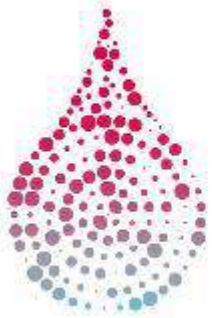




HARMONY



ALLIANCE

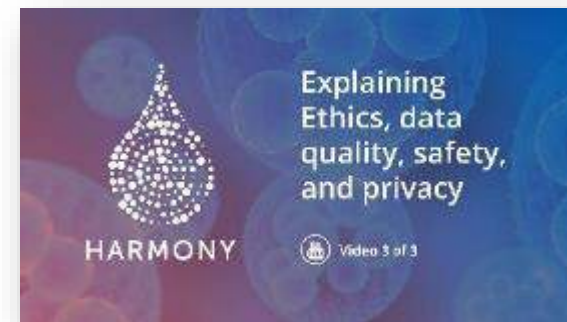
European Public-Private Partnership for Big Data in Hematology

HARMONY – HARMONY PLUS

Enabling better and faster treatment
for patients with Hematologic Malignancies

What is Big Data and why is it important in Hematology?

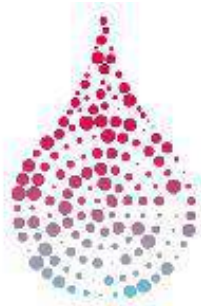
Watch our explanatory videos – click on the images below



Or visit our Youtube channel: [//bit.ly/HARMONY-Alliance-Youtube](https://bit.ly/HARMONY-Alliance-Youtube)



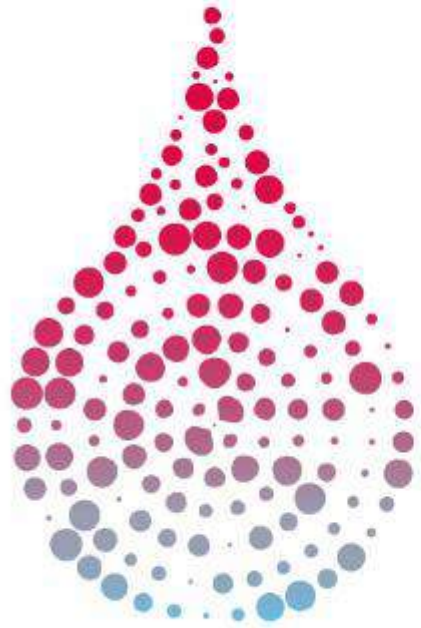
HARMONY



ALLIANCE

Harnessing the enormous potential of Big Data to deliver insights into how the care of patients with Hematological Malignancies can be improved.

- We provide a unique and high-quality Big Data Platform
 - We harmonize outcome measures and endpoint definitions at European level
 - We will increase application of omics data in clinical practices
 - We will speed up drug development, access pathways and bench-to-bedside process
- 



HARMONY



Funded by the [Innovative Medicines Initiative](#) (IMI) support from the [European Union's Horizon 2020 Research and Innovation programme](#) and the [European Federation of Pharmaceutical Industries and Associations](#) (EFPIA).

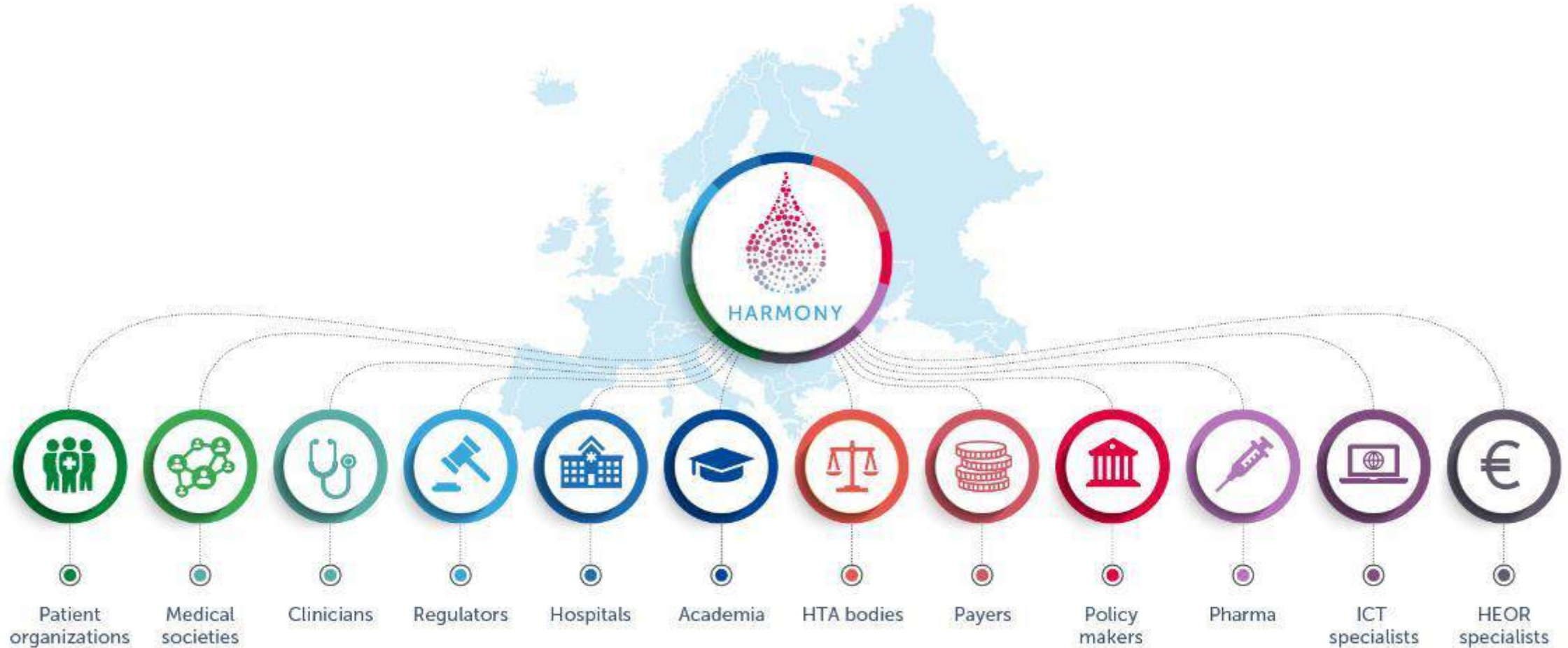


Part of IMI [Big Data for Better Outcomes](#) (BD4BO) program



HARMONY – key stakeholders

Uniting the European hematological community



HARMONY at a glance

- The first and largest Public-Private Partnership in **Hematology**
- Focus on **Big Data** in Acute Lymphoblastic Leukemia (ALL), Acute Myeloid Leukemia (AML), Chronic Lymphocytic Leukemia (CLL), Multiple Myeloma (MM), Myelodysplastic Syndromes (MDS), Non-Hodgkins Lymphoma NHL, Pediatric Hematologic Malignancies
- Community of **97 multi-stakeholder organizations** representing 17 European countries: [Partners, Patient Cluster, Associated Members](#)
- Budget Euro 40 million | 5-year project from January 2017 until Dec 2021

HARMONY Partners

Pharmaceutical Industry

NOVARTIS
Celgene
AMGEN
abbvie
BAYER
janssen
MENARINI
Pfizer
Takeda

Academic & Research Organizations

EUA
ELN European LeukemiaNet
EBMT
EORTC
The future of cancer therapy

Regulatory & Health Authorities

Agencia Española de Medicamentos y Productos Sanitarios
Federal Institute for Drugs and Medical Devices
NICE National Institute for Health and Care Excellence

Academic & Clinical Partners

IBSAI
Instituto de Investigación Sorbitaria La Fe
CHARITÉ
UNIVERSITÄT WÜRZBURG
Barts Cancer Institute
Bambino Gesù
ERIC
GFM
Institut de Recerca CONTRA LA LEUCEMIA Josep Carreras
THE LYMPHOMA STUDY ASSOCIATION

gmv
MediSapiens
wellcome sanger
VIB

UNIVERSITÀ DI BOLOGNA
Erasmus MC
UNIVERSITY OF CAMBRIDGE
Newcastle University
uulm
UNIVERSITÀ DEGLI STUDI DI TORINO
UNIVERSITY of York
FOR VIRGATA
MAGAZNYI UNIVERSITY
UNIVERSITY OF HELSINKI

LeukaNET
European Alliance for Personalised Medicine

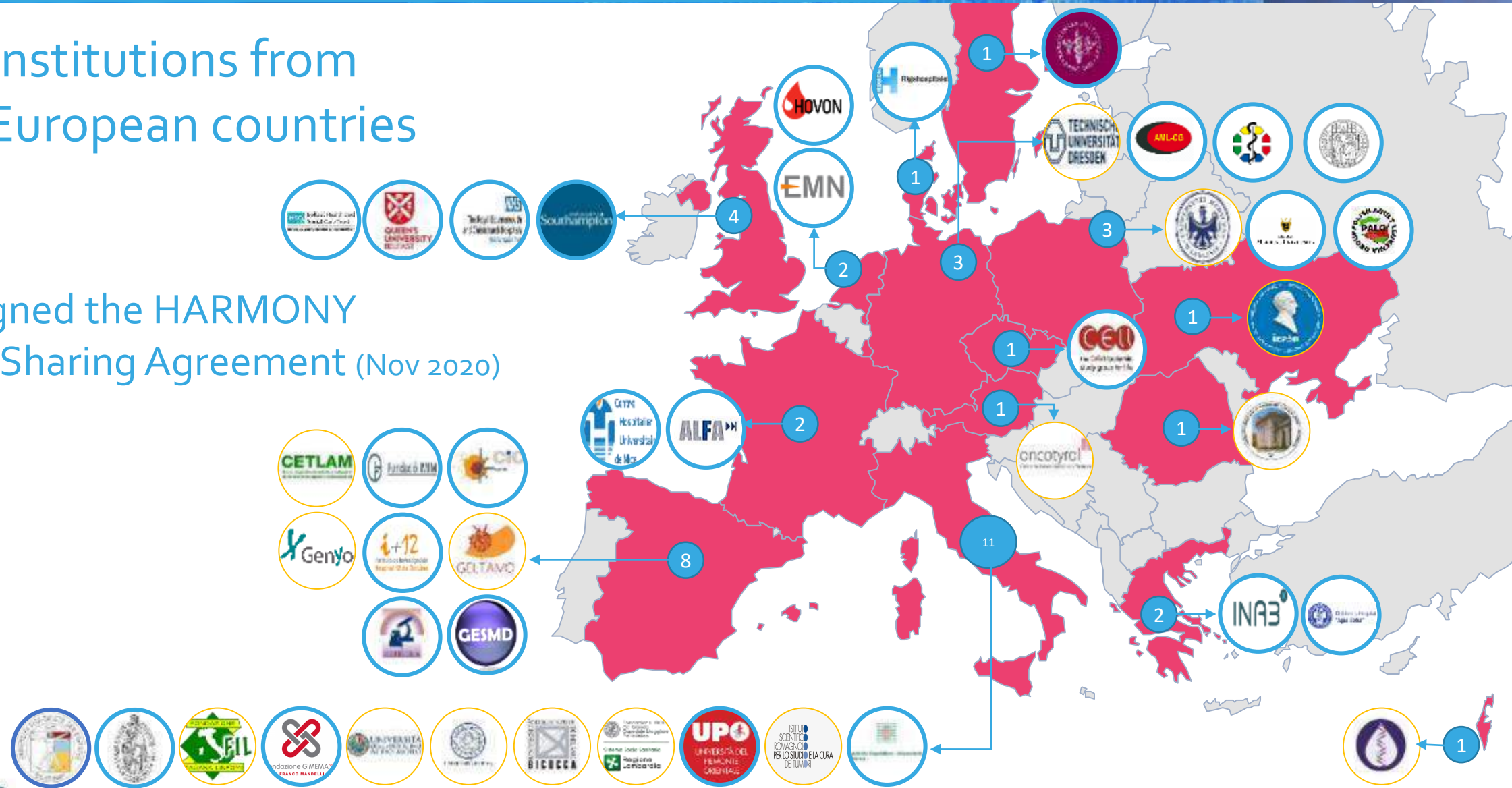
54 Public-Private Partners from 11 countries



HARMONY Associated Members

43 Institutions from
15 European countries

28 signed the HARMONY
Data Sharing Agreement (Nov 2020)

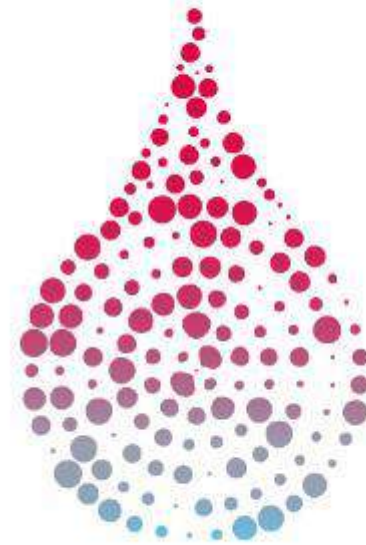


HARMONY Patient Cluster

Unique group of 7 European Patient Umbrella Organizations working in the different areas of hematological diseases.



HARMONY



PLUS



Funded by the [Innovative Medicines Initiative](#) (IMI) support from the [European Union's Horizon 2020 Research and Innovation programme](#) and the [European Federation of Pharmaceutical Industries and Associations](#) (EFPIA).

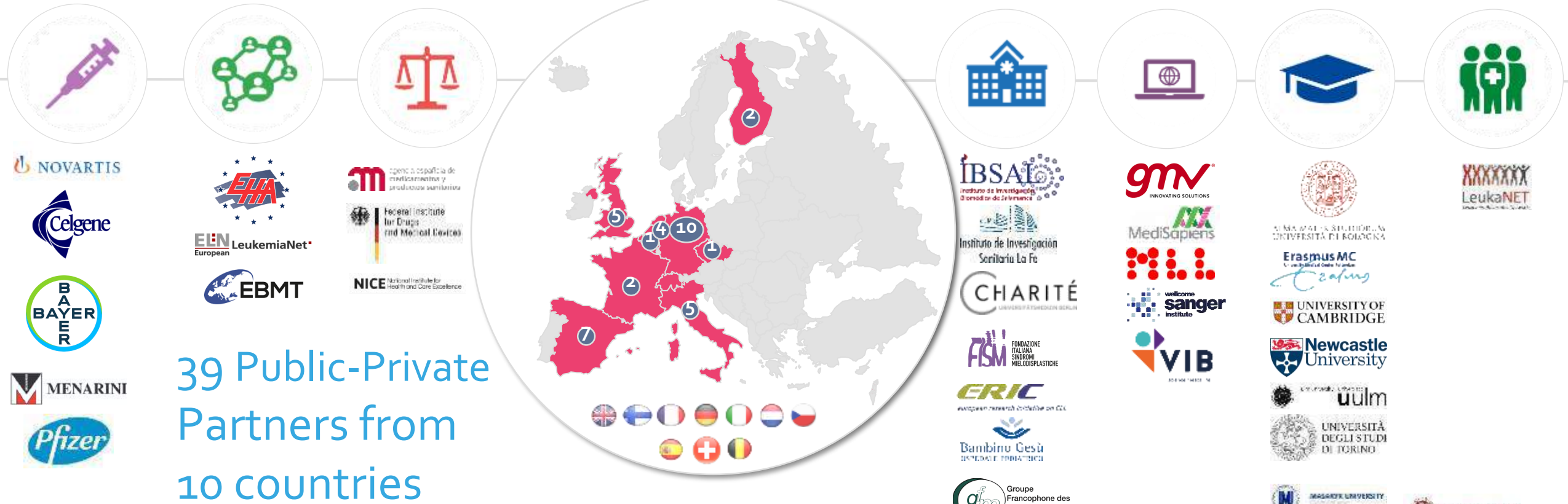


Part of IMI [Big Data for Better Outcomes](#) (BD4BO) program

HARMONY PLUS at a glance

- The second largest Public-Private Partnership in **Hematology**
- Focus on **Big Data** in Myeloproliferative (MPN) disorders; Chronic Myeloid Leukemia (CML), Polycythaemia Vera (PV), Essential Thrombocythemia (ET), Myelofibrosis; Hodgkin's Lymphoma, Waldenström Macroglobulinaemia and other rare blood cancers
- Community of **39 Partners and 8 Associated Partners** representing 10 European countries
- Will create the availability of a historical control arm as a new model of supporting HMs' CT design
- Will build additional modules that will enable data driven decisions for payers and regulators, based on Artificial Intelligence techniques
- Will pursue more collaborations with other big data projects worldwide
- Budget Euro 11,8 million | 3-year project from October 2020 until Dec 2023

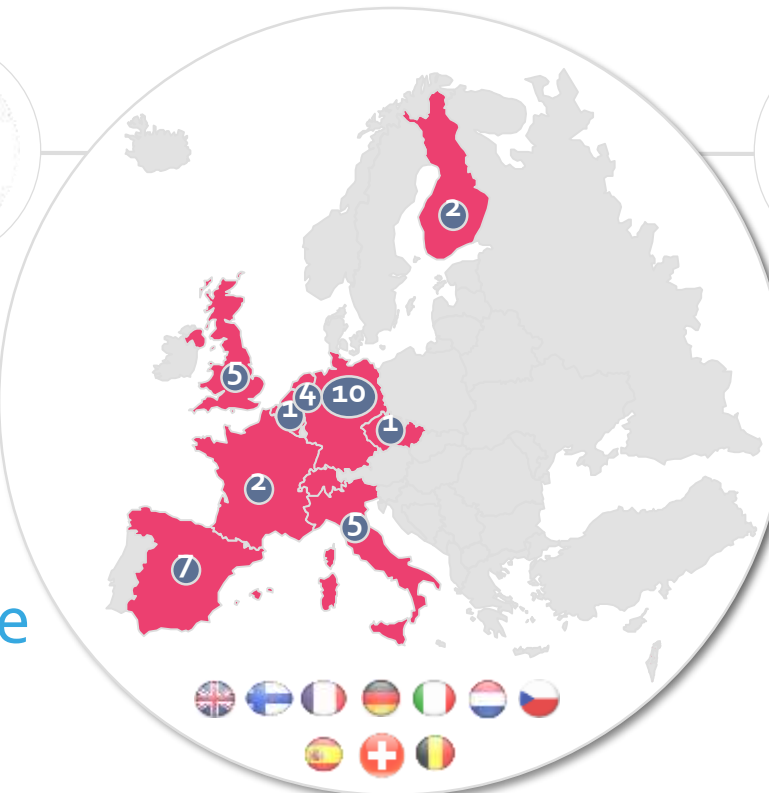
HARMONY PLUS – Partners and Associated Partners



and 8 Associated Partners



HARMONY PLUS



Sharing anonymized data in a secure way, for research purposes, is like a new form of blood donation in the era of digitalization and Big Data.

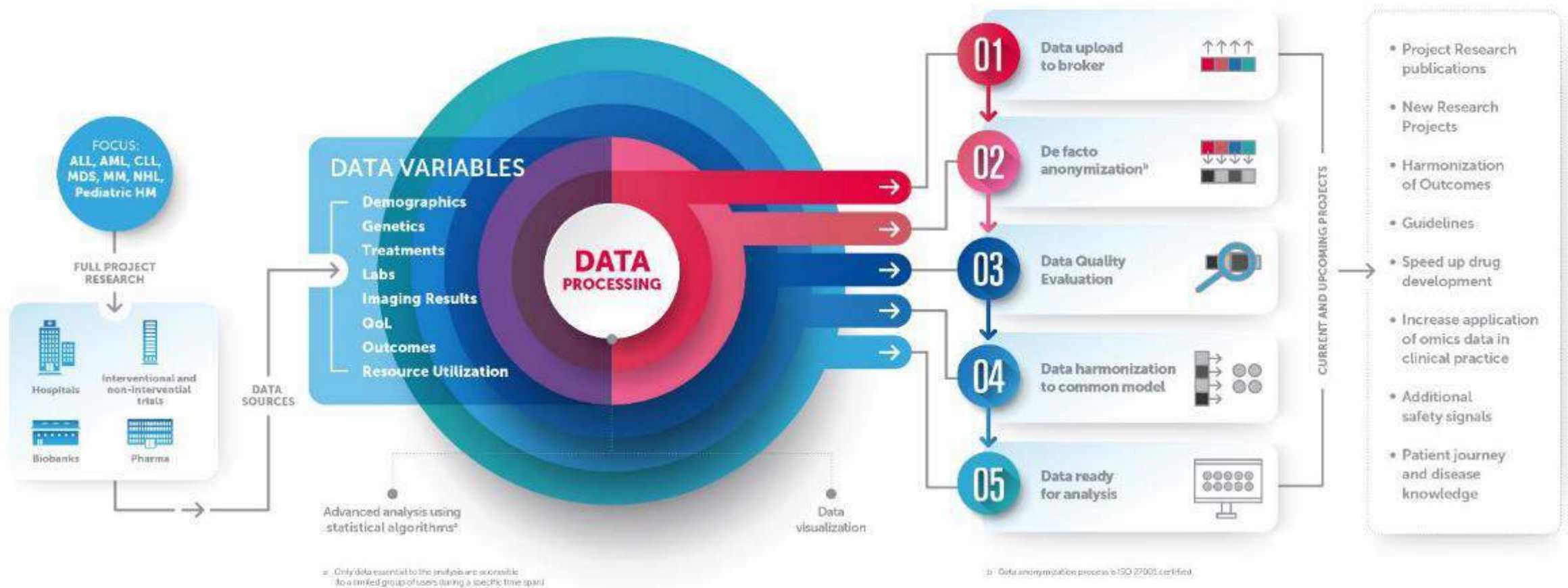
... in result, it has the power to save human lives...

#bigdataforbloodcancer



HARMONY Big Data Platform

Transforming High Quality Data into Meaningful evidence for Blood Cancer!



DATA PROVIDERS

Partners and Associated Members

HARMONY BIG DATA PLATFORM

BIG DATA PLATFORM ANALYTICS

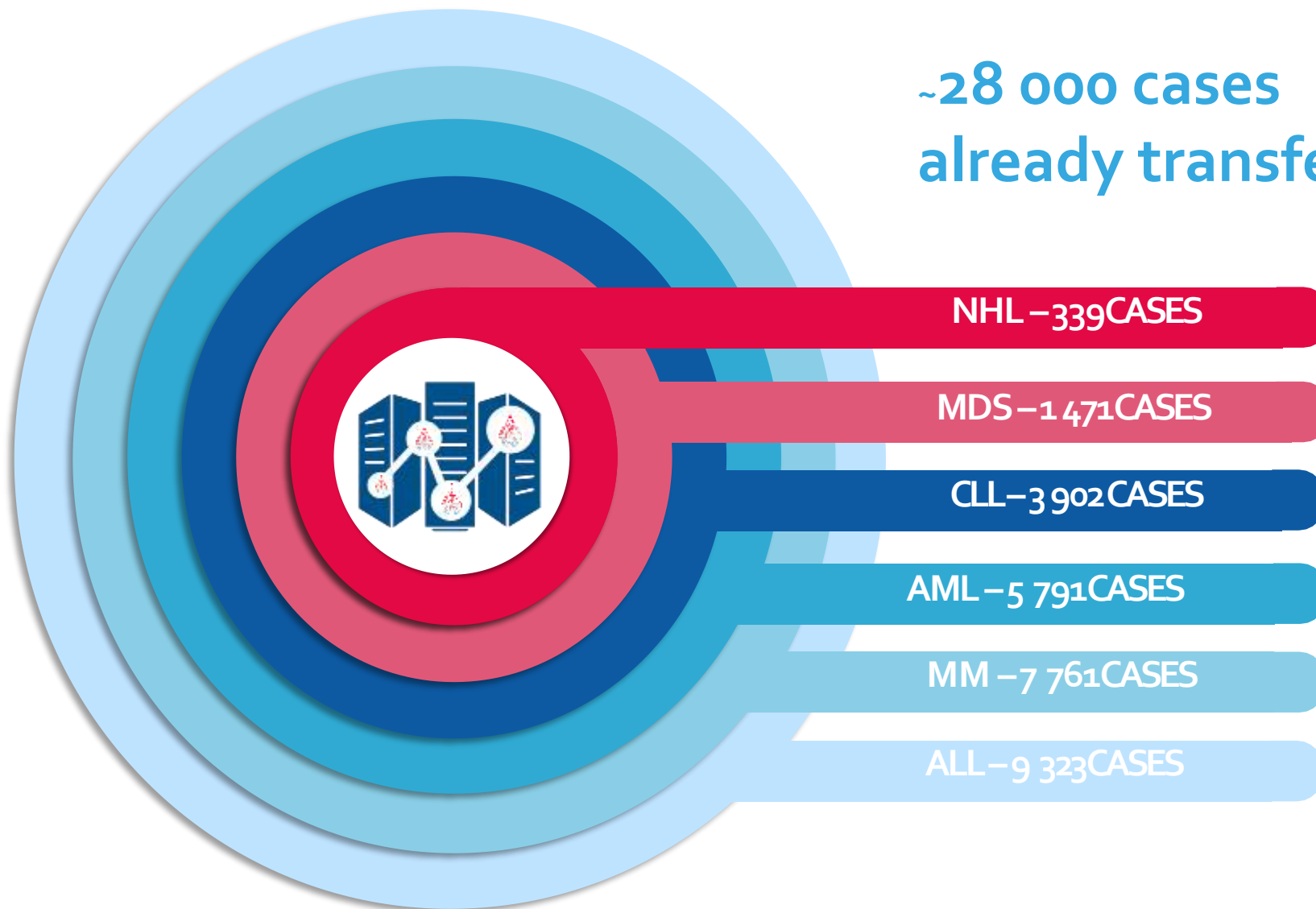
CURRENT AND UPCOMING PROJECTS

The HARMONY Big Data Platform explained

- **Central data repository**
 - Upholds the highest standards of data privacy and security
 - De-facto anonymization is used to remove any personally identifiable information
 - Continued compliance with EU data protection laws is ensured
- **Contains data donated by the HARMONY data providers**
 - Pharma companies, hospitals and universities - from interventional, and non-interventional trials
- **Big Data analytic tools**
 - Algorithms to interpret and investigate large amounts of data in a very short period; algorithms to detect new patterns

HARMONY Big Data Platform

~28 000 cases
already transferred

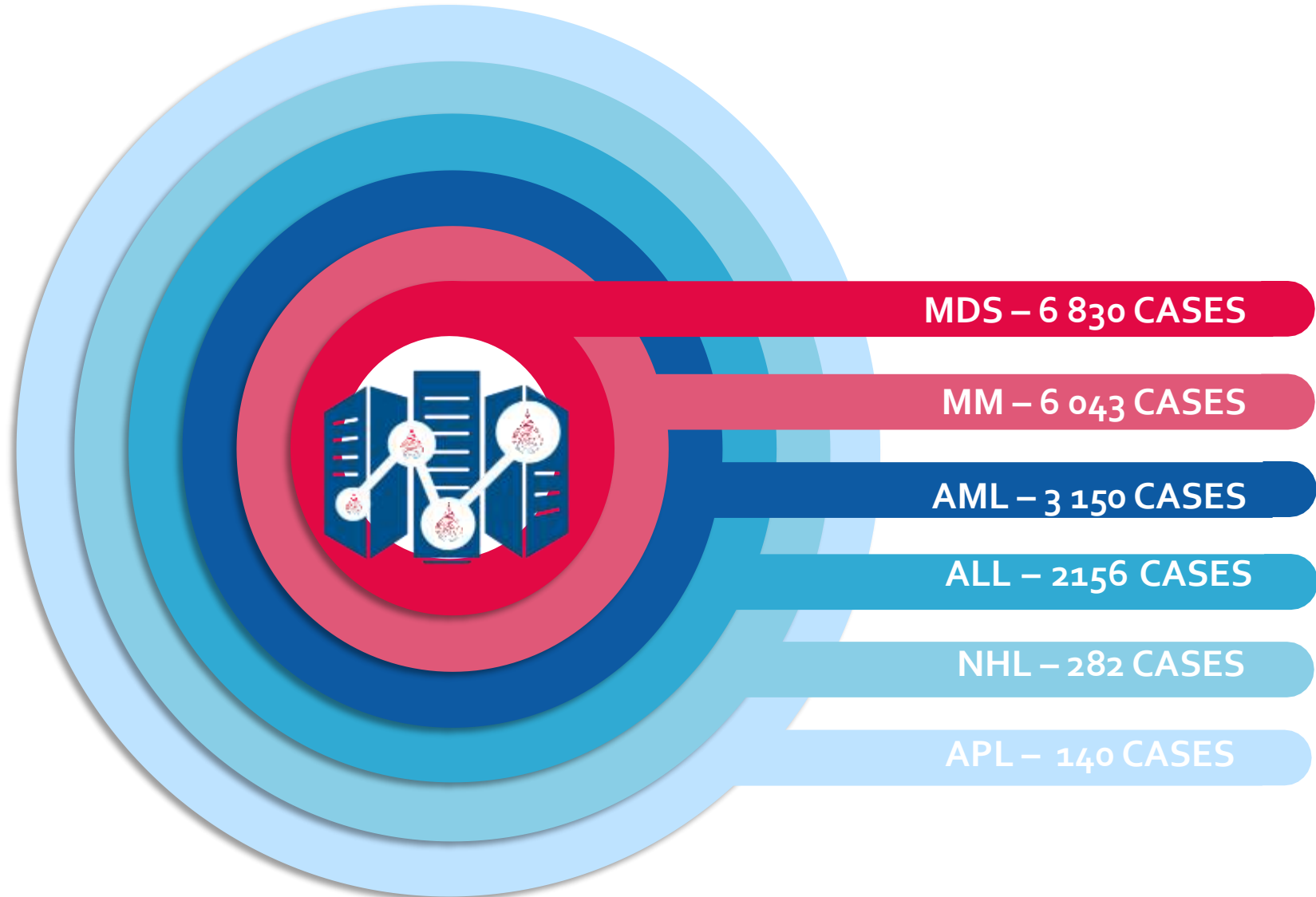


HARMONY Big Data Platform

**+ 18 000 data sets
signed and ready
to be transferred**

In total, over 45 000 data records of people with blood cancer have been already committed.

HARMONY has made headway in several critical [Research and Multi-stakeholder projects](#).



HARMONY Research Projects

Addressing specific questions for Hematologic Malignancies

HARMONY characterizes the molecular landscape of the HMs to understand their pathophysiology and to identify novel drug targets.

www.harmony-alliance.eu/projects



AML1
Research Project
AML 1: Use of Big Data to revise treatment strategies in Acute Myeloid Leukemia




ALL 1
Research Project
ALL 1: Use of Big Data to improve outcomes for patients with Acute Lymphoblastic Leukemia



CLL
Research Project
CLL: Harnessing big data to predict prognosis in Chronic Lymphocytic Leukemia



MM
Research Project
MM: Optimizing prognostication and personalizing treatment in Multiple Myeloma



NHL
Research Project
NHL: Using big data to optimize outcomes in T-cell Non-Hodgkin Lymphomas



AML2
Research Project
AML 2: Optimizing Acute Promyelocytic Leukemia Management Using Big Data



ALL 2
Research Project
ALL 2: Prognostic Value of IKZF1 Gene Alterations in Adult BCP ALL



MDS
Research Project
MDS: Prognostic factors to hypomethylating agents and intensive chemotherapy in higher risk Myelodysplastic Syndromes



MPN COVID19
Research Project
MPN: Exploring the Impact of Covid-19 on Outcomes in Myeloproliferative Neoplasms

More Research Projects to follow soon

HARMONY Delphi Projects

Towards a Core Outcome Set to increase consistency in future clinical trials

HARMONY conducts Delphi studies involving patients, clinicians, drug developers and regulators to reach agreement on the most important outcomes in HMs.

www.harmony-alliance.eu/projects



Delphi Survey Project

MM: Delphi Survey Project: Towards a Core Outcome Set for Multiple Myeloma



Delphi Survey Project

AML: Delphi Survey: Towards a Core Outcome Set for Acute Myeloid Leukemia



Delphi Survey Project

MDS: Delphi Survey Project: Towards a Core Outcome Set for Myelodysplastic Syndromes



Delphi Survey Project

NHL: Delphi Survey Project: Towards a Core Outcome Set for Non-Hodgkin Lymphoma

More Delphi Projects to follow soon

Data-driven science will help to meet the needs of patients with **blood cancer** by increasing treatment efficacy, decreasing adverse effects, prolonging survival, and contribute to patients' quality of life.

#bigdataforbloodcancer



Accomplishments to date

Watch HARMONY's journey since 2017, towards enabling better and faster treatments for patients with Hematologic Malignancies.



#bigdataforbloodcancer | www.harmony-alliance.eu

Outlook HARMONY Alliance

- Address new set of research questions
- Acquire new patient data
- Initiate research in more blood cancers
- Explore new ways to expand on the types of data
- Promote further data sharing
- Publish results from HARMONY Research Projects
- Increase scientific communication and awareness activities

**Many more
data sets in the
HARMONY Big
Data Platform
by 2021!**

Become involved as an Associated Member

Co-operative working groups, hospitals and academic institutions are invited to collaborate and contribute data

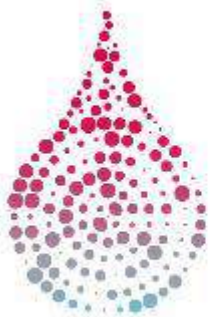
What can we offer?

- Submit research proposals
- Become a member of a dedicated research group that includes skilled data scientists
- Contribute to scientific publications under the umbrella of HARMONY
- Be compensated for efforts in sharing data
- Contribute to improving outcomes for individuals with blood cancer

The screenshot shows a webpage with the HARMONY logo at the top. The main heading is "Becoming a HARMONY Associated Member". Below this, there is a sub-heading: "Co-operative working groups, hospitals and academic institutions are invited to collaborate and contribute data to the HARMONY Alliance". The page is divided into two columns. The left column is titled "About us" and contains text about the HARMONY Alliance as a public-private partnership established in January 2021, with a mission to accelerate the development of innovative treatments for patients with acute myeloid leukaemia (AML) and acute lymphoblastic leukaemia (ALL). The right column is titled "What can we offer you?" and lists several benefits: access to a multi-centre data science platform, the ability to share data to accelerate research, access to a dedicated research group, and the opportunity to contribute to scientific publications. Below these columns is a section titled "How can you join?" which includes a five-step process: 1. Contact us to request a prospectus, 2. Sign up to our mailing list, 3. Use a Data Dictionary to understand the data, 4. You then make a decision on whether to share your data, and 5. You are now an Associated Member and can share your data. At the bottom of the page, there are logos for the HARMONY Alliance, the European Union, and the Wellcome Trust, along with the website URL www.harmony-alliance.eu and social media handles for Twitter and LinkedIn.

[> Download our factsheet](#)

HARMONY



ALLIANCE

Thank you

Join the HARMONY Community!



www.harmony-alliance.eu



@HarmonynetEU | #bigdataforbloodcancer



HARMONY Alliance | Public-Private Partnership for Big Data in Hematology

HARMONY



ALLIANCE

European Public-Private Partnership for Big Data in Hematology

Disclaimer

- This presentation has been developed by the HARMONY Alliance. We make no warranties or representations of any kind as to the content's accuracy, currency or completeness. Neither we nor any party involved in creating, producing or delivering this document shall be liable for any damages, including without limitation, direct, incidental, consequential, indirect or punitive damages, arising out of access to, use of or inability to use this document, or any errors or omissions in the content thereof.
- The content of this presentation may not be used for commercial purposes. Remixing is not permitted except for private use.
- www.harmony-alliance.eu

Acknowledgement

- The HARMONY Alliance is funded through the Innovative Medicines Initiative (IMI), Europe's largest public-private initiative aiming to speed up the development of better and safer medicines for patients. HARMONY has received funding from IMI 2 Joint Undertaking and is listed under grant agreement No. 116026.
- This Joint Undertaking receives support from the European Union's Horizon 2020 Research and Innovation programme and the European Federation of Pharmaceutical Industries and Associations (EFPIA). The IMI supports collaborative research projects and builds networks of industrial and academic experts in order to boost pharmaceutical innovation in Europe.
- www.imi.europa.eu

