

12 May 2004

## **JISC Circular 3/04 Call for Projects to Develop E-Learning Tools for Learners and Teachers**

**To: Heads of Higher Education Institutions funded by the Higher Education Funding Council for England (HEFCE)**

**Electronic Copies: Directors of Information Services  
Learning Resource Managers  
JISC Committee Members  
JISC Executive Staff  
JISC Regional Support Centres  
JISC Services**

### **Introduction**

1. This circular invites higher education institutions in England to submit funding proposals to develop e-learning tools for learners and teachers over an 8 month period from August 2004 to March 2005.

2. Funding of up to £2 million is available for this work with projects being awarded grants of up to £150,000. However where projects demonstrate that their proposal will bring exceptional value to a wide range of users, grants in excess of this figure may be awarded. Shorter projects offering early payback in the form of deliverables which can be tested in service are also welcome and will be favourably considered.

3. The deadline for receipt of proposals is 12 noon on Wednesday 30 June 2004. Projects should start as soon as possible and not later than 1 September 2004. A town meeting will be held in London on Thursday 17 June 2004 to provide a forum for discussion of the call and its subject matter. Attendance is free and on a first come, first served basis, and will be restricted to two representatives per institution. To reserve a place please book online at <http://www.jisc.ac.uk/elearningtools17june04.html>.

### **Background**

4. The use of Information Technology (IT) in learning and teaching in the UK higher education sector has expanded substantially in recent years, with a sharp increase in uptake of technologies such as Virtual Learning Environments. There are also strong strategic drivers from Government to embed e-learning into everyday learning and teaching practice. The HEFCE has made available IT Infrastructure funds to the JISC:

- to develop technologies to underpin the Funding Council's strategic aims, including widening participation;
- to work with regional and subject communities to use the technologies to support learning and teaching in achieving shared objectives and

- to support the implementation of HEFCE's e-learning strategy.

5. The distributed e-learning programme is based on the same concepts as the JISC's e-learning programme which explores issues of e-learning and pedagogy, technical frameworks and the innovation of technology that is needed to better support learning and teaching but will extend the focus to consider the lifelong learner, regional agendas and subject differences. The document describing the strategic overview of the programme can be found at - [http://www.jisc.ac.uk/uploaded\\_documents/eDistributed-strategic-overview.doc](http://www.jisc.ac.uk/uploaded_documents/eDistributed-strategic-overview.doc) and a list of the relevant JISC activities at [http://www.jisc.ac.uk/uploaded\\_documents/Tools-CFP-relevant-jisc-activities.doc](http://www.jisc.ac.uk/uploaded_documents/Tools-CFP-relevant-jisc-activities.doc) or accessed from the programme web page at [http://www.jisc.ac.uk/programme\\_edistributed.html](http://www.jisc.ac.uk/programme_edistributed.html).

### **The e-learning programme**

6. The aim of developing the distributed e-learning programme technical architecture is to provide better opportunities for learners through the use of appropriate learning tools, easier access to personal learning information such as portfolios, and access to greater quantities of quality assured learning materials.

7. The aim of defining the distributed e-learning programme architecture for teachers is to provide guidance on how to access, plan and use e-learning resources within appropriate e-learning systems. Case studies of good practice in e-learning will be shared and will include approaches from different subject disciplines.

### **The Foci of the Circular**

8. This Circular invites bids to develop e-learning tools for learners working independently in a Personal Learning Environment. However, the tools should also be suitable for use within an institutional context (to complement other institutional systems such as a Virtual Learning Environment); or to access and interrogate local, regional, national or international collections of resources. The Circular also invites bids for tools for use by teachers in preparing learning materials. Details of the full functions required from these developments, together with priority work areas, are listed below.

### **Programme funding**

9. The funds for this programme have been made available by the HEFCE therefore proposals must be submitted by HE institutions funded by the HEFCE. Applications from consortia involving further education colleges and other learning providers will be considered provided the lead body is an English HE institution.

### **E-learning tools**

10. The distributed e-learning programme will offer benefits to institutions by enabling links between schools, colleges and universities that can be used to encourage participation in higher education. Tools for personal development planning and e-portfolios will also help institutions to meet the UUK requirement for provision of personal development plans (PDPs) by autumn 2005.

11. One aim of the programme is to identify significant gaps in the range of current e-learning tools and adapt or create components to fill the gaps. There are two areas in which proposals for development of e-learning tools are invited: **tools for learners and learning support** and **tools for teachers**. The JISC Strategy supports the use of tools across similar functions within education, and in this Circular we encourage bidders to consider the development of tools that support more than one function e.g. teachers and researchers.

### **Tools for learners and learning support**

12. Bidders may submit a proposal to develop one or more components of the Personal Learning Environment. Outputs from the development will be integrated into a Personal

Learning Environment (PLE) based on appropriate technical standards and specifications (see below for more detailed guidance).

13. Functions that should be included are those that would support a learner across their lifetime of learning activities. This might include:

- tools to support the creation and management of individualised learning plans;
- tools to support the development and management of e-Portfolios or Personal Development Planning;
- creation of e-Portfolio for “presentation” of learner achievements to prospective employers or educational establishments
- tools to enable the learner to create, update and maintain their own Learning Designs, and to interact with learning designs that are provided by others;
- tools to enable the easy manipulation and use of video, images and sound.
- tools to support learners in the creation and management of learning materials (or ‘content packaging tools’ for learners), to include a wide range of media: text, moving images, sound, animations.

14. Below is a list of functions that illustrates some of the components that might be included typically in a Personal Learning Environment and the educational standards and specifications that would need to support this environment. This is included for illustrative purposes only - to convey the breadth and range of functions that might be included within the programme - and is not intended to represent the full range of functions that tools might need to support learners.

**Some of the learner activities that tools seek to facilitate might include:**

- Find out about courses, modules, classes
- Negotiate learning programmes and activities with institutions/ departments/ teachers
- Engage in learning and other campus activities including
  - Planning learning
  - Task and time management
  - Maintaining personal contacts information
  - Communicate with tutors and peers / collaborate with peers and experts on and off campus.
  - Communicating learning groups, plan and organise activities
  - Accessing resources (learning activities, learning content, learning services, journals, research data)
  - Engaging in learning activities
  - Carrying out assignments
  - Engaging in self assessment of progress / peer assessment
  - Undergoing formal assessment
  - Reflecting on what learned, on the learning process and on self as a learner
- Maintain record of learning plans, activities, achievements and qualifications

**Tools for teachers**

15. The Circular also invites bids for tools for teachers that will be used in the preparation of learning materials. Functions that will be prioritised will include:

- tools for designing learning sequences using the IMS Learning Design specification;
- tools for easy creation of IMS content packages and upload into Virtual Learning Environment software (building upon the RELOAD software that has been developed under the JISC X4L programme); e.g. interface designs.
- tools for creation of question and tests and upload into question banks (building on the TOIA project that has been developed under the JISC X4L programme); e.g. QTI rendering player.
- tools for linking external resources with Virtual Learning Environments (building on the work of the Digital Libraries and VLEs programme);
- tools for the easy creation, manipulation and sharing of video, images and sound.

### **Some of the teacher activities that tools seek to facilitate might include:**

- Find out about existing courses, modules, classes
- Plan and collaborate with others in planning new course, modules and classes
- Design activities for students using available materials and services
- Find, aggregate, modify and add new resources for courses & classes
- Negotiate learning programmes and activities with learners
- Engage in teaching and other campus activities including:
  - Planning, task & time management
  - Maintaining personal contacts information
  - Communicating with and supporting learners
  - Communicating with other teachers about the learning activities
  - Collaborating with other teachers on course delivery
  - Accessing resources (learning activities, learning content, assessments/tests, learning services, journals, research data)
  - Engaging with learners in their learning activities
  - Reviewing self and peer assessment when appropriate
  - Receiving and assessing assignments or portfolios maintaining records, communicating assessments to, and discussing them with, learners
  - Invigilating formal assessment
  - Recording formal assessments
  - Reflection on individual & class progress, the teaching process and on self as a teacher
- Maintain own lifelong learning/continuing professional development record

16. There is significant overlap across these activities and where they differ, they are often connected for example when learners carrying out and teachers assessing an assignments or when both the same tools (word processors, web editors, etc.) are being used but for different purposes. When developing tools to facilitate any of these activities, consideration should be given as to how they might be used to support other activities and users.

### **Technical framework for integration**

17. The aim of these projects is to create tools that can either be used individually to achieve a particular learning outcome; can be used together to provide several functions to support learning or research; or used with other products (either free, open source or commercial tools). The emphasis is upon integration of functions across the toolsets that are developed. Projects will be supported by a guidance document that will be produced to advise them on the appropriate application component deployment frameworks (ACDFs). Possible ACDFs may include amongst others: uPortal; Zope/Plone; ECLIPSE; Groove; Jetspeed; SunONE portal; JSTL; Blackboard; CHEF.

18. In order to facilitate and support interoperability, bidders are expected to work within the parameters of the JISC Technical Framework to Support e-Learning, (see [http://www.jisc.ac.uk/elearning\\_framework.html](http://www.jisc.ac.uk/elearning_framework.html)). Projects will position the technical architecture of their deliverables with respect to this Framework identifying clearly how features within proposed applications and tools relate to the definitions of services within the Framework. Projects will not be constrained to only include features that map to existing services in the Framework, but may identify features of the proposed application or tool that are additional to those already defined in the Framework.

19. Projects should use any toolkits developed by projects in the E-learning Frameworks and Tools programme to implement services used in their proposed application or tool where it is possible and appropriate to do so. A list of projects that are currently under development is available at [http://www.jisc.ac.uk/elearning\\_framework.html](http://www.jisc.ac.uk/elearning_framework.html). JISC will provide online resources to support the development of tools and to encourage collaborative working and code-sharing between projects.

20. Projects may be based on a range of technical approaches and may consider peer to peer as well as client server architectures, for example tools based on peer to peer technologies such as Gnutella.

### **Standards and specifications**

21. In most cases, tools must be built to work with the appropriate standards and specifications. Projects must adhere to the guidelines set-out in the JISC IE standards framework (see <http://www.ukoln.ac.uk/distributed-systems/jisc-ie/arch/standards/>) and the JISC Technical Framework to Support e-Learning. If they do not have up-to-date knowledge of this area bidders are strongly encouraged to consult UKOLN ([www.ukoln.ac.uk](http://www.ukoln.ac.uk)), the CETIS web site ([www.cetis.ac.uk](http://www.cetis.ac.uk)) and the CETIS Special Interest Groups. Bidders must build this into their proposal and ensure that they make adequate funding available for additional costs that may be encountered by adopting a standards-based approach.

### **Priority areas for development**

22. Bidders should indicate clearly why their proposed tool should be a priority area for public funding. Areas of prioritisation might be:

1. where current tools are not based on open standards or specifications;
2. lack of available tools to support innovative practice;
3. where the current commercial or free, open source market does not support priority learning or teaching functions;
4. where the quality of current tools is generally poor;
5. where pricing models for tools put them out of the reach of the higher education community.

### **E-learning models**

23. Proposals must be based upon articulated and well-considered models of e-learning. Bidders are directed towards the JISC e-Learning and Pedagogy programme to inform their thinking in this area, and in particular to note the guidance on e-learning models on the web site at [http://www.jisc.ac.uk/elearning\\_pedagogy.html](http://www.jisc.ac.uk/elearning_pedagogy.html).

24. Bidders must include in their proposal use cases or scenarios that articulate the learning and/or teaching context within which they expect the tool to be used. These should be created in line with the vision for the Distributed E-learning programme. Information about, and examples of, use cases are available on the supporting web site ([http://www.jisc.ac.uk/programme\\_edistributed.html](http://www.jisc.ac.uk/programme_edistributed.html))

25. Given the tight timescales of the programme, projects will be expected to operate under a 'rapid prototyping' model where beta and alpha versions of systems are made available for testing with users at an early stage. JISC will provide support to projects in accessing user groups, in particular the LTSN / Academy Subject Centres e-learning group.

### **Innovative Approaches**

26. Limited funds are available for the development of tools that are not based on current specifications or standards but which will make a significant shift forward in the provision of tools that support innovative approaches to learning and teaching. In this case, proposals must provide clear evidence that they will develop functionality that will provide clear benefits in the support of learning and teaching.

### **Extension of Current Projects**

27. Bids to extend or enhance currently available tools or toolsets are encouraged; however, the criteria given above will apply in the same way as for the development of a new

tool. Funding is restricted to the development of open source and freely available tools and the viability of extending a commercially-available product would be very carefully considered.

### **Additional Criteria**

28. Proposals that cross both areas of activity will be considered but bidders must ensure clarity between functions that are being offered to support learning processes as opposed to teaching processes.

### **Terms and conditions of grant**

29. As a general rule the JISC does not seek to retain IPR in the project deliverables created as part of its programmes. However funding is always made available on the condition that project outputs are made available, free at the point of use, to the UK HE and FE community in perpetuity, and that these may be disseminated widely in partnership with the JISC.

30. In the case of e-learning tools it is extremely desirable that any software components of the deliverables are released under appropriate open source licences to ensure that they can also be freely shared with organisations and communities with which the JISC has close working arrangements. All software that is developed will be expected to be made available free of charge to the education community in perpetuity and all code developed will be made available through open source models. Projects should license outputs under an Open Source agreement that promotes their reuse (e.g. LGPL for data libraries, GPL for applications).

31. It is intended that the deliverables created as part of this programme will, as appropriate, be deployed by the JISC as part of a long-term strategy for providing access to community resources and where this is possible arrangements for archiving of deliverables will be set in place. However, wherever possible, projects will be encouraged to set in place mechanisms to ensure the continued availability and currency of deliverables after funding has ended. In the majority of cases the JISC will not be able to commit to the long term delivery or maintenance of project outputs after the end of the programme, though guidance will be given about opportunities for continuation funding and embedding within institutions.

32. The JISC will undertake programme level evaluation in partnership with the funded projects, which will be required to co-operate with the programme evaluation. Each project will be required to build in project-specific evaluation and (where appropriate, e.g. for software deliverables) testing activities in its project planning. The scale and nature of this evaluation and testing will naturally be dependent on the size and scale of project activity, and should be appropriate to programme aims.

33. The JISC will draw up an overarching dissemination strategy in partnership with the projects and other JISC initiatives. However projects will be expected to engage in project-specific dissemination to the HE sector as appropriate, (see paragraphs on Public Relations).

34. The JISC will look for phased outcomes as the projects progress. The nature of the project outputs will be expected to:

- provide a lasting benefit to the community;
- have a scale and nature concomitant with the level of funding provided;
- contribute to achieving the JISC's strategic aims.

Projects will be expected to adopt the JISC programme management guidelines that are available at [http://www.jisc.ac.uk/proj\\_manguide.html](http://www.jisc.ac.uk/proj_manguide.html). These include IPR and copyright guidance, adherence to good project management practices, regular reporting and participation of projects in steering committees. A Programme Manager based in the JISC Development Team will provide management support to projects.

## Evaluation Criteria for Proposals

35. Proposals will be evaluated according to the following criteria:

**Quality of proposal and work plan** – the extent to which the proposal addresses the issues and demands outlined in the call, and shows innovation as appropriate; the quality of the proposal will be assessed on the basis of the deliverables identified and the evidence provided of how these will be achieved including an assessment of the risks (35%).

**Impact** – the extent to which the project outcomes will be of overall value to the HE community and research communities; included in the assessment under this criterion will be the need for sustainability of the work at the end of the project funding period (30%).

**Partnership and dissemination** – the degree to which the proposal demonstrates an openness and willingness to work in partnership with JISC in forward planning, dissemination and evaluation, and the potential for extended partnership beyond the funding period (10%).

**Value for money** – the value of the expected project outcomes *vis-à-vis* the level of funding requested, taking into account the level of innovation, chance of success and relevance to the target communities (10%).

**Previous experience of the project team** – evidence of the project team's understanding of the technical and/or management issues involved, and of its ability to manage and deliver a successful project, for example through work done to date in the area or in related fields (15%).

36. In the case of consortium proposals, the **strength of the consortium** will be considered. This refers to evidence of the commitment shown by the consortium partners to the consortium and the proposed project, and the degree to which the work proposed has wide applicability to other HEIs. Proposers may wish to produce evidence such as partnership agreements, strategic plans, working papers etc. These may be included as appendices to the proposal and need not be counted within the 10-page limit.

37. Notwithstanding the weightings of the evaluation criteria, proposals that fail badly on any one criterion may be rejected, and proposals showing exceptional strength in one or more areas with serious weaknesses in others may be funded. In making awards under this call the JISC will take into account the need for an appropriate, varied and affordable portfolio of projects and partners. It is not, therefore, necessarily the case that the projects with the highest raw scores will be those funded in all instances.

## Accessibility Issues

38. In line with Government legislation and social exclusion initiatives, JISC is committed to providing resources that are accessible to a diverse range of users. In order to achieve this all software and IT resources including the project web site should meet good practice standards and guidelines pertaining to the media in which they are produced.

39. Advice and recommendations for ensuring that IT based systems, tools and resources are accessible by all can be found in the resource section of the Technology for Disabilities Service (TechDis, <http://www.techdis.ac.uk>). Further advice and consultancy is available from the TechDis Centre itself.

## Public Relations

40. The JISC endeavours to ensure that a coherent message is given to the community covering the breadth and depth of its activities. Projects must adhere to JISC PR Guidelines.

These include advice on developing publicity materials and producing press releases, and will be issued to funded projects.

41. Each project must create a web page or web site to explain the project aims and objectives and to disseminate information about project activities and results. The Project Management Guidelines give guidance on the scope, content and design of websites. Where appropriate project deliverables and core project documents may be posted on the website. As the project web site is primarily a dissemination vehicle, deliverables and documents posted are considered to be copies, and the masters will be deposited in the appropriate JISC repository. The lead institution or one of its partners must agree to host the website on their server for a minimum of 3 years after the end of the project and to assist JISC in archiving it subsequently.

### **Funding Available**

42. Funding of up to £150,000 per project is available and it is expected that 10 -15 projects will be funded. In exceptional cases, where projects demonstrate that their proposal will bring value to a wide range of users and supply a number of different functions, grants may exceed this figure. Proposals are invited for projects to run for 8 months from August 2004 until March 2005.

### **Bidding Process**

43. A town meeting for prospective bidders will be held on **Thursday 17 June 2004** in central London. Attendance is free and on a first come, first served basis and is limited to two representatives from each institution. Please use the online booking form at <http://www.jisc.ac.uk/elearningtools17june04.html> to book a place at this event. The meeting will explain the context of the call in fuller detail, and will provide opportunities for those attending to put questions to the JISC panel

44. Proposals are limited to a maximum of 10 A4 sheets plus appendices, together with a letter of support from an authorised senior manager at the institution (in the case of consortium proposals, one from each member institution) and a completed cover sheet (see Appendix A). These should be sent to:

Faye Gardiner, JISC Executive, Northavon House, Coldharbour Lane, Bristol, BS16 1QD.

45. An electronic copy of the bid, all appendices, cover sheet and letter(s) of support should also be sent to [f.gardiner@jisc.ac.uk](mailto:f.gardiner@jisc.ac.uk) Both hard copy and emailed proposals must be received by **12 noon on Wednesday 30 June 2004**. Faxed or late proposals will not be accepted.

46. The content of the bids should reflect the evaluation criteria set out in above. To assist in the assessment of all proposals against a common baseline, proposals should be structured as follows:

- A. **Introduction** – A brief outline of the nature of the work to be undertaken, the length of the project, the proposed start date and a summary of how the project will contribute to the programme.
- B. **Project description** – A description of the intended project plan, timetable and deliverables, risks, and an explanation of how the detailed project outcomes will be of value to the JISC community.  
Bidders should also include
  - o a position of their deliverables with respect to the Technical Framework;
  - o state how their tool meets the priority areas stated in paragraph 22;
  - o uses cases or scenarios that articulate the learning and/or teaching context;
  - o statements regarding IPR and sustainability issues.
- C. **Budget** – A summary of the proposed budget which in broad outline identifies how funds will be spent over the life of the project, staff costs, equipment and consumables, travel and subsistence (if applicable), dissemination, evaluation and

other costs should be itemised and an indication of any institutional contributions (e.g. overheads, equipment, staff time) should also be provided.

- D. **Key personnel** – Names and brief career details of staff expected to contribute to the project, including qualifications and experience in the area of work proposed and evidence of any projects of similar nature successfully completed.
- E. **Contact(s)** – Contact details for one named individual for correspondence concerning the proposal (please include name, position, institution, email address, postal address, and telephone and fax numbers).

47. The JISC will consider these proposals and endeavour to notify successful bidders by the end of July 2004. Projects should commence as soon as possible, and no later than 1 September 2004. JISC will expect to work with the selected projects to agree the work plan and to ensure that the project budget is appropriate and suitably profiled. It may be necessary to negotiate some aspects of the project objectives and content with the project teams in the interest of maximising the expected benefits of the programme as a whole.

#### **Further Information**

48. Technical enquiries about the Distributed E-Learning Programme should be addressed to: Paul Bailey, JISC Executive, University of Bristol, Beacon House, Queen's Road, Bristol, BS8 1QU, tel: 0117 954 5074 or 07789 721150, [p.bailey@jisc.ac.uk](mailto:p.bailey@jisc.ac.uk)

49. General enquiries about the proposal submission process should be sent to: Faye Gardiner, JISC Executive, Northavon House, Coldharbour Lane, Bristol, BS16 1QD tel: 0117 931 7111, [f.gardiner@jisc.ac.uk](mailto:f.gardiner@jisc.ac.uk)

**JISC Executive**  
May 2004

## Appendix A

**Cover sheet for proposals** (*All sections must be completed*)

## E-learning Tools for Learners and Teachers Distributed E-learning Programme

<b>Name of lead institution/organisation</b>
<b>Name of proposed project</b>
<b>Project partners</b>
<b>Full contact details for primary contact</b>  <b>Name:</b> <b>Position:</b> <b>Email:</b> <b>Address:</b>  <b>Tel:</b> <b>Fax:</b>
<b>Programme area(s) of proposal</b>
<b>Length of project and total cost to the JISC over its life</b>
<b>Cost of proposal to the JISC</b>
<b>Proposed project start date</b>
<b>Outline project description</b>

