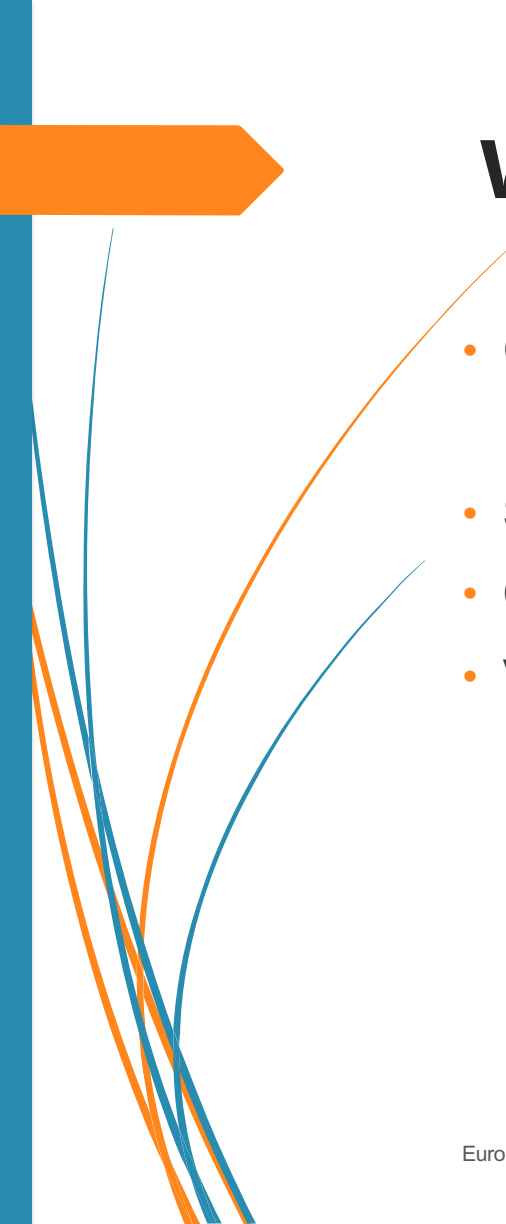




EHDS: beyond summaries

Mind the gap: from the EHDS vision to practical implementation

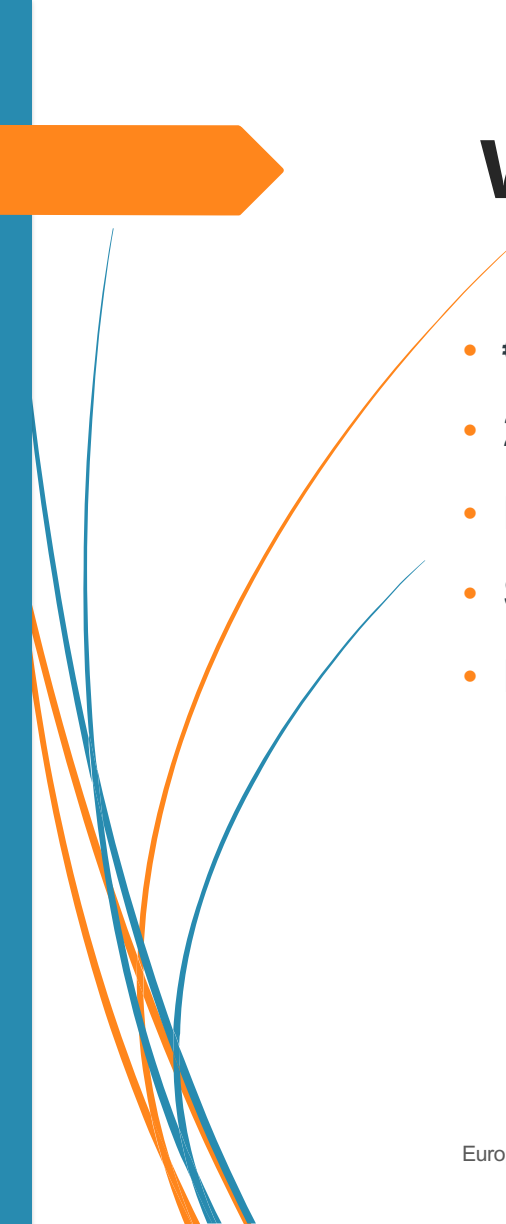
Severin Kohler | CTO, openEHR International



What the EHDS promises

- Citizens **access** their **electronic records** across borders, **immediately** and **free of charge**
- **Secondary use**: research, innovation and policy on **EU-wide health data**
- **One exchange format**, the EEHRxF
- **Vendors must read and write it**

European Commission, EHDS Regulation page, health.ec.europa.eu; Commission impact assessment, 2022. Eurostat, current health expenditure, 2023.



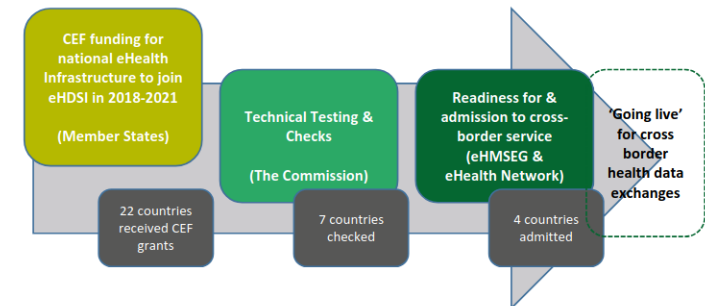
What the EHDS promises

- **€11 billion** in savings over the next **decade** through better data accessibility
- **20–30 %** expansion of the **digital health sector**
- More **efficient** healthcare services across all **member states**
- **Stronger policy** development and **scientific research**
- **Better health outcomes** for European citizens

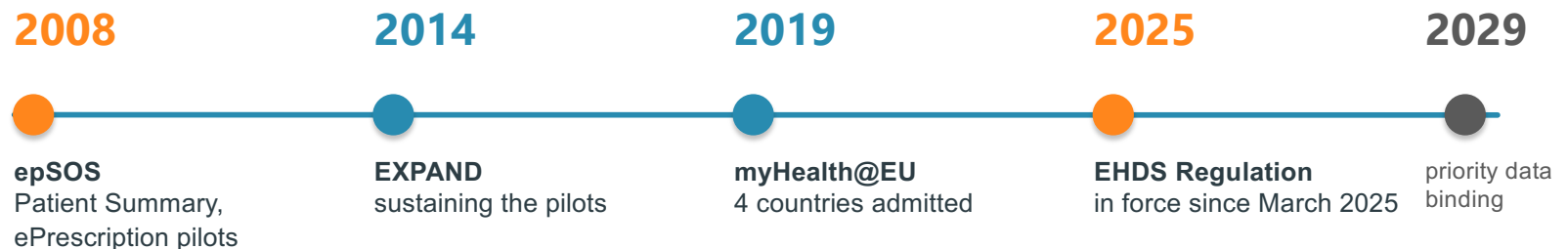
European Commission, EHDS Regulation page, health.ec.europa.eu; Commission impact assessment, 2022. Eurostat, current health expenditure, 2023.

18 years of exchanging summaries

- Two pilot generations: **epSOS** and **EXPAND**, 2008–2014
- **myHealth@EU** live since 2019
- The unit of exchange has not changed: a **summary document (even same categories)**
- **EHDS** makes it binding first categories **2029**



Source: ECA based on information provided by the Commission.



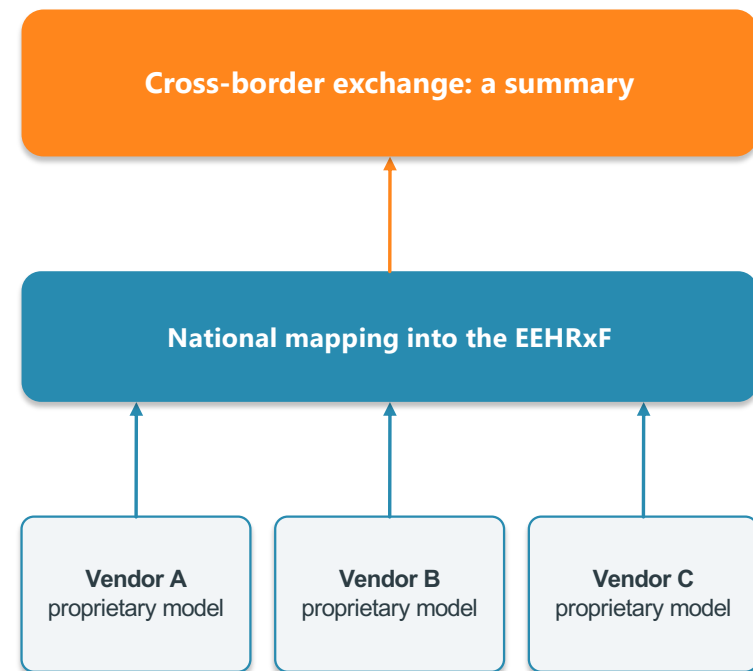
What crosses the border today

Today, what crosses the border is a patient summary.

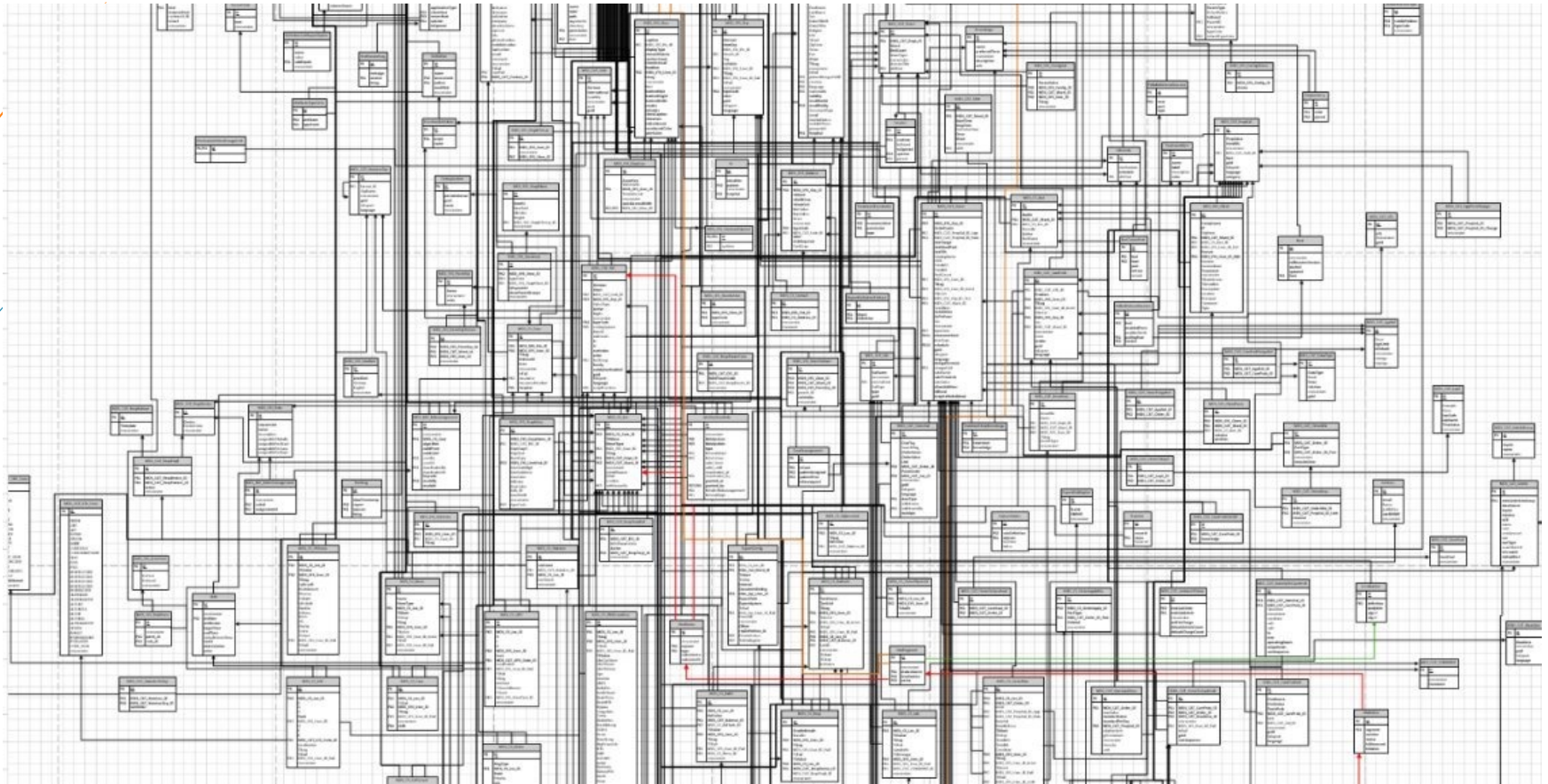
Each national system will map its own model into the EEHRxF.

“Commission announcements on the likely level of health data exchanges across borders have been overoptimistic.”

European Court of Auditors, Special Report 07/2019, paragraph 45



Reality in the hospitals





Aaron Miri
@AaronMiri

...

Hospital board : “just uninstall the old #EMR and put in the new one.”

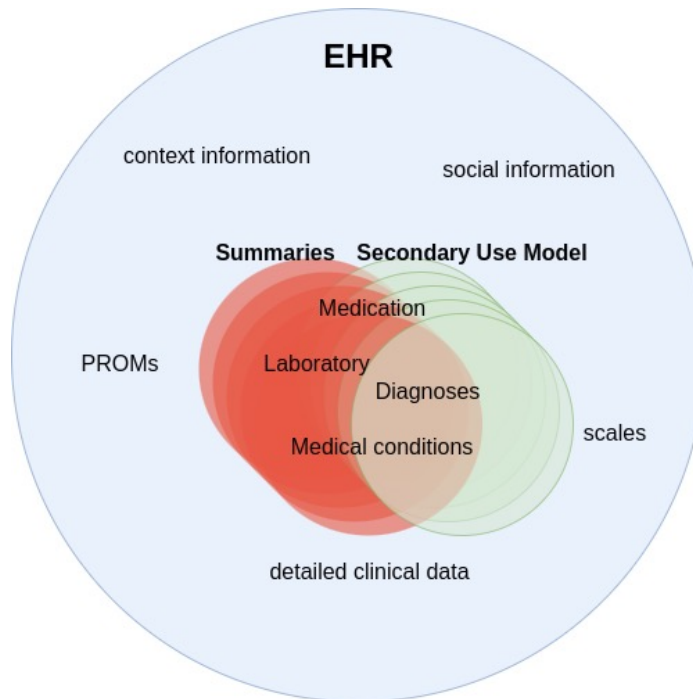
CIOs : 😞

[Traducir Tweet](#)



3:48 a. m. · 5 oct. 2021 · Twitter for iPhone

The value is below the tip



Summaries are the tip of the spear.

The record is where care, research and AI live.

A summary cannot scale what it does not contain.



The good news: this time it is law

epSOS, EXPAND were **projects**. The EHDS is a **regulation**.



A regulatory lever Europe never had before.



The problem with the regulation

- A system must be able to **receive** the format. Nothing says it must put the data into the record.
- Receive it, read it, done. **No merge, no reconciliation, no write-back.**
- So the exchange can sit in a **store next to the EHR**. The record never changes.

The EHDS buys an export interface. It does not buy a record.

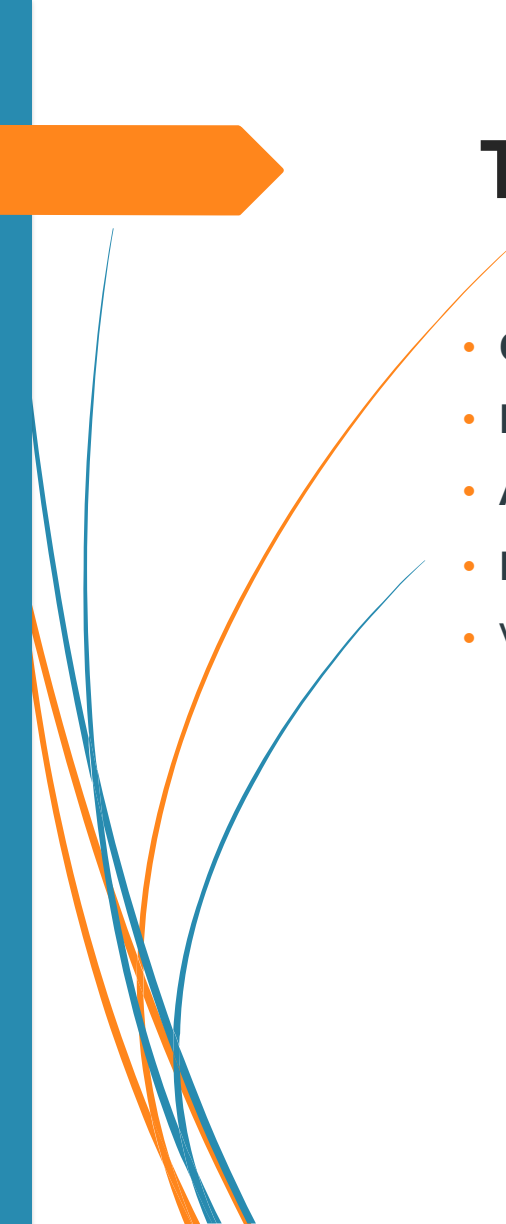
“There is no requirement for EHR systems to use the format internally.”

[European Commission, EHDS FAQ, March 2026](#)

“The Consumer EHR system MAY import that data into its data structure.”

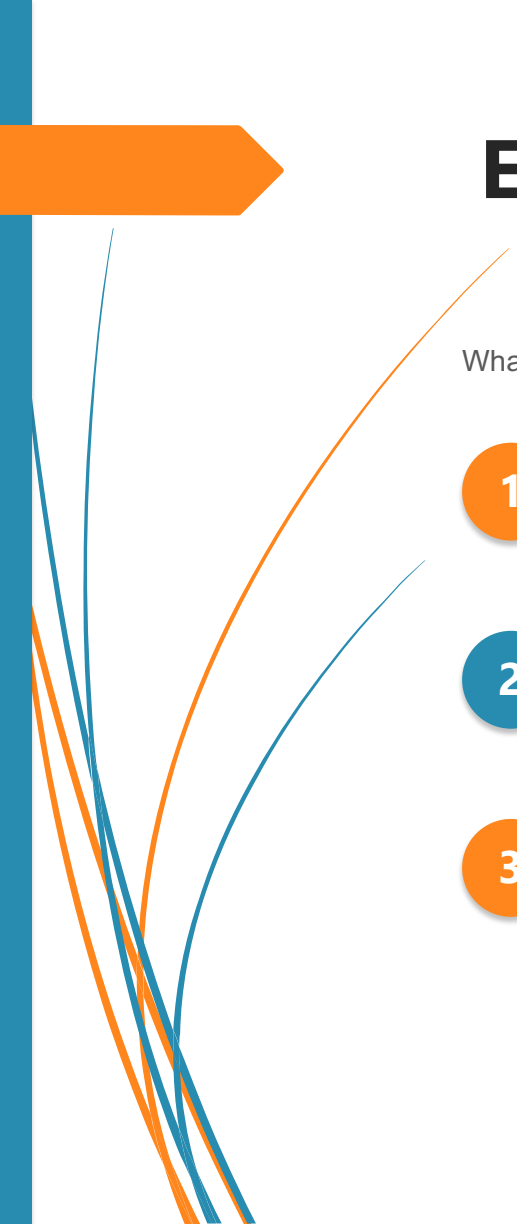
[Xt-EHR D5.1, the specification for the exchange format, May 2026](#)

Regulation (EU) 2025/327, Annex II 2.2. Obligations apply from 2029.



The opportunity

- **Once in a generation:** a binding regulation, not another project
- **Four implementing acts are law** — none of them the exchange format
- **Article 15** has no draft. **Article 13(4)** has no initiative at all
- **Lasting leverage:** conformity becomes a market condition for vendors
- Vendors **must read and write it** from **2029**, in every member state



Enforce more than summaries

What the implementing acts should require

1

Granular data

the record itself, structured at the point of capture

2

Open interfaces

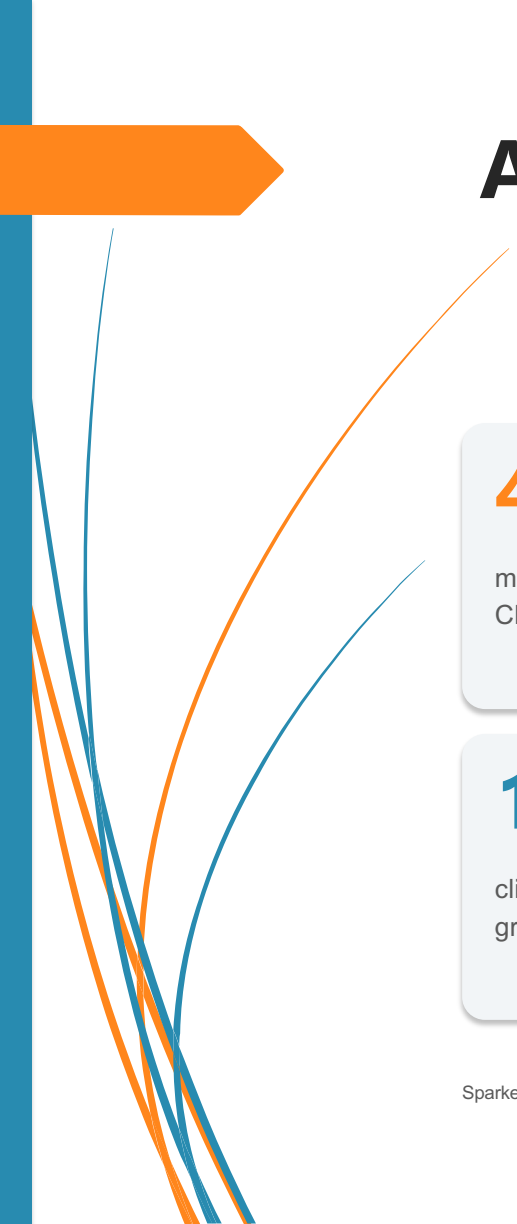
standard APIs and queries on that data, for every conformant system

3

Clinically led models

one agreed set of clinical information models, governed across silos

Result: plug and play across borders, innovation that scales.



Australia: clinicians first

478

members in the open
Clinical Design Group

19

clinically agreed data
groups in Release 1

Clinicians agree the content

AUCDI data groups: what must be recorded, informed by openEHR archetypes

Engineers profile the exchange

AU Core FHIR implementation guide: how it moves

Vendors implement the same clinical knowledge

one model, every system, no mapping losses

Led by CSIRO with the Department of Health, the Digital Health Agency and HL7 Australia. AU\$ 9.3 M federal funding.

Sparked, AUCDI Release 1 V1.0, 25 June 2024; sparked.csiro.au

OECD: governance is the gap

OECD Health Working Paper No. 197, "Interoperability in healthcare: towards an interconnected future", July 2026

23 %

of countries mandate standards-based exchange by law

55 %

use national processes or law to make vendors comply

2.7–6.6 %

of health expenditure: the value of interoperability

€46–114

billion a year in the EU. The EHDS promises €1.1 bn.

// EHR vendors have proprietary data models and little incentive to adopt a universal standard.

interviewee, OECD 2026

What the OECD calls for

- consistent **information models**
- **open standards** and **open platforms**
- multi-disciplinary **governance** for consensus on data representation
- **standards compliance** written into procurement

OECD (2026), Interoperability in healthcare, Health Working Papers No. 197; applied to EU current health expenditure €1 720 bn (Eurostat, 2023)



WHO: governed logical models

Semantic governance infrastructure

Terminology Service

What does this code mean?

code systems, value sets, concept maps

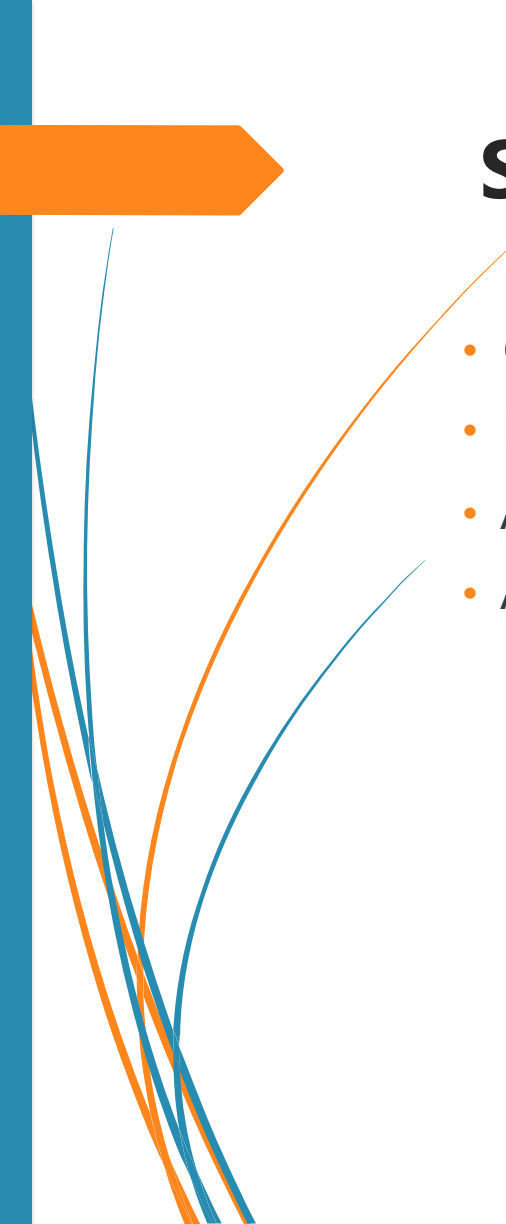
Logical Information Model Repository

What fields does a blood pressure contain?

computable clinical information models: structure, constraints, bindings

// *A nationally governed anchor that keeps information models consistent and constrains uncontrolled local variation [...] anchored in internationally recognised standards including HL7 FHIR StructureDefinitions, openEHR archetypes, and WHO SMART Guidelines data dictionaries.*

WHO/ITU DPI-H Reference Architecture, Logical Information Model Repository



Summary

- **Governance** is the gap, not the technology
- Models must be **clinically led**, not technically derived
- A **governed repository** of logical models is the missing piece
- Australia, the OECD and the WHO point the **same way**

Europe has it: openEHR and CKM

Clinical Knowledge Manager: clinician-governed clinical information models since 2007

900+

published archetypes

34

languages

4,000+

users from 120 countries

1,500+

registered clinical reviewers

WHO

a governed repository of logical models

→ international CKM plus national CKMs: Norway, Germany, UK, Australia, Catalonia, Slovenia

Australia

clinicians agree the content first

→ AUCDI data groups are structured on openEHR archetypes

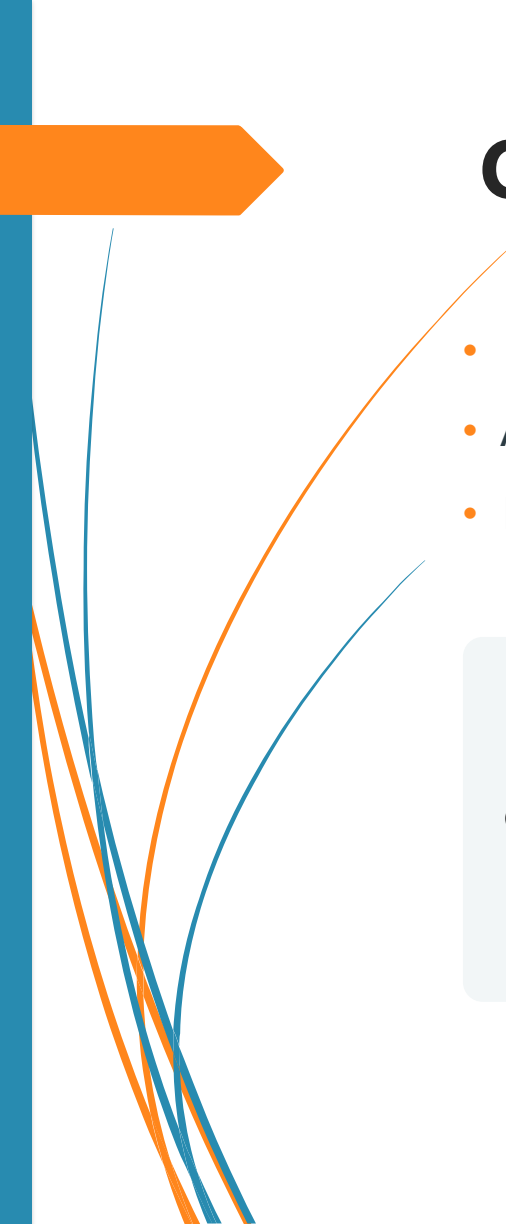
OECD

consistent information models, open platforms

→ clinician review rounds before every publication; open specifications

openEHR International CKM, ckm.openehr.org; openEHR Clinical Program Board

openEHR



OpenEHR Adoption

- Reported by **vendors**, not collected centrally
- About **half the known market** responded the real footprint is larger
- Deployments at **national and regional authority level**

22

Countries with
deployments
(vendor-
reported)

5

Continents

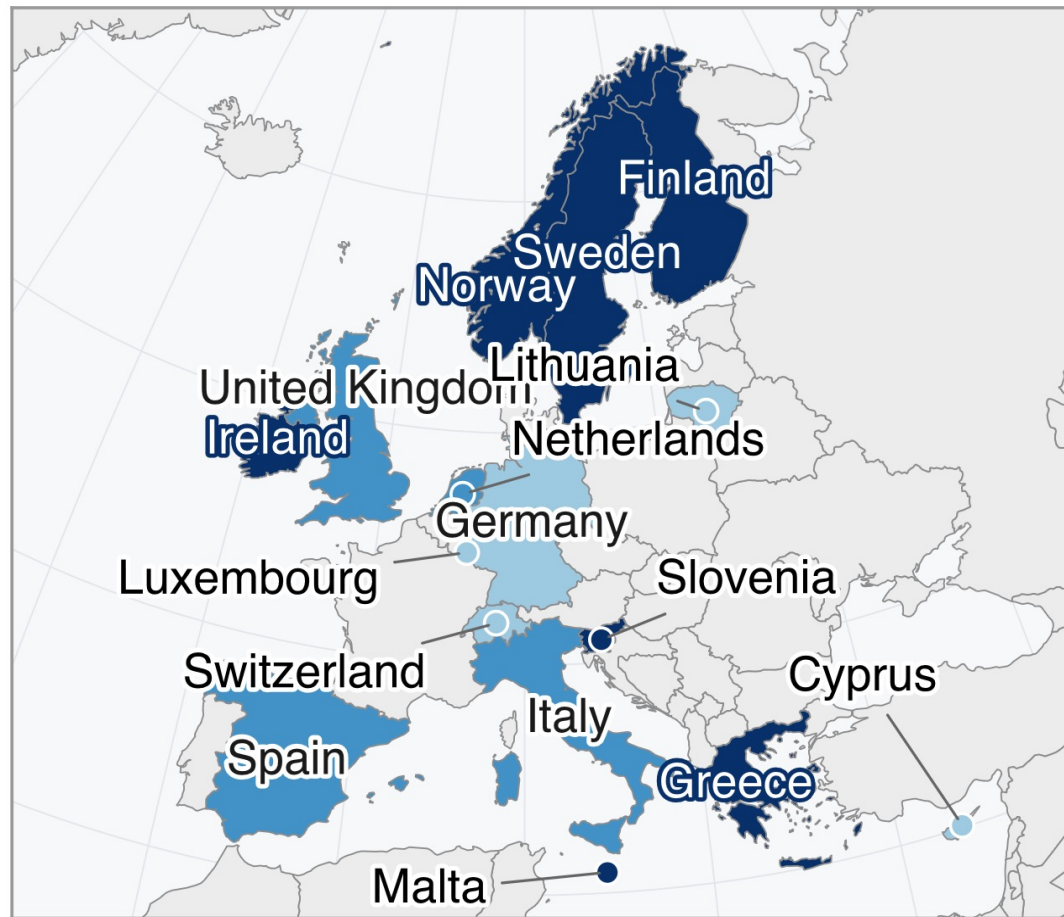
100+

Institutions
and health
regions

11

Vendors
responding,
about half the
known market

OpenEHR Adoption





This is an EHDS grade infrastructure

openEHR repositories run at national or regional authority level across many EU member states.

Ireland

Malta

Greece

Cyprus

Slovenia

Finland

Sweden

Norway

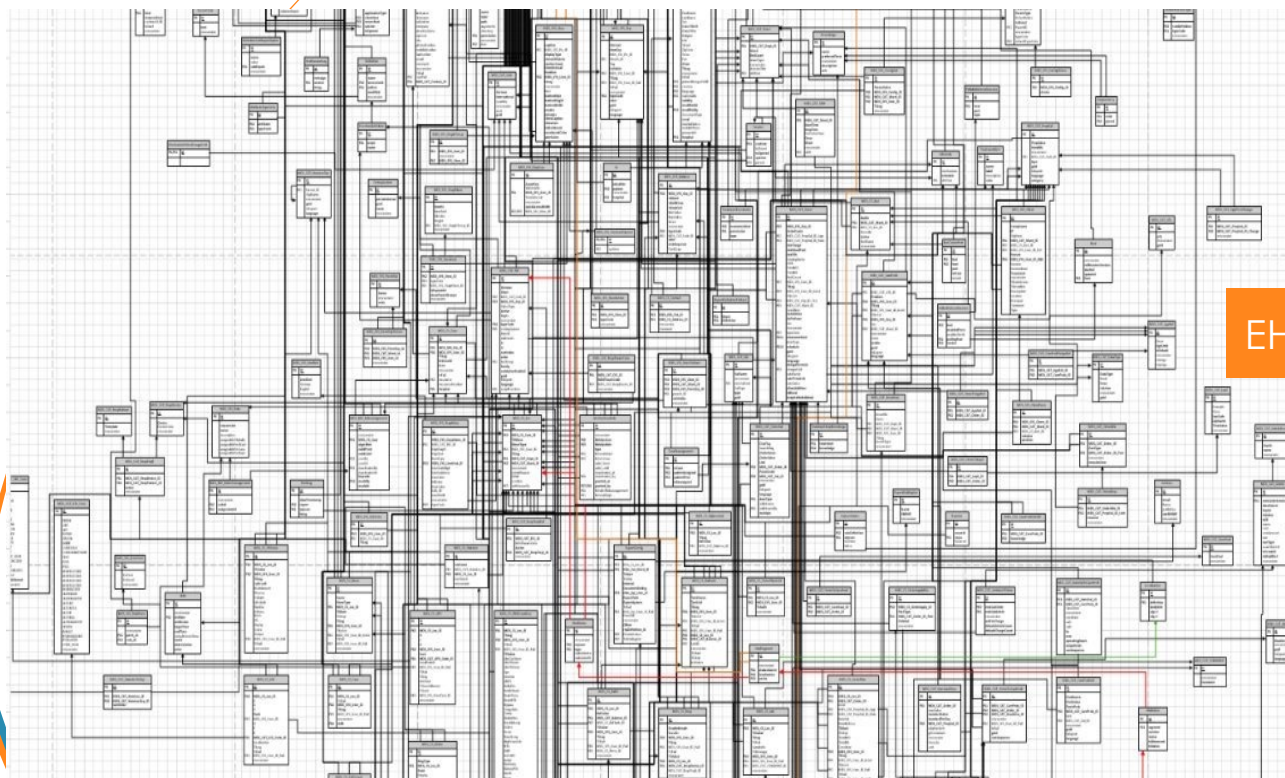
Catalonia

Abruzzo

Exactly the persistent, semantically interoperable layer the EHDS envisions.

Yet this existing infrastructure is largely invisible to the EHDS implementation process.

Take-home



EHDS

Export



Take-home

- 1 The EHDS is the first iteration, not the destination.
- 2 The summary is the tip. The value is the record below it.
- 3 Use the regulation: granular data, open interfaces, clinically led models.
- 4 The models and the governance exist. Europe only has to adopt them.



Thank you

EHDS: beyond summaries. Mind the gap between vision and implementation.

Severin Kohler | CTO, openEHR International