# Modernising digital health architectures with openEHR

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# How has healthcare architecture changed?

- Closed to open architectures
- Productisation
- Shift from secondary use data to primary
- The document paradigm has morphed
- Data lakes grown from puddles
- Low code is more feasible / sustainable
- Routes for the clinical voice into Digital

Photo by Diana Polekhina on Unsplash

# The Open Platform

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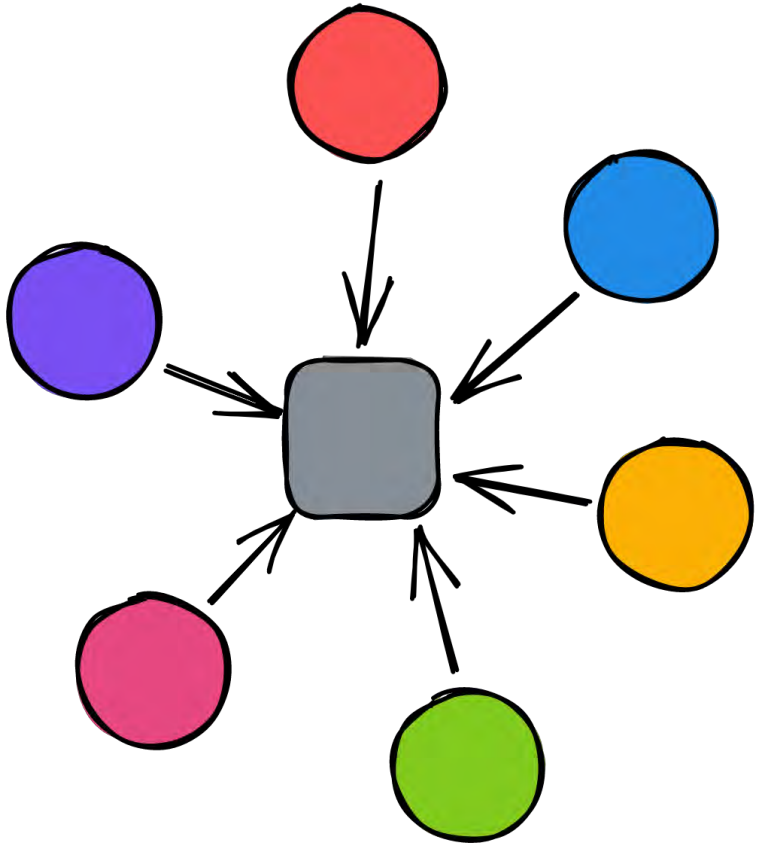
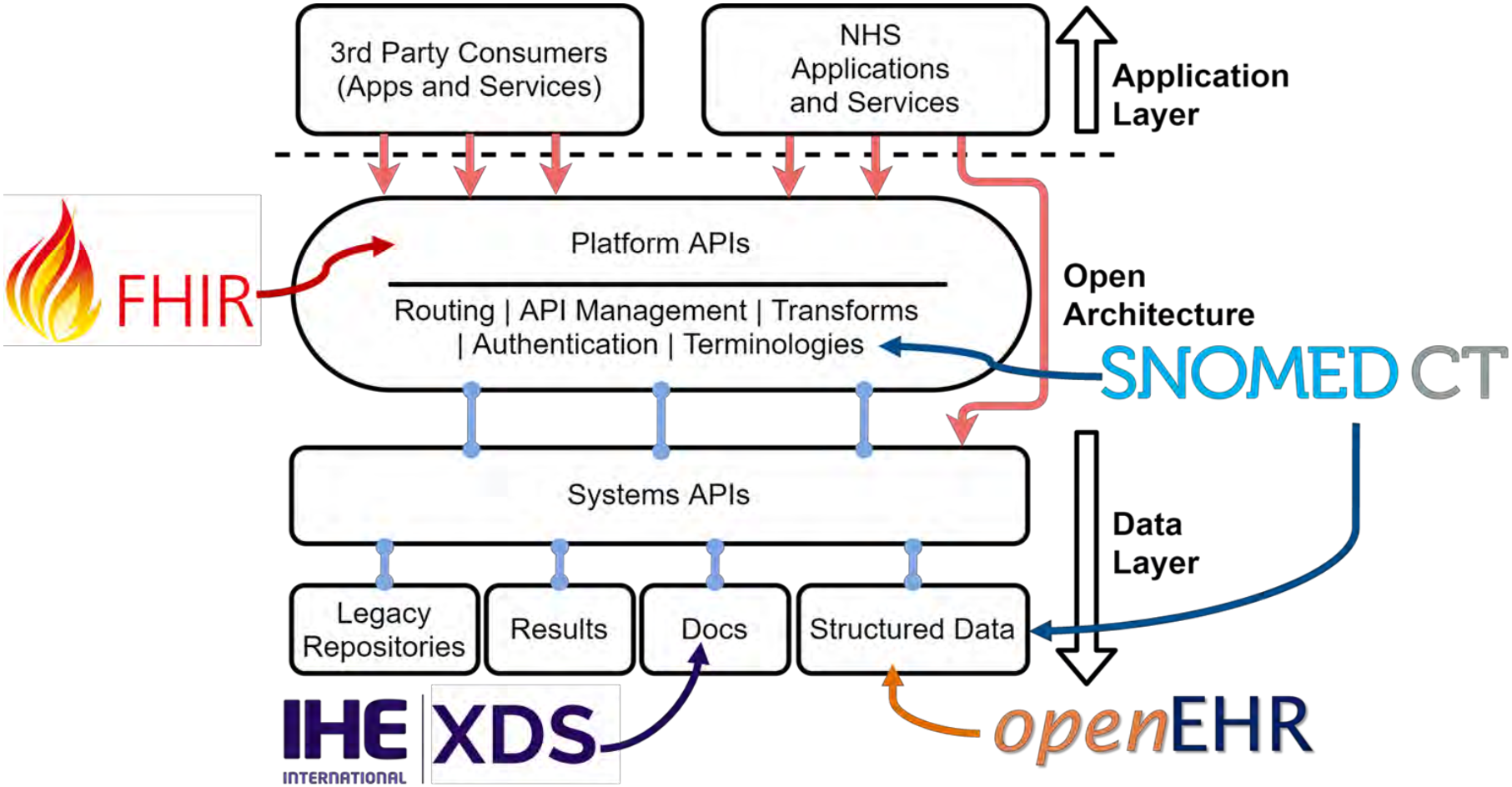
- Standards based persistence.
- Standard, published APIs e.g. native, openEHR or FHIR depending on use case,
- Support a persistent data model that outlives the application,
- Technology neutral,
- Data stored and managed in a secure, auditable way at scale,
- Reusable; release design and development resource over time.

# Convergence: the FOXS Stack

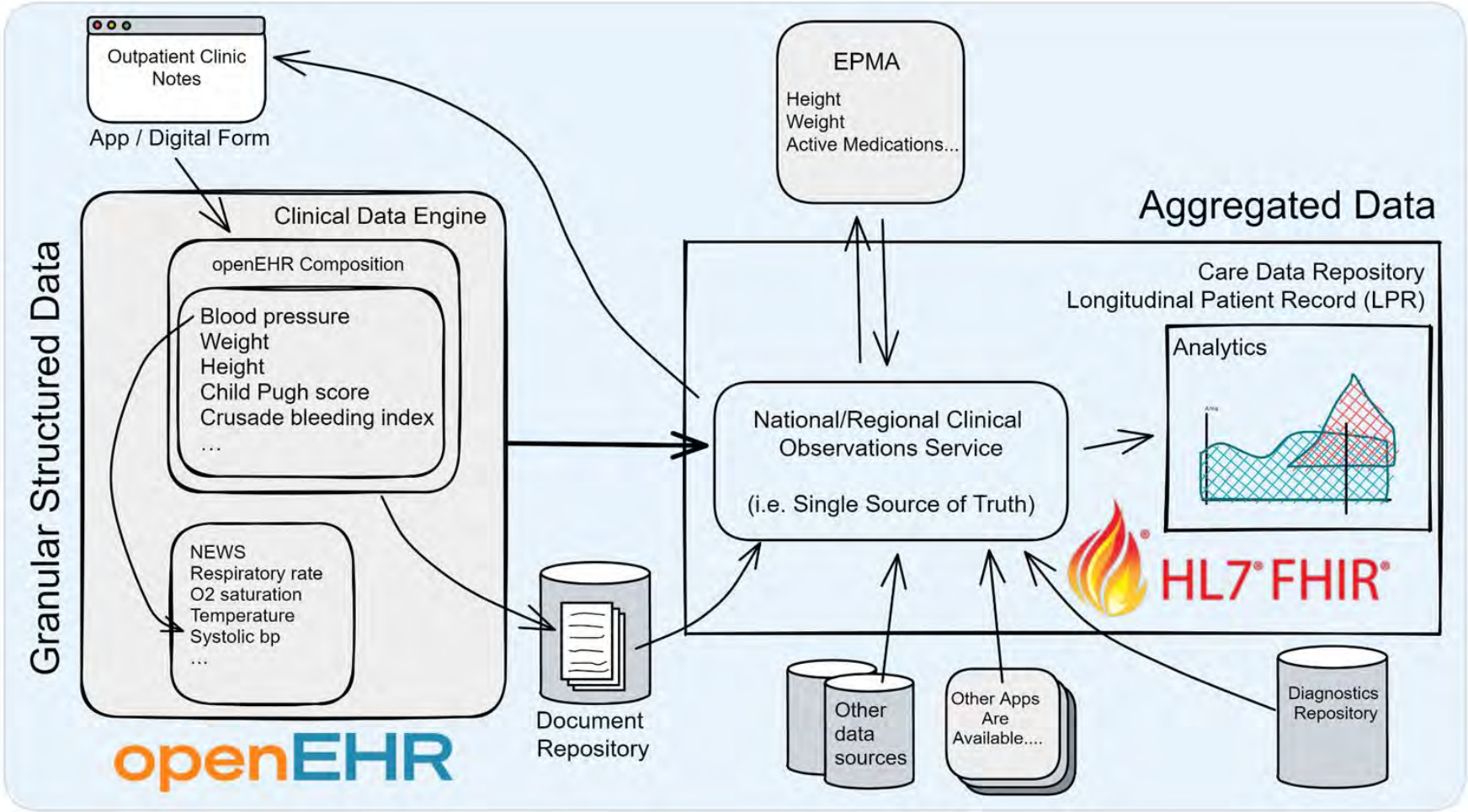
The pattern of common standards or components:

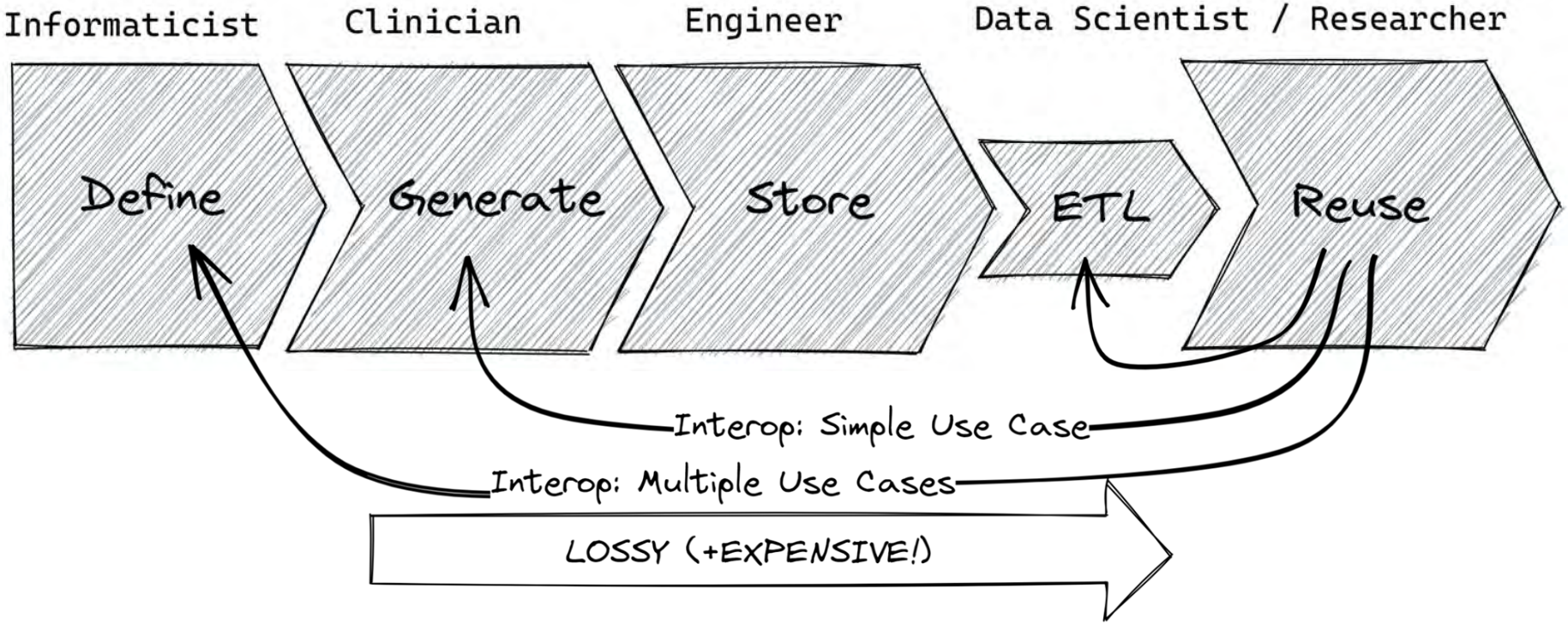
- FHIR (Interoperability)
- openEHR(Structured Data, EHR building)
- IHE XDS (Documents)
- SNOMED CT (terminology)






Meredith et al (2023) Aligning Semantic Interoperability Frameworks with the FOXS Stack for FAIR Health Data, https://t.co/sfCevJjDcF


Outpatient Clinic Notes
App / Digital Form
EPMA
Height
Weight
Active Medications...
Aggregated Data
Clinical Data Engine
openEHR Composition
Blood pressure
Weight
Height
Child Pugh score
Crusade bleeding index
…
Granular Structured Data
NEWS
Respiratory rate
O2 saturation
Temperature
Systolic bp
…
Care Data Repository
Longitudinal Patient Record (LPR)
Analytics
National/Regional Clinical Observations Service
(i.e. Single Source of Truth)
HL7® FHIR®
openEHR
Document Repository
Other data sources
Other Apps Are Available....
Diagnostics Repository


Informaticist
Clinician
Engineer
Data Scientist / Researcher
Define
Generate
Store
ETL
Reuse
Interop: Simple Use Case
Interop: Multiple Use Cases
LOSSY (+EXPENSIVE!)

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# Thank you