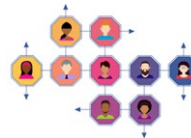


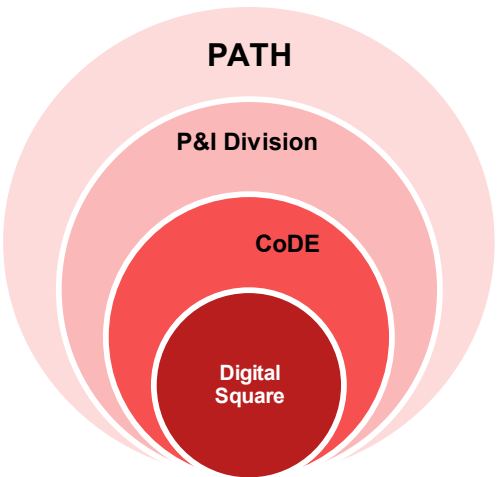
Clinical Decision Support

Moving towards Global Standards and Interoperability

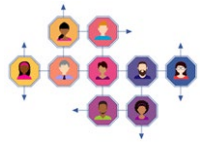
José Costa Teixeira



Our core



The Center of Digital and Data Excellence functions as both a PATH program and a crosscutting center of excellence.



Alignment & Co-investment



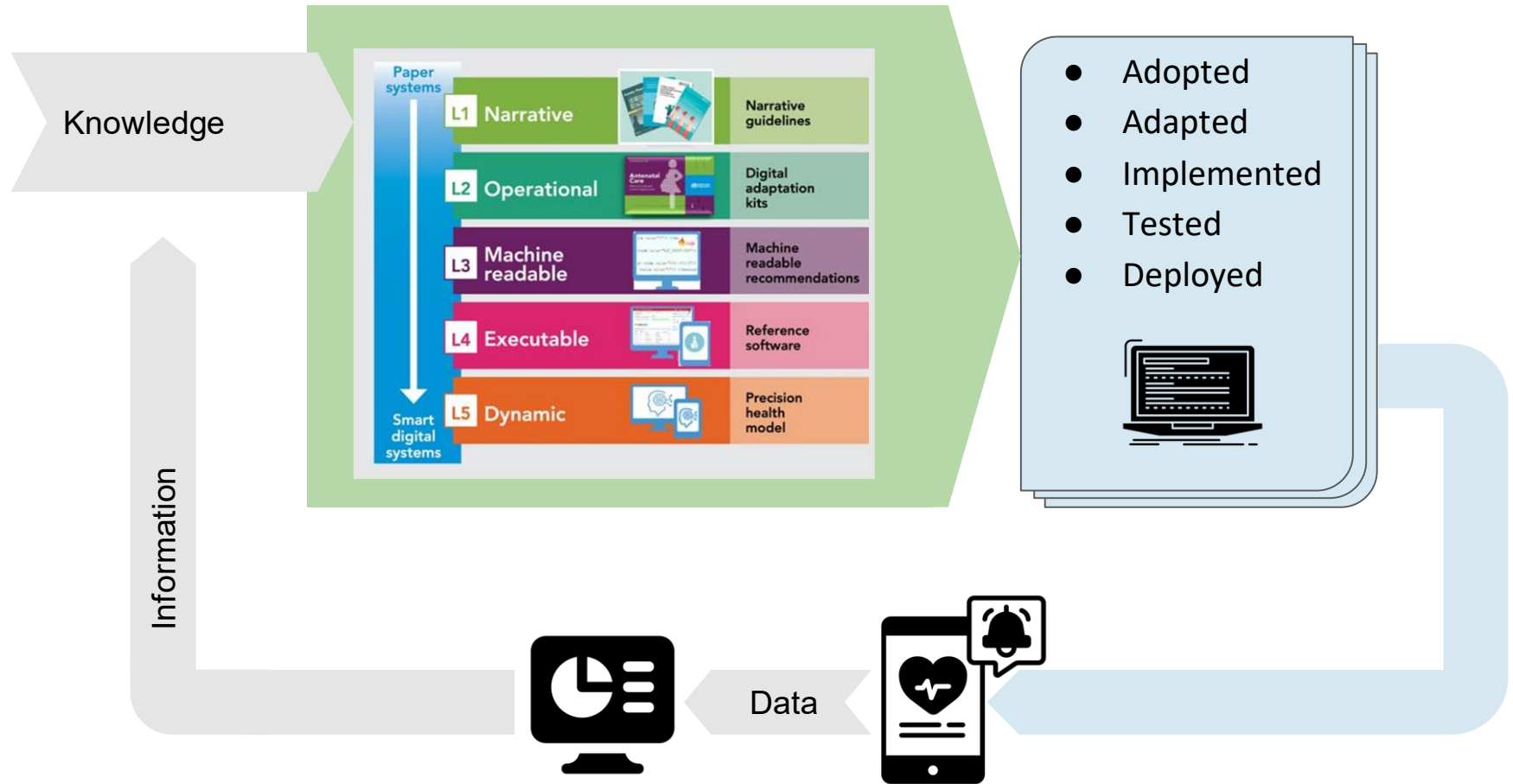
Global Goods



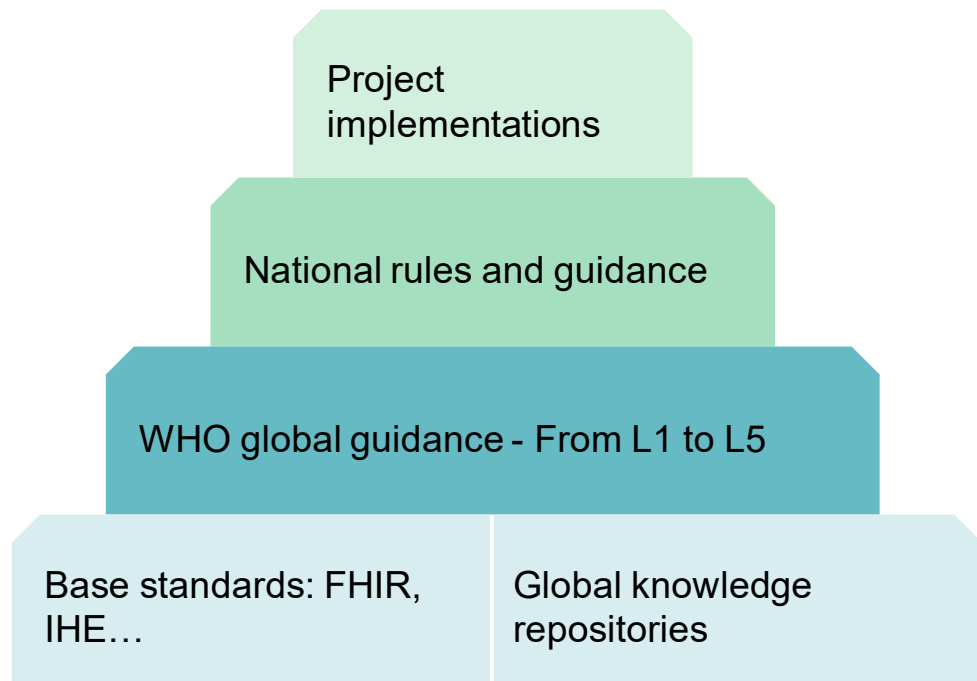
Regional & Country Systems



From Knowledge to Clinical Decision Support



From global knowledge to local impact



These layers need to be interoperable:

- Technical dependencies
- Reusing terminologies, data models...
- Using the same tools, methods...

The FHIR publication ecosystem is designed for this.

We're augmenting the tools, discovering best practices to create, reuse and maintain the content.

4 visions for Better, Safer CDSS



1. Standards and community

2. Industrialization

3. Data Governance

4. Testability and Quality

Standards and community

- Semantic standards + standard data dictionaries (LOINC, ICD, ATC,...)
- Syntax and architecture standards (HL7, IHE)

HL7 FHIR® provides a good foundation

- Comprehensive, modern standard
- Easy to adopt and adapt
- Growing ecosystem thanks to a great community
- Powerful for data management
 - Strong metadata foundation
 - Support logical data models,
 - Structured, Standard metadata
- **Specifications, data and metadata are computable**



Vision 1: Standards and community

- Grow the community
 - Events - FHIR webinars and FHIRside chats
 - Discussions
 - Reference implementations - openHIE
- Enhanced features
 - Multi-language support
 - Testability
 - Automation
 - Data Management

Towards a (standard) standards ecosystem

Vision 2: Industrialization

Working with standard guidelines, using FHIR and related tools, to make the work

- Reusable
- Scalable
- Automated
 - Validation,
 - Documentation
- Agile and nimble
 - Producing FHIR specifications
 - Deploying FHIR specifications
 - Reusing FHIR Specifications
 - Next - Managing FHIR specifications and their deployment

Data and Governance in CDSS

- Data Dictionaries and definitions
 - Need to be adapted locally
 - And the adaptation should be measurable
- knowledge \Leftrightarrow data - with responsibility, privacy...
- Definitions, lineage...
- Who manages the data
- How do we handle data quality?

Vision 3: Data and Governance

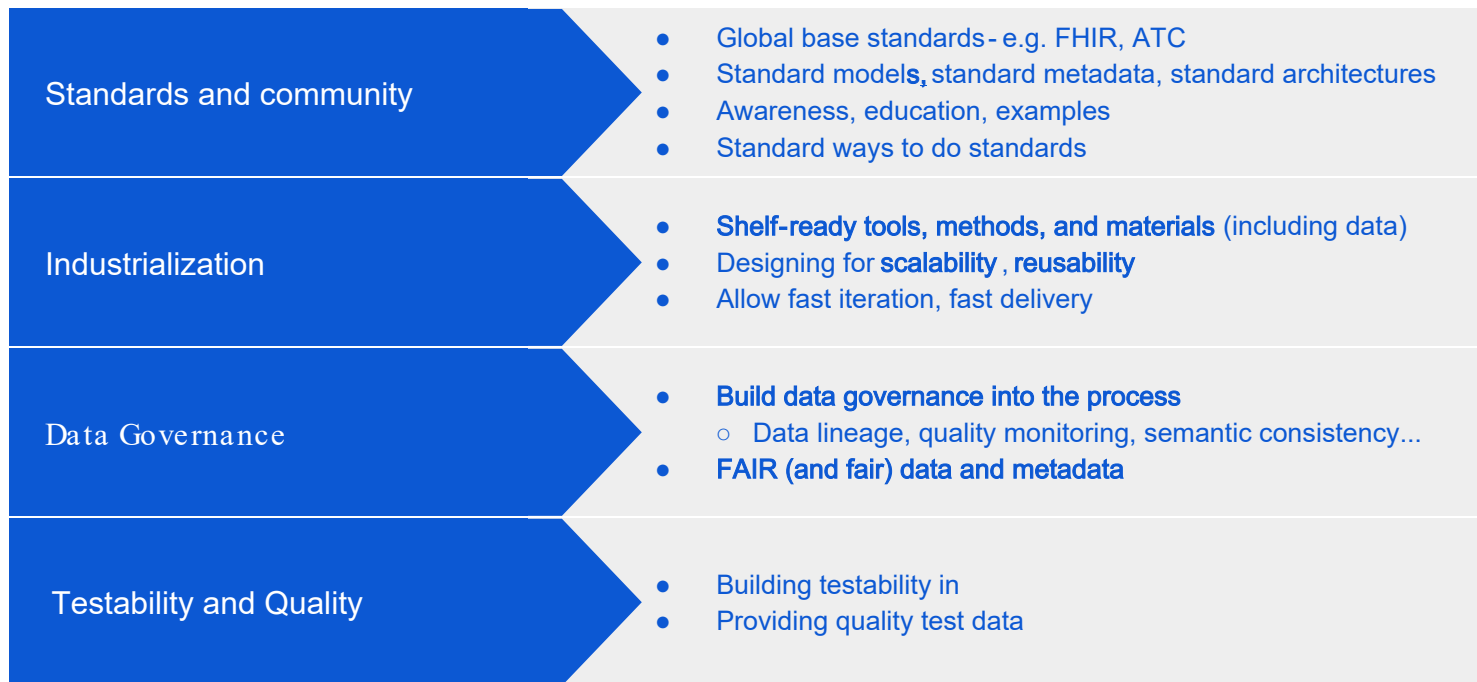
Embedded Data management

- FAIR...
- ...and fair
- Clear processes, roles
- Semantically consistent
- Documented lineage
- Metadata-enabled

Vision 4: Testability

- Embed testability and validation into the processes
 - Easier for people
 - But mostly automated
- Bring test data
 - Synthetic test data
 - Discrete test data
- Automated tests,
- Self-attestation and compatibility checking. Plug-and-play

4 visions for Better, Safer CDSS



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