meet the challenge posed by the increasing number of cancer patients and its consequences for society at large (white paper).**
- **Platform to provide expert advice to the EU integrating the specific expertises of all stakeholders to create a balanced action plan for the Mission.**

# Towards a Cancer Mission in Horizon Europe

Anton Berns<sup>1,2</sup>, Ulrik Ringborg<sup>2,3</sup>, Julio E. Celis<sup>2,4</sup>, M. Heitor<sup>5</sup>, Neil K. Aaronson<sup>1</sup>, Nancy Abou Zeid<sup>6</sup>, Hans-Olov Adami<sup>7</sup>, Kathi Apostolidis<sup>8</sup>, Michael Baumann<sup>2,9</sup>, Alberto Bardelli<sup>10,11</sup>, René Bernard<sup>1,10</sup>, Yvonne Brandberg<sup>7</sup>, Carlos Caldas<sup>2,12</sup>, Fabien Calvo<sup>13</sup>, Caroline Dive<sup>10,14</sup>, Angelika Eggert<sup>15</sup>, Alexander Eggermont<sup>2,16</sup>, Carolina Espina<sup>17,37</sup>, Frederik Falkenburg<sup>18</sup>, Jérôme Foucaud<sup>19</sup>, Douglas Hanahan<sup>20</sup>, Ulrike Helbig<sup>21</sup>, Bengt Jönsson<sup>22</sup>, Mette Kalager<sup>23</sup>, Sakari Karjalainen<sup>24</sup>, Miklós Kásler<sup>25</sup>, Pamela Kearns<sup>26,27</sup>, Klas Kärre<sup>28</sup>, Denis Lacombe<sup>29</sup>, Francesco de Lorenzo<sup>8</sup>, Françoise Meunier<sup>30</sup>, Gerd Nettekoven<sup>21</sup>, Simon Oberst<sup>12, 31</sup>, Péter Nagy<sup>32</sup>, Thierry Philip<sup>31,33</sup>, Richard Price<sup>34</sup>, Joachim Schütz<sup>17,37</sup>, Eric Solary<sup>6,13</sup>, Peter Strang<sup>7</sup>, Josep Taberero<sup>35</sup>, Emile Voest<sup>1,36</sup>

Anton Berns, the Netherlands Cancer Institute, Amsterdam, the Netherlands.

Email: [a.berns@nki.nl](mailto:a.berns@nki.nl)

Ulrik Ringborg, Cancer Center Karolinska, Karolinska University Hospital. Stockholm, Sweden.

E-mail: [ulrik.ringborg@ki.se](mailto:ulrik.ringborg@ki.se)

Julio E. Celis, Danish Cancer Society Research Centre, Copenhagen, Denmark.

E-mail: [jec@cancer.dk](mailto:jec@cancer.dk)

Manuel Heitor, Minister for Science, Technology and Higher Education, Portugal.

E-mail: [mheitor@mctes.gov.pt](mailto:mheitor@mctes.gov.pt)

1. The Netherlands Cancer Institute, Amsterdam, the Netherlands
2. European Academy of Cancer Sciences
3. Cancer Center Karolinska, Karolinska University Hospital, Stockholm, Sweden
4. Danish Cancer Society Research Centre, Copenhagen, Denmark
5. Ministry for Science, Technology and Higher Education, Portugal
6. Fondation ARC pour la recherche sur le cancer, Villejuif, France
7. Karolinska Institutet, Stockholm, Sweden
8. European Cancer Patient Coalition, Brussels, Belgium
9. German Cancer Research Center (DKFZ), Heidelberg, Germany
10. The European Association for Cancer Research
11. Candiolo Cancer Institute, FPO - IRCCS, Candiolo (TO), Italy
12. Cancer Research UK Cambridge Centre, UK
13. Gustave Roussy Cancer Campus Grand Paris, Villejuif, France
14. CRUK Manchester Institute, UK
15. Charite-Universitätsmedizin, Berlin, Germany
16. Princess Máxima Center for pediatric oncology, Utrecht, the Netherlands
17. International Agency for Research on Cancer (IARC/WHO), Lyon, France
18. Dutch Cancer Society, The Netherlands
19. French National Cancer Institute (INCa), Boulogne Billancourt, France
20. Swiss Institute for Experimental Cancer Research (ISREC), Federal Institute of Technology in Lausanne (EPFL), and Swiss Cancer Center Leman (SCCL), Lausanne, Switzerland
21. German Cancer Aid, Bonn, Germany
22. Stockholm School of Economics, Stockholm, Sweden
23. University of Oslo, Institute of Health and Society, Oslo, Norway
24. Association of European Cancer Leagues (ECL), Brussels, Belgium
25. Ministry of Human Resources, Budapest, Hungary
26. SIOPE Head Office, Brussels, Belgium
27. NIHR Birmingham Biomedical Research Centre, University of Birmingham, UK
28. The Swedish Cancer Society, Stockholm, Sweden
29. EORTC Headquarters, Brussels, Belgium
30. Fédération of European Academies of Medicine, Brussels, Belgium
31. Organisation of European Cancer Institutes (OEI)
32. National Institute of Oncology, Budapest, Hungary
33. Institut Curie, Paris, France
34. The European Cancer Organisation (ECCO), Brussels, Belgium
35. Vall d'Hebron University Hospital and Institute of Oncology (VHIO), Barcelona, Spain
36. Cancer Core Europe
37. Cancer Prevention Europe

**Thank you!**

# Comprehensive Cancer Centre of Excellence

- **State-of-the-art treatment and follow-up, patient engagement and QoL studies.**
- **Stimulating environment for basic and translational cancer research.**
- **Capabilities to design and execute innovative, practice changing clinical trials.**
- **Attractive to top-talent. Training of next generation cancer researchers and clinicians.**
- **Focal points for (inter)national collaboration and scientific exchange.**
- **Attractive environment for start-ups and collaboration with pharma.**
- **Valuable hands-on expertise useful for EU policy makers.**