

The Goal and Art of Co-Designing & Co-creating the OpenMCR

RNOH Interneuron
MODULAR CARE RECORD

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Our Journey to Creating the Modular Care Record system - OpenMCR

Why

What

How

Outcome

Lessons
Learnt

Why?

Develop a Modular Health Record system

- Market is dominated by a few big companies
- Products can be inflexible and difficult to change
- High barriers to entry due to cost
- High barriers to exit due to sunk cost
- Creating the haves and have-nots
- NHS unable to exploit huge benefit from technology to improve patient care
- We need innovation!

Our Goals – to change the Paradigm ?

Create affordable Open Modular
Care Record system for the NHS

Democratise access to fit for purpose tech

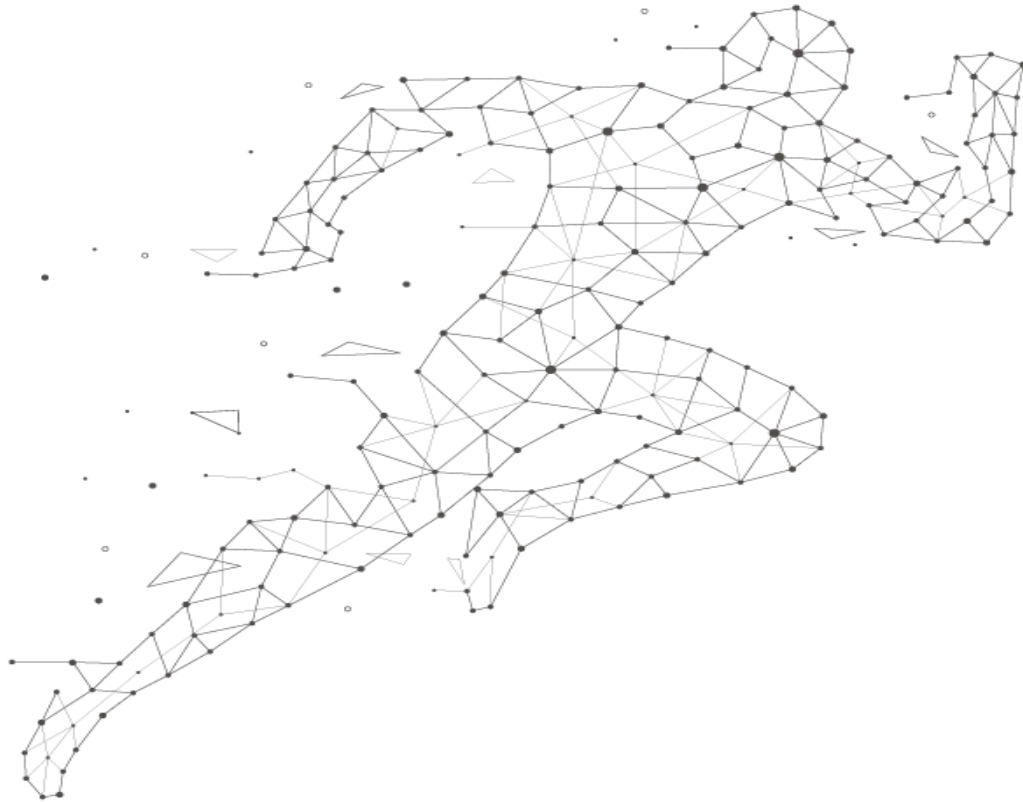
High Quality & Intuitive Software

Flexible Modern architecture & Tools

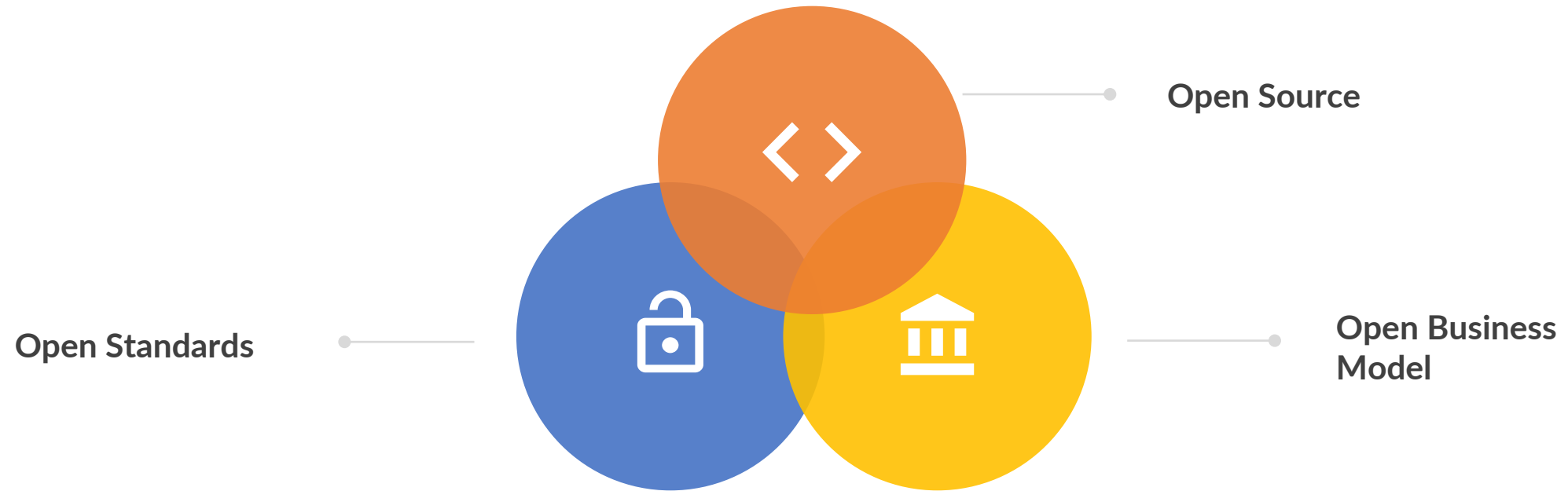
Outstanding Clinical outcomes

Excellent Patient Health + Care

Get MHRA accretion as required



What? – Adopt 3 Open Principles



What? Use Open business model

- Share everything we develop and expect others to do the same
- Not developed in-house – not our core purpose
- Partner with a development partner that shared our values and motivation
- Interneuron are a CIC (not-for-profit)

How? – Through Co-design & Co-creation

- Patient safety at the core – clinical safety process
- ONETEAM – Stakeholders, Digital and Developer
- Use an iterative process
- Create software that is intuitive and easy to use

The 4 stages of Co-design & Co-creation

- Define
- Design
- Develop
- Deploy

Define

- Set high level objectives
- Agree high level scope
- The 'What' – not the 'How'
 - This required a new way of working and thinking
 - Not everything is understood at the start
 - We needed to trust we could work together and solve problems

Define – The Definition Document

- The purpose of the module
- Very high level requirement/objectives
- The success criteria
- The assumptions – where it would be deployed, integration, what was in and out of scope, dependencies
- Development effort and therefore the cost
- Design authority members
- Executive sponsors – RNOH & Interneuron

Design

- The clinicians are the subject matter experts
- Design authority Clinicians, Digital and Developers working closely together
- Iterations improve on the design until we reach sign-off from the clinical lead
- Again this required a change in mind set and trust in between all parties

Develop

- Wireframe where it helped
- Iterative process
- Show & tell sessions
- New ideas/changes emerge – most difficult part of the process
- Build – Test cycles
- RNOH conduct final product testing and user acceptance testing

Deploy

- Go-live in production
 - The design authority clinicians support the roll-out and help with clinical buy-in
 - The time spent on design – reduces the time it takes to train, uptake, facilitates NOT hinders clinical work, and the subsequent support issues.

What have we achieved? Synapse, the Core Platform?

Example of services provide:

- Security, RBAC
- Database layer
- Integration within RNOH systems and externally
- Common functions – Patient Banner, patient search, patient lists, core patient info
- Data capture
- Clinical coding
- Medical Calculation engine

What have we achieved?

Module Deployed

- Inpatient Patient Flow App
- Observations – NEWS & PEWS
- Fluid balance
- Assessments – e.g. Sepsis
- Operation note
- Results and reports viewer
- Pre-operative assessment

What have we achieved?

Modules to go in the next months

- VTE assessment
- Allergies
- Discharge summaries
- EPMA – including Medicines Management Console
- Inpatient Clinical Summary

What have we achieved?

External Integrations

- HealthIntent – NCL Population Health Management Platform
- HIE – NCL Health Information Exchange
- GP Connect
- Patient Portal – Patients Know Best
- eRS

Necessary conditions for success

- Cultural change - new way of working
- Paradigm shift –it's OK to have ambiguity
- We are ONETEAM - maximise our resources & skills
- Requires an overall vision – led from very senior level
 - Strategy approved by Executives and Board
 - Agreed 4 year spend
 - Agreed to deliver the strategy as a series of projects
 - Patient safety at the core
 - Must facilitate clinician work

Lessons Learnt

- Culture change is hard
- Need strong stakeholder leaders
- Needs everyone to understand the ONETEAM approach and ways of working
- Be careful of the 'one that shouts the loudest'
- Scope creep
- Time box the Design & Change request stage
- The process can get difficult – Trust is key
- Don't compromise on core principles – Patient safety, easy to use