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Australian Digital Health Agency

# INSPIRE

Interoperability and  
Standards in Practice:  
Innovation, Readiness, Education



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# Power of Getting the Data Right

with **Professor Rachel Dunscombe**

**INSPIRE** Interoperability and  
Standards in Practice:  
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openEHR

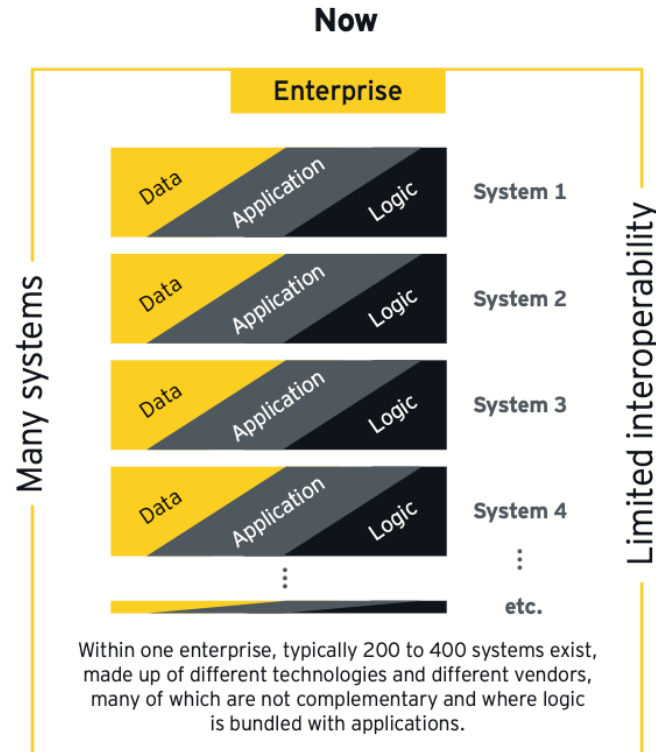
INSPIRE 2025

The logo for openEHR, featuring the word 'open' in orange and 'EHR' in blue, in a bold, sans-serif font.

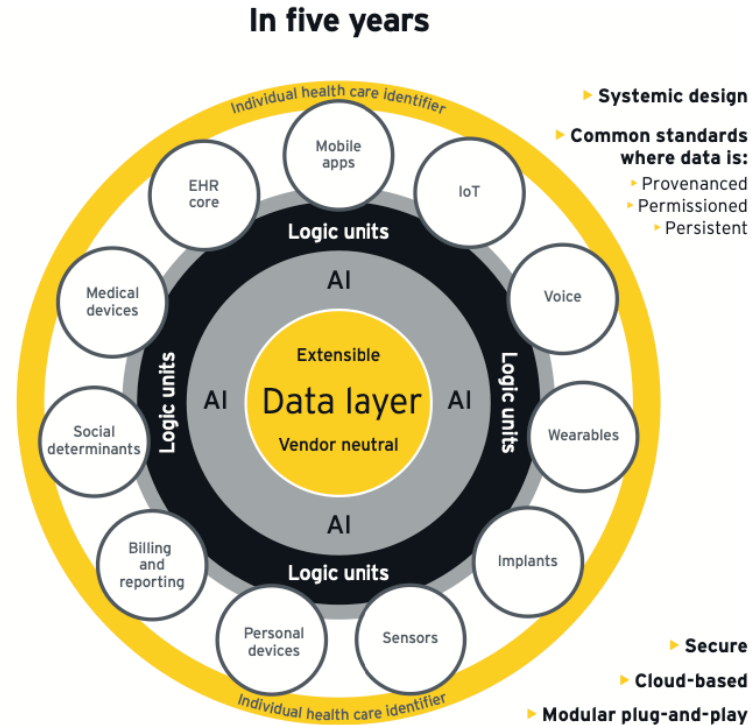
Rachel Dunscombe –  
[Rachel.Dunscombe@openehr.org](mailto:Rachel.Dunscombe@openehr.org)

CEO openEHR

# What is openEHR ?



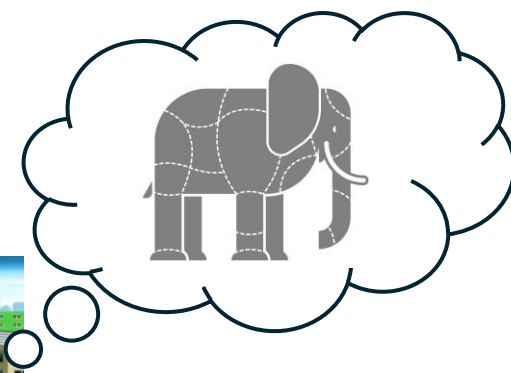
**Present:** Many systems all with intimately bound data logic and applications



**Future:** A cohesive technology stack, giving a unified experience for clinicians, professionals and patients; unique data at the center accessed by applications in real time through micro-services

It's the data layer not an application although applications can run over it

# openEHR infostructure



Data  
dictionary



*International/  
National resource*

Templates



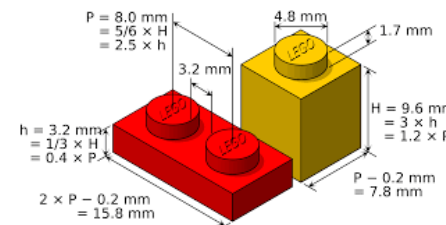
- *Clinical Documents*
- *Messages*
- *Forms/Screens*
- *Minimum data sets*

Archetypes/  
term sets



- 'Little data' patterns**
- *Standardised*
  - *'Fit for use'*
  - *Centrally governed*

Reference  
model



*Technical rules*

# CKM - <https://ckm.openehr.org/>

openEHR

Clinical Knowledge Manager  
Powered by Ocean Health Systems

Username/Email Password ☐ [Log In](#) [Forgot Your Password?](#) [Register](#)

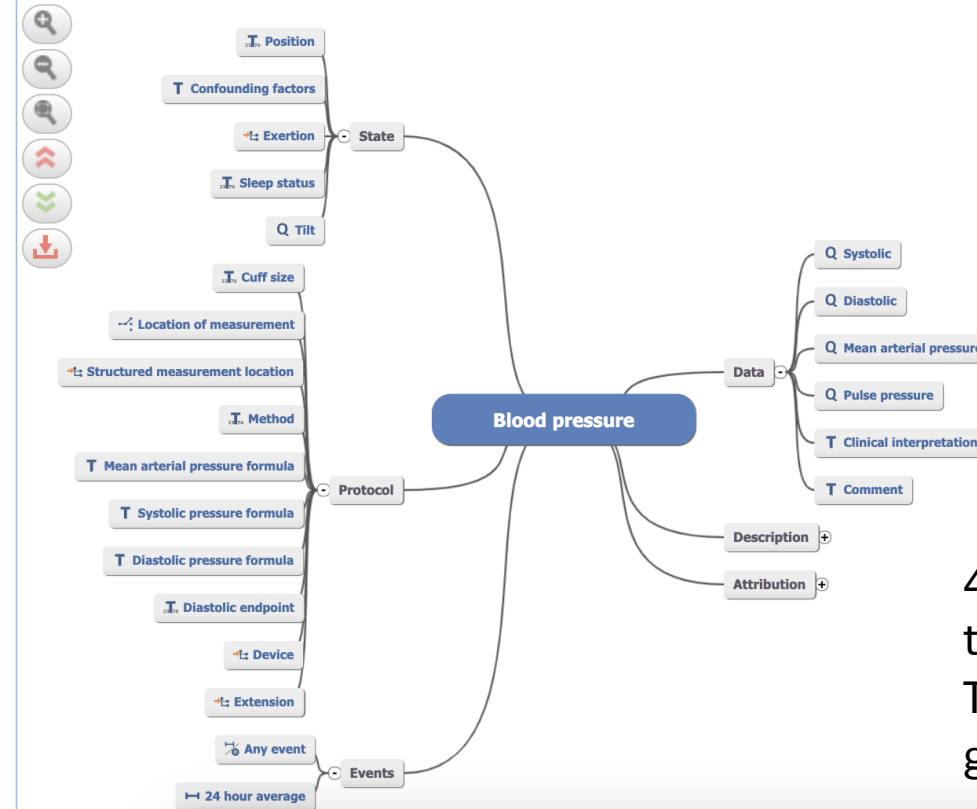
Archetypes ▾ Templates ▾ Termsets ▾ Release Sets ▾ Projects ▾ Reports ▾ Help ▾

[Dashboard](#) [Find Resources](#) [Blood pressure](#) ✕

## Blood pressure

LATEST REVISION / LATEST PUBLISHED | 9 [2.0.8] ✓

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4000+ Clinicians and growing involved in the International Delphi like process. This community has been operating and growing for 23 years.

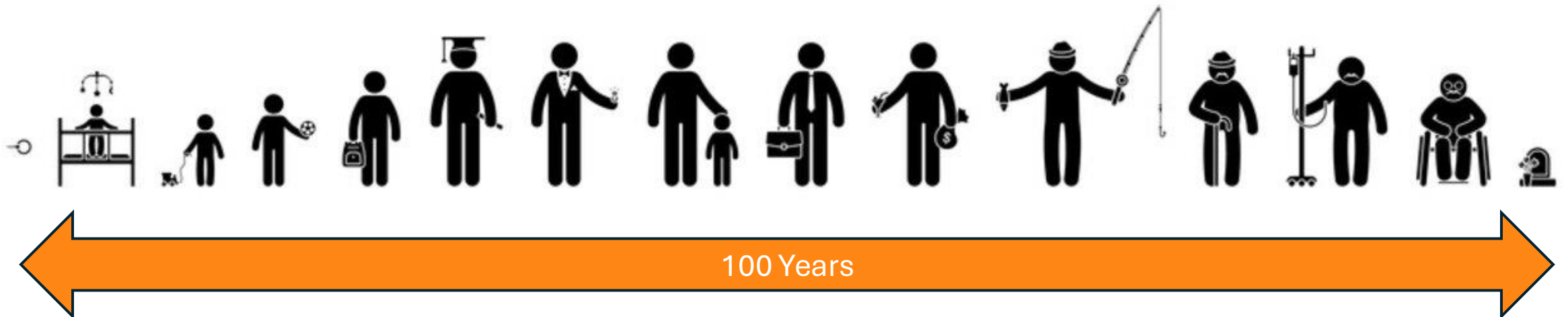
# Data as a Capital Asset

A capital asset is a long-term investment.

The data has value for the life of the patient and beyond.

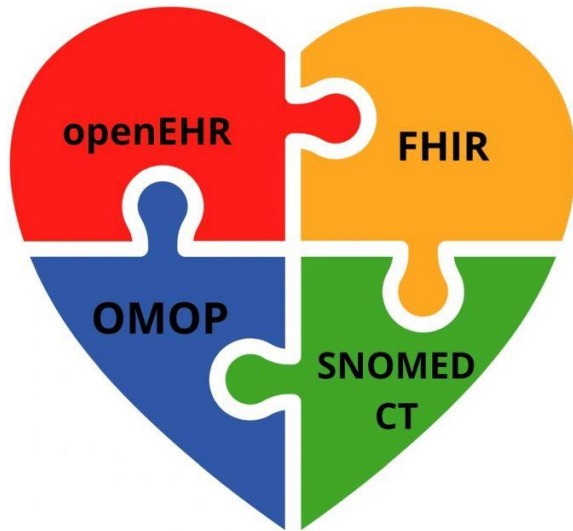
The blood pressure we saw can be trended through life for a patient regardless of where it is collected.

Data can even be left to family at end of life.





# How the standards relate



**openEHR + SNOMED:** openEHR defines the **data structure** while SNOMED provides the **clinical codes** (the terminology) to put in it.

**openEHR + FHIR:** openEHR is best for **storing** the complete patient record (the database). FHIR is best for **exchanging** pieces of that record (the API – 80/20 rule).

**openEHR + OMOP:** openEHR captures rich data for **clinical care**. OMOP transforms that data into a simpler, flat structure for non complex **research**.

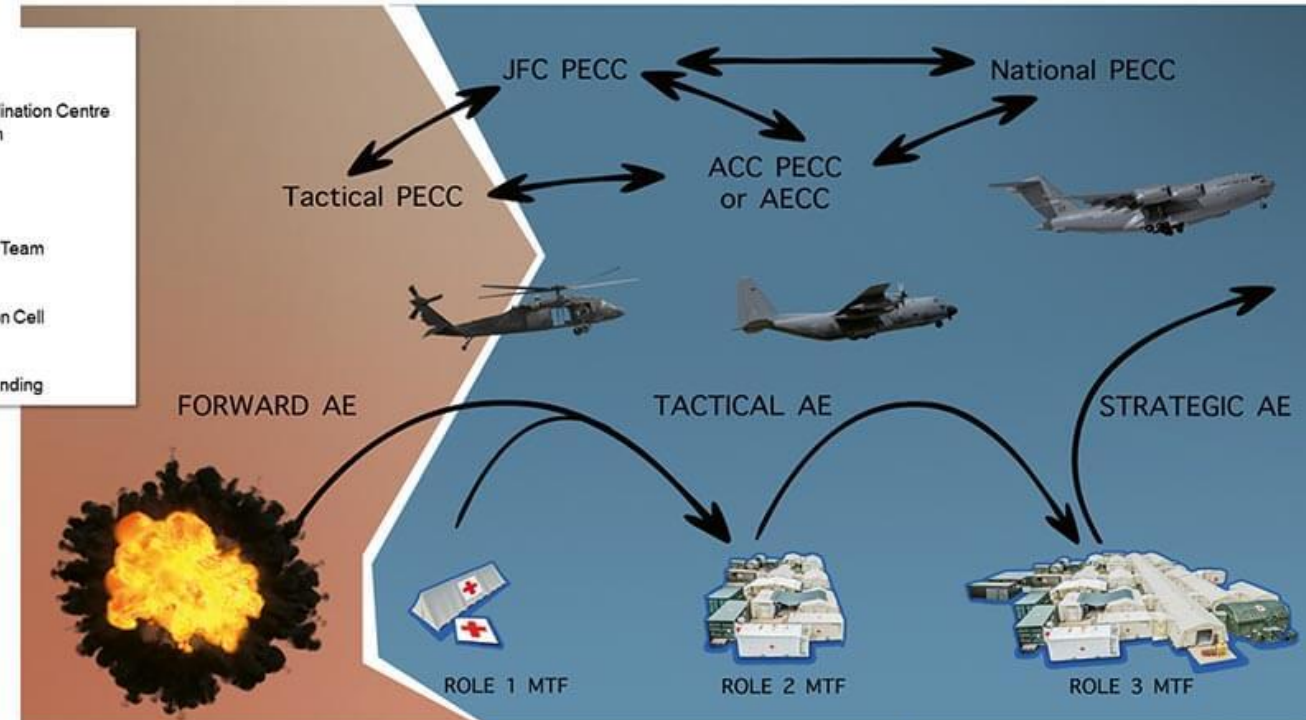


# Why does data matter in Healthcare

- Data is the new Infrastructure for health systems This data Infrastructure allows care to be delivered in or near the home where appropriate and healthcare planning shows this can reduce hospital size as evidenced in South Australia.
- Future more economic healthcare delivery including self care and patient enablement will not occur without unified access to their longitudinal patient record.
- AI “is what it eats” – even the best models perform poorly on poor data.



**Legend**  
 ACC: Air Component Command  
 AE: Aeromedical Evacuation  
 AECC: Aeromedical Evacuation Coordination Centre  
 CCAST: Critical Care Air Support Team  
 EMT: Emergency Medical Technician  
 FW: Fixed Wing  
 JFAC: Joint Forces Air Component  
 JFC: Joint Forces Command  
 MERT: Medical Emergency Response Team  
 NTM: Notice To Move  
 P(1) / P(2): Priority 1 / Priority 2  
 PECC: Patient Evacuation Coordination Cell  
 POI: Point Of Injury  
 RW: Rotary Wing  
 VSTOL: Vertical Short Take-Off and Landing



	FORWARD AE	TACTICAL AE	STRATEGIC AE
<b>Mission Task</b>	From the POI to the first MTF	between MTFs within the Theatre of operations.	from MTFs in the Theatre of operations to homeland MTFs
<b>STANAG #ref</b>	2087	3204	
<b>High-risk mix</b>	Yes	normally No	No
<b>Assets</b>	RW / VSTOL	FW (RW / VSTOL)	FW
<b>Medical Purpose</b>	Fastest transfer to MTF	Benefit for the transfer must be balanced against the ability to withstand the flight	
<b>AE Teams</b>	1EMT » MERT	MERT or CCAST tailored on clinical needs	CCAST according to National Standards
<b>Asset OPCON</b>	Regional or Component Command	Theatre relevant Operational Command (generally JFAC/ACC)	National Command
<b>Pt Regulating</b>	PECC network mirroring Asset OPCON Commands, coordinating with JFC PECC		
<b>Timeliness</b>	NATO 10-1-2(+2) timeline for critical patients		NTM<12h (P1) - NTM<24h (P2)
<b>Operational Requirements</b>	Medical situational awareness - Evacuation system available in all weather/sea conditions, day/night, any operational circumstances (AJP-4.10)		



- Treatment can occur by any NATO health provider
- Standardized multi-lingual medical record needed
- Privacy by design essential

# Why does it matter for Australia ?

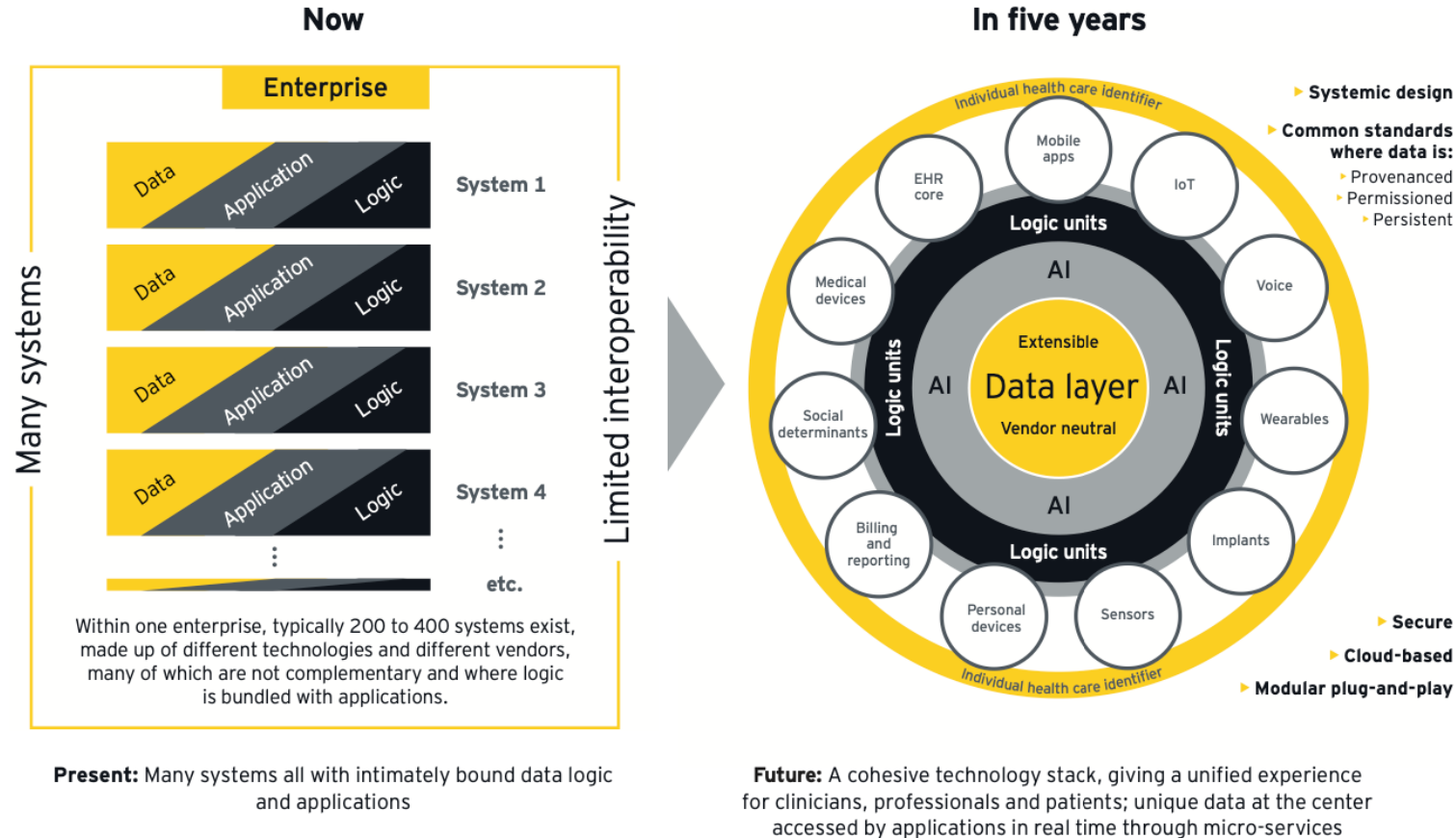
Data is the strategic infrastructure for the future

- openEHR breaks down the data silos so clinical data is interoperable semantically and technically within organisations, states and territories, Australia and globally (for instance for the International patient summary).
- Unwarranted variation in data or absence of data causes unwarranted variation in care and harm – this is a quality issue.
- openEHR removes the clinical data as a friction to new models of care, capacity management in the system, safe remote care and self care.
- openEHR provides the best data quality for AI assuring the safest and most performant use of AI and cognitive technologies.
- openEHR allows a proactive rather than reactive health system – with insight to inform policy, research and healthcare planning.





# Value Proposition for openEHR



openEHR is **the clinical Data Layer** – lets collect our data once in an **optimally engineered** format and use many times.

openEHR

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