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Healthcare solutions with IoT & Edge

Industrial perspective

Bert Verdonck

Health Data Spaces and Gaia-X

May 2021

innovation  you



Profound trends shaping the future of healthcare, accelerated by COVID-19

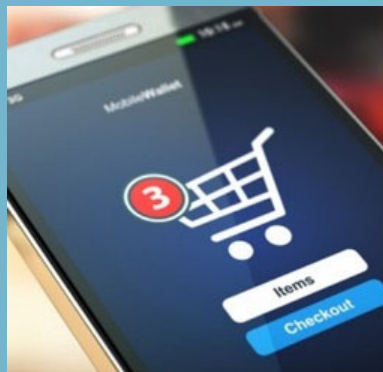
**Healthcare spend
10% of EU GDP*
continuing to
exceed GDP growth**

**Aging populations,
the rise of
chronic illnesses
and pandemics**

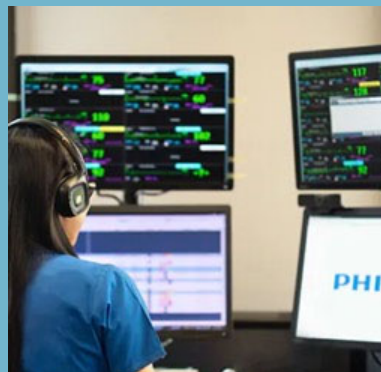
**Highly fragmented
Healthcare systems**

**Slow transition
from fee-for-service
to value-based care**

**Proliferation of
Data Silos**



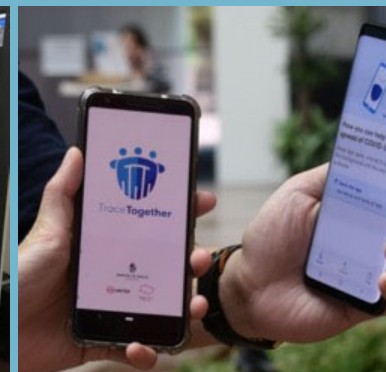
Digital



Virtualized care



Interoperability



Innovation



Business Models

* Source: Eurostat by European Commission, March 31, 2020. <https://ec.europa.eu/eurostat/web/products-eurostat-news/-/DDN-20200331-1>

Digital is enabling the healthcare transformation



Cloud Internet of Things Artificial Intelligence Sensorization

Conversational interfaces 5G Robotics Autonomous systems Computer Vision AR/VR Blockchain



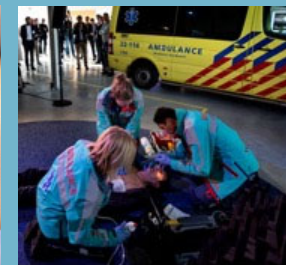
Continuous health tracking



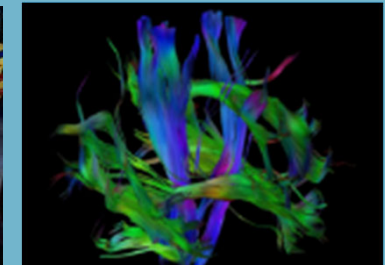
Population health



Context-aware patient monitoring



Real-time care



Advanced visualization



Augmented Reality

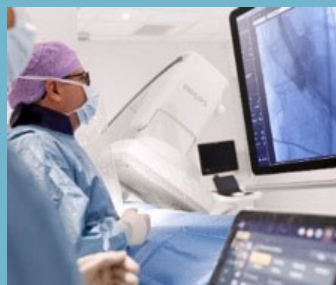
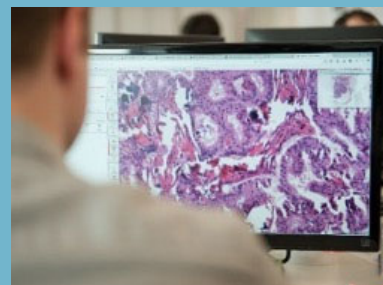
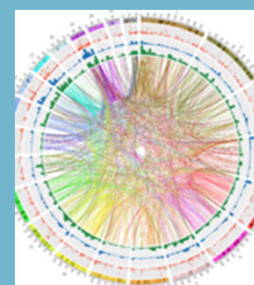


Image-guided therapy



Computational pathology



Genomics



Quantification



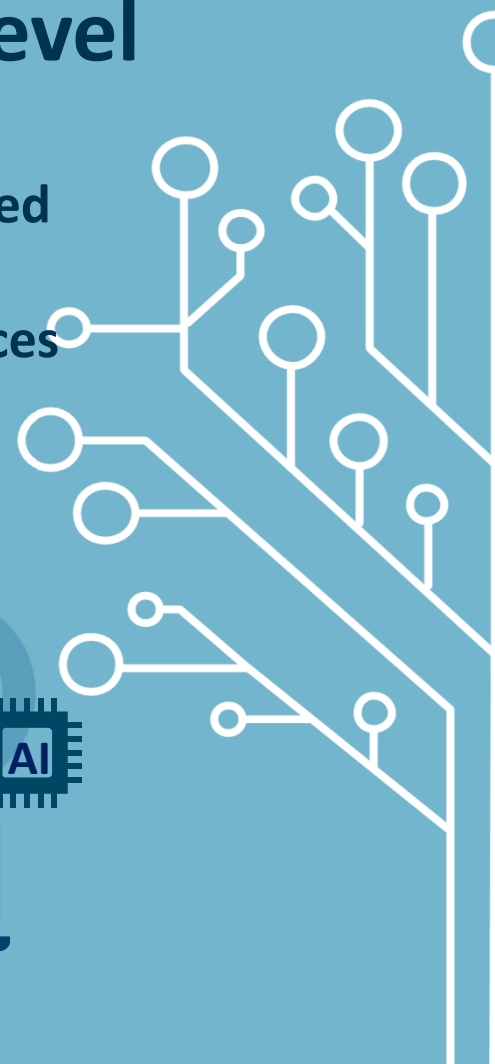
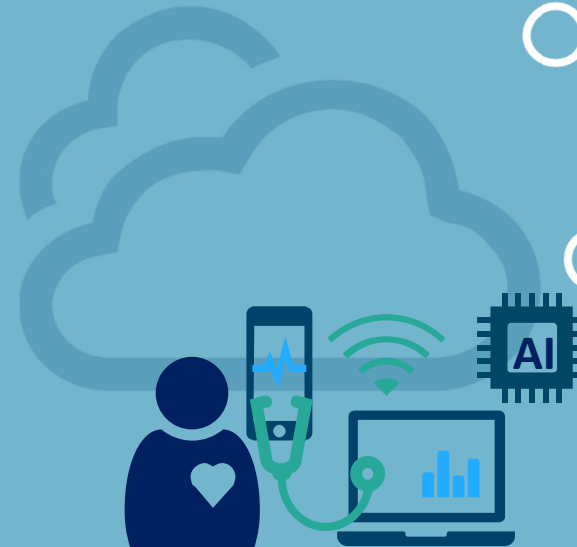
Adaptive interfaces



Longitudinal, 360-degree health profile of citizens enabled by ecosystems, **at national and EU level**



Secure, open, federated
Health Data Spaces
and Cloud/Edge Services



The Gaia-X project was initiated to enable a secure, open and sovereign use of data. In this way, self-determined decisions can be made on how and where data is stored, processed and used within the data infrastructure.



Our vision

Access and share data through a federated data infra-structure to ensure innovation for our future thanks to the next generation of Information Technology.



European cooperation

Ensure the efficiency of European data infra-structure, based on European values and supported by the European Commission.



Transparency

Secure open interfaces and standards to allow the aggregation of data while driving innovation and efficiencies within a transparent environment.



Our objectives

Foster the creation, formation, roll out and growth of digital ecosystems that can be used commercially in and across data spaces.



Maximum security

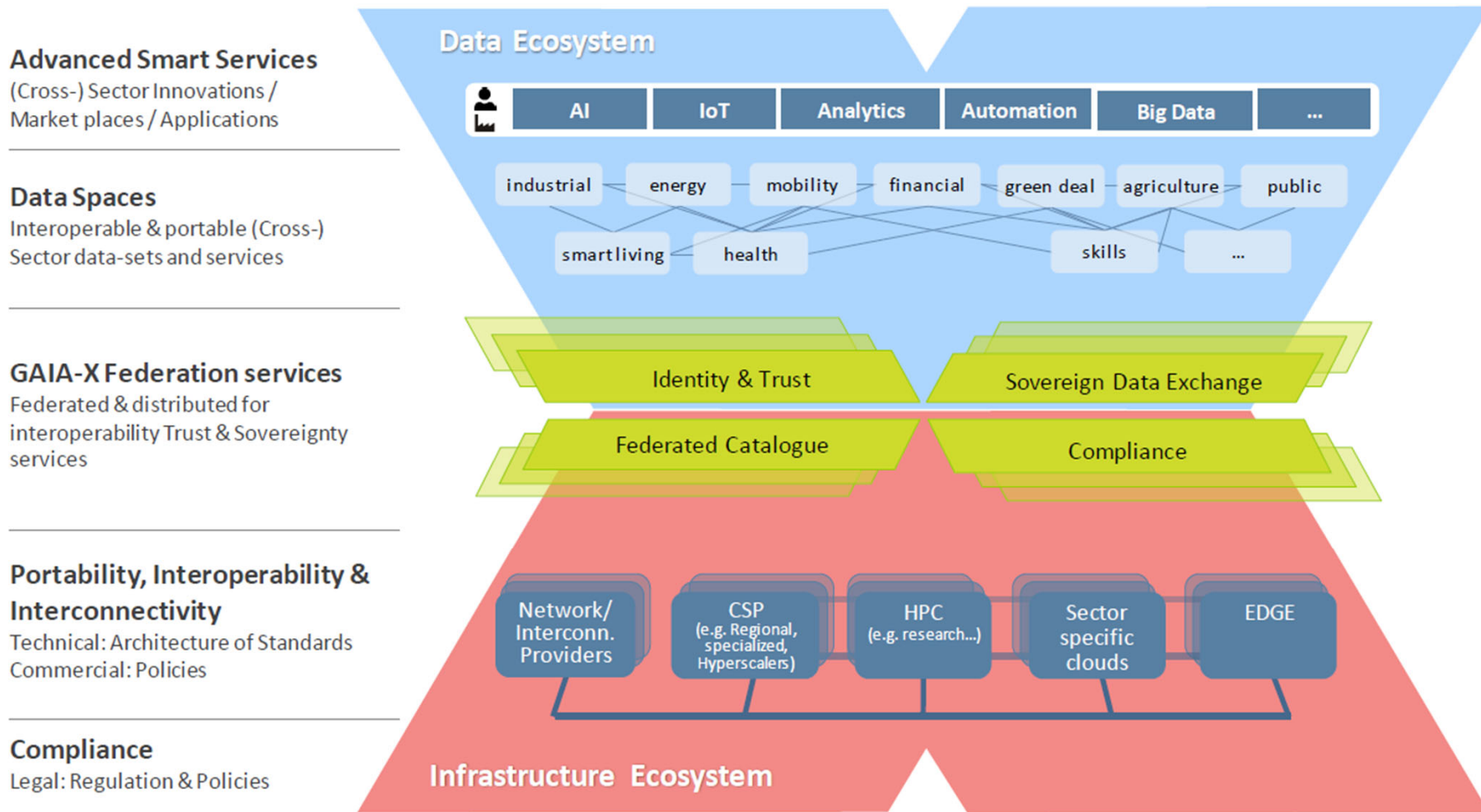
Maximise data sovereignty for business, customers and governments through services that ensure interoperability and privacy by design.



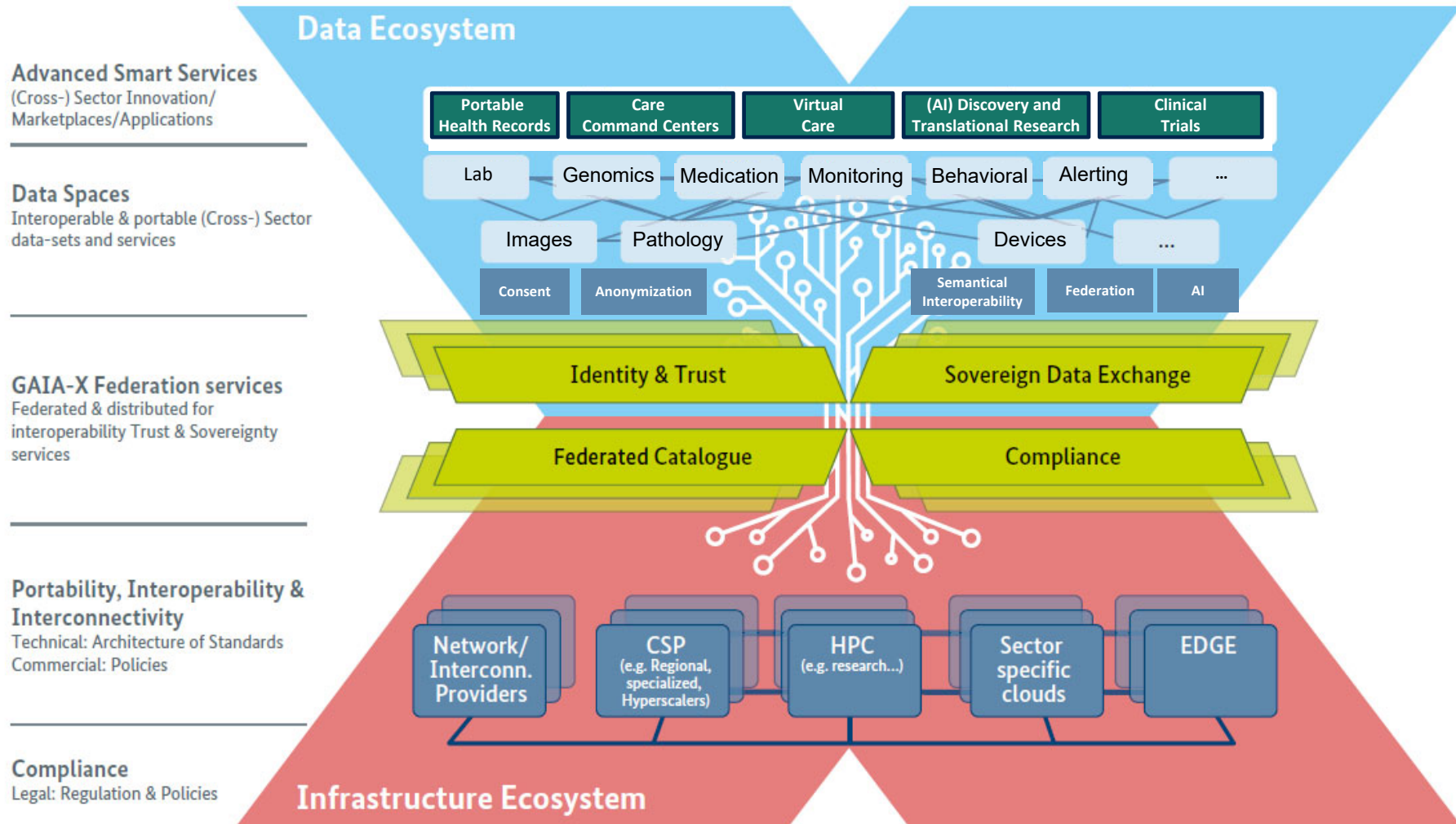
Rights protection

Guarantee citizens' privacy as a human right and respect the sovereignty of other nations.

The Gaia-X ecosystem of services and data



A Gaia-X ecosystem for the health & care domain



Gaia-X concepts applied to the health & care domain



Health Applications and Services

Data services: equal playing field with guaranteed compliance

EU NL DE F Device-cloud 1 ...

Health Data Spaces

Common data models
(semantic IO)

Freedom of choice of compliant cloud/edge providers

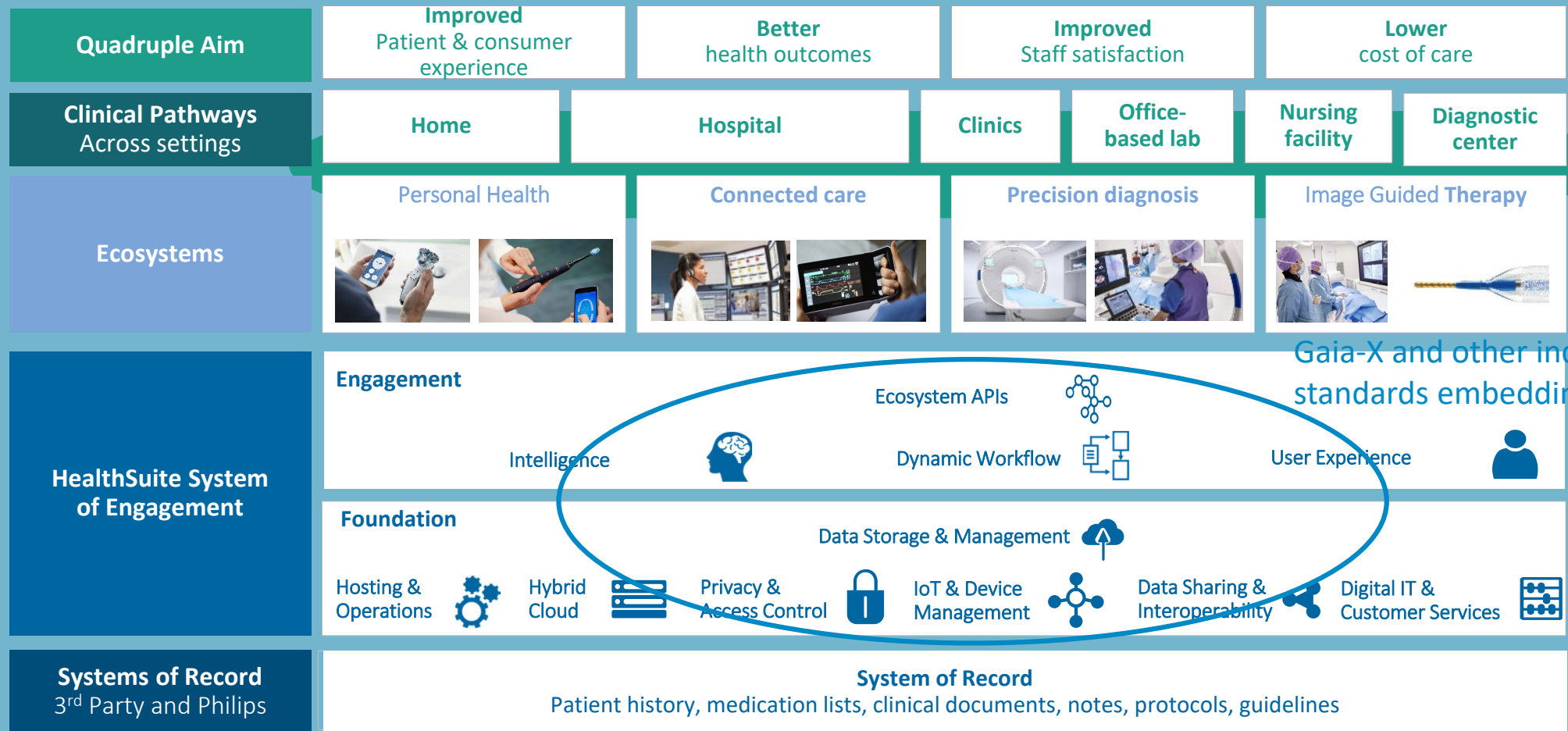
AWS Azure ... F-cloud NL-cloud ...

GAIA-X Federated Cloud/Edge Infrastructure



Philips HealthSuite System of Engagement

Enabling trusted and configurable ecosystem solutions creation to enable interoperability and scale



Gaia-X and other industry standards embedding

