

Title of Project:

openEHR Foundation

Principal Investigator(s):

UK investigators: University College London
Professor David Ingram
Dr Dipak Kalra

Aim(s) of Project:

- promote and publish the formal specification of requirements for representing and communicating electronic health record information, based on implementation experience, and evolving over time as health care and medical knowledge develop;
- promote and publish EHR information architectures, models and data dictionaries, tested in implementations, which meet these requirements;
- manage the sequential validation of the EHR architectures through comprehensive implementation and clinical evaluation;
- maintain open source "reference" implementations, available under licence, to enhance the pool of available tools to support clinical systems; and
- collaborate with other groups working towards high quality, requirements-based and interoperable health information systems, in related fields of health informatics.

Please provide a summary of the project proposal (max 1 page):

Please see below.

Please list 3 deliverables that the project will contribute to the UK and/or international cancer informatics community

1. open source and standards based electronic health record components and services, with appropriate confidentiality and security services
2. the archetype methodology and tools for defining and sharing clinical (health record) data structures
3. interfaces to NHS and European standards for EHR communication and sharing

Please describe how the project will incorporate and/or re-use existing informatics infrastructure and/or resources. If the project will not use any existing infrastructure or resources (e.g. data standards or ontologies) please explain why this is the case

openEHR Foundation members are also at the forefront of international standardisation for the EHR, and ensure that *openEHR* is itself standards conformant. It is, through its partners, participating in grid and bio-informatics research and will ensure that its deliverables are able to be utilised alongside relevant emerging standards in those areas of e-science.

Please describe the plans for the sharing of data and dissemination of knowledge that arise from the project:

openEHR publications are freely available through its web site, and open source components will be accessible through that site in the coming year.

Contact details for liaison persons should further information be required:

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The *openEHR* Foundation

The *openEHR* Foundation is an independent, not-for-profit organisation and community, facilitating the creation and sharing of health records by consumers and clinicians via open-source, standards-based implementations (please see <http://www.openehr.org>). Its mission statement is:

“To improve the clinical care process by fostering the development and implementation of open source, interoperable EHR components. These components should be based on internationally agreed requirements and address the need for privacy and security, while supporting the development of interoperable and evolving clinical applications.”

The goal of *openEHR* is to exemplify good designs for interoperable EHR systems through open source components, and to validate and refine these through practical clinical demonstrators. The *openEHR* Foundation was formalised as a not-for-profit company in 2003. Its founding shareholders are University College London (UK) and Ocean Informatics (Australia). *openEHR* aims to:

- promote and publish the formal specification of requirements for representing and communicating electronic health record information, based on implementation experience, and evolving over time as health care and medical knowledge develop;
- promote and publish EHR information architectures, models and data dictionaries, tested in implementations, which meet these requirements;
- manage the sequential validation of the EHR architectures through comprehensive implementation and clinical evaluation;
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- collaborate with other groups working towards high quality, requirements-based and interoperable health information systems, in related fields of health informatics.

Technically, *openEHR* brings together many of the strong threads of R&D in the field of electronic and federated health record systems described in this chapter, underpinned by published requirements, and with the goal of evolving best practice in the design of the EHR information architectures through collaboration and the evaluation of implementations in live clinical settings. *openEHR* seeks to foster this collaborative approach through openly available specifications, open source components and hosting e-mail discussion fora to debate the issues and challenges that arise in working towards its mission. The process and deliverables of its activities are managed by a formal change control process.

The *openEHR* technical specifications define design principles, reference and archetype models and will in future include other middleware service specifications. This work is becoming regarded internationally as the most complete and best-validated EHR information architecture. The *openEHR* archetype approach is now being adopted by CEN TC/251 for European standardisation.