

# **EU4H-2021-PJ2: BUILDING THE EU CANCER AND HEALTH GENOMICS PLATFORM**

**Marc Van Den Bulcke**  
**Milano, 4 November 2022**



**TERMS:**

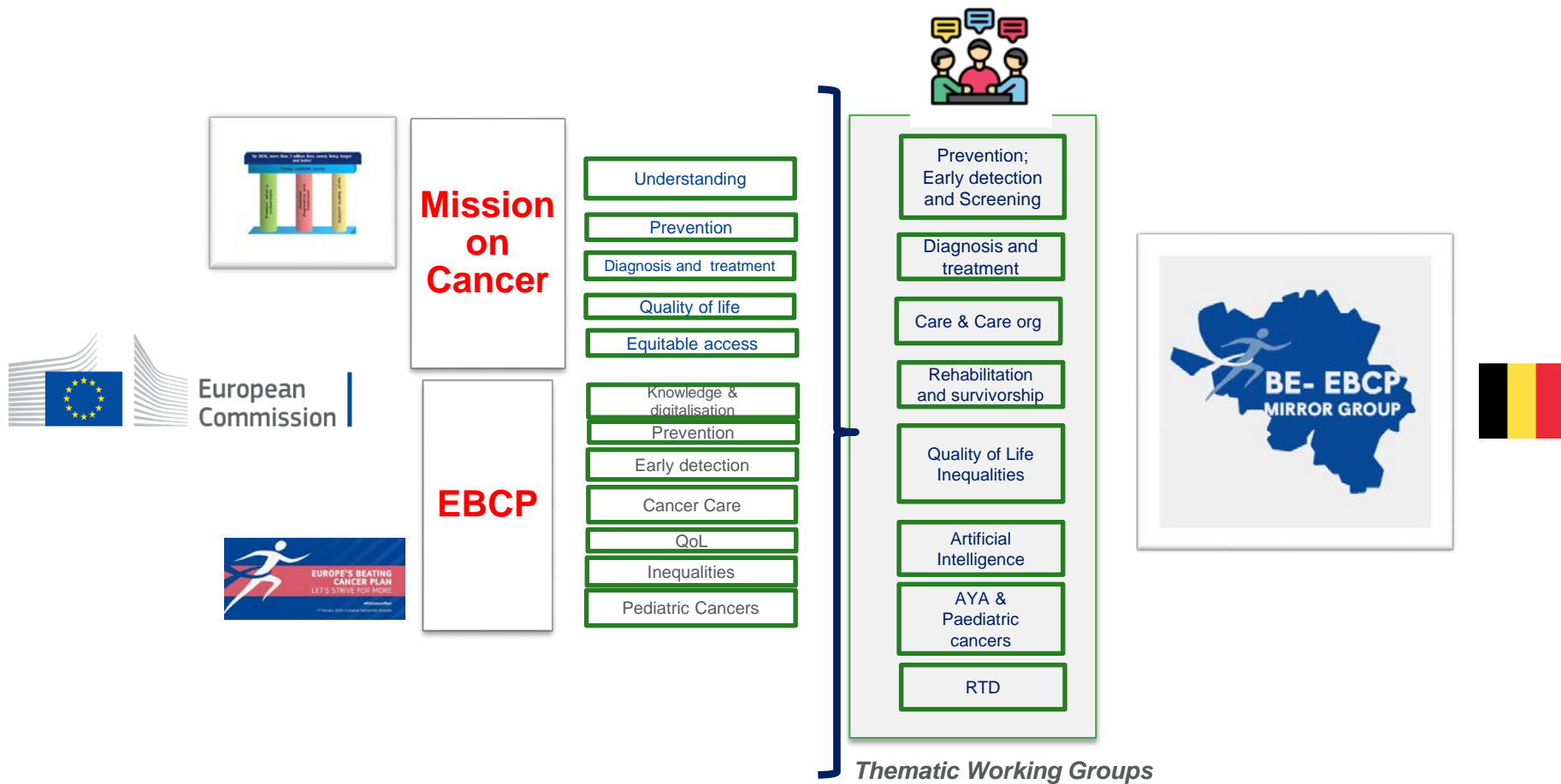
NO CONFLICT OF INTEREST

ALL STATEMENTS ARE ON MY OWN RESPONSABILITY

# EUROPEAN COMMISSION AND CANCER



# BELGIAN EBCP MIRRORGROUP structure



# Cancer Centre participation

EC PROJECTS	Expected outcomes	PROGRAM	PHASE	START DATE
AG EUCAIM	Cancer Images infrastructure	DIGITAL	Grant Management	1/11/2022
GDI	Genomics data infrastructure	DIGITAL	Grant Preparation	01/11/2022
ECIS	Indicators Cancer screening programs	EU4H	Grant Management	
eCAN	Policy on telemonitoring & teleconsultation	EU4H	Grant Preparation	15/09/2022
CAN.HEAL	Proposals for implementation for new D&T/PHG in cancer	EU4H	Grant Preparation	1/11/2022
CraNE	Comprehensive Cancer Care Centers and CCC networks	EU4H	Grant Preparation	01/10/2022
JANE	7 New Networks of Expertise (technical)	EU4H	Grant Preparation	1/10/2022
PERCH	Vaccination campaigns and monitoring	EU4H	Grant Preparation	1/10/2022
JA Health determinants	Implementation of Best, good practices; pilots; recommendations	EU4H	Proposal preparation	mid 2023
AG EHDS pilot	Pilots for EHDS	EU4H	Under evaluation	early 2023
Tender APP Survivorship	digital app	EU4H	Under evaluation	1/11/2022
Healthy Cloud	Recommendations for use of EHDS	H2020	Grant Management	01/11/2020
PHIRI	Operation data exchange via EHDS principles	H2020	Grant Management	01/11/2020
oncNGS	Integrated CGP platform	H2020	Grant Management	01/01/2020
UNCAN.eu	Roadmap research in cancer	HORIZON	Grant Management	01/09/2022
CSA CCI4EU	Comprehensive Cancer Infrastructures for research	HORIZON	Under evaluation	2023
CSA-CanMisHub	National Mirror groups for MoC implementation	HORIZON	Under evaluation	2023
JA support to JRC Inequalities register	Framework for monitoring EBCP implementation	EU4H	In preparation	mid 2023
JA ERNs	under discussion	EU4H	In preparation	mid 2023
JA Primary use of DATA	under discussion	EU4H	In preparation	mid 2023
JA CCI	to be opened	EU4H	to be opened	2024

# EBCP-MoC building blocks

## Cancer centre involved:

- ▶ Comprehensive Cancer Centers (JA CRaNE)
- ▶ Comprehensive Cancer Care networks (JA CanCON, iPAAC, JA CRaNE)
- ▶ Comprehensive Cancer Infrastructures (CSA CCI4EU)
- ▶ Cancer Mission hubs (CSA unCAN, CSA ECHOS)
- ▶ ERNs Cancer (ERN initiative, JA ERNs)
- ▶ JRC Inequalities Register (JA Inequalities, App Prvention, App survivorship)
- ▶ Networks of Expertise (JANE)
- ▶ EHDS (AG EHDS pilots, Healthy Cloud, PHIRI, JA TEHDAS, ...)
- ▶ Remote monitoring, consultation and telemedicine (JA eCAN)
- ▶ Genomics Dataspace (GDI, 1+MG initiative)
- ▶ Cancer Images dataspace (EUCAIM)
- ▶ ....

## ▶ Cancer Centre NOT involved:

- ▶ Survivorship Digital passport (?)
- ▶ Cancer Registers infrastructure (?)
- ▶ ...

ACRONYM	Expected outcomes
AG EUCAIM	Cancer Images infrastructure
GDI	Genomics data infrastructure
CanScreen-ECIS	Indicators Cancer Screening programs
eCAN	Policy on tele-monitoring & teleconsultation
<b>CAN.HEAL</b>	<b>Proposals for implementation for new D&amp;T/PHG in cancer</b>
CraNE	Comprehensive Cancer Care Centers and CCC networks
JANE	7 New Networks of Expertise (technical, logistic)
PERCH	HPV Vaccination campaigns and SC/Vac monitoring framework
JA Health determinants	Implementation of Best/good practices/pilots/recommendations
AG EHDS pilot	Pilots for EHDS
Tender APP Prevention	digital app
Tender APP Survivorship	digital app
Healthy Cloud	Recommendations for use of EHDS
PHIRI	Operational data exchange via EHDS principles
oncNGS	Integrated CGP platform
UNCAN.eu	Roadmap research in cancer
CSA_CCI4EU	Comprehensive Cancer Infrastructures for research
CSA-CanMisHub	National Mirror groups (or equivalent) for MoC implementation

# Building the EU Cancer and Health Genomics platform

## CAN.HEAL

CALL: EU4H-2021-PJ-15: Cancer Diagnostic and Treatment for  
All - Genomic for Public Health



## OBJECTIVES OF THE CALL:

The new 'Cancer Diagnostic and Treatment for All' initiative, and the 'Genomic for Public Health' project will help Member States to

**improve access** for individuals and cancer patients and survivors to prevention, diagnosis and treatment of cancer through personalised medicine, by **upscaling available innovation in the field of innovative cancer diagnosis and treatment.**

### Sub-topic (a) 'Cancer Diagnostic and Treatment for All' initiative

It will use the '**next generation sequencing**' technology for a **quick and efficient application of personalised cancer diagnosis and treatment.**

The action will scale up the **already available results** in **genetic profiling of patients and tumour cells** allowing **cancer centres to share such cancer profiles** with a view to **apply the same or similar diagnostic and therapeutic approaches to patients** with comparable cancer profiles across the Union.

### Sub-topic (b) - 'Genomic for Public Health' project:

which is expected, to scale up the '**1+ Million Genome Initiative**' results, to translate them into **implementable public health measures** to address **cancer prevention** on the basis of **specific individual genetic profiles**, which indicates the **susceptibility of individuals to develop a certain type of cancer.**

Therefore, the project will open **new perspectives to personalised risk-assessment and targeted cancer prevention.**

## EXPECTED RESULTS AND IMPACT:

Actions will help Member States to develop guidelines and recommendations to better **determine who and what to test, organise health services to implement genetic testing**, and provide **specific education and training for health workers** to advance our understanding of cancer control. Ultimately, individuals and cancer patients will benefit on a large-scale of a high quality and viable way to **prevent** cancer, to **diagnose** and **treat** it.

### 43 Participating organizations in 16 countries:

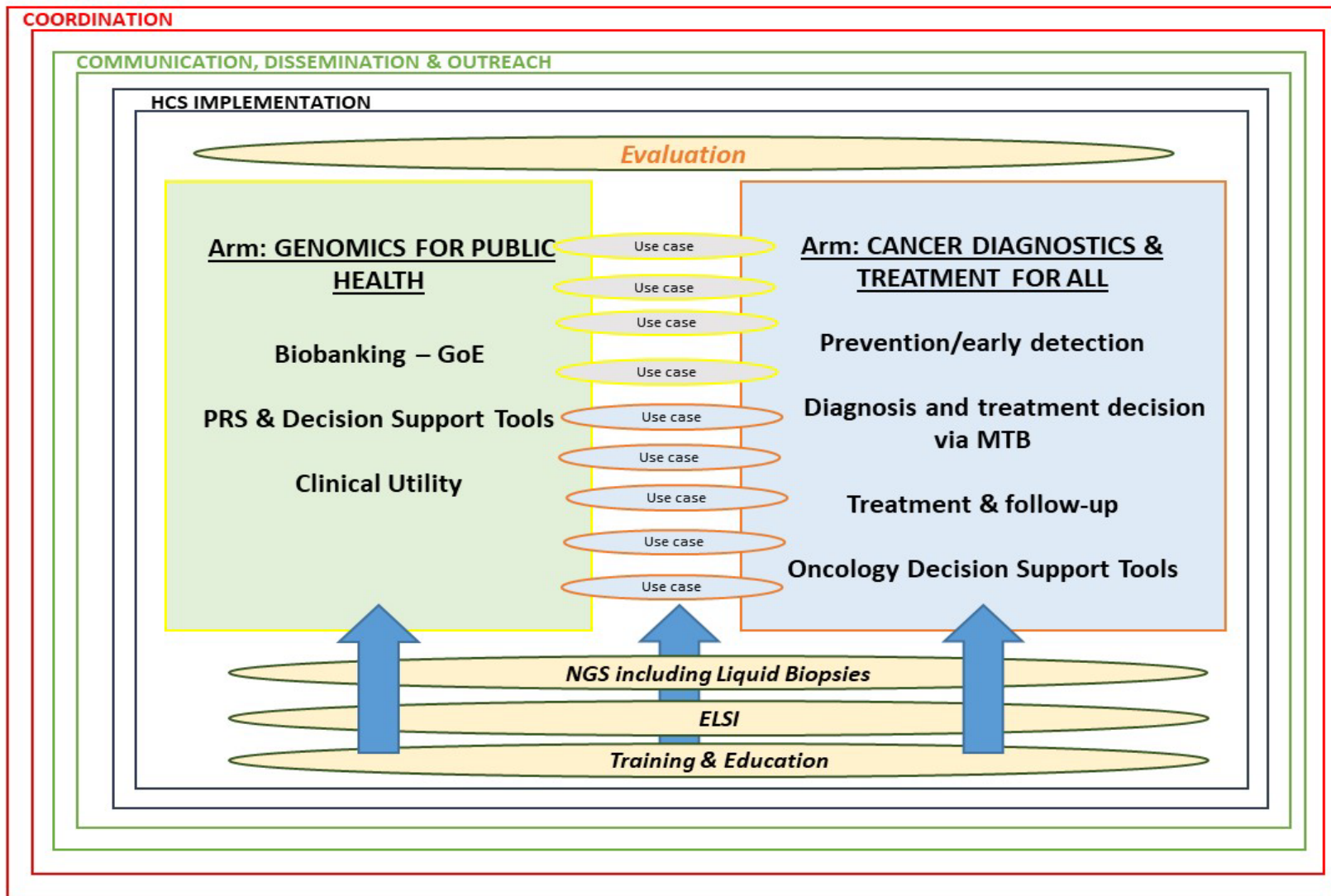
<b>Belgium</b>	Ghent University
	Jessa Hospital
	Jules Bordet Institute
	Katholieke Universiteit Leuven
	Sciensano
	University of Liège
<b>Czech Republik</b>	Digital Institute for Cancer Outcomes Research EEIG
	Institute of hematology and blood transfusion
<b>Denmark</b>	Aarhus University
<b>Estonia</b>	University of Tartu
<b>France</b>	Hospices Civils de Lyon
	INSERM
	Institut Curie
<b>Germany</b>	Charité - University Medical Center Berlin
	Hannover Medical School
	University of Tübingen
	University Medical Center Hamburg-Eppendorf/The European Liquid Biopsy Society Consortium
<b>Greece</b>	Medical Center, University of Schleswig-Holstein, Lübeck
	Institute of Applied BioSciences
<b>International organisations</b>	Hellenic Cancer Federation - ELLOK
	European Alliance for personalized Medicine (EAPM)
	European Cancer Patient Coalition (ECPC)

<b>Italy</b>	Alleanza contro il cancro
	Instituto Superiore di Sanita
	Università Cattolica del Sacro Cuore
<b>Latvia</b>	Latvian Biomedical Research and Study Centre
<b>Luxembourg</b>	Université du Luxembourg
<b>Malta</b>	Ministry for Health
<b>Netherlands</b>	Erasmus Universitair medisch centrum Rotterdam
	Rijkstinstituut voor Volksgezondheid en Milieu (RIVM)
	Stichting het Nederlands kankerinstituut-Antoni Van Leeuwenhoek ziekenhuis
<b>Poland</b>	Medical University of Warsaw
	Maria Skłodowska Curie National Research Institute of Oncology
<b>Portugal</b>	Instituto nacional de saude doutor Ricardo Jorge
<b>Slovenia</b>	Institute of Oncology
<b>Spain</b>	Agencia de qualitat i avaluacio sanitaris de Catalunya
	Fundación Instituto de Estudios de Ciencias de la Salud de Castilla y Leon
	Institut Catala d'oncologia
	FISABIO

# Summary project

- ▶ Build on distinct **use cases** towards developing an **integrated approach** to improve access of individuals and cancer patients and survivors to **prevention, diagnosis and treatment** of cancer through personalised medicine.
- ▶ **Genomics for Public Health:**
  - ▶ Framework for aligning and integrating the genome of Europe biobanking
  - ▶ Polygenic risk score analysis/recommendations for decision support tools and strategies for the implementation of telegenetics and remote genetic counselling
  - ▶ Building clinical utility for cancers in pregnancy, family-based genetic testing in pediatric leukemia, cancer risk stratification
- ▶ **Cancer diagnostics and treatment for all:**
  - ▶ Strategies for wet lab tools, comprehensive genomic profiling, data interpretation, data integration, decision support (MTB and tools) for early detection, diagnosis and treatment
- ▶ Implementing **NGS-based and liquid biopsy assays** in clinical practice
- ▶ Define key **legal and ethical** requirements for health and medical cancer genomics
- ▶ Develop **training** tools
- ▶ Develop recommendations for the **implementation** of personalized approaches in the healthcare system

# Overall structure



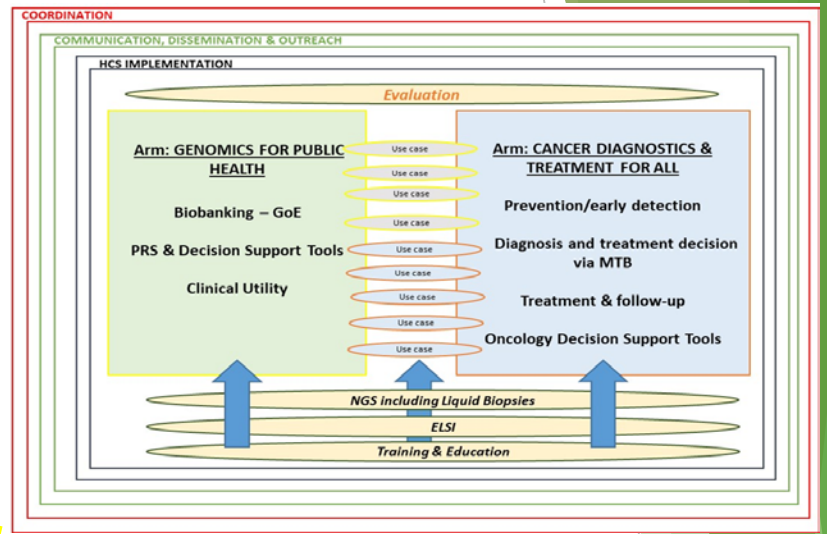
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- ▶ JRC Inequalities Register (JA Inequalities, App Prvention, App survivorship)
- ▶ NoE (JANE)
- ▶ EHDS (AG EHDS pilots, Healthy G... RI, JA TEHDAS, ....)
- ▶ Genomics Dataspace (GDI, 1...)
- ▶ Cancer Images dataspace
- ▶ ....
- ▶ **Cancer Centre**
- ▶ Survivorship Dig... (?)
- ▶ Cancer Registers im... structure (?)
- ▶ ...

**EBCP/MoC Building Blocks**

**Can.HEAL WP5-10 & usecases**

**Can.HEAL Transversal WPs**



# SUSTAINABILITY

EC PROJECTS	Expected outcomes	2022	2023	2024	2025	2026	2027
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## CANCER CENTER - SCIENSANO

Marc Van Den Bulcke  
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Pauline Wurstemberger  
Barthélémy  
Emilie Cauët  
Hélène Antoine-Poirel  
Marie Delnord  
Souhade Tabakkalt

## HEALTHDATA.BE - SCIENSANO

Johan Van Bussel

## QUALITY OF LABORATORIES - SCIENSANO

Aline Antoniou  
Nicolas Loucheu

## COMPERMED

>200 experts

## NIHDI (RIZIV/INAMI)

Walli Van dooren  
Koen Desmedt  
Evelyn Van Gestel

## MINISTRY OF HEALTH (FOD-VVVL)

Saskia Van den Bogaert

## BELGIAN CANCER REGISTRY

Nancy Van damme

## oncNGS PARTNERS (Buyers)

SC, IJB, ICO, IC, HCU, ACC, CH, LMU

## EBCP & 1+Million Genomes Mirrorgroups

>250 experts

## Contact

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***HAVE A NICE DAY***