



Breaking down the data silos

Erik Vermeulen

HiGHmed SYMPOSIUM, October, 2021

Health systems/ organisations are investing to break down the data siloes and become smarter for tomorrow

Continue to optimize the business of today

Innovate and grow the Business of tomorrow

Duality of growth

- ▶ Data driven
- ▶ Platform enabled / technology driven / open
- ▶ Seamless integration of physical and virtual
- ▶ Preventative and predictive care

- ▶ Facility centric
- ▶ Connected digital systems for point to point interactions

- ▶ Some technology enabled solutions
- ▶ Some integration

- ▶ Paper processes
- ▶ Some standalone IT infrastructure

Smart Health Ecosystem

Integrated patient centric care that breaks down silos between care settings



Connected Health provider



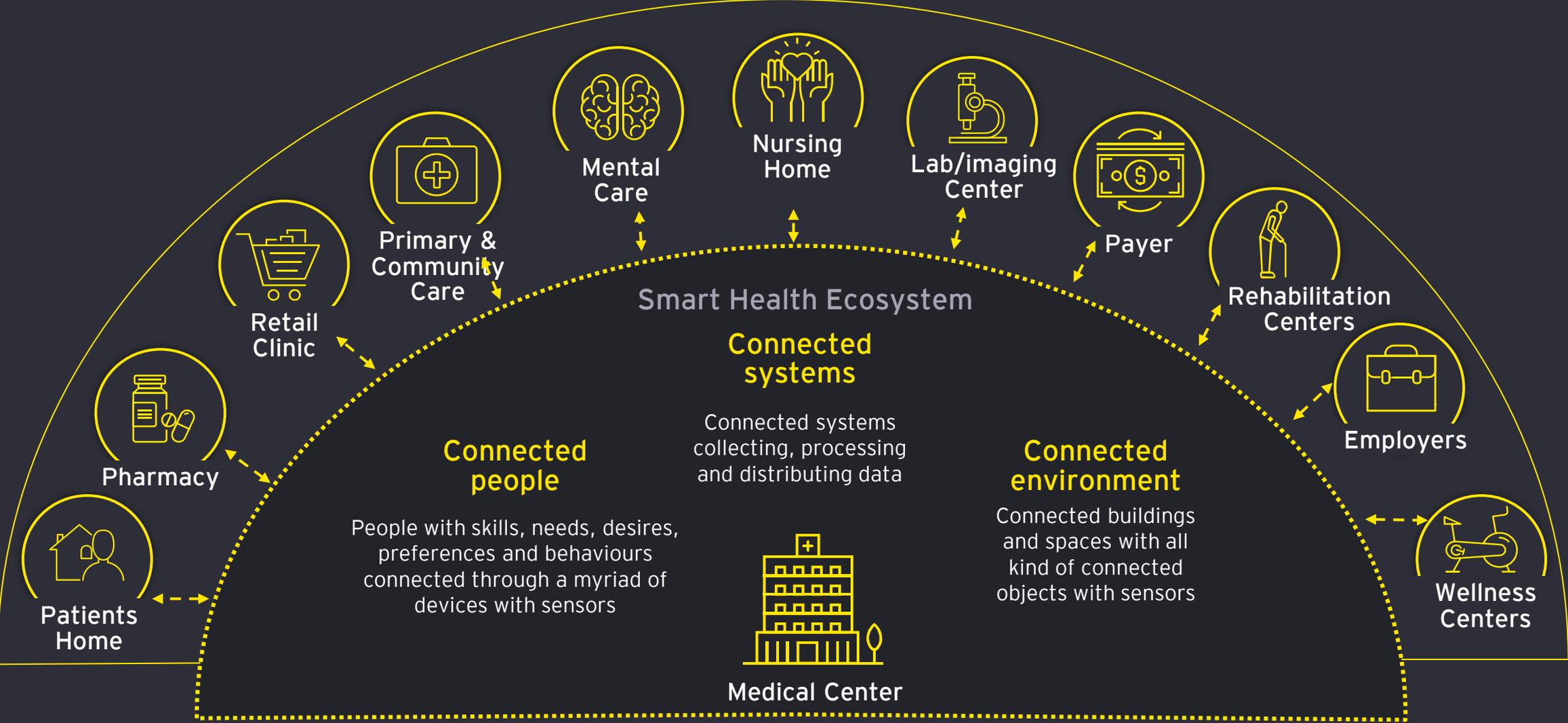
Digitized Health provider



Traditional Health provider



Data flow will transform care delivery towards a hyperconnected health management network



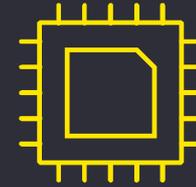
Health platforms with different focus areas



Customer: providing a seamless customer journey matching the individual preferences of customers



Data intelligence: adding a layer of intelligence based on the aggregation of data from a myriad of sources



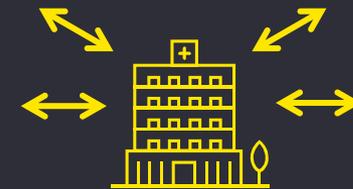
Connected things: supporting the real time collection and processing of sensor input from connected things



Shared care: supporting the seamless collaboration between care professionals from different organizations



Point to point: supporting the exchange of selected patient data from one professional to the next



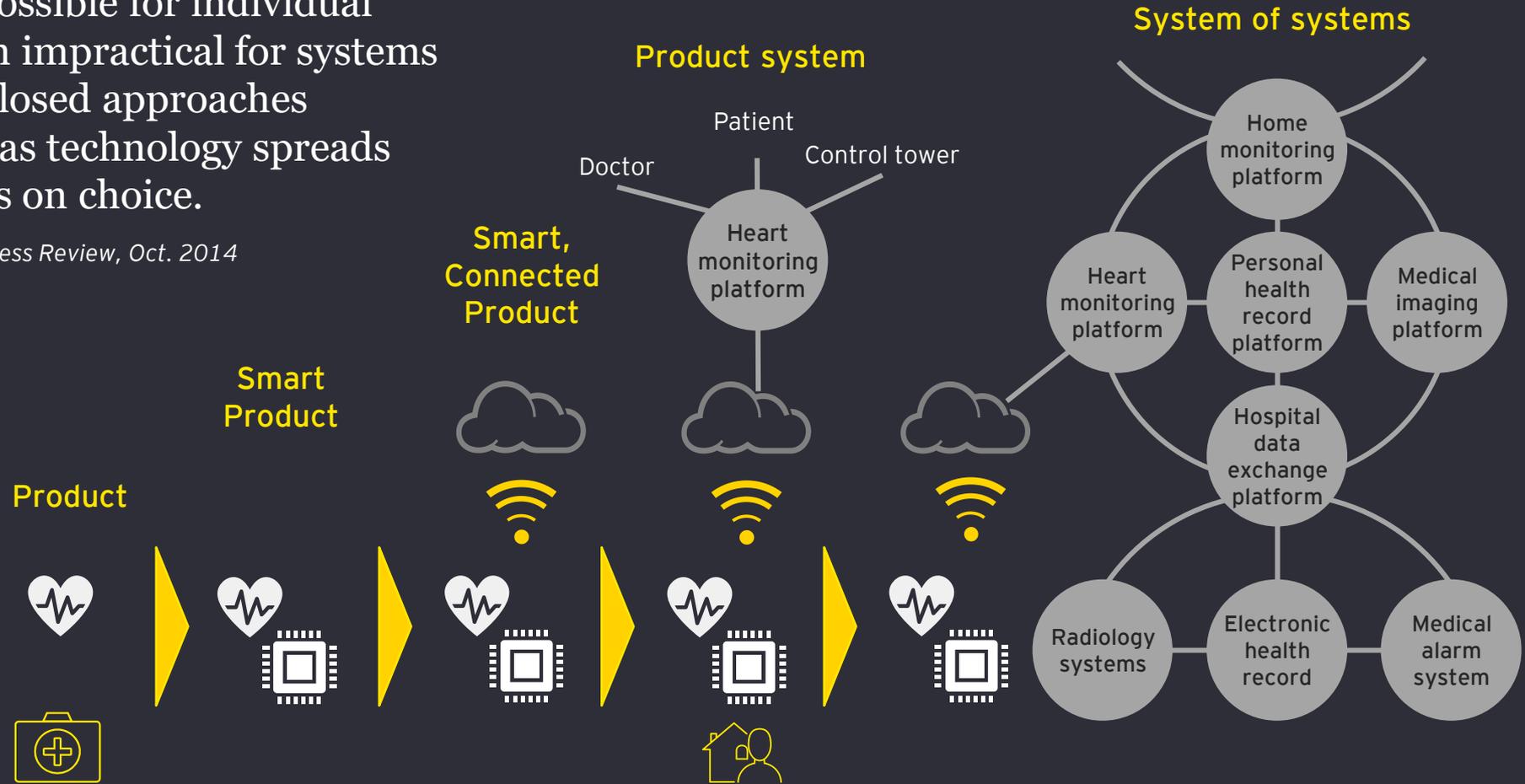
Care provider: supporting the integration between the ecosystem partners and the core systems of the individual care provider

Hyperconnected care networks are enabled by interconnected platforms

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While a closed system is possible for individual product systems, it is often impractical for systems of systems. ... Over time, closed approaches become more challenging as technology spreads and customers resist limits on choice.

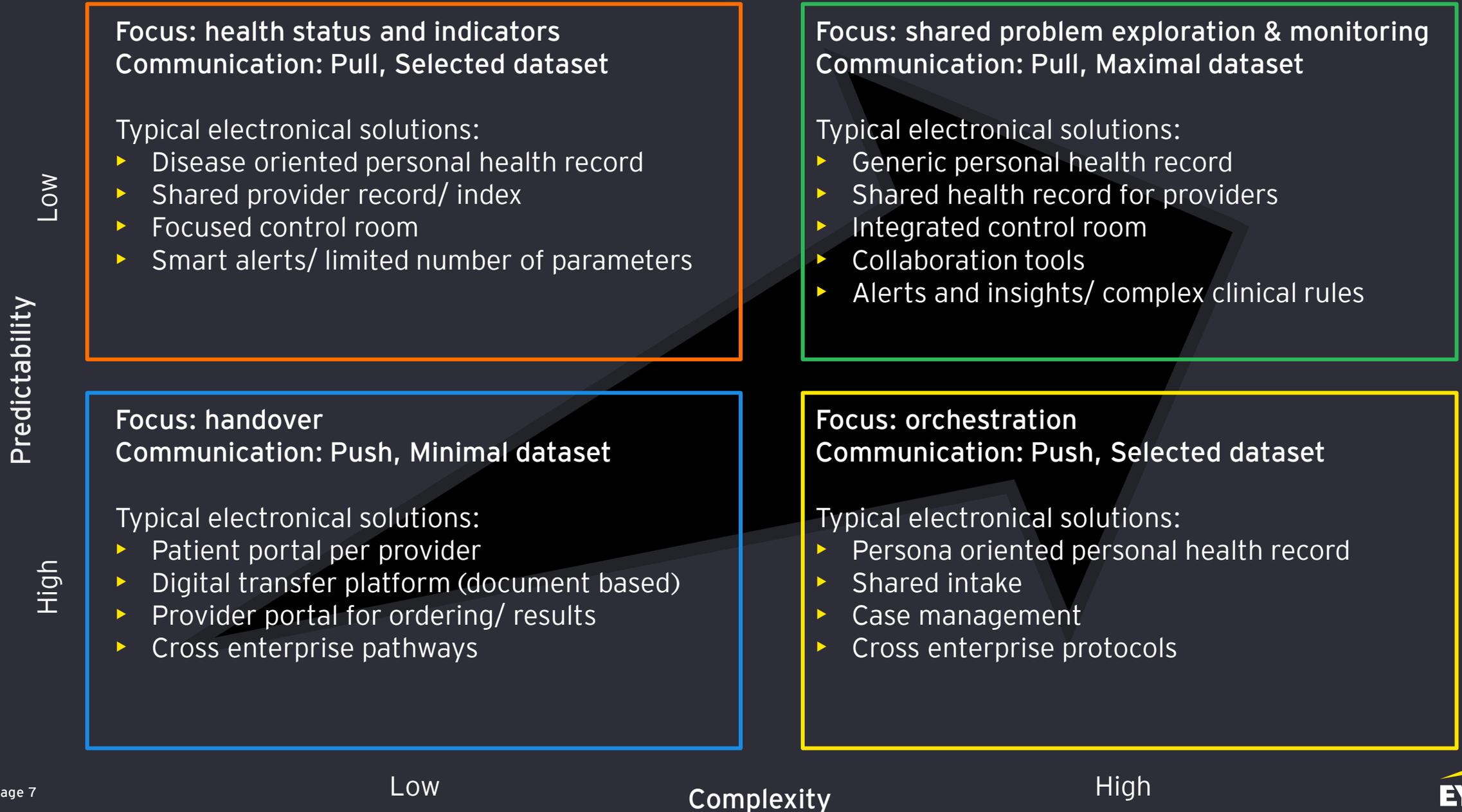
Source: Porter, Heppelmann, Harvard Business Review, Oct. 2014



Health ecosystems are confronted with different demand patterns



... these demand patterns are driving different solutions



Prevent local deviations from standards

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There are too many different initiatives running in parallel within the **FHIR** community. These rapid evolvments not only lead to inefficient use of resources within the developer community, it also risks leading to different “**dialects**” being created by the different projects. This in turn will make it confusing for users to understand the best specifications and requirements for their user environment.

Source: COCIR, the European Coordination Committee of the Radiological, Electromedical and Healthcare IT Industry, “Interoperability out-of-the-box? assessing FHIR, June 2021



10 best practices for creating sustainable smart health ecosystems

1. Separate the data from the logic, break down data silo's
2. Think in platforms and how they serve future demand
3. Develop a partnering strategy and capability
4. Create a data sharing framework across all levels: organization, process, information, data, infrastructure
5. Focus on sharing discrete, machine readable, data
6. Use a common data model
7. Choose modern open standards like openEHR, FHIR & Oauth and prevent local deviations
8. Prepare for handling very large volumes of data
9. Integrating legacy data sources is difficult but necessary
10. Share knowledge, experience and solutions around data integration (e.g. modelling community, open source)



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