

JISC Project Plan Template

The [Project Management Guidelines](#) have detailed instructions for preparing project plans. Expand tables as appropriate.

Prepare a cover sheet using the [cover sheet template](#) and attach to the project plan.

Overview of Project

1. Background

Summarise the background to the project (and how it builds on previous work) and the need for it (and why it's important).

This project will build on the recent successes of [CETIS LIPSIG](#)¹, the [Centre for Recording Achievement](#)² (CRA) and the work that has been completed as part of the [Developing Learner Profiles across FE and HE](#)³ initiative funded under the [Managed Learning Environments \(MLEs\) for Lifelong Learning](#)⁴ JISC project. Members of the proposed project team have also been involved with the [TransportALL](#)⁵ project and have been instrumental in the mapping of the PDP domain to the IMS Learner Information Package (LIP) specification.

2. Aims and Objectives

List the broad aim or purpose of the project, and the specific objectives you intend to achieve.

This project will provide a springboard from which to launch a fully-fledged Web Service (WS) definition for the Personal Development Planning (PDP) domain. We intend to generate a prototype WS specification for PDP in the UK. Note that this not a full IMS LIP WS but is a service based on the [UK PDP application profile](#)⁶ for PDP. The potential list of services is detailed in Appendix A but this list will be modified as a result of the initial investigation into what a PDP web service should do.

The initial groundwork to achieve the actual implementation of the WS, (outlined in Section 6,) includes the creation of models of planning and reflection and a formalisation of the PDP process; only then can a service be designed.

We are intending to provide a full definition of the service interface (WSDL specification), but it is beyond the scope of this short project to implement every method listed in the service interface. Without knowing what the interface will contain, it is difficult to explicitly state which interface methods will be defined in full, however, we will commit to implementing a small number of the most useful services in order to demonstrate the feasibility of the adopted approach.

3. Overall Approach

4. Project Outputs

These have changed since the original bid. We see the process being more cyclic – we will be able to start WP 2 and 3 before completing WP1.

Work Package 1 – Enhanced PDP Model

- **d1.1** Model of reflection – report. Due: **21 July 2004**

¹ <http://www.cetis.ac.uk/groups/20010801124300/viewGroup>

² <http://www.recordingachievement.org/>

³ http://www.jisc.ac.uk/index.cfm?name=project_cra

⁴ http://www.jisc.ac.uk/index.cfm?name=programme_buildmle_hefe

⁵ <http://dbweb.liv.ac.uk/cll/client.asp?client=5&unit=81>

⁶ http://www.recordingachievement.org/downloads/UK_LP1_1B_Final.pdf

- **d1.2** 'Version 0' model of reflection. Due: **21 July 2004**
- **d1.3** Model of planning – report. Due: **21 July 2004**
- **d1.4** 'Version 0' model of planning. Due: **21 July 2004**
- **d1.5** Model of some PDP Processes and highlight candidates for implementation – report (incl. entity-relationship diagram). Due: **21 July 2004**
- **d1.6** Recommendation of web functionality. Due: **21 July 2004**
- **d1.7** Consultative document explaining the proposed services. Due: **10 Aug 2004**
- **d1.8** Recommendation of 'core' services to implement in WP3. Due: **10 Aug 2004**

Work Package 2 – Enhance LUSID

- **d2.1** a demo of core services. Due: w/c **25 Oct 2004**
- **d2.2** Deployment details (WDDL). Due: **29 Oct 2004**
- **d2.3** Development report (useful information for others) Due: **29 Oct 2004**
- **d2.4** IMS LD representation (level A) of two or more PDP processes. Due: **29 Oct 2004**

Work Package 3 – Write WS SDK

- **d3.1** SDK including WS core interface (service port and implementation), Proxy Framework (interface and factory). Due: **29 Oct 2004**
- **d3.2** Full service definition (WSDL). Due: **29 Oct 2004**
- **d3.4** UML class diagrams of SDK components. Due: **29 Oct 2004**
- **d3.5** UML diagrams of service implementation architecture. Due: **29 Oct 2004**
- **d3.6** SDK as jar. Due: **29 Oct 2004**
- **d3.7** Javadoc pertaining to SDK. Due: **29 Oct 2004**
- **d3.8** JUnit compliance test suite for PDP WS. Due: **29 Oct 2004**
- **d3.9** Brief guide to using SDK. Due: **29 Oct 2004**

Work Package 4 – Management

- **d4.1** final project report. Due: **29 Oct 2004**

5. Project Outcomes

List the outcomes you envisage, including their impact on the teaching, learning, or research communities, and what change they will stimulate or enable.

Outcomes wrapped up in deliverables given above.

6. Stakeholder Analysis

List key stakeholder groups and individuals that will be interested in your project outcomes, will be affected by them, or whose support/approval is essential, both within your institution and in the community, and assess their importance (low/medium/high).

Stakeholder	Interest / stake	Importance
Oxford University (OUCS)	Want to integrate LUSID with Bodington	high
The University of Liverpool (Centre for Lifelong Learning / Computing Services)	Want to integrate LUSID with Blackboard	high
Centre for Recording Achievement	Will be able to advise about building PDP web services to PDP community	high
Bodington.org	Integration of web services / added functionality to VLE	medium
CETIS LIPSIG	Will be able to report outcomes to IMS and disseminate to interested parties	high

7. Risk Analysis

List factors that could pose a risk to the project's success, assess their likelihood and severity, and how you will prevent them from happening (or manage them if they occur). Cover the types of risks listed and any others that apply.

Risk	Probability (1-5)	Severity (1-5)	Score (P x S)	Action to Prevent/Manage Risk
Staffing	2	3	6	Have not yet got enough developers – are working on the problem and expect a solution very soon. It is not envisaged that any key staff members will leave during the project.
Organisational	1	1	1	Good relationships exist between consortium and most of the work localised at Oxford University thereby reducing complexity.
Technical	2	4	8	There is a lot of experience in Oxford with this type of work which can be drawn upon. We also have good connections with similar initiatives both in Europe and the US.
External suppliers	1	1	1	No problems anticipated.
Legal	1	1	1	No problems anticipated.
Outstanding work	3	2	6	We may discover that work beyond the scope of this project may be needed for a full solution (eg, skills interoperability). We will canvass CETIS LIPSIG for input in this area and will have to provide work-around for the short term.

8. Standards

List any specific standards you will adopt and why they are important.

We are aiming at a service interface based on [UK LeaP⁷](#) – this is an application profile covering the PDP domain based on IMS LIP. (The BSI is currently drafting UK LeaP for public comment [BS 8788].) We will use SOAP for the transmission of data, WSDL and WSDD for the relevant WS definition and will ensure compliance with [WS-I guidelines on WS interoperability⁸](#). Where a PDP process is to be returned by a service, IMS Learning Design or IMS Simple Sequencing may be used to represent the process. The LD (or SS) employed may be elementary, but will at least cover a simple realistic use case.

9. Technical Development

Indicate how the project will follow best practice for technical development, and any specific technologies or development approaches the project will adopt and why.

We will use J2EE technology in order to integrate as simply as possible with the underlying applications (see next section). It is envisaged that we will employ the AXIS WS to help with software development and will use the Eclipse IDE. XDoclet will be used to generate as much code as possible and HTML documentation will be produced using Javadoc.

A test harness will be produced, based around JUnit and /or HttpUnit (and maybe Jakarta Struts) to demonstrate WS compliance. It may also be necessary to use JBoss as an application server to house the Tomcat servlet container.

⁷ <http://www.imsglobal.org/pressrelease/pr031006.cfm>

⁸ <http://www.ws-i.org/>

10. Intellectual Property Rights

List any intellectual property owned by third parties that will be incorporated into project outputs, when/how you will obtain permission to use them, and any implications for project outputs after the project ends.

Project Resources

11. Project Partners

List all project partners (including subcontractors), their roles, and the main contact. Indicate the date a consortium agreement was signed (or will be signed), and send a copy to the programme manager.

- University of Oxford, main contact Adam Marshall (adam.marshall@oucs.ox.ac.uk).
- The University of Liverpool, main contact Janet Strivens (strivens@liv.ac.uk).
- Simon Grant, (a@simongrant.org)!

Consortium agreement underway.

12. Project Management

Briefly describe the project management framework, including organisation, reporting relationships, decision process, and the role of any local management committee.

Adam Marshall will manage the project (22 days).

There will be a small internal management committee at Oxford who will meet on an *ad-hoc* basis. This committee will comprise Howard Noble, Matthew Dovey and Francisco Pinto. They will advise on technology, interoperability and usability.

List all members of the project team, their roles, and contact details. Indicate the proportion of time the project manager will spend on project management.

Adam Marshall, Janet Strivens and Simon Grant. See section 11.

Indicate if the project has training needs and how they will be met.

None identified at present.

13. Programme Support

Indicate if there are specific areas where you would like support from the programme or programme manager.

Help with IMS Learning Design / Simple Sequencing. Help with UML modelling.

14. Budget

Use the [budget template](#) and attach the project budget as Appendix A. Explain any changes from the budget in the agreed project proposal.

See Appendix A.

Detailed Project Planning

15. Workpackages

Use the [workpackages template](#) to plan the detailed project work and attach as Appendix B. Clearly indicate project deliverables and reports (in **bold**), when they are due, phasing of workpackages, and

explain any dependencies. You may also attach a Gantt chart, diagram, or flowchart to illustrate phasing.

See Appendix B.

16. Evaluation Plan

Indicate how you will evaluate the quality of the project outputs and the success of the project. List the factors you plan to evaluate, questions the evaluation will answer, methods you will use, and how success will be measured. Expand as appropriate on how you will conduct the evaluation.

Not applicable

17. Quality Assurance Plan

Explain the quality assurance procedures you will put in place to ensure that project outputs comply with JISC technical standards and best practice, and what will constitute evidence of compliance.

Not applicable.

18. Dissemination Plan

Explain how the project will share outcomes and learning with stakeholders and the community. List important dissemination activities planned throughout the project, indicating purpose, target audience, timing, and key message.

Timing	Dissemination Activity	Audience	Purpose	Key Message
ongoing	Report to CETIS LIPSIG	PDP practitioners / VLE managers	Community awareness and feedback	What is / will be available
ongoing	Report to the Centre for Recording Achievement	PDP practitioners	Community awareness and feedback	What is / will be available
25 Oct	JISC demo day			

19. Exit/Sustainability Plan

Explain what will happen to project outputs at the end of the project (including knowledge and learning). Focus on the work needed to ensure they are taken up by the community and any work needed for project closedown, e.g. preservation, maintenance, documentation.

Project Outputs	Action for Take-up & Embedding	Action for Exit
WP1 deliverables	Dissemination via CRA / CETIS LIPSIG plus European and American networks	
WP2 + WP3 deliverables	Dissemination via JISC	

List any project outputs that may have potential to live on after the project ends, why, how they might be taken forward, and any issues involved in making them sustainable in the long term.

All outputs will be useful for practitioners and developers. Other than dissemination, it is not envisaged that any further action will need to be taken. It may be that feedback from PDP communities will result in modifications to the definition of services. It would be good to keep the JISC site up to date in this respect.

Project Outputs	Why Sustainable	Scenarios for Taking Forward	Issues to Address

Appendixes

Appendix A. Project Budget

7 Budget

Consultant (Simon Grant): 15 days @ 400 per day	6,000
Research Officer (Janet Strivens, The University of Liverpool): 6 days @ 300	1,800
Developer (Adam Marshall, Oxford University): 66 days	13,601
Management (Adam Marshall, Oxford University): 22 days	4,532
Admin support	549
Travel and subsistence	1,500
Hardware (server plus installation)	5,000
Software	1,500
Total	£34,482

Note: all costs include National Insurance and, where relevant, super-annuation.

Appendix B. Workpackages

Work Package 1 – Enhance PDP Model

Description of Work

In order to implement a PDP Web Service it will be necessary to formalise more aspects of the PDP process. In particular, a process model including an entity-relationship diagram will be essential. This model will be constructed based on the CRA survey ‘PDP practice in the UK’ which identified all [the PDP processes and outputs in use in UK HE and FE](#)⁹. The project team includes both the author of the related web site and a very experienced PDP practitioner. It is envisaged that they will collaborate in this work package.

To help with the generation of this process model, it will be necessary to produce a model of reflection – it is necessary to enumerate the categories of reflection not least to inform the definition of a Vocabulary which will allow the <reflection> element of UK LeaP to be related to the records that are being reflected upon. Along similar lines, it will be necessary to draft a model of planning to inform the process model. (The most recent vocabularies can be found at <http://www.cetis.ac.uk/profiles/uklip>¹⁰.)

All models should take into account the impact that e-portfolios are having – the PDP processes need to be related to the e-portfolio-related tasks of marshalling, evidencing and presenting skills and competencies through qualifications, achievements, and products (of learning or whatever). This project will produce ‘version 0’ of the model that will be circulated for comments.

The next stage is to consider the functionality that a web service should offer. This will be described in a consultative (plain English) document that will be the most visible deliverable from this work package. Feedback will be solicited and acted upon when the interface is being formally defined.

All outputs here will be tabled to the CETIS LIPSIG (and any other relevant group) for comment and input. The consultative document will be distributed as widely as possible.

⁹ <http://www.cetis.ac.uk/members/PDPcontent>

¹⁰ <http://www.cetis.ac.uk/profiles/uklip>

Deliverables

- **d1.1** Model of reflection – report. Due: **21 Jul 2004**
- **d1.2** 'Version 0' model of reflection. Due: **21 Jul 2004**
- **d1.3** Model of planning – report. Due: **21 Jul 2004**
- **d1.4** 'Version 0' model of planning. Due: **21 Jul 2004**
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Work Package 2 – Enhance LUSID

Need to enhance LUSID to understand and respond to a selection of WS calls.

Description of Work

Modify LUSID to both import and export IMS LIP data via SOAP. Implement the Proxy framework defined in WP3. Implement the Service Port defined in WP3. Write new LUSID templates that map to the services that are to be offered as part of this project. Interface the new templates with the service interface.

We currently envisage implementing the following services (see Appendix B for more info); this may change as a result of the previous work-package:

- give me all my PDRs (**B1.1**);
- upload these PDRs (**B1.2**);
- give me my table of contents (**B1.3**);
- retrieve specific PDR (**B1.9**);
- store this PDR (**B1.10**);
- list of PDP activities (processes) (**B1.7**) (this will be a short of choice 'lumps' including planning and reflection);
- learning design for above activities (**B1.8**) (the LD will be very simple here!).

At this stage of development, we will not address the issue of authentication and authorisation and will ensure that all SOAP transmissions will contain basic authentication; role-based authorisation will be ensured by the business logic. (It is understood that in the future, Athens and Shibboleth will be employed to handle authentication and authorisation.)

As LUSID does not hold any privacy meta-data about a user's PDRs we will not expend much effort in this area.

Deliverables

- **d2.1** a demo of core services. Due: w/c **25 Oct 2004**
- **d2.2** Deployment details (WDDL). Due: **29 Oct 2004**
- **d2.3** Development report (useful information for others) Due: **29 Oct 2004**
- **d2.4** IMS LD representation (level A) of two or more PDP processes. Due: **29 Oct 2004**

Work Package 3 – Write WS SDK

Description of Work

By referencing the Enterprise Web Services Specification and Demo toolkit, and by taking up the offer of technical support from JISC, we will use J2EE technology to define a reusable PDP Web Service interface. This will include all the relevant components such as a WS-I compliant WSDL, UML models, a compliance suite and appropriate documentation. Feedback from the consultative document will be taken into account and acted upon. Revised documentation will be generated if required.

Deliverables

- **d3.1** SDK including WS core interface (service port and implementation), Proxy Framework (interface and factory). Due: **29 Oct 2004**
- **d3.2** Full service definition (WSDL). Due: **29 Oct 2004**
- **d3.4** UML class diagrams of SDK components. Due: **29 Oct 2004**
- **d3.5** UML diagrams of service implementation architecture. Due: **29 Oct 2004**
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- **d3.8** JUnit compliance test suite for PDP WS. Due: **29 Oct 2004**
- **d3.9** Brief guide to using SDK. Due: **29 Oct 2004**

Work Package 4 – Management

Overall management of whole project. **NB:** in the original bid this package was incorrectly numbered as WP5!

Description of Work

Usual management tasks.

Deliverables

- **d4.1** final project report. Due: **29 Oct 2004**