Data driven Innovation in Personalised Medicine and Care

Project ATHENA

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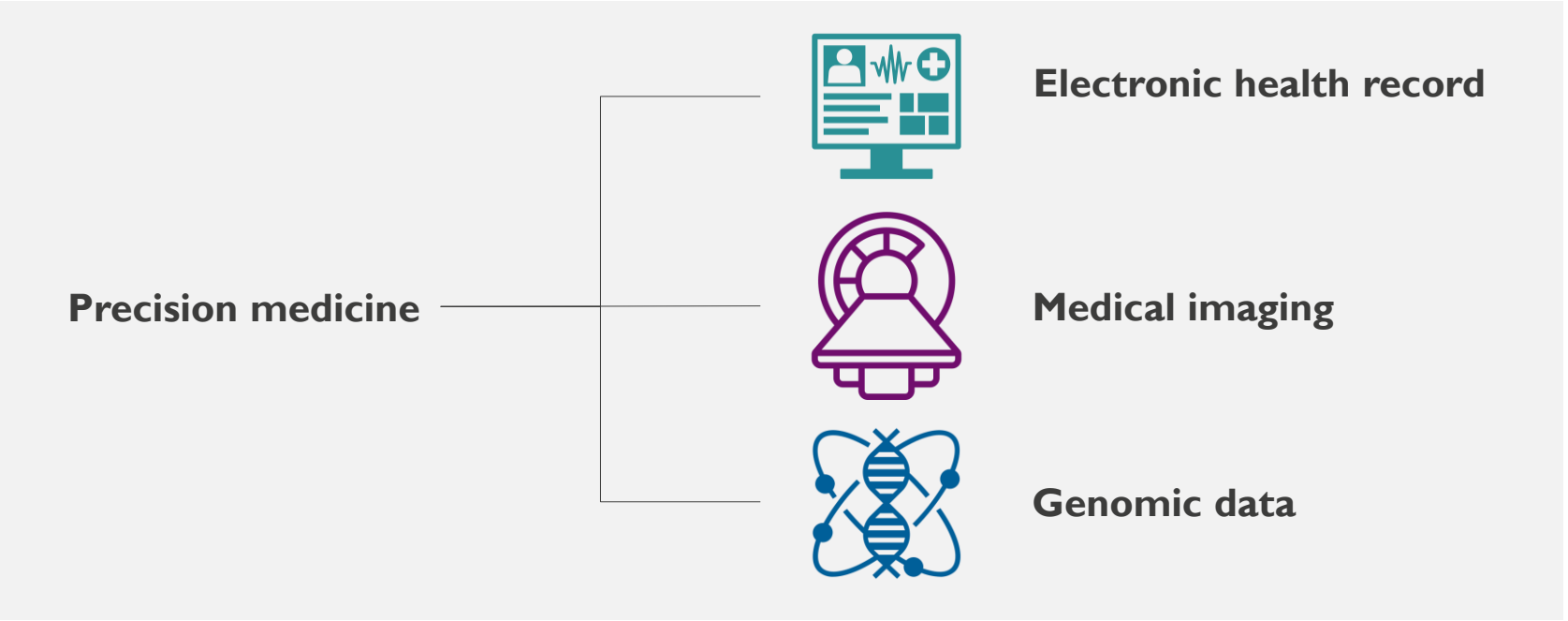
AGENTSCHAP INNOVEREN & ONDERNEMEN
Vlaanderen is ondernemen

The ATHENA project lays the groundwork to enable precision medicine

"Personalised medicine is the streamlining of clinical decision making by distinguishing in advance those patients most likely to benefit from a given treatment from those who will incur cost and suffer side effects without gaining benefit"

Hamburg, FDA report, 2013



Several players have joined forces in project ATHENA to advance precision medicine

ATHENA is a unique proof-of-concept for federated real-world data management to enable precision medicine

PROJECT ATHENA

Augmenting **TH**erapeutic **E**ffectiveness through **N**ovel **A**nalytics

The ATHENA project aims to:

- **Develop building blocks for a platform that can access large datasets on the evolution of disease** in individual cancer patients
- **To support the search for valuable correlations** between data (data mining), while still complying with the highest standards of **patient data privacy and security** by using a **federated model**
- Make it possible to **discover disease mechanisms** that can be treated through new **personalized therapies**

GDPR compliance by privacy preserving mechanism to support re-use of data

Federated Data Network

Data security
Local control

Data connectivity
Omics / Non-Omics

Distributed Machine learning platform

ATHENA's objective is to set-up technology and remove barriers to augment therapeutic effectiveness

1 **Accelerate data-driven precision medicine** through (clinical, omics, images) data mobilisation and insights generation to **support care, improve survival and inform research**

2 Apply advanced analytical methods to generated new markers and/or algorithms to **stratify patients** with regards to their possible response to treatment

3 Help **HCPs to deliver better targeted treatments** more effectively and proactively to patients

4 **Better integrating care and research,** generating improved outcomes for each patient **and optimizing clinical research (patient identification)**

Providing solutions to ethics, consent and data governance, data quality, interoperability and sustainability