



European missions:

how to integrate national research and science-based innovation programs to realize the expectations and challenges on the European and National level.



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HORIZON EUROPE



2021-2027 Horizon Europe 3 PILARS



Pillar I: Excellent Science focuses on encouraging and funding frontier research. (European Research Council - ERC, Marie Skłodowska-Curie Actions - MSCA, Research Infrastructures)

Pillar II: Global Challenges and European Industrial Competitiveness develop a shared vision and support the uptake of innovative solutions in industry and society. (6 Clusters, Joint Research Centre)

Pillar III: Innovative Europe aims at funding research to produce European innovations. (European Innovation Council, European Innovation Ecosystems, European Institute of Innovation and Technology)





HORIZON EUROPE



The three Horizon Europe Pillars are complemented by the addition of another horizontal Pillar,

"Widening Participation and Strengthening the European Research Area"



European Research Council

Marie Skłodowska-Curie

Research Infrastructures



Pillar II GLOBAL CHALLENGES & EUROPEAN INDUSTRIAL COMPETITIVENESS

Health

Culture, Creativity & Inclusive Society

- · Civil Security for Society
- · Digital, Industry & Space
- · Climate, Energy & Mobility
- Food, Bioeconomy, Natural Resources, Agriculture & Environment

Joint Research Centre



European Innovation Council

European innovation ecosystems

European Institute of Innovation & Technology*

The Pillar II

"Cross-European collaborative projects that involve both industry and academia."

will receive funding from European Partnerships to support





Horizontal PILAR

Comprised of two components Sharing Excellence Reforming the **R&I Systems** that will assist all EU Member States to increase their national research and innovation potential, Promote cross-cutting

issues, foster collaborations and spread excellence.

Common vission

HORIZON EUROPE









HORIZON EUROPE



New elements in Horizon Europe



Support for innovations with potential breakthrough and disruptive nature with scale-up potential that may be too risky for private investors. This is 70% of the budget earmarked for SMEs.



Sets of measures to achieve bold, inspirational, and measurable goals within a set timeframe. There are 5 main mission areas as part of Horizon Europe.



New Approach to Partnerships

Objective-driven and more ambitious partnerships with industry in support of EU policy objectives.



Mandatory open access to publications and open science principles are applied throughout the programme Factsheet: Open science in Horizon Europe.



The European Parliament and Council of the EU have mandated the Commission to introduce a new way of working across policy areas, fields of expertise and science, directly engaging with companies, local communities and the innovation community:

EU Missions



EU Missions

EU Missions start from the idea that complex societal challenges require a coordinated effort across Europe to deliver impact.

They support the ambitious priorities of this Commission and recognize that we need to go beyond the existing instruments.

Missions will deliver results through a new role for research and innovation under the Horizon Europe programme.



Adaptation to Climate Change: support at least 150 European regions and communities to become climate resilient by 2030.



Cancer: improving the lives of more than 3 million people by 2030 through prevention, cure and for those affected by cancer including their families, to live longer and better.



Restore our Ocean and Waters by 2030



100 Climate-Neutral and Smart Cities by 2030



A Soil Deal for Europe: 100 living labs and lighthouses to lead the transition towards healthy soils by 2030



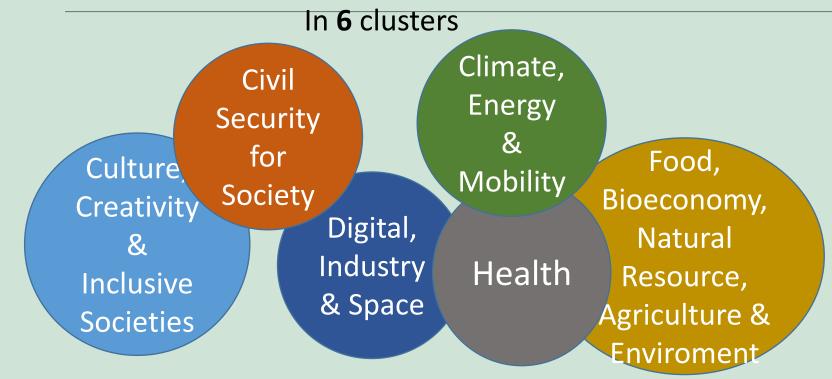
incentivize;:

- ☐ interdisciplinary,
- ☐ cross-sectoral,
- ☐ cross-policy,
- ☐ cross-border,
- ☐ international cooperation.



Horizon 2021-2027, Pillar II

Its research and innovation activities will be organized



Europe take a strategic position in Horizon Europe funding by shaping strong partnerships in and across the following topics:

- ☐ Innovation Support
- ☐ Health
- ☐ Digital Education
- ☐ Inclusive Society

- ☐ Digital Transformation
- ☐ Bioeconomy
- ☐ Cultural & Creativity
- ☐ Tourism



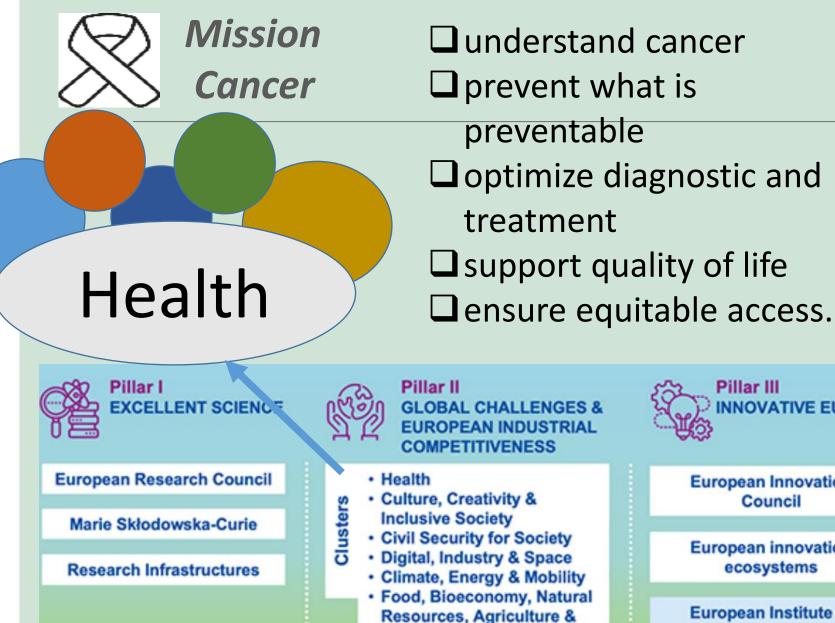


Missions

Overall approach

- Apply mission principles:
- innovation & risk taking citizen engagement equitable access MS commitment
- Underpinning and synergizing with Cancer Plan actions
- Joined up governance mission/cancer plan





Environment

Joint Research Centre

Pillar III

European Innovation

Council

European innovation

ecosystems

European Institute of

Innovation & Technology*

INNOVATIVE EUROPE

Support quality of life

Ensure equitable access

Optimize diagnostic and treatment

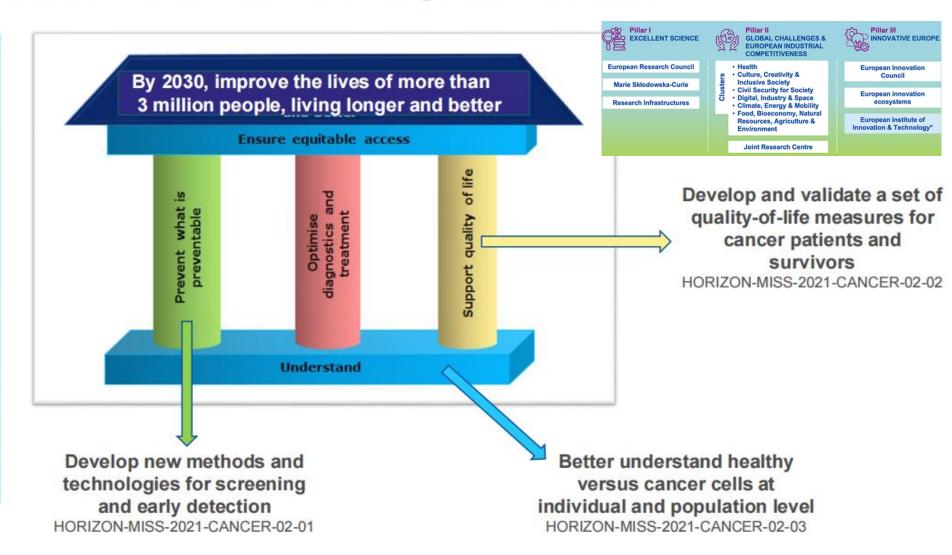
Prevent the preventable

Understand cancer

Mission on Cancer: topics in 2021

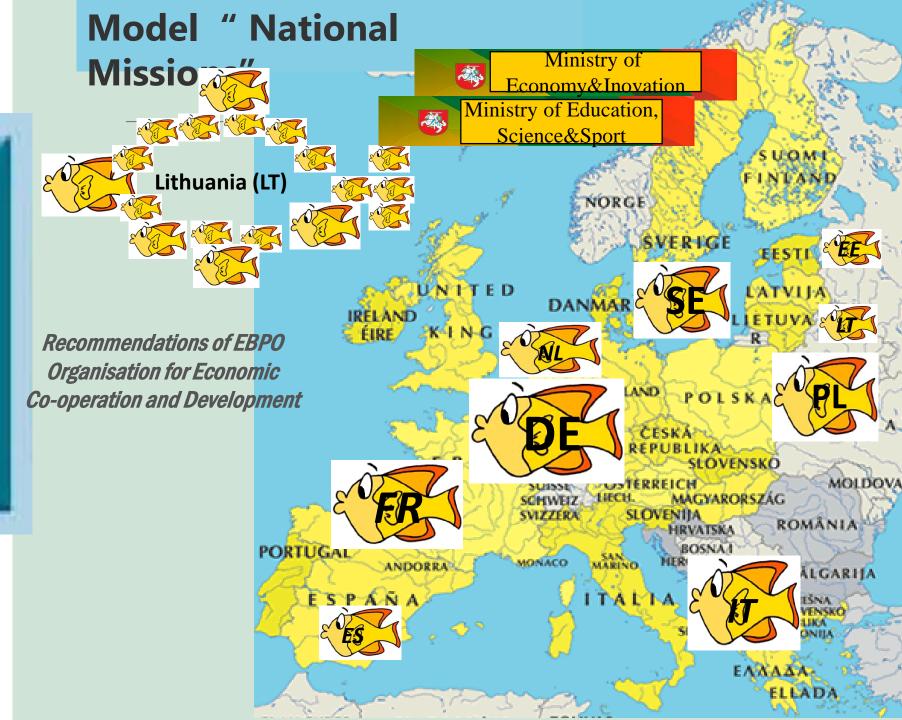
Overall approach

- Apply mission principles:
 innovation & risk taking
 citizen engagement
 equitable access
 MS commitment
- Underpinning and synergising with Cancer Plan actions
- Joined up governance mission/cancer plan
- total budget 2021: ~120 M€





Stakeholders, led by industry, come together to agree a common **National Mission**







Model "National Cancer Missions"

All countries accept EC "Cancer" mission and create "National Cancer Missions "



Support quality of life

Ensure equitable access

Optimize diagnostic and treatment

Prevent the preventable

Understand cancer





Research Council of Lithuania

Mission on Cancer will help set common goals and implement actions aiming to reverse the frightening trends of this disease.

Model "EU Cancer Missions"



- ☐ Understand cancer
- ☐ Prevent the preventable
- ☐ Optimize diagnostic and treatment
- ☐ Ensure equitable access
- Support quality of life





%NCP

Relationships between Mission's goal, areas of action and recommended actions

Conquer cancer: mission possible

By 2030, more than 3 million lives saved, living longer and better

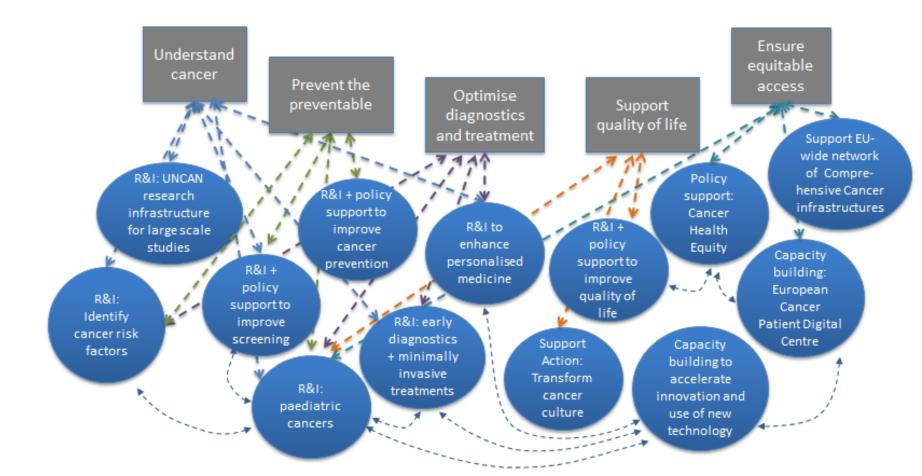






Figure highlight some
examples of how the Board's
recommendations
could be further developed in
specific actions with
measurable objectives,
identified actors and synergies
with related initiatives.

Example of action area 'Understand cancer, its risk factors and impact'

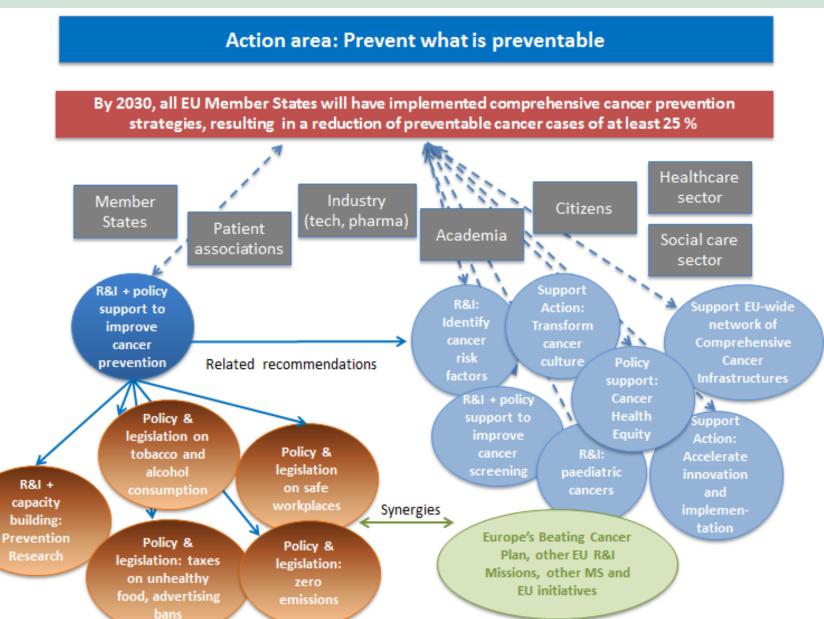
Action area: Understand cancer, its risk factors and impact Provide a comprehensive and dynamic view of the initiation, development and spread of cancer leveraging the UNCAN.eu Research Infrastructure Healthcare Industry sector Member Citizens (tech, pharma) States Patient Academia associations R&I to R&I to R&I: UNCAN R&I to personalised medicine Research Related recommendations Infrastructure R&I on for large scale paediatric studies R&I to R&I: R&I: Models **Build capacity** Dissecting diagnostics for platform cancer risk to accelerate host-tumour minimally interrogation innovation and heteroinvasive Policy interaction use of new geneity treatments action: cancer-host Synergies Forming the UNCAN.eu R&I: Europe's Beating Cancer R&I: Big data platform Research Plan, other EU R&I repositories programme Missions, other MS and **EU** initiatives





Figurehighlight some examples of how the Board's recommendations could be further developed in specific actions with measurable objectives, identified actors and synergies with related initiatives.

Example of action area 'Prevent what is preventable





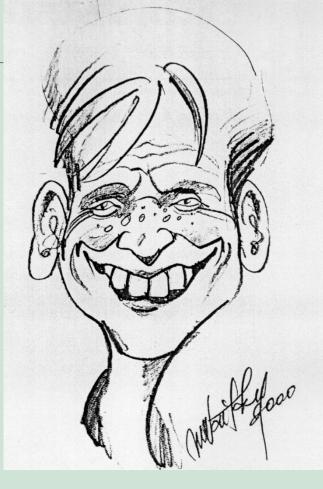






Thank you for your attention

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