



How to improve efficiency of health systems through digitization

*Conference on State-of-the-art Developments in
Healthcare Systems - 15 November 2022*



European Commission
DG Communications Networks, Content and Technology (DG CONNECT)
Directorate H Digital Society, Trust & Cybersecurity
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Digital Health and Care



TRANSFORMATION OF HEALTH AND CARE IN THE DIGITAL SINGLE MARKET - Harnessing the potential of data to empower citizens and build a healthier society

European health challenges

- ⊗ Ageing population and chronic diseases putting pressure on health budgets
- ⊗ Unequal quality and access to healthcare services
- ⊗ Shortage of health professionals

Potential of digital applications and data to improve health

- ⊗ Efficient and integrated healthcare systems
- ⊗ Personalised health research, diagnosis and treatment
- ⊗ Prevention and citizen-centred health services

What EU citizens expect...

90% agree

To access their own health data
(requiring interoperable and quality health data)

80% agree

To share their health data
(if privacy and security are ensured)

80% agree

To provide feedback on quality of treatments

Support European Commission:

1 Secure access and exchange of health data



Ambition:

Citizens can securely access and share (e.g. with doctors or pharmacies) their health data anywhere in the EU.

Actions:

- eHealth Digital Service Infrastructure will deliver initial cross-border services (patient summaries and ePrescriptions) and cooperation between participating countries will be strengthened.
- Proposals to extend scope of eHealth cross-border services to additional cases, e.g. full electronic health records.
- Recommended exchange format for interoperability of existing electronic health records in Europe.



2 Health data pooled for research and personalised medicine



Ambition:

Shared health resources (data, infrastructure, expertise...) allowing targeted and faster research, diagnosis and treatment.

Actions:

- Voluntary collaboration mechanisms for health research and clinical practice (starting with "one million genomes by 2022" target).
- Specifications for secure access and exchange of health data.
- Pilot actions on rare diseases, infectious diseases and impact data.

3 Digital tools and data for citizen empowerment and person-centred healthcare



Ambition:

Citizens can monitor their health, adapt their lifestyle and interact with their doctors and carers (receiving and providing feedback).

Actions:

- Facilitate supply of innovative digital-based solutions for health, also by SMEs, with common principles and certification.
- Support demand uptake of innovative digital-based solutions for health, notably by healthcare authorities and providers, with exchange of practices and technical assistance.
- Mobilise more efficiently public funding for innovative digital-based solutions for health, including EU funding.



The European data strategy to make the European Union a leader in a data-driven society

The European Strategy for data at a glance



The **European Strategy for data** (2020) aims to make the EU a leader in a data-driven society.



The **Data Governance Act** (2020) facilitates data sharing across sectors and Member States.

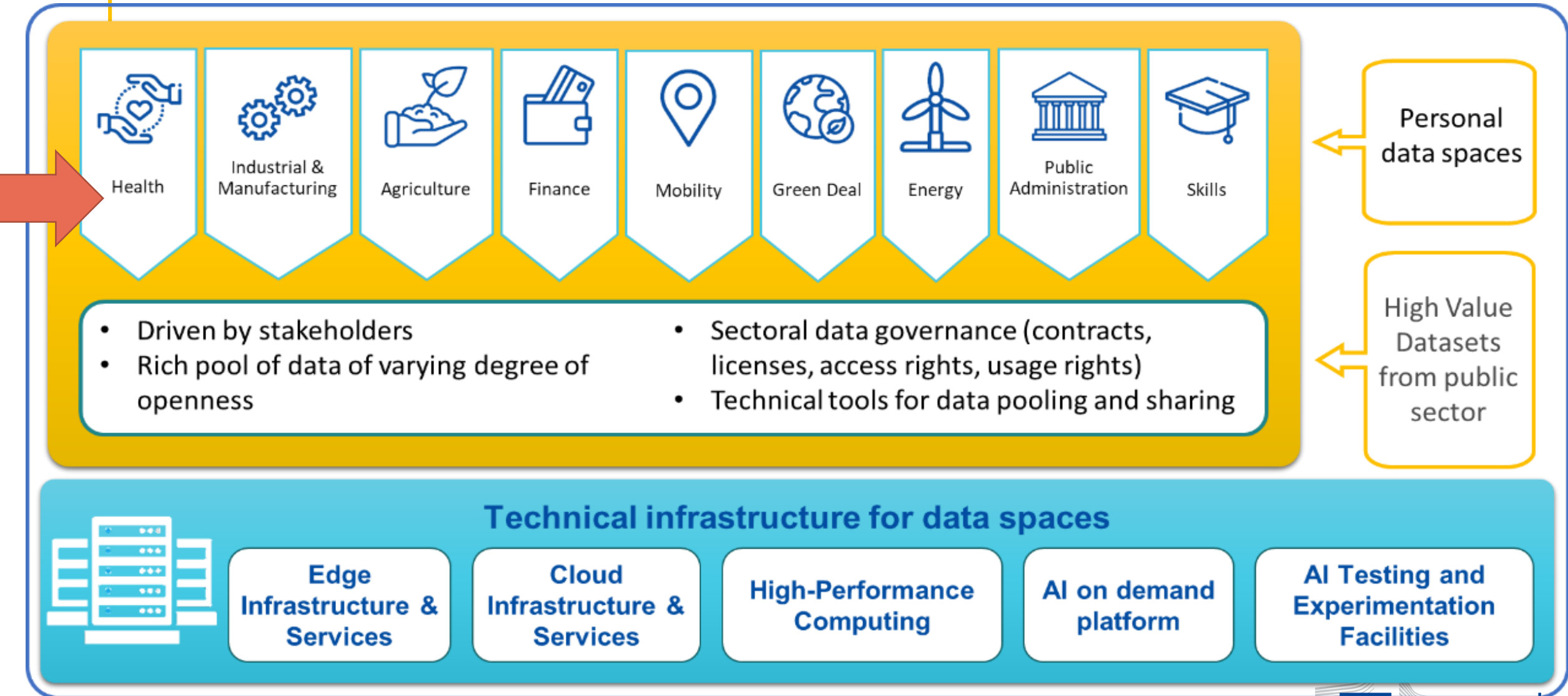


The **Data Act** (2022) clarifies who can create value from data.



Ten **European common data spaces**, ranging from industry to mobility, from European Green Deal to energy and health.

Health Data Space



Proposal for Regulation on European Health Data Space

OBJECTIVES

Effective use of health data

SCOPE & EXPECTED IMPACT

Use of health data
(primary,
MyHealth@EU)

- Empower individuals to control their data
- Standardization and mandatory certification of EHR systems
- Voluntary labelling of wellness apps
- European Electronic Health Record Exchange Format

Single market for health data, data protection, free movement of people, digital goods and services

Re-use of health data
(secondary,
HealthData@EU)

- Health data access bodies
- Purposes for use and forbidden use
- Data permits, secure environments, no identification

Facilitated Research & Innovation

Better Policy Making

MEANS

Legal / Governance

Quality of data

Infrastructure

Capacity building/digitalisation (MFF)



Cross-border Infrastructure & Ecosystems

MyHealth@EU: Cross-border infrastructure for healthcare provision



My Health @ EU
eHealth Digital Service Infrastructure
A service provided by the European Union

Patients' access to ePrescriptions abroad

Electronic prescription in Europe – a Finnish patient purchasing medication in a pharmacy abroad



ePrescription

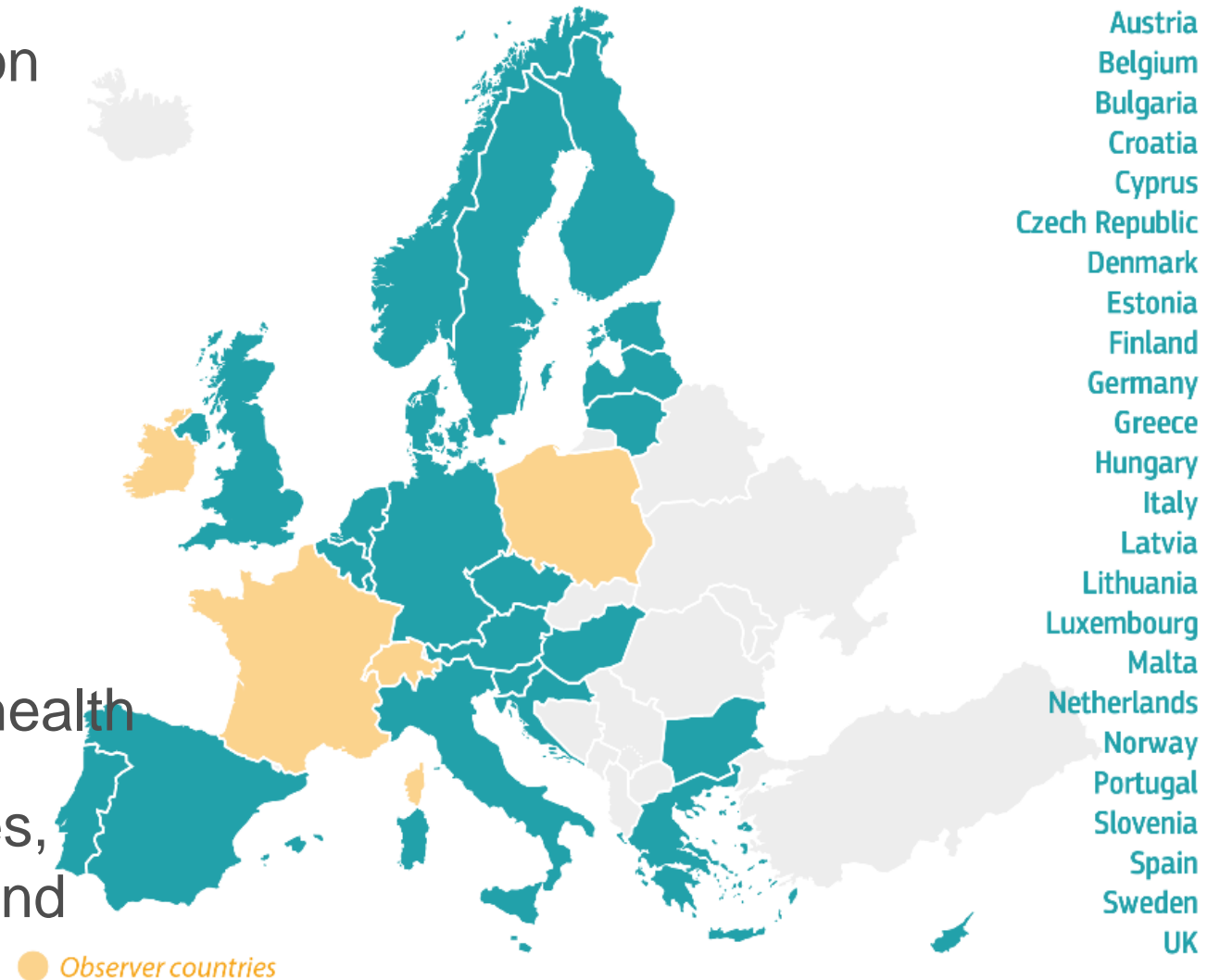
allows citizens in Europe to retrieve their medication in a pharmacy located in another European country without having to bring the printed prescription and without being concerned about the language barrier.

[eHealth Network ePrescriptions and eDispensation guidelines](#)

1+MIO Genomes

- 24 countries signed the declaration
- 1+MG Group (EC special group)
- 12 Working Groups
- Genome of Europe project (MCP)
- *Beyond 1 Million Genomes*
Coordination and Support Action
- Healthcare, research and public health
- 4 use cases: cancer, rare diseases, common and complex diseases and infectious diseases

Countries that have signed
the 1+MG Declaration since 2018

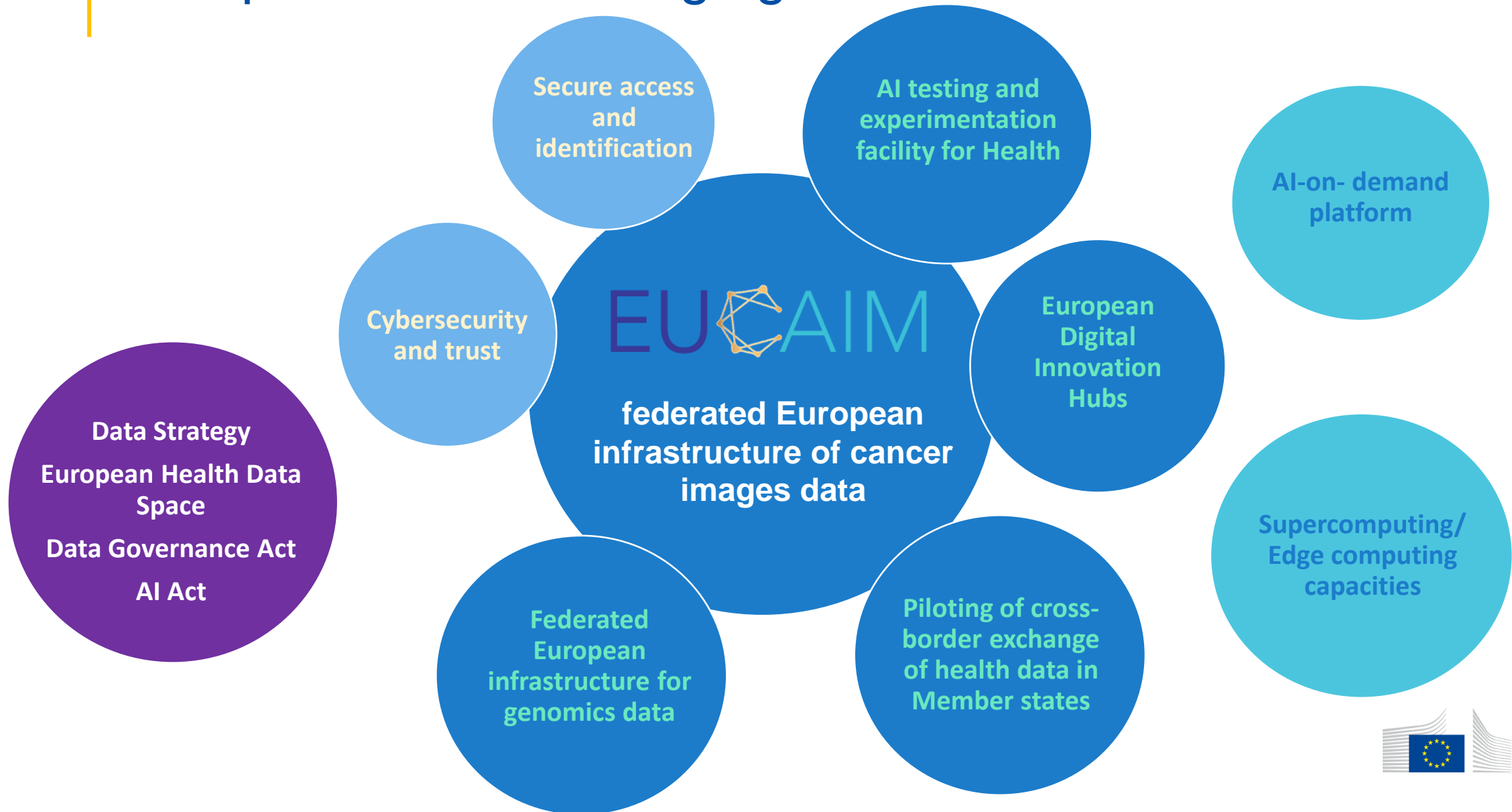




European Cancer Imaging Initiative – *Vision*

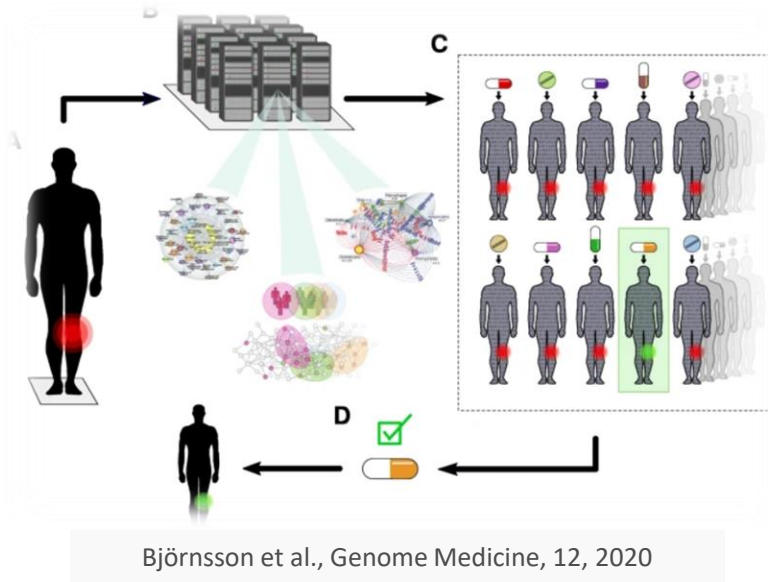
*An EU state of the art platform
to support the piloting and development
of new computer-aided tools
to improve personalised medicine and
innovative solutions,
demonstrating the power of AI
and digital technologies
to beat cancer*

European Cancer Imaging Initiative – *Context*



Virtual Twins in Health

Personalisation of treatment



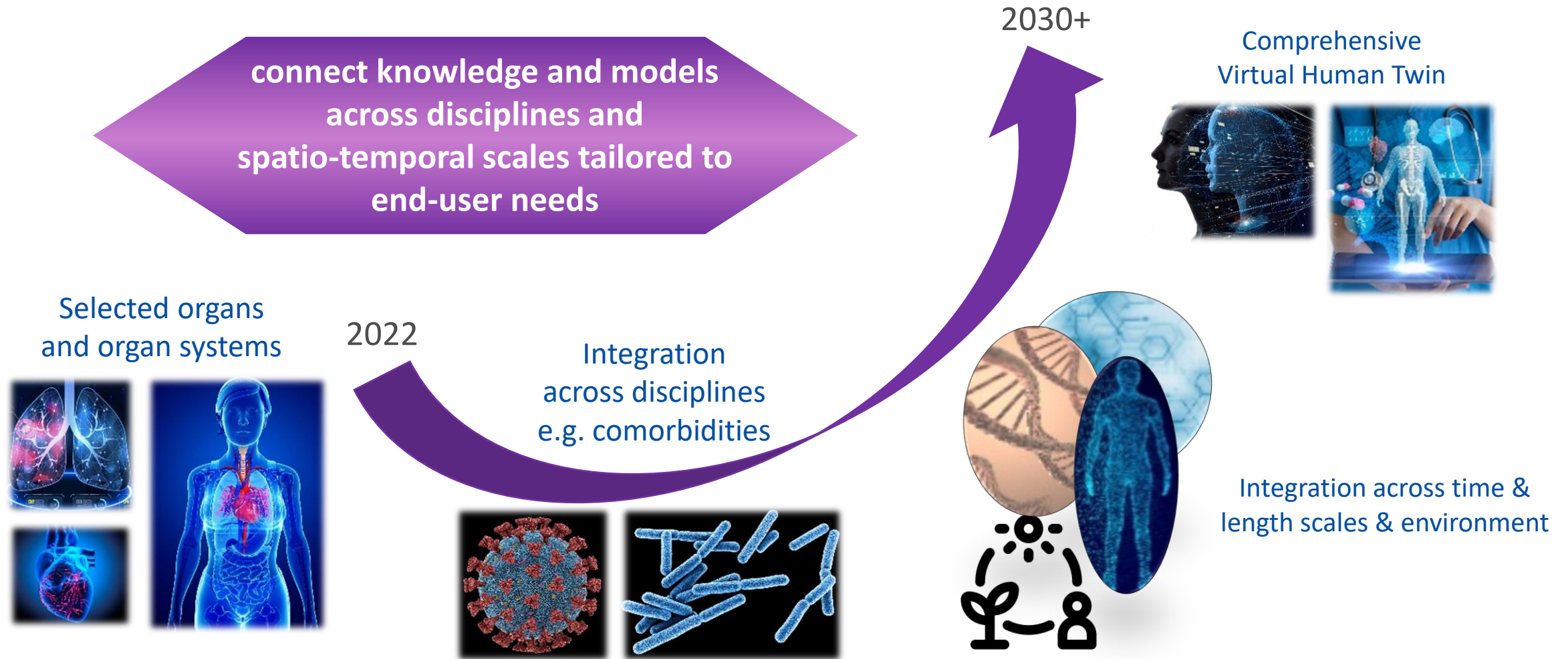
Early risk prediction & disease prevention



Addressing unmet medical needs & enhancing current procedures



Towards Virtual Twin(s) of the human

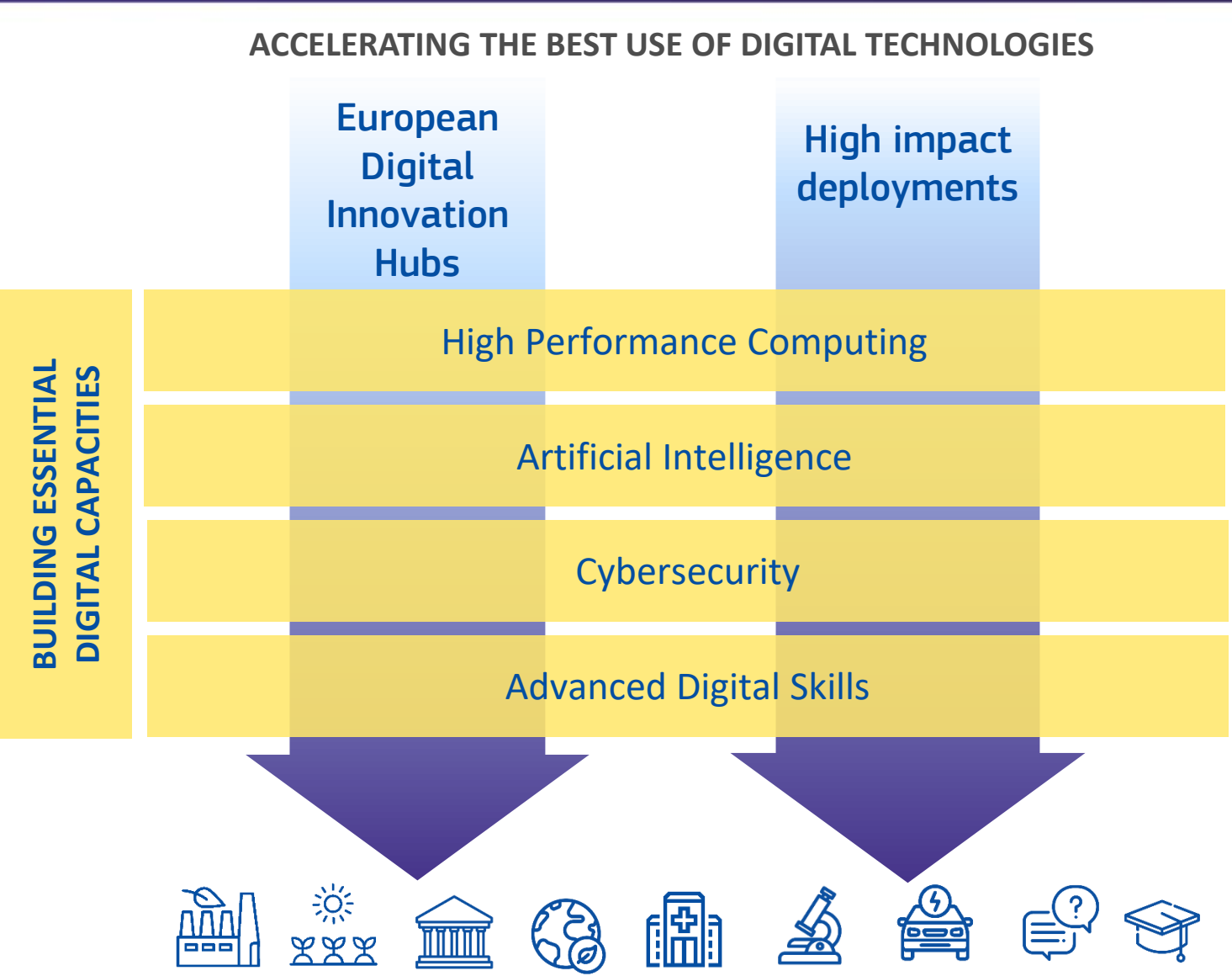


Support for uptake of digital solutions





Digital Europe programme structure





Health in Digital Europe Work Programme 2021-22

Artificial Intelligence, data and cloud

Data spaces

Genomics

Cancer Imaging

Testing and
Experimentation
Facilities

TEF
for
Health

Accelerating best
use of technologies

Uptake of digital
solutions in
Health and Care

An ecosystem
for digital twins
in healthcare

Cybersecurity and
trust

Support to
cybersecurity in
the health
sector

... plus **Digital Health as possible use cases** in broader topics;

& benefits through **HPC** and **cloud** infrastructures; European **Digital Innovation Hubs**, advanced digital **skills**...

Funding for European Health Data Space



Overall funding for EHDS and its infrastructures

- Around € 810 M

Earmarked funding: € 280 mil

- EU4Health: € 280 M
- DEP: € 50 M

Not earmarked: ≥ € 480 mil

- DEP: € 140 M
- CEF: 130 M
- HE: € 210 M

Funding for national infrastructures

- RRF: € 12 bn
- ERDF

Thank you

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