

# INFORMATION ENVIRONMENT DEVELOPMENT PROGRAMME

## PROJECT PLAN

<b>Project Title</b>	Information Environment Service Registry
<b>Start Date</b>	1 March 2005
<b>End Date</b>	31 July 2006
<b>Lead Institution</b>	University of Manchester
<b>Project Manager &amp; contact details</b>	Amanda Hill <a href="mailto:amanda.hill@man.ac.uk">mailto:amanda.hill@man.ac.uk</a> 0161 275 6055
<b>Partner Institutions</b>	UKOLN, University of Bath contact: Rachel Heery <a href="mailto:r.heery@ukoln.ac.uk">mailto:r.heery@ukoln.ac.uk</a> University of Liverpool contact: Dr Paul Watry <a href="mailto:p.b.watry@liverpool.ac.uk">mailto:p.b.watry@liverpool.ac.uk</a>

**Document History**

<b>Version</b>	<b>Date</b>	<b>Comments</b>
1.0	15 Mar 2005	
2.0	17 Mar 2005	Incorporating comments from MIMAS staff
3.0	13 Apr 2005	Incorporating information from Liverpool
4.0	12 May 2005	Alteration of some timescales
5.0	31 May 2005	Incorporating information from UKOLN
6.0	17 Jun 2005	Changes made at the suggestion of JISC programme manager
6.1	27 Jul 2005	Gantt chart updated

## **1. Introduction**

The IESR is part of the JISC's Shared Services Programme. It is being funded to create a Registry of information about electronic resources that are of value to teachers, researchers and learners. The aim is to create a reliable source of information that other applications such as portals will be able to access through machine-to-machine protocols, in order to help end users discover resources that will be of assistance to them.

For service providers, the IESR will hold a master description of their electronic resources, to which other potential users of the resources may be directed. Creation of metadata about the resources will be made as simple as possible, and advice will be available from the IESR's Content Manager.

In the current phase of the project, principal aims are to extend the content of the IESR to cover other resources of interest to users in JISC's constituency, to provide further interfaces to the data within the registry, to align the registry with other related initiatives (for example the OCKHAM initiative, the Digital Open Access Repository, the Common Information Environment and the NISO Metasearch Initiative) and to further promote the IESR to its stakeholder communities.

## **2. Aims and Objectives**

The next phase of the IESR will have a number of areas of further development, the overall aim being to bring the prototype Service Registry towards a level of robustness and functionality that will be suitable for a service of production quality. The most significant areas here will be the provision of further interfaces into the IESR, for data creation and for access to the data. The distinct areas of work for the next phase fall into the following categories:

- a) Software development
- b) Content and metadata
- c) Research
- d) Evaluation
- e) Promotion and dissemination

## **3. Overall Approach**

The project team will build on the work undertaken during earlier phases.

### **a) Software development**

At MIMAS, new access methods to the IESR will be developed, including OAI-PMH and Web Services interfaces. The underlying architecture of the application will be re-designed to be consistent with a service-orientated approach, with the ultimate aim of using Web Services within the application itself.

A prototype of the IESR database using Cheshire 3 software will be developed at Liverpool, and the Liverpool team will also build a node of the OCKHAM network, using software provided by the OCKHAM initiative and the IESR data.

### **b) Content and metadata**

The project team will aim to expand the content of the registry to cover resources provided by service providers other than those directly funded by the JISC. These may include institutional services such as OPACs, and possibly services provided by other Common Information Environment members.

A further review of the metadata schema for IESR will be undertaken. Areas that will need further investigation include the provision of more detailed information about authentication and authorisation, as suggested in the Institutional Profiling and Terms and Conditions Study undertaken by EDINA<sup>1</sup>. Interfaces for the creation and update of IESR metadata records will be developed.

#### c) Research

UKOLN and the other partners will continue to undertake research into alternative models for the IESR, including ensuring the alignment of the project with Semantic Web initiatives, e-Learning and e-Research, the provision of distributed registries and requirements for terminology services.

#### d) Evaluation

An external evaluation of the IESR will be undertaken, to analyse the achievements of the project against its objectives.

#### e) Promotion and dissemination

The IESR project team will continue to promote the IESR to potential users and contributors and to raise awareness of the registry through papers, articles and events.

### **4. Project Consortium**

The project partners are MIMAS at the University of Manchester, the Cheshire Development Team at the University of Liverpool and UKOLN at the University of Bath. The team at MIMAS is responsible for project management (Amanda Hill), registry design and development (Ann Apps) and liaison with users and content providers (Leigh Morris). The Cheshire team, led by Paul Watry, is responsible for Cheshire software developments and documentation. The UKOLN team, led by Rachel Heery, is responsible for research into alternative models for the IESR. All partners provide input to the technical specification of the Registry data.

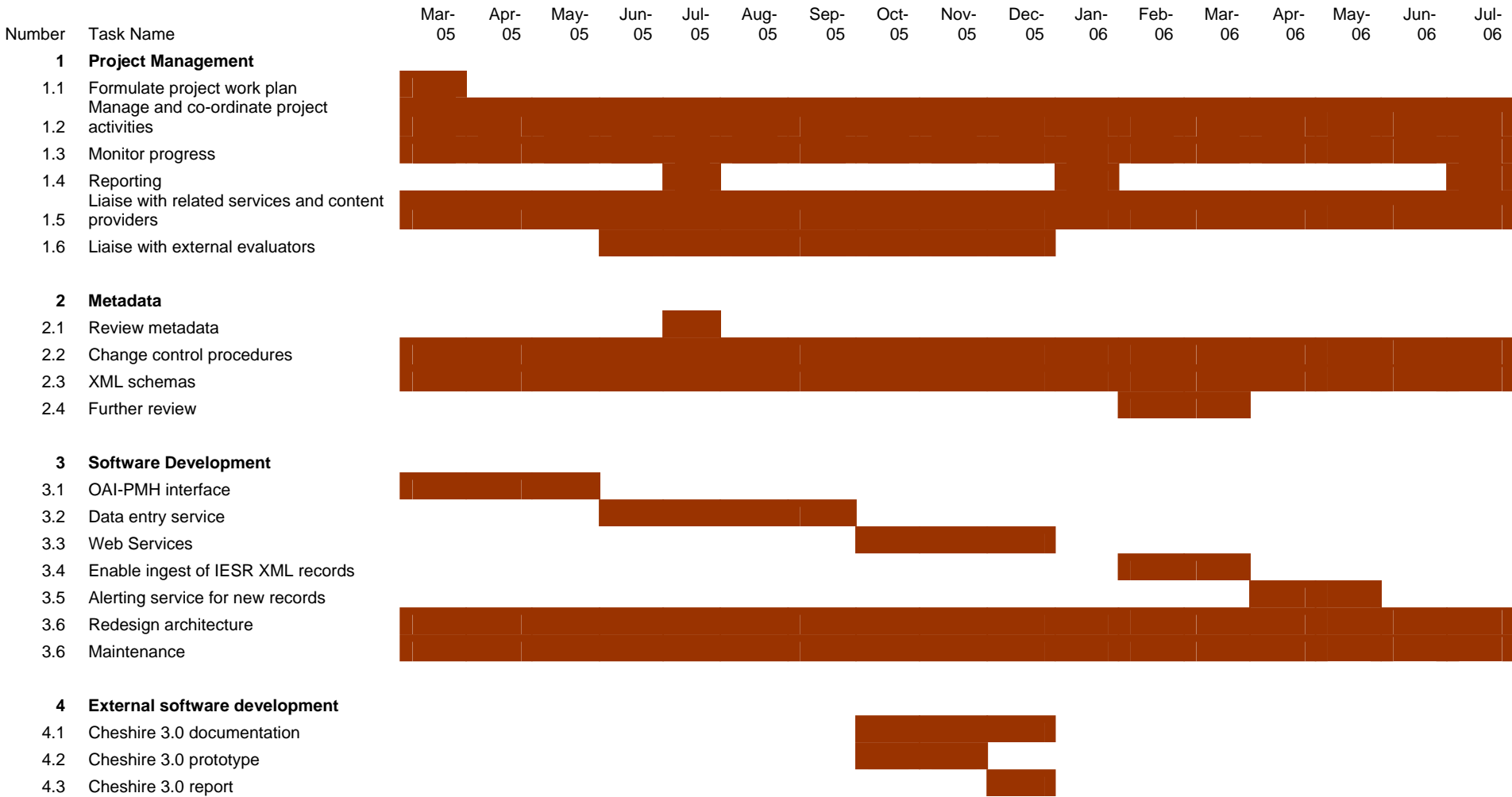
### **5. Project Management**

MIMAS will manage the project by maintaining the project work plan and co-ordinating the activities of the project partners. JISCmail lists have been established to aid communication between the project partners and also with the project's stakeholders. Project team meetings are held every three months.

---

<sup>1</sup> Available at [http://www.jisc.ac.uk/uploaded\\_documents/CMSS-Shaw1.pdf](http://www.jisc.ac.uk/uploaded_documents/CMSS-Shaw1.pdf)

**6. Overall Project Structure (Summary)**



Number	Task Name	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	
4.4	OCKHAM prototype			█															
4.5	OCKHAM node						█												
4.6	Availability checking service											█							
<b>5</b>	<b>Content development</b>	█																	
5.1	Data checking	█																	
5.2	Data creation guidelines	█																	
5.3	Contacting contributors	█																	
<b>6</b>	<b>User liaison</b>	█																	
6.1	Liaise with users	█																	
6.2	Test the IESR	█																	
6.3	Provide support for users	█																	
<b>7</b>	<b>Research into semantic web and other initiatives</b>	█																	
7.1	UDDI report	█																	
7.2	Research	█																	
7.3	Monitoring	█																	
<b>8</b>	<b>Dissemination</b>	█																	
8.1	Maintain website	█																	
8.2	Write articles	█																	
8.3	Presentations	█																	
8.4	Workshops									█			█						
<b>9</b>	<b>Evaluation</b>						█												

**7. Detailed Project Plan**

**Work package Number:** 1  
**Work package Title:** Project Management  
**Partner Responsible:** MIMAS  
**Other Partners Involved:**  
**Start Date:** 1 March 2005  
**End Date:** 31 July 2006

**Objectives:** To ensure timely performance of the project activities

**Brief Description of Work:** Ensuring good communication and liaison between the project partners; monitoring project progress; reporting on the progress of the project; liaising with other related projects

**Outputs including reports:**

1. Project plan
2. Biennial project progress reports
3. Final report on the findings of the project, with recommendations on how to take the Service Registry forward

**Task Descriptions**

<b>Task</b>	<b>Title</b>	<b>Partners</b>	<b>Description</b>
1.1	Formulate project work plan	MIMAS Liverpool UKOLN	Devise and agree detailed work plan for the project. <b>March – May 2005</b>
1.2	Manage and co-ordinate project activities	MIMAS	<b>Duration of the project</b>
1.3	Monitor progress	MIMAS	Monitoring progress against the project plan and identifying corrective actions in case of deviations. <b>Duration of the project</b>
1.4	Reporting	MIMAS	Report on project progress. <b>July 2005, January and July 2006</b>
1.5	Liaise with Shared Services and content providers	MIMAS	Liaise with other Shared Services and with content providers. <b>Duration of the project</b>
1.6	Liaise with external evaluators	MIMAS	Liaise with evaluation team. <b>June 2005 - January 2006</b>

**Work package Number:** 2  
**Work package Title:** Metadata  
**Partner Responsible:** MIMAS and UKOLN  
**Other Partners Involved:**  
**Start Date:** 1 March 2005  
**End Date:** 31 July 2006

**Objectives:** To revise the IESR metadata in the light of stakeholder requirements

**Outputs including reports:**

1. Report on changes to the metadata and update documentation
2. Further updates to definitions in response to needs of stakeholders, as required.

**Task Descriptions**

<b>Task</b>	<b>Title</b>	<b>Partners</b>	<b>Description</b>
2.1	Review metadata	MIMAS UKOLN	Review metadata, in light of comments from content providers, make necessary changes and update definitions. <b>July 2005</b>
2.2	Change control	MIMAS	Investigate change management procedures and version control for the metadata schema. <b>Duration of project</b>
2.3	XML schemas	MIMAS UKOLN	Devise and revise XML schemas as required <b>Duration of project</b>
2.4	Further metadata review	MIMAS UKOLN	Revisit metadata, with input from stakeholders and experience of use of the service registry. Make any changes. <b>February-March 2006</b>

**Work package Number:** 3  
**Work package Title:** Software development  
**Partner Responsible:** MIMAS  
**Other Partners Involved:**  
**Start Date:** 1 March 2005  
**End Date:** 31 July 2006

**Objectives:** To develop the functionality of the IESR

**Outputs including reports:**

1. New interfaces to IESR data (OAI-PMH and Web Services)
2. Services for the supply of IESR records
3. Maintenance of registry software, including timely responses to error reports and update requests

**Task Descriptions**

<b>Task</b>	<b>Title</b>	<b>Partners</b>	<b>Description</b>
3.1	OAI-PMH interface	MIMAS	Provide OAI-PMH interface to the IESR metadata. <b>March - May 2005</b>
3.2	Data entry interface	MIMAS	Implement a web interface for creation and update of IESR metadata. <b>June – September 2005</b>
3.3	Web Services interface	MIMAS	Design and implement a Web Services interface to IESR metadata. <b>October – December 2005</b>
3.4	Enable ingest of IESR XML records	MIMAS	Design a process to enable the ingest of data to the IESR. <b>February 2005 – March 2006</b>
3.5	Alerting service for new records	MIMAS	Provide an alerting service when new records are added to the IESR. <b>April – May 2006</b>
3.6	Redesign architecture	MIMAS	Redesign underlying architecture of the IESR application. <b>Duration of the project</b>
3.7	Maintenance	MIMAS	Update registry in response to metadata updates, error reports and changes to the operating environment. <b>Duration of the project</b>

**Work package Number:** 4  
**Work package Title:** External software development and documentation  
**Partner Responsible:** Liverpool and MIMAS  
**Other Partners Involved:**  
**Start Date:** 1 March 2005  
**End Date:** 30 April 2006

**Objectives:** To develop a prototype IESR database using Cheshire 3.0, to test the OCKHAM registry software using IESR data, to extend the availability checking service and to complete documentation of Cheshire 2.0.

**Outputs including reports:**

1. Documentation for Cheshire 3.0
2. A prototype of the IESR database using Cheshire 3.0
3. Report on benefits and work involved in migrating the IESR database to Cheshire 3.0
4. A node of the OCKHAM registry populated with IESR data
5. Report on the OCKHAM installation process
6. Availability service extended beyond Z39.50

**Task Descriptions**

<b>Task</b>	<b>Title</b>	<b>Partners</b>	<b>Description</b>
4.1	Cheshire documentation	Liverpool	Provide full documentation for Cheshire 3.0 <b>October 2005</b>
4.2	Cheshire 3.0	Liverpool	Develop a prototype of the IESR database using Cheshire 3.0 software <b>October-November 2005</b>
4.3	Cheshire 3.0 report	Liverpool	Report on the benefits and work involved in migrating the IESR database to Cheshire 3.0. <b>December 2005</b>
4.4	OCKHAM	Liverpool	Test the OCKHAM registry software with IESR data <b>May-July 2005</b>
4.5	OCKHAM report	Liverpool	Report on the installation of the OCKHAM node. <b>August 2005</b>
4.6	Availability checking service	Liverpool	Extend the availability checking service to services other than Z39.50 <b>January 2006</b>

**Work package Number:** 5  
**Work package Title:** IESR content  
**Partner Responsible:** MIMAS and JISC  
**Other Partners Involved:**  
**Start Date:** 1 March 2005  
**End Date:** 31 July 2006

**Objectives:** To ensure that the IESR contains relevant, quality data.

**Brief Description of Work:** Identifying potential contributors, liaising with creators of IESR metadata, checking and editing data submissions, developing guidelines and policies for the inclusion of resources.

**Outputs including reports:**

1. Consistent, relevant metadata in the IESR
2. Up-to-date data creation guidelines
3. Quality assurance procedures

**Task Descriptions**

<b>Task</b>	<b>Title</b>	<b>Partners</b>	<b>Description</b>
5.1	Data checking	MIMAS	Check the consistency of data submissions, implement quality assurance procedures and liaise with data contributors to ensure data quality. <b>Duration of the project</b>
5.2	Maintain and update data creation guidelines	MIMAS	Make changes to guidelines as required. <b>Duration of the project</b>
5.3	Contacting contributors	MIMAS	Contacting potential content providers and encouraging the creation of metadata for appropriate services. <b>Duration of the project</b>

**Work package Number:** 6  
**Work package Title:** Liaison  
**Partner Responsible:** MIMAS, UKOLN and JISC  
**Start Date:** 1 March 2005  
**End Date:** 31 July 2006

**Objectives:** To encourage portals and other services to make use of the information and interfaces provided by the IESR.

**Brief Description of Work:** Raising awareness of the IESR, liaising with potential users, testing the registry, providing technical assistance for users.

**Outputs including reports:**

1. Guidelines for using interfaces
2. Usage scenarios

**Task Descriptions**

<b>Task</b>	<b>Title</b>	<b>Partners</b>	<b>Description</b>
6.1	Identify potential users	MIMAS UKOLN	Identifying usage scenarios and liaising with projects, services and organisations which may be able to make use of the IESR <b>Duration of the project</b>
6.2	Test the IESR	MIMAS	Co-ordinate testing activities for users of the IESR and encourage users to report on their experiences <b>Duration of the project</b>
6.3	Provide support for users	MIMAS	Assisting staff of portals and other users of the IESR. <b>Duration of the project</b>

**Work package Number:** 7  
**Work package Title:** Research into semantic web and other related initiatives  
**Partner Responsible:** UKOLN and MIMAS  
**Other Partners Involved:**  
**Start Date:** 1 March 2005  
**End Date:** 30 June 2006

**Objectives:** To investigate the use of UDDI and other methods of delivering the information held within the Service Registry. To investigate issues related to distributed solutions and to further improvement of certain aspects of the registry.

**Brief Description of Work:** This work package will investigate alternative models for the implementation of the registry, e.g. RDF, distributed registries and related semantic web initiatives. Monitoring developments in the Grid and e-learning arenas will also form part of this package.

**Outputs including reports:**

1. Report on UDDI investigation
2. Report on alternative formats and models

**Task Descriptions**

<b>Task</b>	<b>Title</b>	<b>Partners</b>	<b>Description</b>
7.1	UDDI research	UKOLN	Report on outcomes of the UDDI research project. <b>March – October 2005</b>
7.2	Research	UKOLN MIMAS	Research into alternative formats and models and specific development issues. <b>June 2005 – June 2006</b>
7.3	Monitoring	UKOLN	Keeping in touch with Grid, e-science and e-learning developments that relate to the IESR. <b>Duration of the project</b>

**Work package Number:** 8  
**Work package Title:** Dissemination  
**Partner Responsible:** MIMAS, Liverpool and UKOLN  
**Other Partners Involved:**  
**Start Date:** 1 March 2005  
**End Date:** 31 July 2006

**Objectives:** To raise awareness of the Service Registry and to promote its use.

**Brief Description of Work:** This work package will focus on raising awareness of the Service Registry through articles, conference papers, workshops and the project's website.

**Outputs including reports:**

1. Current website
2. Articles
3. Presentations at events
4. Workshops

**Task Descriptions**

<b>Task</b>	<b>Title</b>	<b>Partners</b>	<b>Description</b>
8.1	Maintain website	MIMAS	Keep the IESR website up to date. <b>Duration of the project</b>
8.2	Write articles	MIMAS Liverpool UKOLN	Write articles explaining the work of the IESR. <b>Duration of the project</b>
8.3	Presentations	MIMAS Liverpool UKOLN	<b>Duration of the project</b>
8.4	Run workshops	MIMAS Liverpool UKOLN	Workshops (for contributors to and users of the IESR) will be held during the course of the project. <b>Autumn 2005 and late winter 2006</b>

**Work package Number:** 9  
**Work package Title:** Evaluation  
**Partner Responsible:** External partner  
**Other Partners Involved:**  
**Start Date:** August 2005  
**End Date:** January 2006

**Objectives:** To assess the impact and effectiveness of the IESR and to report on requirements for a service.

**Outputs including reports:**

1. Evaluation report

**Task Descriptions**

<b>Task</b>	<b>Title</b>	<b>Partners</b>	<b>Description</b>
9.1	Evaluate IESR	External	Evaluate IESR <b>August 2005 - January 2006</b>

## **8. Dissemination**

The project team will take part in JISC Shared Services and other events in order to share information about its progress and achievements. Information will also be disseminated through the medium of the project website, through mailing lists and articles.

## **9. Project Meetings**

Full meetings of the project team will take place every three months during the course of the pilot. The JISC Development Team will be invited to attend these meetings.

## **10. Quality Assurance and Evaluation**

Evaluation of the project will be undertaken by an external partner in the manner described in work package 9 above.