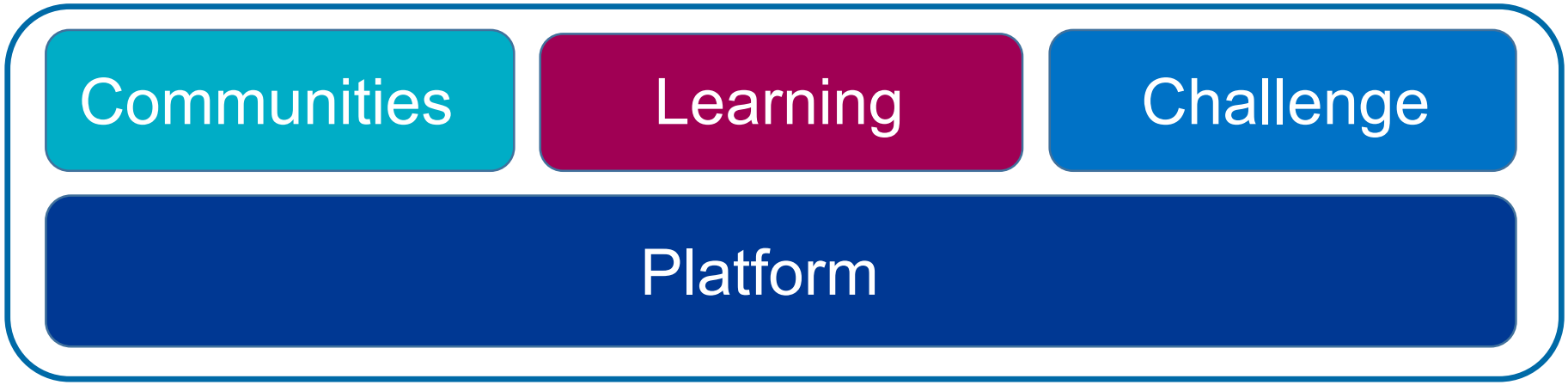
Open ePrescribing

Background Information

OPENeP

Introduction to Open Source

Open Source Programme - Code 4 Health



Introduction to Open Source

What is Open Source? - Paradigm Shift

- Based on software improvement via collaborative open innovation
- Driven by those with desire to use and / or improve the product
- Successful new business models (e.g. RedHat)
- Scale of openness to suit the needs

Based of 4 Software Freedoms

- Free to use software however you wish
- Free to redistribute copies
- Free to understand how it works and adapt it
- Free to make and share improvements with anyone

Introduction to Open Source

Why Open Source?

- Removes vendor Lock-In
- Increases responsiveness to fixes and changes in requirements
- Increases the number of vendors who can support the solutions
- Decreases Total Cost of Ownership
- Removes up-front licence fees and capital outlays
- More competitive pricing for support & maintenance
- Stimulates wider participation in improving and innovating products
- Greater control in delivering open interface between systems
- As easy to support and manage source control as proprietary solutions

Introduction to OpeneP

Open ePrescribing Project

A project was initiated in October 2014 to deliver open source meds management applications to the NHS, including;

- Medicines Reconciliation (admission and discharge)
- ePrescribing
- Medicines Administration
- Personal Medication Record *
- Medicines Utilisation and Audit **
- Medicines Supply Management *

* Not in scope of initial work
** Partially covered in initial work

Introduction to OpeneP

Participants

- HANDI – HANDI-HOPD
- Marand – Proven open source eP, eMA and Analytics
- Fivium – New build open source Meds. Reconciliation
- Neova Health – Proven open source platform: open-eObs, open-pFlow
- IMS Maxims
- FDB – Drug data, knowledge and decision support

Introduction to Marand

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Introduction to OpeneP – Functional Overview

Elements of an ePMA system

- Ability to document a Medication History
- Support for in-patient prescribing with scheduling of medicines administration
- Support for the documentation of the administration of medicines
- Support for the creation of ‘short term leave’ prescriptions, with the automatic suspension of administration during patient absence
- Support for discharge prescribing and reconciliation of changes made since capture of medication history
- Support for out-patient prescribing

Introduction to OpeneP – Functional Overview

Additional Features of an ePMA system

Clinical decision support alerting users to;

- Allergies
- Contraindications
- Therapeutic duplications
- Drug-drug interactions

Introduction to OpeneP – Functional Overview

Current Developments

Pharmacist review of all medications

- Pharmacist noting system
- Intervention log
- Ability to ‘order’ supply
- Ability to refer back for physician review

Introduction to OpeneP – Functional Overview

Commissioned Developments

- Documentation of medicines on admission
- Discharge prescribing
- Medicines reconciliation at each stage of the admission / discharge process
- Prompt to check allergy status before any medicines are prescribed

Introduction to OpeneP – Functional Overview

'To be Commissioned' Developments

- Out-patient prescribing
- Short term leave prescriptions
- PGD functionality
- Controlled Drug register functionality
- Links to laboratory results
- Sliding scale insulin
- Corollary orders
- Patient self-administration
- Ward stock lists and stock ordering
- Links to external systems (BNF; 'Yellow Card'; etc)
- Links to VTE assessment
- Antibiotic stewardship
- Management of 'High Risk Medicines'
- Oncology prescribing

Openep Product Demonstration

Introduction to OpeneP – Technical Overview

OpeneP & OpenEHR

- OPENeP – Requires an OpenEHR compliant “back-end” in which to store the data used by OPENeP
- OPENeP should work with any compliant OpenEHR backend, but has currently implemented and has only been fully tested on the Think!EHR platform provided by Marand
- Think!EHR is a proprietary implementation of the Open, OpenEHR Standard. In the short term we recommend the use of Think!EHR, but in the medium term we expect that a number of alternative OpenEHR back-ends will be supported by OPENeP include both fully open source and proprietary implementations

Introduction to OpeneP – Technical Overview

What is OpenEHR?

- OpenEHR provides a open standard for EHRs, based on a flexible set of information models for the elements of a record called “Archetypes” These represent things like, a prescription, and allergy, a test result, a diagnosis, a problem or a procedure that are easily understood by clinicians, but which are technically robust and computable.
- Systems built using Archetypes as their building blocks are intrinsically interoperable and their designers have access to a growing open library of open source Archetypes created and curated by a global clinical community which they can use and adapt.
- OpenEHR is gaining ground as the key international standard for clinical content and has been adopted as the national standard in many countries. In England it has been chosen by HSCIC as its preferred format for clinical information models.

Introduction to OpeneP – Technical Overview

OpenEHR Technology Platform

- OpenEHR is technology independent and does not depend on a particular technology platform or “Stack”. Compliant OpenEHR implementations are interoperable irrespective of the Stack they use.
- There are examples of OpenEHR back ends using built using Java, dot.net and MUMPS running on a range of databases (including PostgreSQL, MUMPS, Oracle, Microsoft SQL) on all major operating systems.
- Developers can create applications to work with OpenEHR using virtually any programming language and development environment.
- Think!EHR is a Java based product which typically runs on PostgreSQL on Linux.

Open eP Finance & Procurement

Why Open eP?

- Involvement in development
- Quality of the product
- Shared Knowledge
- Shared Governance
- Shared Resources

Technology Fund

- Capital / Revenue
- Procuring Services – G-Cloud
- Utilising Match Funding

Open eP Finance & Purchasing

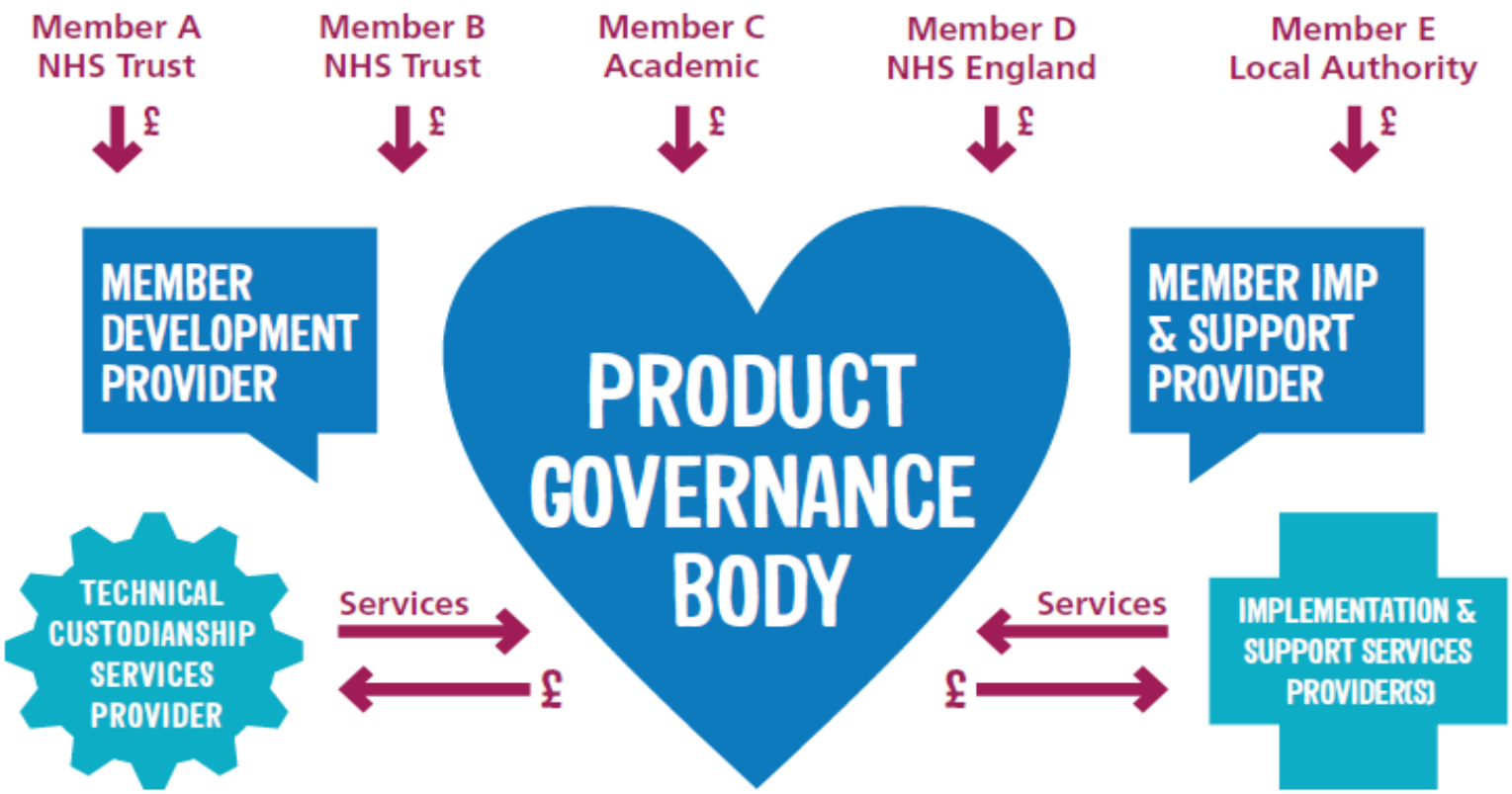
Options for procuring services and assets for Open eP

- Individual procurement
- Community Interest Company
- Other Options

What services would be required?

- Role of the Prime Contractor
- Development
- Implementation
- Support

Community Interest Company Model



For more Information

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