

Ocean Health Systems,
Lessons We Learned, and What We Think about *openEHR*
Dr. Seref Arikan, Technical Lead



First things first

A personal thanks to those who made openEHR possible:

Professor David Ingram,

Bozena Ingram,

Dr. Sam Heard,

Dr. Merridy Pitcher,

Dr. Chunlan Ma,

Dr Heather Leslie,

Thomas Beale,

Heath Frankel



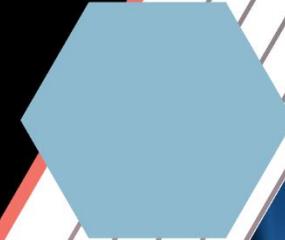
WHO AM I?

- Technical lead: Ocean Health Systems (A.K.A Ocean Informatics)
- Long time (old) software developer in E-Health
- PhD on openEHR and AI for Clinical Decision Support



WHO ARE WE?

- Ocean was founded 25 years ago.
- First company:
 - To implement **openEHR** specifications
 - To implement modelling tools
 - To offer an **openEHR** based platform to vendors
 - To offer a knowledge governance solution (CKM)
 - To implement openEHR based clinical applications
- We also developed the Archetype Query Language (AQL) (Dr. Chunlan Ma, lead author)
- Still active in SEC and other programmes



AGENDA

- What do we know as Ocean after 25 years?
- What do we think about openEHR and the patient centric EHR concept?



WHAT DO WE KNOW?

- openEHR works! (We have proof)
 - Multiprac Infection Control System
 - NTCP (eHealthNT Clinical Portal)
 - LinkedEHR
 - NPS (National Prescribing Service) MedicineWise App
 - Clinical Knowledge Manager (CKM)



WHAT DO WE KNOW?

- openEHR works! (We have proof)
 - **Multiprac Infection Control System**
 - Built on Ocean's openEHR platform
 - Serving a population of more than 4 million people
 - Across 14,000 beds across Australia
 - 136 sites, used by around 600 infection control staff
 - 30,000 HL7 messages per day (spiked to 90K during the pandemic)
 - Around 160 million versioned clinical documents



WHAT DO WE KNOW?

- openEHR works! (We have proof)
 - **NTCP (eHealthNT Clinical Portal)**
 - Built on Ocean's openEHR platform
 - Electronic Health Record System (Clinical Portal)
 - Integrated with national My Health Record Services
 - Integrated with national healthcare identifiers service



WHAT DO WE KNOW?

- openEHR works! (We have proof)
 - **LinkedEHR**
 - Built on Ocean's openEHR platform
 - Shared Care Planning Application
 - Integrated to GP systems
 - Allows clinicians in different facilities to create, update care plans and follow progress
 - Care plan, medication list, allergies, clinical notes, pathologies, care summary ...



WHAT DO WE KNOW?

- openEHR works! (We have proof)
 - **NPS (National Prescribing Service) MedicineWise App**
 - Built on Ocean's openEHR platform
 - A free mobile app for medication and health management
 - Consider Carers:
 - 2.65 million people in Australia (Acc. To Carers Australia)
 - 861,000 of those are primary carers
 - Average age: 54.
 - 1 in 11 under 25
 - Used by 200,000 people in the last 7 years
 - 45,000+ active users



WHAT DO WE KNOW?

- openEHR works! (We have proof)
 - **Clinical Knowledge Manager (CKM)**
 - Users from across 110 countries
 - (We're working on the remaining 85)
 - 3159 registered users, around 50% are clinicians
 - 915 archetypes, 304 templates



- Meet the Ocean Health Systems Clinical Knowledge Manager
- <https://www.youtube.com/watch?v=78oPUN4mBG0>



WHAT DO WE KNOW?

- openEHR works! (We have proof)
- We think that *openEHR* works better if ...



WE THINK THAT

- Success depends on fitting into existing environments, communities and roles.
 - Clinical (environment)
 - Technical (environment)
 - Academic (Research) (environment)
 - Government (environment)
 - Public (patients!)
- EHR eco-system should address stakeholders from all of the above, in their own domain language.



MULTIPRAC

INFECTION CONTROL SOLUTION

WE THINK THAT

- Stakeholders are partners
- Working together from the very beginning helps.
- Shaping the EHR platform for the stakeholders works better than shaping the stakeholders for the platform.
- Using what we already have as much as possible helps.
 - Existing skills, investments, roles and career paths



CKM rocks ...

SHARED KNOWLEDGE

WE THINK THAT

- Not everything necessarily belongs to the EHR
- It is OK not to feel guilty for not doing everything with *openEHR*, or not "doing *openEHR* right"
- A healthy dose of pragmatism stops the best and better becoming enemies.
- There is a balance to be found between pragmatism and idealism and that's different for every adopter. (You don't need to become Picasso to paint a wall...)



WE THINK THAT

- We made mistakes
- We learned some lessons the hard way
- It helps to share mistakes as much as it helps to share successes.
- Everyone recognises success once it arrives, failure is much harder to spot.

FINALLY

- We are as excited about *openEHR* as when we started!
- We think Catalonia is doing something amazing.
- We would love to help you in any way we can.
- We'd love to hear your comments and questions.
- Thank you!





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