HELM – Person Held Record

The city of Leeds and the wider Yorkshire and Humber Local Health and Care Record Exemplar (LHCRE) is embarking on a leading open platform based initiative known as Helm™.

Helm™ is an innovative platform that will allow citizens to view, control and contribute to their health and wellbeing information. It will help people to better manage their care and wellbeing and will help prevent further health issues in the following ways:

- It will be the first time the public is able to access a system that joins up their NHS medical information with their council services information (and more) through a single login.

- Citizens will have the ability to add their own information to the record which can be shared with their care professionals to help manage a health condition and improve their wellbeing.

- Helm™ will revolutionise access to personal data, starting with medical information and then growing to incorporate information from other sources.

- Helm™ will be easy to use, interactive, with the ability to interface with apps and devices. Users will have the opportunity to personalise and control it with granular privacy settings.

- Helm™ is built on an open, vendor/technology neutral platform which includes open standards. It is scalable and will expand beyond Leeds.

- Because of the open approach, it will encourage a marketplace to create apps and additional functionality. It will open up the health and care system to SMEs (small medium enterprises) which can struggle to enter and innovate in this sector.

- Helm™ could, in time, allow citizens to be the conduit of information they are prepared to share, which will allow researchers and other professionals to develop opportunities and solutions to improve overall health and wellbeing.

Helm™ utilises the following open framework components which have been adapted to support the Helm™ programme:

- o A User Interface (UI) framework (PulseTile);
- o An Integration framework (QEWD.JS);
- o A Data Repository framework (EtherCIS).

Helm™ has taken a secure cloud first approach and also utilises the secure health & social care communications network (HSCN).

PulseTile

The PulseTile framework is the leading open source UX/UI (User Interface) framework for healthcare. The framework has been designed with the user in mind, is easy to use and modular in design making it easy to configure and customise. Designed with the web and mobile in mind, it has many powerful built in features.

Its highly usable UX designs are already available alongside comprehensive documentation and a related UI Kit. It is currently available in both AngularJS and ReactJS versions on GitHub. For more information about PulseTile, please see http://www.pulsetile.com/

QEWD.JS

As Helm™ requires integration with various systems across the city/region, the technical stack has built upon the powerful open source QEWD.js integration framework (Node.js based, JSON oriented + QEWD-Courier components). The QEWD-Courier components have already been engineered to integrate the PulseTile UI framework (above) and the EtherCIS data repository (below). Development has been focussed on integrating with the other key systems needed for go live in Leeds including QEWDjs based OpenID Connect compliant authorisation service and Discovery Data Service systems via FHIR. For more information on QEWD please see http://qewdjs.com/

EtherCIS

The Helm™ data is persisted in a data repository framework known as EtherCIS. EtherCIS (Java based with PostgreSQL persistence) is an internationally leading open source implementation of a clinical data repository which can handle both structured (compliant with the openEHR standard) and unstructured data in a secure environment. With over five years development effort already invested in EtherCIS, the capability is considered enterprise class.