

JOINT INFORMATION SYSTEMS COMMITTEE

JISC Circular 04/06: Appendix H

Users and Innovation: Personalising Technologies

Summary

- H1. The Users and Innovation: Personalising Technologies (U&I) programme is a £4.75 million investment in ICT technology and practice, forming part of the JISC Capital Programme.¹ It aims to identify, develop and promote a consistent approach towards next generation environments for learning, teaching, research and administration by prototyping a range of next generation and personalised e-Administration tools and demonstrators for the community by March 2009.

Call	Theme	Description	Funds	See
I	Support Projects for Users and Innovation Programme	Projects that will support the Programme team, community of practice and projects a) Project 1: Support for community of practice and online activities b) Project 2: Support for Users and Innovation development model	£400,000 Jan 07 – Mar 09 2 projects, each a maximum of £200,000	H36 – H60
II	Next Generation Technologies and Practice	A community of practice (CoP) running throughout the duration of the programme, initially funded activities to identify user needs. A second phase of larger scale development and implementation pilot projects, based on the work of the CoP, will commence in October 2007 following a second call in August 2007	Phase 1: Mar 07 – Aug 07 Up to 100 members of a community of practice Participants will be reimbursed for their time and expenses associated with the community of practice	H61 – H81
III	Implementations of Personal e-Administration to Support Teachers and Researchers	Implementations of technology and practice to support to support the personal e-administration needs of users	£1,000,000 Mar 07 – Mar 09 Maximum fund of £200,000 per project	H82 – H97

Projects are eligible to bid for more than one call. However, it is requested that each call be addressed in a SEPARATE bid with appropriate references to the adjoining bid(s), identifying where there would be economies of scale and added value from addressing more than one call or strand of call.

This appendix must be read in conjunction with the main body of JISC Circular 4/06 which can be found at:
http://www.jisc.ac.uk/funding_circular04_06.html

¹ <http://www.jisc.ac.uk/capital.html>

H2. JISC invites proposals to implement technologies and practices that support the vision and aims of the programme² from individual organisations or partnerships that meet the eligibility criteria detailed in the main circular. Projects are expected to start in March 2007 and to finish no later than 31 March 2009, however the two Support Projects will need to commence in early January 2007.

H3. Total funding of £3.4 million is available for work under these calls.

H4. This appendix to the main circular is structured as follows:

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Background to the Call

H5. The Users and Innovation programme will use new technologies and approaches to enhance the practice of individuals in institutions in a variety of roles including learners, teachers and researchers. The programme will do this in two ways:

- a) Providing the opportunity to innovate and pilot new technologies in a range of institutional settings.
- b) Taking an innovative approach to developing programmes. Here the Users and Innovation programme will be working with a community of practice, brought together to focus on software design and development based on the needs of users.

² http://www.jisc.ac.uk/capital_user.html

H6. The programme will further JISC's strategic aims by offering models that promote innovation within institutions and support institutional ICT planning, whilst reflecting the needs of individual users engaged in education, research and administration.

Aims and Outcomes of the Users and Innovation Programme

H7. The programme represents a three-year investment in technology and practice development that aims to bring together stakeholder experiences from across the higher education (HE) and higher in further education (FE) sectors in order to identify common requirements and processes that support education and research activities, especially where they directly affect the quality of users' interactions with e-systems.

H8. The outcomes of the Users and Innovation programme will include:

- The development and piloting of software tools and integration platforms for learners, teachers and researchers based on user needs and experiences within real institutional and extra-institutional contexts;
- The enrichment of the e-Framework for Education and Research,³ to assist in the development of inter-tool interoperability and integration platforms;
- A sustainable community of developers and practitioners that supports the development of practice and technology using service-oriented approaches in a rapid and agile way;
- The provision of advice to institutions and individuals, based on experience synthesised from a variety of programme activities and an evaluation of its development approach, enabling more efficient sector-wide adoption of next generation technologies and practices, whilst supporting institutional loci of control in key business areas.

General information Relating to All Strands and Projects

Next Generation, Emergent Technologies – Web 2.0 and Social Software

H9. As well as piloting new approaches to programme design and development models, the Users and Innovation programme has a remit for exploring emergent technologies. For the purposes of this circular these are defined as those technologies that are synonymous with the terms *Web 2.0* and *social software*, and *ubiquitous* or *pervasive computing* through the use of diverse delivery platforms, such as those available to mobile devices. More information can be found on the programme blog.⁴

H10. For guidance, the Users and Innovation programme team considers the following as a series of characteristics identifying these technologies:

- **The web as a platform**, this allows an application to be delivered and used through a web browser; examples may include tools such as online word processors or spreadsheets;
- **Things that think**, e.g. embedding computers into the education or research environment through the use of commonplace mobile and/or entertainment devices, rather than requiring interaction with distinct computing objects – enabling people to interact with the technology naturally and casually wherever they are;
- **An architecture of participation**, i.e. the system has been designed to encourage and support users in contributing to it; an example is the application of wiki software being used for the generation of collaborative documents;

³ www.e-framework.org

⁴ www.jisc.ac.uk/cs/blogs/ui

- **Data consumption and remixing from other sources**, particularly user-generated data; often these are referred to as *mash-ups*,⁵ where content is often sourced from third parties via an API (Application Programming Interface). There are currently a plethora of mash-ups to be found on the web utilising for example, local directory listings, web-based mapping software, and photographic libraries to generate reviews of events or places;
- **A rich, interactive, user-friendly interface**, where the needs and perspective of the individual user are a priority;
- **Elements of social networking**, whilst not necessarily a requisite, the social elements of these technologies are important in generating the engagement and user data.

H11. Bidders are encouraged to read the programme blog for further information and clarification.

e-Framework for Education and Research

H12. The e-Framework for Education and Research is an international initiative, by JISC and Australia's Department of Education, Science and Training (DEST), to explore the potential benefits of applying a service-oriented approach to the provision of ICT infrastructure for education and research, and where successful to support its broader adoption by institutions and their suppliers (see e-Framework Overview Briefing⁶).

H13. Its main provision is an evolving knowledge base, presented as the e-Framework web site,⁷ containing information and links to further information on services and their effective use. There is thus technical information about open service standards covering pre-specification prototypes, specifications and standards under development, those being implemented and those in general use. There is also information about the usage of services, the domains and context of use, the human level, tasks and processes being supported, scenarios and case studies of how humans make use of service-based applications to accomplish these and technical information about the ways in which the services were brought together (see e-Framework DP and SM Briefing⁸).

H14. These two aspects interact and are expected to evolve as it becomes clear which areas benefit most from a service-oriented approach, and which less. Also commonalities across tasks will refine the services that support them and the provision of services will enable more flexible implementations that allow new practices and processes to evolve.

H15. Projects are expected to work within the e-Framework by making use of its available information and by contributing to its further development, with the emphasis on the latter in the early stages. How this happens will depend on the nature of the project.

H16. Where projects carry out technical development, this should be done within the service-oriented approach of the e-Framework and, where possible, should expose and consume functionality via Web Services (SOAP or REST). However, other technical approaches are permissible, where appropriate, e.g. where existing standards are already in use (such as Z39.50), or where Web services do not yet meet performance or functional needs (such as for secure transactions) (see Web Services and SOA Briefing⁹).

H17. Other projects that will not be providing services themselves are encouraged to use web service-enabled tools and applications within their own environment. All projects should be able to contribute to the knowledge base that the e-Framework is developing. This can include domain, practice and process models, scenarios and use cases, and

⁵ www.jisc.ac.uk/cs/blogs/ui

⁶ *e-Framework and SOA Briefing* http://www.jisc.ac.uk/circular04_06_briefing_papers

⁷ <http://www.e-framework.org>

⁸ *e-Framework DP and SM Briefing* http://www.jisc.ac.uk/circular04_06_briefing_papers

⁹ *e-Framework Web Services and SOA Briefing* http://www.jisc.ac.uk/circular04_06_briefing_papers

good practice guidelines on the internal and cross-institutional implementation of the technology, as well as information about the service definitions they have used or developed.

- H18. At the interface between users and services there is emerging a thinner, but more flexible and capable, technical user environment layer. This is taking two forms: the continued development of portal technology and the so called rich client platform. Both of these provide a capable plug-in software framework that can take much of the work out of developing the user interface, allowing concentration on the coordinating functionality of the tool or application (see Service Oriented Application Integration Layer Briefing¹⁰).
- H19. The goal is to record both relevant project outputs and outcomes, in order to support those seeking to implement a service-oriented approach. By sharing developments and experiences internationally, we hope to be able to do this more effectively and rapidly than if done alone, and by developing and adopting open standards, establish a wider and more open market enabling costs to be reduced.

Standards

- H20. The programme recognises that emergent technologies lack the maturity of standards of some existing technologies. Interoperability and data transfer are key to the provision of next generation technologies for education and research, and projects are expected to address these issues. Open standards should be used wherever possible, and any deviation from these should be justified in the proposal and alternative interface specifications should be designed with re-use by others in mind. A list of relevant standards is provided in the briefing paper on the e-Framework, which supports this circular. Bidders must also ensure that they request adequate funding for any additional costs that may be incurred by adopting a standards-based approach.
- H21. Projects should demonstrate sound risk management with regard to the adoption of standards for immature emergent technologies and refer to appropriate sources of expertise. Risks can be mitigated by taking a framework approach such that components employing proprietary standards (because of the emergent *Web 2.0* applications) could be swapped out and replaced in the total end-to-end solution by an alternative if the original choice becomes economically or otherwise unviable (eg due to a change in usage policies, access to APIs, application no longer supported by rights holder, etc). Mitigation strategies could include listing alternative applications that could replace the original in the framework solution, developing a replacement tool, etc (with estimates of the cost implications – in terms of finance and time – on the proposed project).

Open Source

- H22. All projects funded under the Users and Innovation programme will be expected to release any software developed under an open source licence. This is because it allows the community to re-use and build upon development activities, which in turn speeds up the development cycle and gives the community a more rapid return on investment. There are also other advantages to the open exchange of outcomes and knowledge, which open source development practices facilitate.
- H23. However, to be able to re-use the software easily it must be of a certain quality and maturity. For example, it must have supporting information, FAQ, installation guides, test data etc to help others use it. The elements that contribute to *software quality* and *project maturity* are outlined in the *Software Quality Assurance (QA) and Open Source Maturity Model (OSMM)* development guidelines.¹¹ The *JISC Open Source Software*

¹⁰ e-Framework Service Oriented Application Integration Layer Briefing

http://www.jisc.ac.uk/circular04_06_briefing_papers

¹¹ *Software Quality Assurance (QA) and Open Source Maturity Model (OSMM)* Development guidelines -

http://www.jisc.ac.uk/uploaded_documents/SQA_OSMM_09.06.doc

*Policy*¹² also give further advice and guidance on approach to open source software development, including information on licensing options. Projects will be expected to follow the recommendations laid out in these guidance documents and these will be the basis of programme-level evaluation activities.

Software Quality Assurance

H24. The Users and Innovation development model supports the development of software tools according to a continuum of software quality, depending on the stage and cycle being addressed at the time. For example:

- Proof of concept or early-stage development of the technologies ‘in the lab’ are acceptable during stages 1 and 2;
- Thereafter, pilot prototypes demonstrating applicability ‘outside the lab’ should constitute something that external users (within a community of practice) can play with them even if they are not production-ready and/or can only cope with small-scale implementations (stages 2 and 3). At this stage, the tool should be something that is able adequately to demonstrate that it is worthwhile to move towards the final stage; namely;
- Production service (full implementation) is where the tool starts looking toward the business models needed for longer term sustainability and wider take-up.

Submission Information

Eligibility

H25. Eligibility to participate in this programme is set out in the main text of the circular.

H26. Bidders under this programme should ensure that their bids:

- a) Address the strategic aims of the Users and Innovation programme and fall within the specified scope of the relevant strand of activity;
- b) Conduct activities according to the various stages of the Users and Innovation development model (see relevant briefing paper) and produce the deliverables and outcomes accordingly;
- c) Work within a service-oriented approach and be compliant with the e-Framework for Education and Research;
- d) Use open standards where appropriate.

H27. Notes on eligibility criteria for each strand of the programme follow below.

Submission of proposals

H28. Information on the bidding process and the structure and submission of proposals is set out in the main text of the circular. All bidders should complete the cover sheet attached to this call and note the instructions therein.

H29. Bids in response to this call should be sent to uandi-bids@jisc.ac.uk, with the Call/Strand number (i.e. I, II or III) and name of the lead institution in the subject line. If more than one bid is submitted by an institution, these must be submitted in separate messages.

H30. Bids under the Personal e-Administration strand, and those under the Next Generation strand concerning the application of a particular technological solution to an identified problem, should provide information about technologies that are to be used (including a brief description, location of the source code/executables and a statement on the licence where appropriate). If proprietary tools are to be used, then a rationale should be supplied within the text of the proposal to allow markers to assess their suitability.

¹² JISC Open Source Software Policy http://www.jisc.ac.uk/about_opensourcepolicy.html

H31. Bidders should indicate strategies they would propose to take to sustain technical project outputs beyond the end of Users and Innovation programme funding. Further information can be found in the main circular.

Programme management

H32. The Users and Innovation programme will be piloting new technologies and approaches both as an inherent part of the funded work and as a means of programme management. Examples of current practice employed under this strand include the use of social networking software for relationship management, social bookmarking tools for the sharing of resources, podcasts for the provision of presentations, and social goal-setting tools for progress management of aims and objectives. Participation in the programme requires the use and exploration of these and other technologies to assist in programme management.

Users and Innovation Development Model

H33. User involvement has been identified by the Standish Group as the single highest factor in software projects that deliver on time and within budget.¹³ The Users and Innovation programme uses a development model designed to increase the level of user engagement to ensure that the innovative development of technology is integrated with corresponding innovation in practices and processes. The aim is to ensure that technology is used effectively and efficiently in the support of user and institutional goals.

H34. Bidders should refer to the relevant briefing paper for detail about the phases, stages and activities described by the Users and Innovation development model.¹⁴

Programme Strands and Calls

H35. There are three strands of activity within the Users and Innovation programme: each has a call for proposals/expressions of interest as follows.

Call I – User and Innovation Support Projects Strand

H36. Proposal for support projects are invited under this call. There is £400,000 funding available under this strand. Support Projects will run from January 2007 to March 2009.

H37. It is anticipated that two initial support projects will be funded to support the Users and Innovation programme. These can be broadly categorised as follows:

- a) Support for community of practice and online activities;
- b) Support for Users and Innovation development model.

Bidders wishing to apply to run both a) and b) support projects must submit separate proposals, highlighting in each proposal the economies of scale and the benefits of combining the projects.

H38. In order to assist bidders in preparing a bid, a competency matrix as been developed below; this suggests a series of key competencies that should be considered for each of the projects.

¹³ www.standishgroup.com/sample_research/chaos_1994_1.php

¹⁴ Users and Innovation Development Model Briefing Paper http://www.iisc.ac.uk/circular04_06_briefing_papers

Table 1: Competency Matrix

Competency		Project 1. Support for Community of Practice and Online Activity	Project 2. Support for Users and Innovation Development Model
Ethnography and experience in user needs analysis	<p>Bidders should provide evidence of their work and the methodologies they have employed; the programme is especially keen to see evidence in the following areas:</p> <ul style="list-style-type: none"> • Direct, first-hand observation and analysis of behaviour • Conversational/interview techniques with different levels of formality leading to discovery • In-depth interviewing • Longitudinal approaches that lead to the discovery of local beliefs and perceptions 	✓	✓
Domain mapping expertise	Domain maps are an integral part of JISC work in supporting the e-framework. ¹⁵	✓	✓
Experience and expertise in the Managing Successful Programmes methodology	JISC is adapting and adopting the Managing Successful Programmes (MSP) methodology (see http://www.ogc.gov.uk/guidance_managing_successful_projects.asp) to manage its development activities. However, this process is regularly reviewed and contextualised to reflect the collegiate way in which JISC operates. We are therefore seeking to support the Users and Innovation programme team in applying MSP to programmes and, where necessary, to work with stakeholders in understanding the MSP approach. Bidders are encouraged to discuss this element of their proposal with the Programme Manager.	✓	
Educational journalism and blogging	Effective communication and sharing intelligence between programmes and projects is essential. To support the programme management team in communicating with projects and other stakeholders, the Users and Innovation programme team are looking for bidders with experience of writing in a journalistic style that will suit blogs and other similar media on a diverse range of subjects relating to education and technology.	✓	✓
Online facilitation	The Users and Innovation programme will require that project teams work within an online environment. Bidders should demonstrate appropriate experience to facilitate online seminars and discussions (both synchronously and asynchronously) with project teams and have the ability to stimulate debate and discussion. Bidders should	✓	✓

¹⁵ www.e-framework.org-framework.org

	provide evidence of both their capability in online facilitation and of their knowledge in education and technology.		
Expertise in software development methodologies	Bidders should demonstrate the capacity to engage experts in software development at the required stages of the Users and Innovation development model. These developers may act as mentors through that stage of the model.		✓
Expertise and experience in scenario planning	<p>The Users and Innovation development model will employ the use of scenario planning techniques, based around a toolkit to be developed by consultants supporting the programme team. Bidders should demonstrate:</p> <ul style="list-style-type: none"> • A sound knowledge of applying and developing scenario planning methodologies, particularly with a view to yielding intelligence on user requirements • Expertise in developing and preparing effective scenario-planning workshops • Expert knowledge and understanding of education, research and technology and how that can be used in scenario planning <p>Bidders are encouraged to discuss this element of their proposal with the Programme Manager.</p>	✓	
Workshop facilitation	<p>To support programme participants we expect support projects to implement a series of workshops and events that will support development activities. All bidders should provide evidence that demonstrates:</p> <ul style="list-style-type: none"> • Sound knowledge of staff and educational development principles for working with academic staff • Experience in delivering workshops with distinct objectives that may contribute to a wider programme • A scholarly approach to their work in this area, for example their use of evaluation and reflection in their own practice • Experience in the delivery of a breadth of workshop formats, which have been delivered to support staff in Higher Education 	✓	
Current themes include the following:	Creativity	✓	✓
	Evaluation and reflection	✓	✓
	Inclusion	✓	✓
	Legal and IPR		✓

H39. Where bidders are proposing to meet competency requirements through the use of consultants, their contribution to the overall provision of support (and hence their anticipated share of the work) should not represent the majority component of the bid.

- H40. The absence of a competency in the proposal does not exclude the proposal from consideration. However, the bidder must indicate the process and timescale that will be employed in order to support the project with that competency.
- H41. Successful bidders will have demonstrated their competencies and named potential contributors to their project in order to fill those competencies.
- H42. The competency matrix should be used as a guide, and is not exhaustive as to what support the programme may require. The successful projects will demonstrate their flexibility in being able to adapt to the programme needs.
- H43. To assist in programme management a single point of contact should be proposed by the bidder.
- H44. Attention is drawn to paragraph H32, where guidance is given on communications for programme management.
- H45. Successful bidders will demonstrate that they can demonstrate their competencies to teams of individuals working on projects and support them in using such techniques themselves to yield the outputs that may influence their project decisions.
- H46. Levels of activity within the programme will be irregular; key points can be discerned from the User and Innovation development model briefing paper Figure 2, *Phases and Transition*.¹⁶
- H47. Support requirements for each project have been clustered around two distinct areas in the expectation that bidders will wish to concentrate on one or the other. However, this approach should not discourage bidders that can evidence wide competency coverage and propose comprehensive workplans with the intention of delivering against the requirements for both support projects in one, leveraging economies of scale to provide a single service that provides a coordinated approach to support management and demonstrates good value for money.
- H48. Bids will be evaluated using the standard JISC bidding and evaluation procedure. All bidders are encouraged to discuss their proposals with the Programme Manager.

Project 1 – Community of Practice and Online Activity Support

- H49. A maximum of £200,000 funding is available for this project.
- H50. This project will support the foundation of the community of practice (CoP), which is being funded under Call II, through overseeing the process to develop the community of practice and through other events and online activities. The nature of these projects will mean that higher levels of activity will be required from the project commencement to oversee the appointment of participants and then support them through Phase 1 of the Users and Innovation development model in the Next Generation technologies and practice strand. Managing the process for appointing the participants, in conjunction with JISC's Users and Innovation Working Group and Programme team, will be the first priority for the Support Project in January/February 2007. In addition, support will be needed for projects under the Personal e-Administration strand, which will be at different stages on the development model cycle. During the later stages of the programme this project will be performing an online facilitation role that will maintain activity as appropriate to the programme and project needs. As the programme draws to a close it is anticipated that activity will increase as further projects begin concentrating on activities such as synthesising learning, project outputs and disseminating through the community of practice to the wider stakeholder audience, to fully realise the benefits and capitalise on the outcomes yielded through the development work. Bidders should reflect these levels of activity in their budget and timetable outline.
- H51. The project will need to have financial processes in place to administer reimbursements for time and expenses to participants in the community of practice during Phase 1 of the Next Generation strand (up to £200,000 will be assigned to this activity in addition

¹⁶ Users and Innovation Development Model Briefing Paper http://www.jisc.ac.uk/circular04_06_briefing_papers

to the £200,000 available to fund the Support Project itself). The bid must be accompanied by evidence that the relevant department within the host institution is willing and capable of supporting this activity.

- H52. The project will provide a virtual environment to support the community of practice with appropriate levels of support and maintenance.
- H53. This project will be required to work closely with Support Project 2, *Support for Users and Innovation Development Model*.¹⁷
- H54. This project should outline strategies for encouraging and maintaining active participation in the online community over the course of the programme by a large number of participants from other programmes and areas of JISC, alongside participants in the Users and Innovation programme.
- H55. The successful submission will have:
- Outlined a series of indicative activities that they will undertake to appoint and facilitate the development the community of practice, in line with the aims and objectives of the programme, using the competencies outlined above;
 - Mapped their proposed indicative activities against the Users and Innovation model stages and phases (Table 1 Users and Innovation Development Model of the Users and Innovation Briefing paper); the focus of the activities should be on realising the deliverables associated with the community activity;
 - Identified key team members and consultants and their competencies to support the project;
 - Confirmed processes for the financial management of the community of practice;
 - Proposed mechanisms for working with the other support project and with the programme management team;
 - Submitted a fully costed project plan and supporting letters form participating institutions.

Project 2 – Users and Innovation Development Model Support

- H56. A maximum of £200,000 funding is available for this project.
- H57. This project will primarily support the development processes of the Users and Innovation development model (see relevant briefing paper), assisting projects and community of practice members in delivering each activity's intended outputs in alignment with the strategic aims of the programme.
- H58. The support project's proposed workplan should align with the model and reference the activities outlined in Table 1 Users and Innovation Development Model of the Users and Innovation Briefing paper (e.g. user needs analysis, paper piloting and support through technical development), relating support activities and competencies that will be brought to bear in order to assist projects and community of practice members to deliver successfully the intended outputs at each stage. Bidders should identify from the model the anticipated levels of support activity required and reflect this in their budget, workplan and timetable outline.
- H59. This project will be required to work closely with Support Project 1, *Community of Practice and Online Activity Support*.
- H60. The successful submission will have:
- Identified key team members and consultants and their competencies to support the project;

¹⁷ Users and Innovation Development Model Briefing Paper http://www.jisc.ac.uk/circular04_06_briefing_papers

- Identified methodologies to support activities and stages during the users and innovation development model;
- Demonstrated an ability to write-up the anticipated outputs from activities to contribute use cases, etc, to domain maps for the e-Framework;
- Proposed mechanisms for working with the other support project and with the programme management team;
- Proposed development activities that will support the deliverables in Table 1: Competency Matrix of the User and Innovation model;
- Submitted a fully costed project plan and supporting letters from participating institutions.

Call II – Implementations of Next Generation Technologies and Practice Strand

- H61. Expressions of interest are invited for participation in the community of practice from individuals or small teams that are based within institutions or consortia of institutions that meet the eligibility criteria, specified in the main text of the circular.
- H62. The expressions of interest received will be reviewed by the Community of Practice and Online Activity Support Project in conjunction with JISC's Users and Innovations Working Group and Programme team in January or early February 2006 and a shortlist drawn up.
- H63. The community of practice will comprise a maximum of 100 members and will focus on an approach to the development and design of technology and practice based on user needs and engagement.
- H64. The activities undertaken by the community will enable participants to employ a range of methodologies from paper piloting through into technical development.
- H65. There is up to £2,000,000 funding available under this strand.
- H66. This strand is split into two phases:
- Phase 1 Community of Practice will run from March 2007 to August 2007
 - Phase 2 Developing Technologies and Implementing and Piloting Potential Solutions will run from October 2007 to March 2009
- H67. The time and expenses of those involved in the community of practice from March - August 2007 will be reimbursed. Remuneration will depend on the nature and extent of the involvement and will be negotiated following the evaluation process. Up to £1,800,000 is available for Phase 2 Developing Technologies and Implementing and Piloting Potential Solutions with a maximum funding of £200,000 per project. It is envisaged that a call for this phase will be issued in August 2007.

Background

- H68. In addition to the focus on emergent technologies, this strand will be piloting a development model based on a community approach to user engagement, problem definition and solution discovery. The model aims to facilitate the development of a community that is able to analyse user needs, generate ideas, determine gaps in technology provision, support rapid and agile development and undertake piloting and testing – all supported by a user group made up of peers and clusters of support projects able to give critical feedback within the framework of the programme.
- H69. The Next Generation strand provides a scholarly and practical approach to exploring the application of emergent technologies and innovative practices, providing an opportunity for institutions to look at wider implementation issues around technical infrastructure, accessibility and legal issues (such as Intellectual Property Rights, Legal and Data Protection). The strand examines how next-generation technologies and practices that have been collectively referred to under the headings of *Web 2.0* and *social software*, and *ubiquitous* or *pervasive computing* (see paragraphs H9-H11) can provide new opportunities to meet the increasingly diverse needs of institutions and individual users.

- H70. A strand dedicated to the investigation and application of next generation technologies and practices across teaching, learning and research is, by its very nature, cross-domain in focus (taking in problem spaces that traditionally inhabit education and research themes). For that reason, no specific suggested applications of technologies are given here. Those submitting expressions of interest are advised to propose areas of work which align with the strategic aims of the programme¹⁸ and encouraged to consider their rationale for participation in the context of the application of emergent technologies that benefit education and research practices broadly (i.e. those not restricted to a unique local need that would fail to resonate with a wider community of practice).
- H71. Through its development model, the Users and Innovation programme is piloting new approaches to development cycles. The community of practice supporting Phase 1 activity is based on the Ideas Factory¹⁹ approach developed at the Engineering and Physical Sciences Research Council (EPSRC), where a broad range of participants are brought together with a facilitator to 'brainstorm' their ideas. The Next Generation community of practice will take this approach and extend it in terms of both reach and richness of engagement, and timeframes, making use of face-to-face opportunities for communication via new technologies and environments.

Phase 1 – Community of Practice

- H72. To apply to become a member of the Users and Innovation community of practice and participate in Phase 1 of the development model process (see relevant briefing paper²⁰), applicants must submit the following:
- a) **Cover Sheet** – All expressions of interest must include a completed cover sheet. This can be found at the end of this appendix. The completed cover sheet will not count towards the page limit.
 - b) **FOI Tick List** – All proposals must include a form indicating which sections of the bid you would like JISC to consider withholding in response to a freedom of information request. This can be found in Appendix A. The FOI form will not count towards the page limit.
 - c) **Role(s) and Area(s) of Expertise** – This section should be used by individuals/teams to outline the areas in which they feel they would be best placed to contribute in the context of the Users and Innovation community of practice activities (see the development model briefing paper). Applicants should refer to the programme vision at http://www.jisc.ac.uk/capital_user.html and may include CVs to provide evidence of expertise and experience in role as appropriate. Detailed CVs should be attached as annexes to the expression of interest and will not count towards the page limit.
 - d) **Initial Idea(s) and Rationale** – This section forms the main part of the expression of interest and should outline a broad project idea that you may have in mind, including scenario(s) to illustrate how/where/why the problem arises, how your idea will effect change, how your institution can provide a fitting testbed context etc, as appropriate.

As this will feed into the cycle of activities in the Users and Innovation development model this should take the form of:

- A description of a problem area you are familiar with that would benefit from next-generation technology; and/or
- An idea for the innovative application of such technology to facilitate a step-change in quality or quantitative capacity to undertake some aspect of education or research activity; and/or

¹⁸ www.jisc.ac.uk/capital_user.html

¹⁹ www.epsrc.ac.uk/ResearchFunding/Programmes/Cross-EPSRCActivities/IDEASFactory/default.htm

²⁰ Users and Innovation Development Model Briefing Paper http://www.jisc.ac.uk/circular04_06_briefing_papers

- An offer from your institution/consortium to provide resources to become an early adopter testbed for such a technology advance in order to help pilot any developments and assist their progression towards wider take-up readiness (CRAIG – do we need this bullet point at this stage; I think we should delete as it's linked to Phase 2?)
- A rationale of how each idea aligns with the programme vision and the JISC strategy.

Please note it is JISC's intention that all ideas submitted by successful applicants to the community of practice will be discussed openly within the community with the aim of members, who may – during the course of Phase 1 – form new or join existing consortia, assisting each other in working up (some of) the initial proposals in more detail based on the evidence collected during this first phase of development.

- e) **Supporting Letter(s)** – A copy of the letter(s) of support from a senior representative of the institution and any partners. The supporting letter(s) will not count towards the page limit.

H73. Parts c) and d) above are the key sections of a community of practice application. Expressions of interest will be evaluated according to the following criteria:

- **Relevant knowledge and experience** – relevant knowledge and experience of the UK education sector, and new and emerging technologies and practices (30%);
- **Evidence of relevant skills** – evidence of the relevant skills, knowledge and expertise to participate in a collaborative community of practice, including the ability to work in teams and with other community members (35%);
- **Contribution to the programme's strategic aims** – how the idea maps against the programme outcomes and vision, including evidence to support the feasibility of the idea and the rationale for using the technology in context (35%).

Please note that the time and expenses of those involved in the community of practice from March – October 2007 will be reimbursed. Remuneration will depend on the nature and extent of the involvement and will be negotiated following the evaluation process. No budgetary information is required for an expression of interest.

H74. It is anticipated that a large number of institutions should be represented in the community of practice and potential participants should consider discussing their expression of interest with colleagues. The programme team/evaluation panel may suggest that individuals from the same institution form small teams where appropriate.

H75. With the assistance of the Users and Innovation support project(s), and as part of the activity within stages 1 and 2 of the Users and Innovation development model, a six-month series of activities will help participants identify issues and problem spaces that JISC projects could address under the programme vision. Support will be given in areas such as user needs analysis, paper piloting and evaluation of the results in order to assist the community of practice identify and articulate issues, problem spaces and gaps in technology provision based on real user needs.

H76. Participants will be expected to share these results and explore the issues raised within the framework of the model with all members of the community of practice. This process is expected to lead to bids being drawn up by participants, based on those project ideas considered viable by the community, for consideration by the evaluation panel for further funding to undertake technology development and pilot implementations during a second phase (to commence in October 2007).

H77. Participant teams in the community of practice can choose to work together with other teams, or work separately. It is not the intention that the community will operate as a whole, rather that members will benefit from engagement with other teams at timely points in the development cycle to help pilot their ideas, and that new collaborations of

teams will form that may choose to form a consortium when bidding for implementation funding.

- H78. During the development of ideas and concepts all applicants should document the deliverables laid out within the Users and Innovation development model as evidence to support the rationale for a Next Generation strand Phase 2, or any other future, project proposal they may wish to submit to JISC in this area.

Phase 2 – Developing Technologies and Implementing and Piloting Potential Solutions

- H79. Phase 2 is concerned with developing technologies and implementing and piloting potential solutions, as identified by the community of practice. It is envisaged that around nine projects will be funded, up to a maximum of £200,000 per project, commencing in October 2007 and running until the end of March 2009. It is anticipated that projects will vary in length, but pilot implementations should last for no less than nine months.
- H80. The community of practice will continue throughout this second phase to assist in further iterations through the development model cycles and provide valuable feedback at appropriate times and all original members will be encouraged to remain engaged.

Call III – Implementations of Personal e-Administration to Support Teachers and Researchers Strand

- H81. Proposals are invited under this call for projects to develop and pilot implementations of technologies and practices that alleviate the administrative overhead of teachers and researchers.
- H82. There is £1,000,000 funding available under this strand with a maximum funding of £200,000 for each project.
- H83. Projects will run from March 2007 to March 2009.
- H84. Whilst bidders are encouraged to explore the potential to exploit existing software tools, or to deploy them following a minimal amount of additional development, they should reflect the need to maximise time available for pilot implementations in their bid. Projects will also be expected to maintain a development capability that will allow rapid response to user feedback and deploy subsequent updates in a way that maps onto the Users and Innovation development model.
- H85. It is anticipated that projects will vary in length depending on existing development activities and the extent of their user engagement during their pilot implementation stages; however, pilot implementations should last for no less than one year.
- H86. Bids under this strand should demonstrate that they have engaged in the activities outlined under Stages 1 and 2 of the Users and Innovation development model (e.g. observation, user needs analysis, paper piloting, etc – see relevant briefing paper). In addition to the viability of their proposed solution for development and implementation, bids will be evaluated on the evidence they provided to demonstrate successful execution of these previous activities (principally to assess the project's real user need). In addition, bidders are required to submit a fully costed project plan and supporting letters from participating institutions. These elements will be evaluated using the standard JISC bidding and evaluation procedure.
- H87. Successful projects under this strand will be expected to participate fully in the community of practice activities for Stage 3 of the Users and Innovation development model.
- H88. Personal e-Administration, for the purpose of this call, can be defined as the application of both new and mature technologies to ease administrative and management overheads of practitioners in learning, teaching and research whilst remaining cognisant of wider institutional issues.
- H89. A key characteristic of Personal e-Administration technologies is that they inhabit and/or directly affect the individual's operating environment, whilst interacting, integrating and impacting on institutional systems. It is therefore essential that solutions proposed as Personal e-Administration projects acknowledge and seek to join up with

existing JISC e-Administration activities²¹ and integrate effectively with wider institutional administrative systems and processes.

- H90. Project proposals are sought that are informed by the user needs; this may be through past JISC development work or other sources, as well as engaging with emerging issues
- H91. It is envisaged that work in this strand may investigate a range of 'problem space' areas of e-Administration, including – but not limited to – the following:
- Institutional administration systems that support learners both academically and in their pastoral care, to identify potential risks to retention and progression
 - Improved links between research and learning environments, via, for example, the use of common web services
 - Agile management of education and research groups by individual practitioners, such as the ability to tailor and schedule events and other interactions
 - Integration of individuals' research, teaching and management experiences into Continued Professional Development (CPD) portfolios that can be repurposed for use in a variety of situations, for example professional society accreditation, annual reviews, career management, project/research submissions, data collection for the Research Assessment Exercise (RAE), etc
- H92. Bidders are advised to use these as a guide and are encouraged to propose other areas of work that align with the strategic aims of the programme.
- H93. Bidding under the Personal e-Administration strand does not preclude the use of next-generation software tools. However, bids under this strand proposing to employ such technologies should reflect the need to integrate with institutionally-focused e-Administration and other legacy systems in order to contribute to an end-to-end user service.
- H94. JISC acknowledges that a wide range of technologies and established practices already exist in the area of e-Administration. However, there is a perceived requirement for tools to be further developed to improve the efficiency and quality of 'personal administrative functions'.
- H95. Projects should reference other JISC activities, past and current, to demonstrate awareness of the context in which their proposal plays in relation to other e-Administration work (eg within the e-Learning and Digital Repositories programmes), to highlight potential areas of join-up, commonality of approach, re-use, and transferability of solution across different contexts.
- H96. As e-Administration is a more mature area than that targeted by the Next Generation strand, it is expected that potential bidders for this strand will already have engaged in user needs analysis and paper piloting. This strand allows bidders to submit proposals for projects that, whilst still engaging with the community of practice and the support projects, will begin development and implementation work at the equivalent stage to Phase 2 of the Users and Innovation development model, provided that the submission can provide evidence of the equivalent of Phase 1 activity, as defined in the model.

Further Information

- H97. All general enquiries regarding this appendix should be sent to Lawrie Phipps (tel: 07775 900635, email: l.phipps@jisc.ac.uk).

**JISC Executive
September 2006**

²¹ http://www.jisc.ac.uk/programme_icalt.html

Users and Innovation Cover Sheet

Cover Sheet for Proposals/Expressions of Interest All appropriate sections must be completed.	JISC Capital Programme
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Name of Capital Programme: Users and Innovation: Personalising Technologies	
Name of Area Bidding/Submitting Interest For (tick one):	
Call I a) : Users and Innovation Support Project(s) Project 1 : Support for community of practice and online activities	
Call I b): Users and Innovation Support Project(s) Project 2 : Support for Users and Innovation development model	
Call II: Next Generation Technologies and Practice Phase 1 Expression of Interest	
Call III: Implementations of Personal e-Administration to Support Teachers and Researchers	
Name of Lead Institution:	
Name of Proposed Idea (Call II) / Name of Proposed Project (Call III):	
Name(s) of Individual/Team (Call II) / Name(s) Project Partner(s) (Call III):	
Full Contact Details for Primary Contact:	
Name: Position: Email: Address: Tel: Fax:	
Length of Project:	
Project Start Date:	Project End Date:
8. Total Funding Requested from JISC:	

JISC Funding Broken Down over Financial Years (April – March):			
Apr06 – Mar07	Apr07 – Mar08	Apr08 – Mar09	
Total Institutional Contributions:			
Percentage Contributions over the Life of the Project:	JISC	PARTNERS	
Outline Project Description			
I have looked at the example FOI form at Appendix A and included an FOI form in the attached bid (Tick Box)	YES	NO	
I have read the Circular and associated Terms and Conditions of Grant at Appendix B (Tick Box)	YES	NO	