

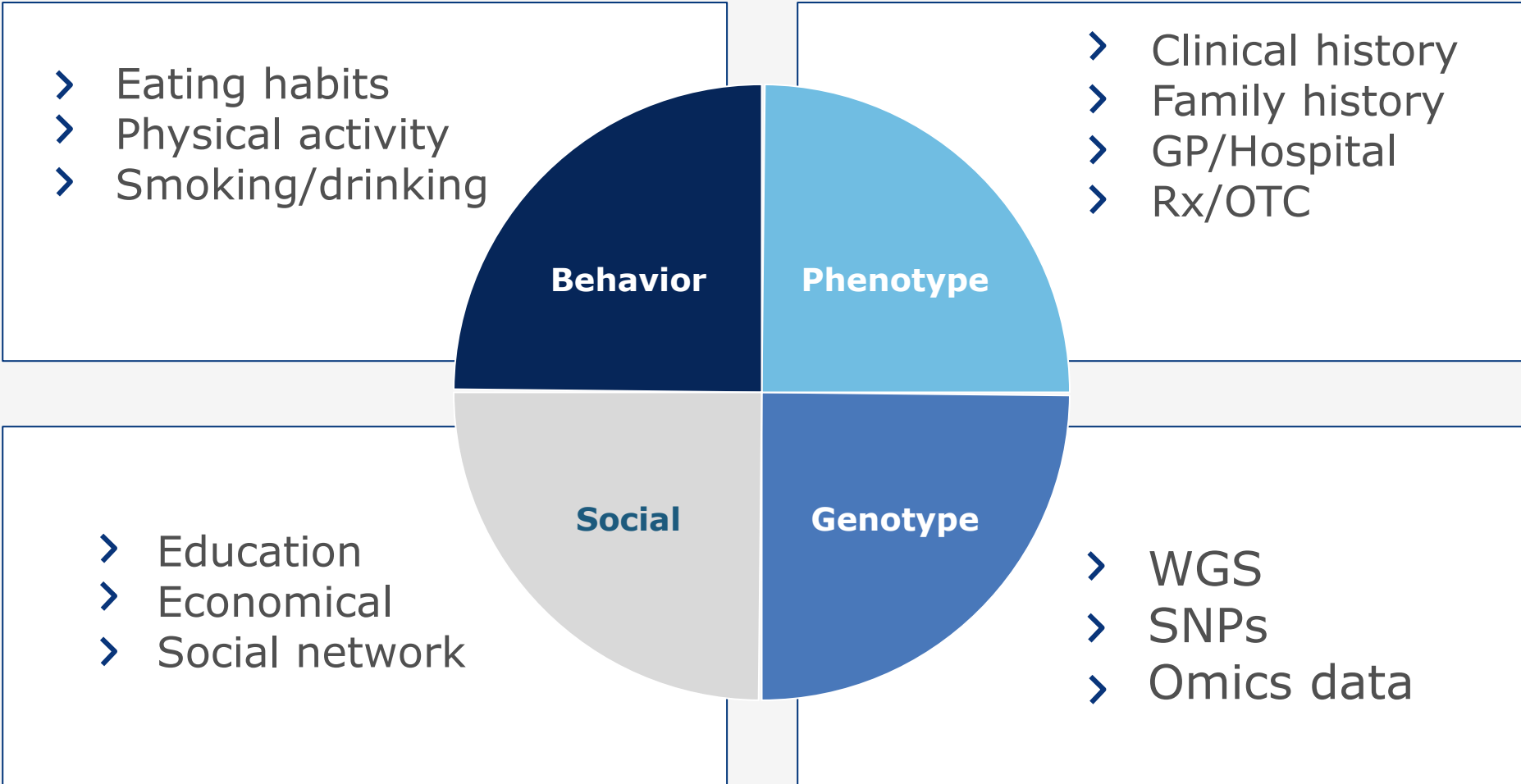


SAPHIRE webinar: Access to health data – The role of regional actors, gatekeepers, providers and individuals

Tine Lewi, Scientific Director, Janssen R&D, Clinical Innovation
29 October 2020

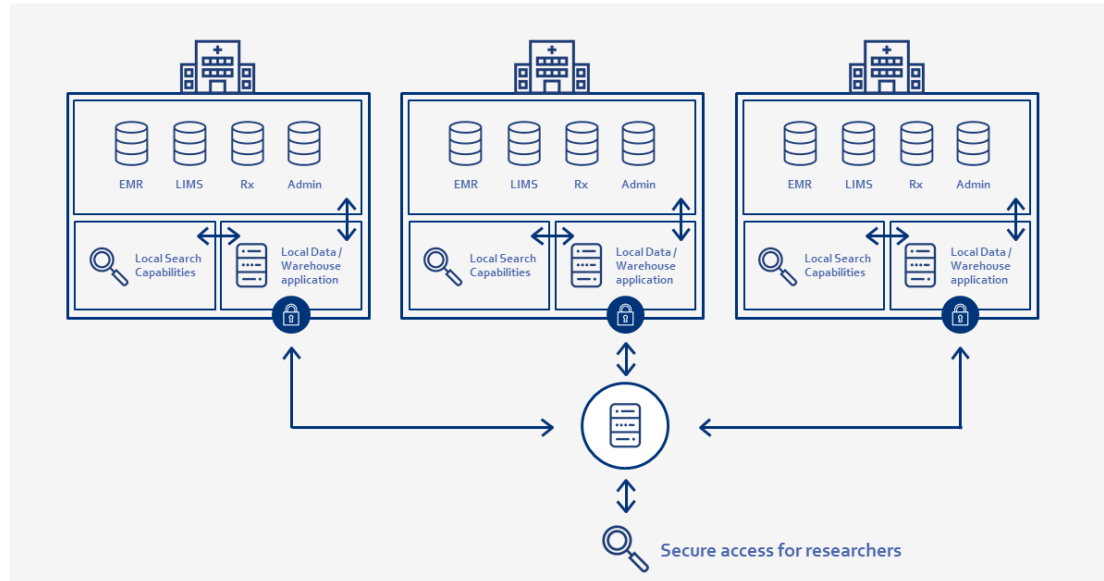
Data enrichment through collaboration across the health ecosystem

Patient-focused



Ethical, Legal & Privacy – Patient & Investigator Engagement

From federated data management ...



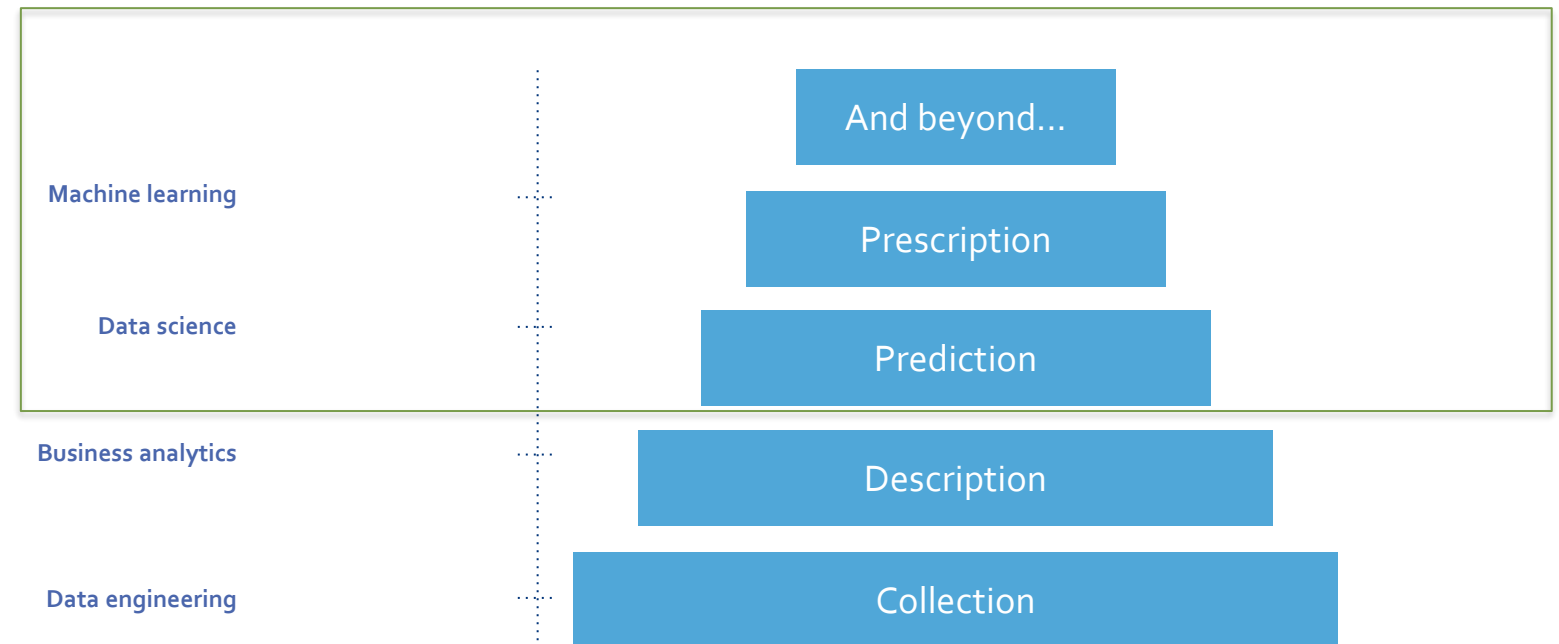
to prediction and prescription

Project ATHENA

Augmenting **T**herapeutic **E**ffectiveness through **N**ovel **A**nalyses

Bladder Cancer

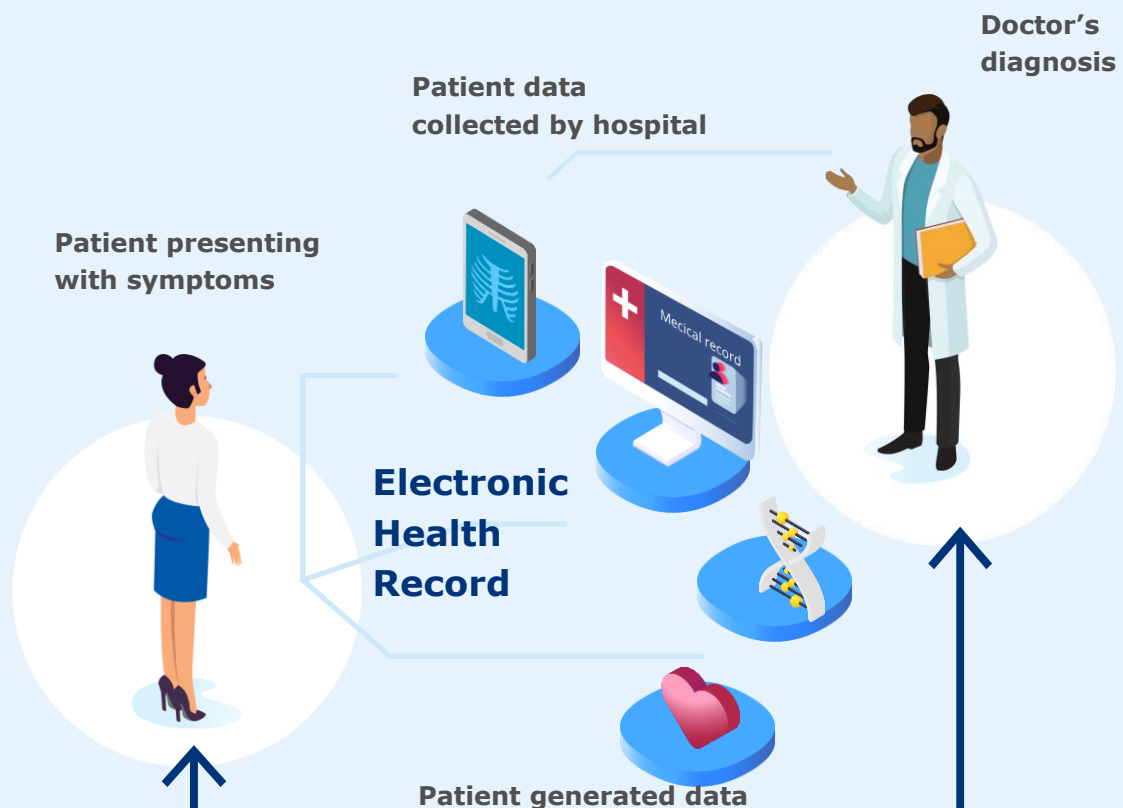
Multiple Myeloma



Objectives:

1. Public/Private collaboration on innovation in data science
2. Improved data management & quality and augmented real-world-data
3. Introducing privacy-preserving machine learning

Augmented RWD

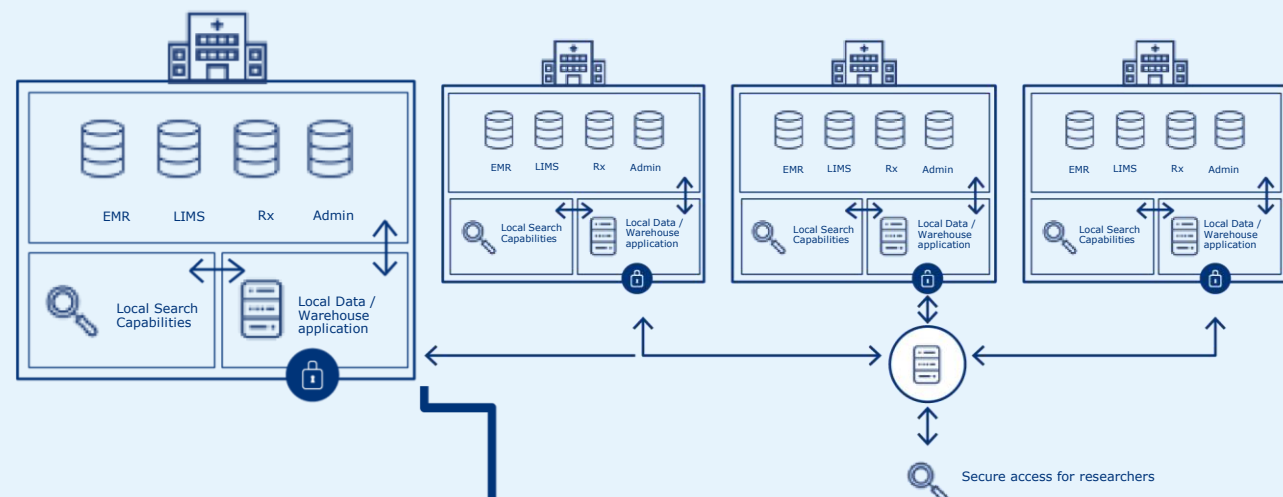


Benefit ↑

Benefit ↑

Regulatory-grade RWD

Challenge of collecting, curating & analyzing patient-level data – structured & unstructured



H Repository at hospital level

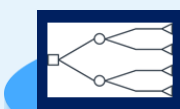
Data Standards - FHIR & OMOP

Use Case 2 Accelerating Research



More patients have faster access to trials

Use Case 1 Risk Stratification



Disease pathways



Treatment optimization



Outcomes based research

Learning system across hospitals



Federated query management

Privacy-preserving federated machine learning

Medical insights

Source: Project ATHENA/VLAIO



Clinical manifestation

Onset of morbidity

No clinical manifestation

HEALTHY

INCUBATION

DISEASE



PREVENTION

Disease-specific approaches to warding off onset of disease initiation



INTERCEPTION

Arrest disease as it develops before clinical manifestations



CURE

Eliminate disease and reverse damage to restore full health

DISEASE ELIMINATION



References

Cowie, M.R.; Blomster J.L.; Curtis L.H.; ... Zalewski A. (2017). Electronic health records to facilitate clinical research. In: Clin Res Cardiol.; Jan;106(1):1-9.

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