European Federation of Pharmaceutical Industries and Associations

Leveraging Big Data for Better Health Outcomes: The Need for a Collaborative Space and Common Solutions

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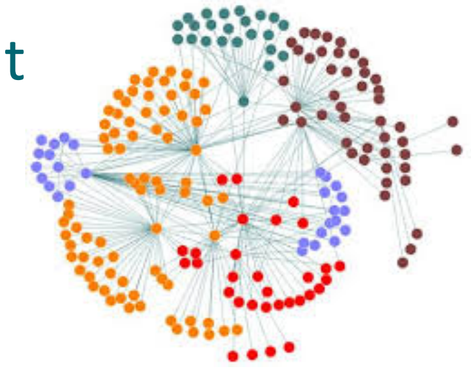
Disruption

Why this discussion now

- **Definitions.** True Big Data vs. structured data from real world setting.
- **Driven by science**. New t
  New ways to analyse and visualise data.



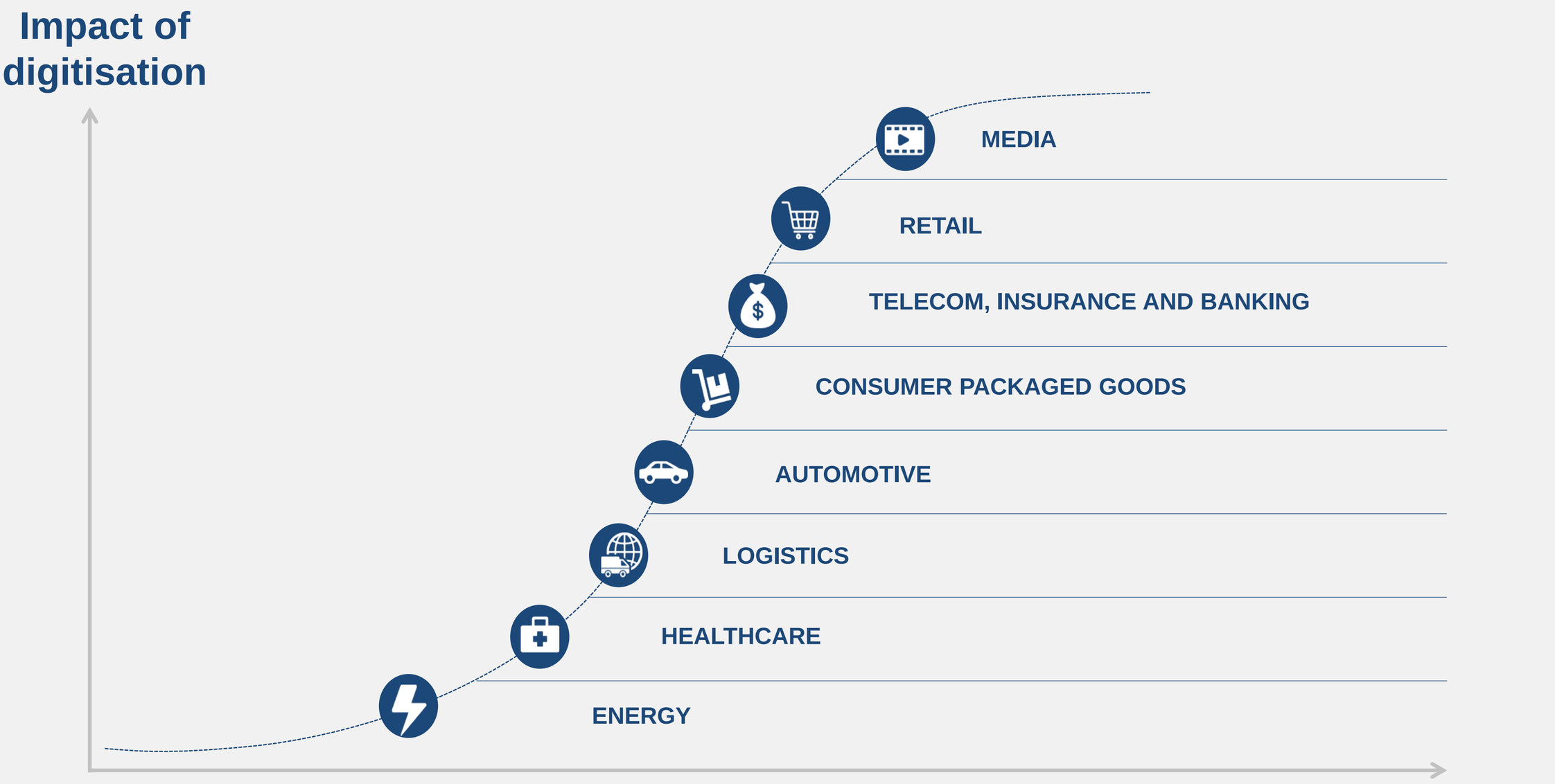
- **New players – pharma meets tech. New business models.**
- **New service and business models.** From purchasing to commissioning.
- **From Big Data to Small Data.** Wearables, devices, IoT

- **Change in consumer demand and behaviour.** Changing preferences and priorities.

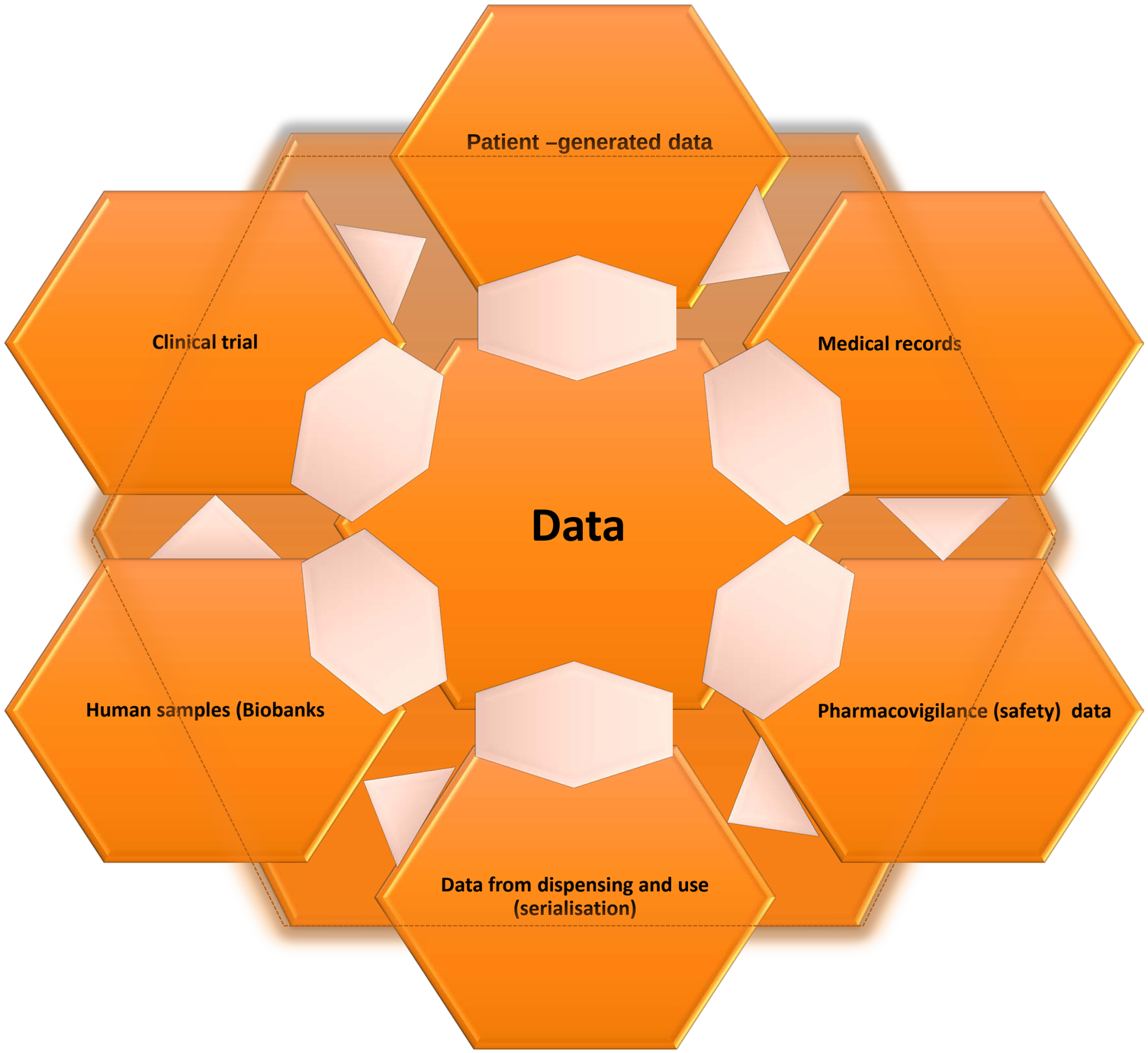
- **Technologies evolve. So do people and societies.**

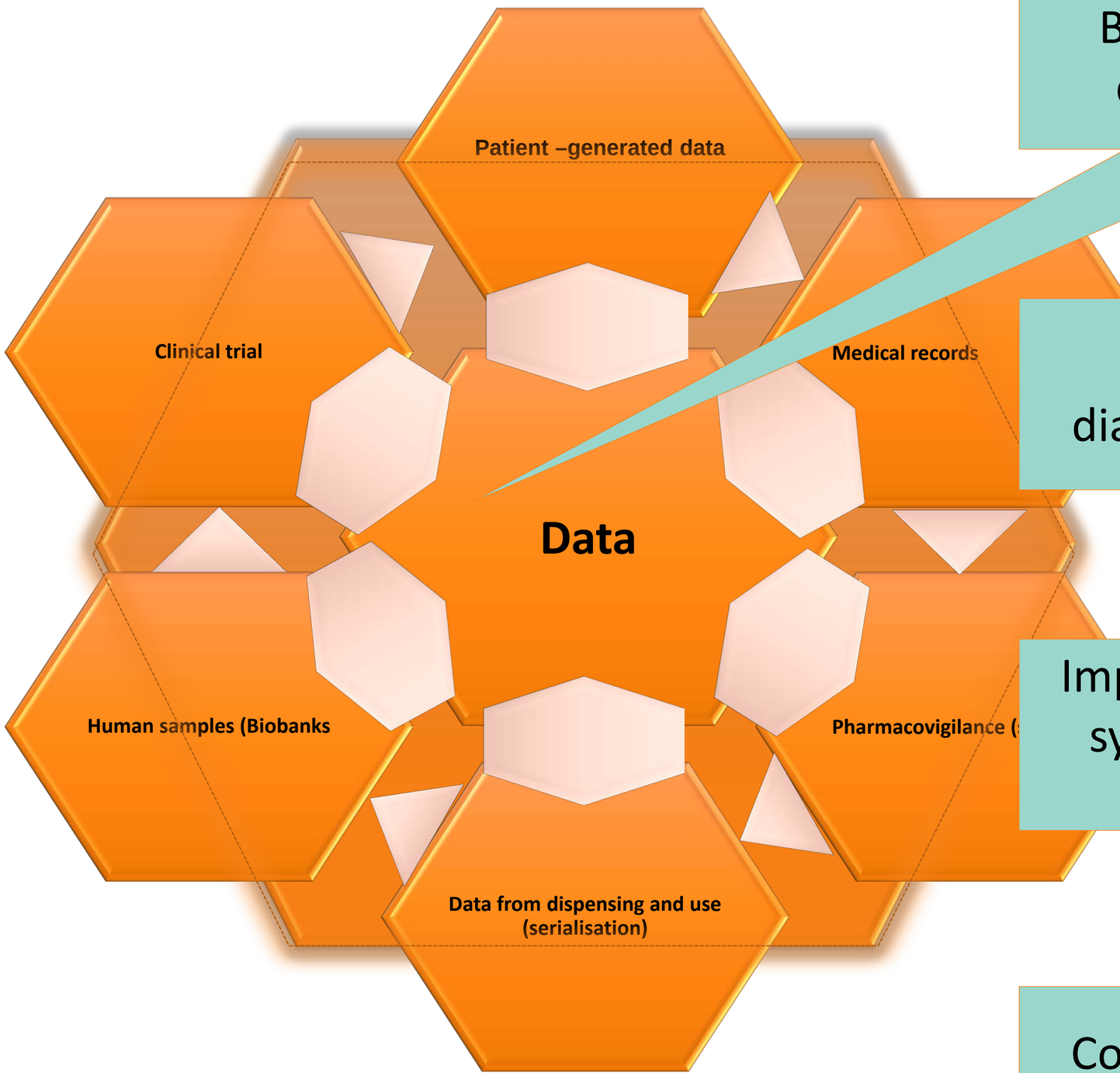
Compared to other sectors, healthcare is still in the early stages of the digitisation journey

Digitisation journey



Source: BCG analysis


Patient –generated data
Clinical trial
Medical records
Data
Human samples (Biobanks
Pharmacovigilance (safety) data
Data from dispensing and use (serialisation)



Better understanding of disease and outcomes

Improved prevention, diagnosis and intervention

Improved outcomes, health system performance and sustainability

Complete infrastructure to track and reward performance

Two examples

- **Innovative Medicines Initiative (Bart to present more tomorrow)**

- **Serialisation of medicines (European Medicines Verification Organisation)**

innovative medicines initiative

The Innovative Medicines Initiative:

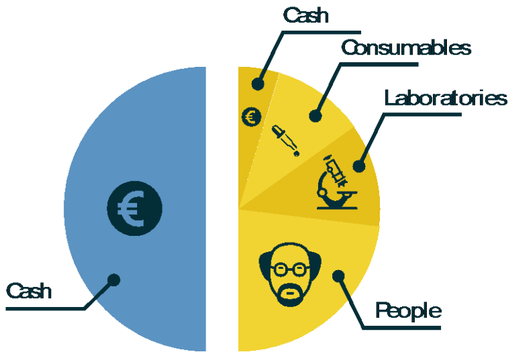
the largest public-private partnership for health research worldwide

€5 billion – 2008 to 2014

Part of the EU Horizon 2020 R&D funding

The public contribution

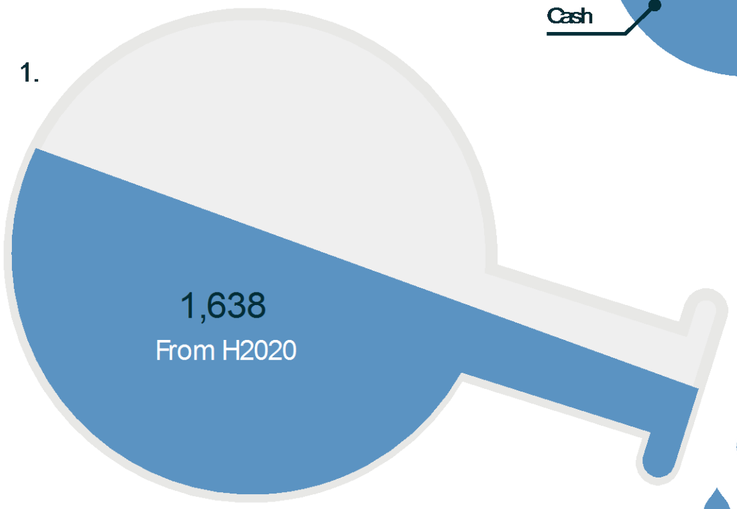
1,638 Billion €



The private Industry in-kind contribution

1,638 Billion €

1.



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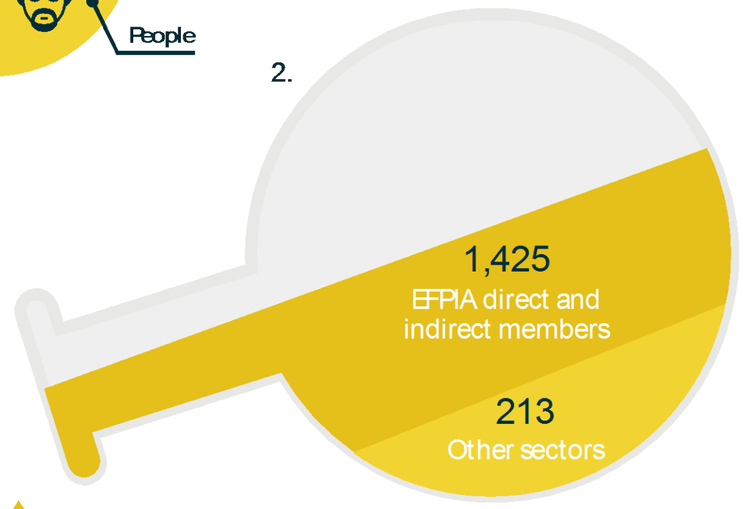
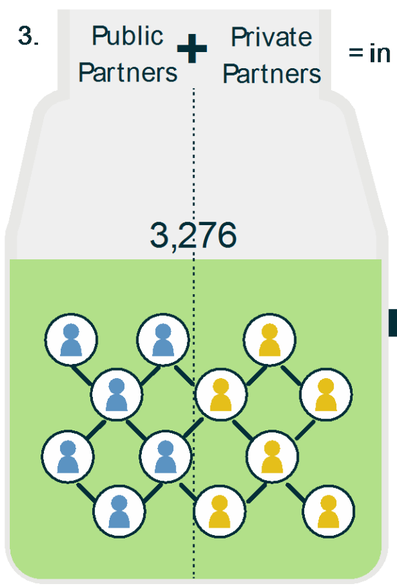


CASH for grants for PUBLIC PARTNERS

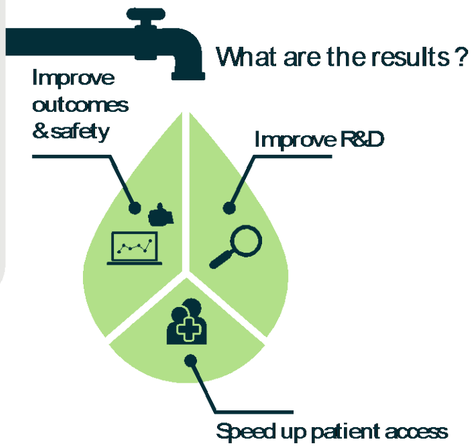
3. Public Partners + Private Partners = in IMI2 consortia



3,276 Billion €

2014 - 2024

What are the results ?



Who can partner?

Do not receive EU funding

Receive EU funding

Payers

Social security

Big and Small Companies

Primary & Special care

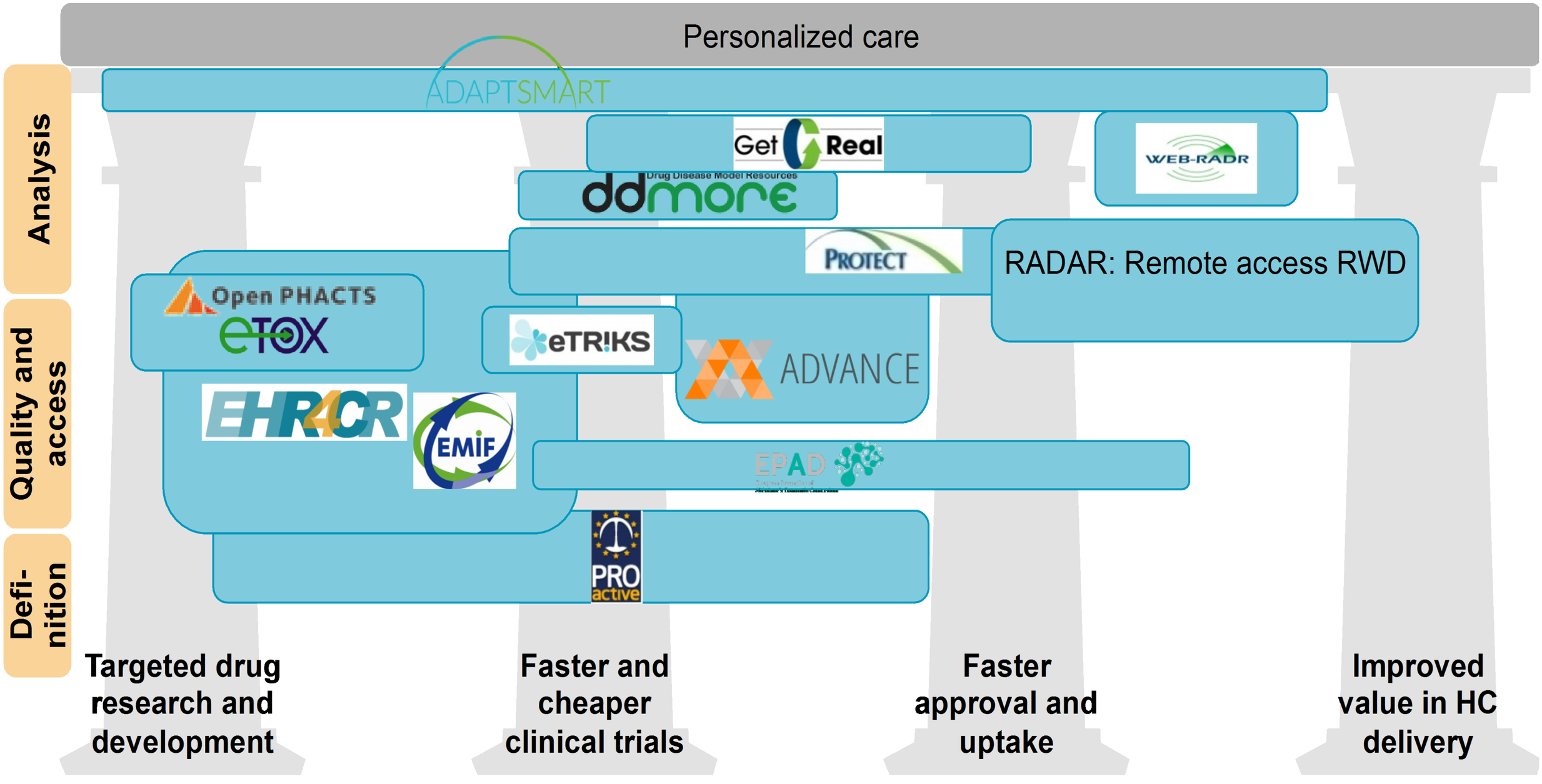
Prescribers

Regulators

Patients

Academia

IMI Big Data projects (examples)



The Big Data for Better Outcomes programme at a glance

"Big data for better outcomes"

Goal: Support the evolution towards outcomes-focused and sustainable healthcare systems, exploiting the opportunities offered by big and deep data sources

COORDINATION AND SUPPORT ACTION (CSA)

EUROPEAN DISTRIBUTED DATA NETWORK

1 Design sets of standard outcomes and demonstrate value

2 Increase access to high quality outcomes data

3 Use data to improve value of HC delivery

4 Increase patient engagement through digital solutions

ROADS: ALZHEIMER'S DISEASE – CALL OPEN FOR APPLICATIONS

HEMATOLOGIC MALIGNANCIES – CALL OPEN FOR APPLICATIONS

CARDIOVASCULAR

MULTIPLE SCLEROSIS

MULTI-DISEASE / MULTI-MORBID PATIENTS

RARE CANCERS

Coordination and operational topics

Themes / Enablers

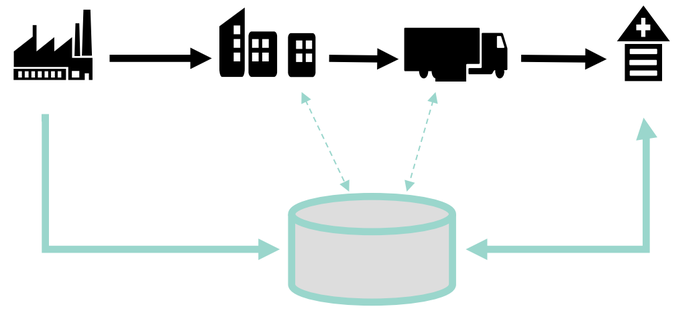
Disease-specific topics

Serialisation of medicines will create a new Infrastructure to protect against counterfeit medicines - and much more…..

Serialization by manufacturer

+

Verification at point of dispense



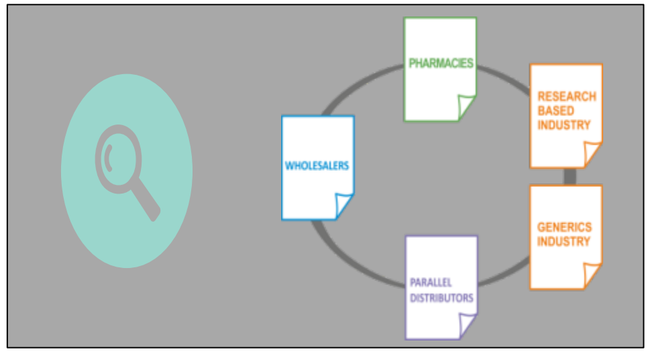
Code (‘safety feature’)

+

Tamper evidence

Product #:	09876543210982
Batch:	A1C2E3G4I5
Expiry:	140531
S/N:	12345AZRQF1234567890

System decided by governments and covering all stakeholders



The data architecture for health research needs to be operate seamlessly across borders and institutions and offer high levels of security and accountability.

Maybe needed: government-mandated third party to ensure privacy and integrity.

Science and technology meets society

- Everyone is very excited about use of big data to advance science and deliver better health outcomes.

- Patient-generated and patient-held health data will enable new solutions to track safety and effectiveness in real time.

- With a common focus on health outcomes, and the availability of everyday clinical data will enable companies to agree new payment models, paying for results.

- Connecting the physical world (medicines) with the digital one, such as through serialisation and wearables, will "close the loop" and deliver big data sets of good quality.