

GLOBAL IMPLEMENTATION PLAN

ACTION NAME : European Portal on Learning Opportunities - Implementation of the second phase (PLOTEUS II)

1. CONTEXT

Type of Action	Project of Common Interest
Sectoral Legal Basis (PCI only)	COMMISSION DECISION of 23 December 2002 - OJ L5/16 10.1.2003, 2003/8/EC, implementing Council Regulation (EEC) No 1612/68 as regards the clearance of vacancies and applications for employment (EURES), Article 8.2.c
Relation to the Action	In article 8, the decision refers to a database on learning opportunities, to be included in a job mobility portal.
IDABC Legal basis (PCI and HM)	The project refers to article 4 of IDABC Decision 2004/387/EC regarding Projects of common interest and Annex 1: "Projects of common interest under the IDABC programme are those established notably in the following areas: (.../...) part B Community Policies and Activities (.../...) 10. Education, culture and audio-visual sector, notably for the exchange of information concerning content issues on open networks and to promote the development and free circulation of new audio-visual and information services."
Service in charge	DG EAC - Unit B1
Associated Service	DG EMPL - Unit A3 (EURES)
Responsible action manager	Jan Varchola
Committee / group of experts	The coordination group for PLOTEUS I and PLOTEUS II gathers representatives of Member States responsible for the management of national databases on learning opportunities and Euroguidance representatives. Group members had been first appointed at national level following a request made to the Directors General of Vocational training in 2000/2001. The group has been renewed in 2003 and then in 2005, through a request to permanent representations.
GIP status	New GIP

2. OBJECTIVES

The objective of the PLOTEUS portal is to facilitate the access to information on learning opportunities existing in EU, EFTA and candidate countries, with a special view to supporting mobility throughout Europe for education and training purposes. The current version of the portal (PLOTEUS I) can be defined as a searchable directory of links to informatin sources - universities, VET databases, lists of schools. The aim of the second phase (PLOTEUS II) is to improve the usability, user-friendliness and the level of precision of the information about learning opportunities by quering directly the content of

national databases through the interface of the European portal.

3. RATIONALE

The current version of PLOTEYS (PLOTEUS I) does not directly provide information about single courses but it points the user toward websites and/or databases, where the required information can be found. The disadvantage of this solution is that it requires the user to access different websites with different user interfaces, and of course different classification systems, languages and educational models. The foreseen second phase of the portal (PLOTEUS II) will make it possible to query directly the content of national databases through the interface of the European portal, and thus to obtain in PLOTEUS direct answers to specific queries about single courses.

4. SCOPE

Based on results of the feasibility phase which was completed in July 2005, the new PLOTEUS II will be implemented, enabling a direct query in national databases. As some of the Member States have not yet built up a national database on learning opportunity, it will be possible to interconnect a limited number of databases, while at the same time keeping the PLOTEUS I solution for those Member States which do not have a national database or do not wish to take part in the interconnection. Following the meeting of the Ploteus Coordination Group of 25 October 2005, Member States will decide about the inclusion of their national / regional databases. It is foreseen to keep the current structure of the Portal in PLOTEUS II, including sections on learning opportunities, education systems, exchanges & grants, 'moving to a country' information and contact.

5. TECHNICAL FUNCTIONALITIES AND APPROACH

5.1. GENERIC DESCRIPTION

In order to interconnect national databases in PLOTEUS II, it is necessary to unleash the information from national databases on learning opportunities ("deep web content"). As agreed at the last meeting of Ploteus Coordination Group on 29 October 2004, the common protocol (attached) will be the platform for classification and interoperability of learning opportunities data between PLOTEUS II and national/regional data sources. The results of feasibility study propose to use one of the two technical solutions for retrieval of data from national databases: a) web services (accessing the local information by means of XML Query/results via a connector at national side) and b) web wrapping solution (based on the existing web interface of the data source, executing a query through the search interface and extracting information from result page). Following the meeting of Ploteus Coordination Group on 25 October 2005, Member States will decide about the appropriate solution for their specific data source. All the information necessary to take this decision are described in the enclosed documents 'Division of tasks for the implementation and operation of Ploteus II' and 'Cost estimation per data source'.



5.2. DETAILED DESCRIPTION

The main objective of the PLOTEUS II is to be a single interface to query heterogeneous external data sources on learning opportunities. The recommended solutions to access the heterogeneous information system are:

- the web service solution,
- the web wrapping solution.

The web service accesses the information thanks to XML Query/result via a connector ("service") at data source side. It requires development and operational management at the national/regional data source level.

The web wrapping accesses the information via the web interface of the data source and consists in executing a query through the search interface and extracting information from result page. A robot that browses a data source web interface is called a "web wrapper" and is located centrally.

Detailed architecture of both solutions (attached) shows the details of the PLOTEUS II kernel component and optionally the component of the national system in the case the data source information is accessed through local web services. The components activities and the corresponding data flows for both solutions are described.

Besides the course information returned by national data sources, PLOTEUS II will also provide an access to the content stored in the existing PLOTEUS I InStranet database (education system descriptions, links to website providing learning opportunities, information about exchanges and grants, etc).

For further details, please see the Annexes 'Detailed system architecture' and 'Possible implementation scenario of PLOTEUS II'.

6. PARTICIPANTS AND BENEFITS ANTICIPATED

6.1. PARTICIPANTS, ROLES AND TASKS

The implementation of PLOTEUS II will require an involvement from Member States (national/regional databases), Euroguidance centres and the Commission (through the contractor selected in call for tender). The roles, tasks and activities will be divided as follows:

- At the level of Member States, data sources (national/regional databases on learning opportunities) will assist to elaborate a data dictionary, provide assistance for the detailed mapping and routing. Further, based on the decision of Member States (web services or web wrapping), if applying web service solution, data sources will assist by the definition of the exchange format (XSD), implementation, deployment and unitary tests, as well as integration tests in Ploteus II. Data sources may need training, may need to acquire specific infrastructure and possibly licences. If applying web wrapping, data sources will assist by the website analysis and integration tests in Ploteus II.

- Euroguidance centres will assist to create data dictionary, detailed mapping and routing. The centres will provide translations of the classifications and web interface as well as data sources descriptions and education levels in Ploteus II.

- The European Commission (contractor from the call for tender) will carry out most of the activities related to the implementation of Ploteus II, including detailed functional analysis, data source analysis, architecture, data source integration, creation of Ploteus II database, administration interface, Ploteus II kernel, integration with Ploteus I and EURES portal, deployment and tests and transition.

Further details are defined in the document 'Division of tasks for the implementation and operation of PLOTEUS II'.

6.2. BENEFITS ANTICIPATED

Benefits for the agency / sector	<p>PLOTEUS is an essential tool supporting the European policy in the field of education and training. The conclusions of the Lisbon European Council demanded the creation of a "Europe-wide database on jobs and learning opportunities". The Maastricht Communiqué, adopted in December 2004 by the Ministers responsible for Vocational Education and Training of 32 European countries, stressed that priority should be given to the use of common instruments regarding guidance throughout life. The improved PLOTEUS II will better contribute to reaching these goals.</p>
	<p>Assessment Criteria: Raising awareness of education and training opportunities throughout Europe</p>
Benefits for MS administrations	<p>The implementation of PLOTEUS II improves the exchange of information between public administrations in the Member States, particularly between national resource centres for guidance and guidance counsellors in Europe. It encourages the creation of national databases on the base of common protocol in countries where such databases are built or going to be built.</p>
	<p>Assessment Criteria: Degree of interoperability of</p>

	national databases on learning opportunities
Benefits for citizens / enterprises	The new PLOTEUS II will bring the greatest benefits to citizens by substantially improving the usability, user-friendliness and the level of precision of the information about learning opportunities, thus contributing to mobility of citizens within Europe.
	Assessment Criteria: User satisfaction, number of visitors on portal, number of user feedbacks, number of recommended links
Benefits for other entities	Universities, schools, public and private training providers will be able to better communicate their learning offers to citizens and make themselves more visible to citizens.
	Assessment Criteria: Increase of interest in the offer of education

6.3. SUPPORT GROUP

See point 1 - Committee / Group of experts

7. INFORMATION PROCESSES

A user can search for learning opportunities in PLOTEUS II, using simple (multidimensional search) or advanced search (multidimensional search combined with the fulltext search). The first result page for a search for learning opportunities presents a list of relevant national/regional data sources, corresponding to the end-user 'routing criteria'. The end-user can select 3 national/regional data sources and decide to get links to other data sources referenced in PLOTEUS I. The search is then limited to these data sources and possibly the PLOTEUS database. The results are presented on the same page. A limited list of results is presented per data source. The documents from PLOTEUS I are ordered by relevance. The order of the other results depends on the data sources. The user is able to navigate through the different pages of the results list per data source.

The processes of data exchange, data collection and data dissemination are further defined in the document 'Common Protocol for the exchange of learning opportunities data between PLOTEUS and national/regional data sources' and 'Detailed System Architecture'.

8. ORGANISATIONAL DEVELOPMENTS AND RE-ENGINEERING OF WORKING PROCESSES

The main organisational development within the migration from current PLOTEUS I to future PLOTEUS II is the interconnection of national databases on learning opportunities. It implies substantial changes of

working processes in terms of data classification (on the base of common protocol), data exchange (through web-services or web-wrapping) and data dissemination (displaying of search results). It requires a collaboration from the side of Member States in order to enable retrieval of data from their national databases (see the role of Member States - data sources and Euroguidance centres in point 6.1). In the phase of implementation, interaction between the Commission's contractor and data sources is necessary to map the data structure in the existing databases and to put in place the required data exchange mechanism (web services, web wrapping). For the Member States where no databases exist, the content of PLOTEUS I will be integrated in PLOTEUS II.

Further details are defined in the document 'Division of tasks by the implementation and operation of PLOTEUS II'.

9. RELEVANT HORIZONTAL PAN-EUROPEAN EGOVERNMENT AND INFRASTRUCTURE SERVICES

9.1. SERVICES TO BE USED

Service	Possible further development
Your Europe Portal	Further integration of Ploteus with Your Europe Portal will be promoted through a cross-linking of both portals in order to access information related to study and learning opportunities on Your Europe Portal and vice versa (different information from Your Europe Portal on Ploteus, e.g. in the section Moving to a country).
IDABC XML clearing house	In the framework of strategic development of Ploteus, in order to contribute to the harmonisation of semantic aspects of cross-border information exchanges, the development of IDABC XML clearing house platform will be closely followed and possibilities of using the platform for Ploteus will be examined.

9.2. SERVICES THAT COULD BE DEVELOPED

Service	Description

10. COSTS AND MILESTONES

10.1. BREAKDOWN OF COSTS AND RELATED MILESTONES

Phase (P, F, DV, I)	Description of milestones reached or to be reached	Cost (EURO)	Budget line IDABC/ others (specify)	Start date (QX/YYYY)	End date (QX/YYYY)
F	Analysis, design and prototypin gof Ploteus II - presentation of prototype of Ploteus II - revision of GIP	359.800,00 €	IDA	Q4/2003	Q2/2005
DV, I	Implementation of Ploteus II	650.000,00 €	IDABC	Q2/2006	Q2/2007
	Total	1.009.800,00 €			

10.2. BREAKDOWN OF COSTS TO BE FUNDED BY IDABC BY BUDGET YEAR

Budget Year	IDABC Funding (in EURO)
2005	
2006	650.000
2007	
2008	
2009	

10.3 RETURN ON INVESTMENT

In economic terms, it is not possible to provide a direct analysis of return on investments, since PLOTEUS portal is an information tool for citizens with no foreseen revenues. However, it will provide a great added value to citizens, Member States administration, education and training providers (see point 6.2).

11. FINANCIAL SUSTAINABILITY

Maintenance and possible improvements of Ploteus II will be funded by EURES and by the New Integrated Programme for Lifelong Learning for 2007-2013.

Euroguidance centres, which update the data in Ploteus, are currently funded by Leonardo da Vinci Programme and will be funded under the New Integrated Programme for Lifelong Learning 2007-2013

12. MULTILINGUAL COMMUNICATION

PLOTEUS II interface, as kind of a static information, will be provided in 24 languages. For the online information, which will be retrieved from national data sources, recurrent information on basic elements of a learning opportunity (based on the common classification from common protocol) will be also translated in 24 languages. See also point 6.1, for the role of Euroguidance centres.

13. SECURITY

Not EU classified data

14. WORK PLAN

The main milestones of PLOTEUS II projects are as follows:

Q1/2004 - Start of the feasibility phase of PLOTEUS II

Q2/2005 - End of the feasibility phase of PLOTEUS II

Q2/2006 - Start of the implementation phase of PLOTEUS II

Q3/2007 - End of the implementation phase and launch of PLOTEUS II

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15. ANNEXES

15.1. PREPARATORY REPORT (PR) AND GLOBAL IMPLEMENTATION PLAN (GIP)

Relevant documents	Date of endorsement DD/MM/YY	Link/attachment
PR		n.a
GIP	25/10/05	
Minutes of meeting at which the PR was endorsed		n.a.
Minutes of meeting at which the GIP was endorsed		attached
List of members of the committee having endorsed the GIP		attached

15.2 SUPPLEMENTARY DOCUMENTS

Title/Content	Discussed Date DD/MM/YY	Committee	Link/attachment
Completed “Security Self-Assessment Tool” (i.e. PCI Security Questionnaire)	n.a.	n.a.	
Common protocol for the exchange of learning opportunities data between Ploteus and national/regional data sources	29/10/04	Ploteus Coordination Group	attached
Detailed system architecture	25/10/05	Ploteus Coordination Group	attached
Possible implementation scenario of Ploteus II	25/10/05	Ploteus Coordination Group	attached
Division of tasks for the implementation and operation of Ploteus II and Cost estimation per data source	25/10/05	Ploteus Coordination Group	attached
Prototype Ploteus II	25/10/05	Ploteus Coordination Group	http://ploteus.atosorigin.be/Ploteus2