

Note of the JISC Town Meeting on ‘Developing Virtual Research Environments’, held on Monday 19 July 2004 at UniversitiesUK, Woburn House, 20 Tavistock Square, London, WC1H 9HQ

The meeting was attended by around 80 delegates from some 40 organisations, including HEIs, research council sites, and the private sector.

Dr Alan Robiette (JISC Executive) opened the meeting by introducing his fellow speakers, Professor David de Roure, University of Southampton and a member of the JCSR and Joseph Hutcheon, Secretary of JCSR.

Professor de Roure began by explaining the role and remit of the JCSR. The JCSR did not fund research as such, this being the responsibility of the research councils, but it had a role in providing the supporting infrastructure to enable researchers across all disciplines to work more effectively. The committee was funding a number of programmes with this broad aim.

The funds for the Virtual Research Environment (VRE) programme had been allocated to JISC by HECFE. The funds came from the Comprehensive Spending Review (CSR) and, as such, were time-limited and with no recurrent funding attached.

In order to gauge the community’s views on the best way forward for the programme, JCSR had organised two consultative workshops, in Edinburgh and Warwick. A report on the outcomes of the workshops was available on the JISC website at http://www.jisc.ac.uk/index.cfm?name=event_report_eresearch

JCSR had established a VRE Working Group, chaired by Dr David Boyd, to take forward the recommendations of the workshops and shape the VRE programme. The Working Group had developed a VRE Roadmap, which identified some of the possible tools and frameworks that might be used to build VREs. The Roadmap is available at http://www.jisc.ac.uk/index.cfm?name=programme_vre

It was clear from the workshops that no single VRE solution existed, but there was general agreement that VRE work should link to JISC’s work on virtual learning environments (VLEs), managed learning environments (MLEs) and digital libraries.

There was also synergy between the e-Science Programme and the VRE. E-science addresses research into the support of research, whilst VRE is focused on investigating the development and deployment of an e-research infrastructure. There was an important opportunity here for feed-through from e-science to VRE.

Dr Robiette then provided further detail on the background to the call. The CSR funds had been allocated on a nominal timescale of 1 April 2004 to 31 March 2006, but it was likely that the funding profile could be extended into 2007, provided the funds were committed to projects in advance.

There was little by way of a formal brief from HEFCE for developing VREs; the broad requirement was to 'develop tools for collaborative e-research.' VREs would provide support for the processes of research; would be built on interoperable tools; and would be inclusive, supporting researchers in all disciplines and in both large and small teams. It was essential that VREs addressed the needs of research communities that in general were less aware of advanced ICT.

There were several other drivers towards VREs. The Grid community had for several years been exploring the collaborative use of shared resources; there had been a number of studies into the lifecycle of scholarly communications; there was an increased demand for collaboration tools, e.g. to share diaries and file systems.

There were two possible ways of building VREs; top-down, building a framework based on open standards using service-oriented architectures, and then integrating existing services and tools thus ensuring compatibility with existing projects. The bottom-up approach would involve deploying user-accessible tools; extending personalised environments to a collaborative environment.

Examples of the top-down approach were OGCE, an NSF-funded Grid portal environment, and SAKAI, an institutional environment project partly funded by the Mellon Foundation. The former project employed a service-oriented architecture based on web services: the latter was a Java-based architecture using the OKI interfaces between components, and was more of a VLE than a VRE. SAKAI were not planning to adopt web services for the time being because they considered web services standards as being insufficiently stable on the timescales which their project required.

The bottom-up approach was more speculative. It might involve building or deploying collaborative tools to help lone researchers or those in small groups. Examples of such tools included Chandler, software to support personal information management and peer-to-peer sharing of information, and Lionshare, a hybrid peer-to-peer/corporate file-sharing application. There might be other tools under development which could be tested in defined user communities, and the evaluation panel would be open to such innovative proposals.

The final strand of the programme would be a formative evaluation project. This project would have a brief to ensure knowledge transfer between projects, to track user experiences, and to carry out evaluations of user impact and to help shape the future direction of VRE work.

Joseph Hutcheon then outlined the procedure for making bids and the process by which bids would be evaluated.

It was essential that bids demonstrate the benefit of a project to the wider community; funds would not be awarded where the main, or only beneficiary appeared to be the host institution.

As the CSR funds allocated were from HEFCE, funds could only be awarded to higher education institutions in England. However, project partners could be from institutions outside

England, including overseas institutions, as well as private sector bodies. All funds would be paid to the lead site, which would be responsible for managing relationships with project partners.

The deadline for receipt of bids of 12 noon on 13 August was absolute; late or faxed bids would not be accepted. It was the responsibility of the bidder to ensure that bids reached the JISC Executive by the deadline; experience showed that it was unwise to assume that an item sent by first class post would reach its destination by the following working day.

An Evaluation Panel had already been established. Each bid would be evaluated by three markers, and a Panel meeting would be held to select the bids for funding. It was hoped that bidders would be informed of the outcome by mid-September. Some negotiation might be needed with successful bidders before formal funding letters were issued.

Bidders seeking advice should contact Nicole Harris in the JISC London office in the first instance.

Question and Answer session

Q. The VRE call focused on using ICT to support research; would this entirely replace the use of physical resources?

A. No; researchers would continue to use physical resources. The aim was to provide an environment to support all types of research.

Q. Could the panel advise on possible 'templates' for proposals?

A. Bidders should follow the guidelines given in the circular.

Q. What would be the right timescale for projects; 2 to 3 years?

A. Some projects could be of relatively short timescale, say 9 to 18 months, to provide quick deliverables to inform the future direction of the programme. It was possible that by 'front-loading' the programme to some degree, some funds might be available for a supplementary call in perhaps 12 to 18 months' time. Projects should not be over too long a timescale, given the rapid pace of technological developments.

Q. Would projects have to demonstrate benefits to the whole research community?

A. Benefit must be demonstrable to the community beyond the boundaries of an institution; this could however mean to a particular discipline rather than to the entire research community.

Q. What was payable by way of overheads?

A. JISC is bound by HEFCE's rules on this, which do not (as in the case of the research councils) provide a percentage figure for indirect overheads. Direct overheads in terms of staff costs, travel and subsistence, hardware and software can be claimed for. Institutions could identify indirect overheads as an 'institutional contribution' that would add value to a project.

Q. What were the rules regarding sub-contracting?

A. The lead site must be a higher education institution in England. All bids must be accompanied by letters of support from senior management within the institution(s) concerned. Details of sub-contracting arrangements were a matter for the lead site; JISC would not seek to micro-manage projects.

Q. How much budgetary detail was needed?

A. For the initial bid, headline figures would be appropriate; detail could be teased out in negotiations if necessary.

Q. Given the tight timescales, would it not be difficult for consortia to develop robust budgets?

A. The 'headline' budget totals could be agreed, and then be adjusted later. The process of agreeing project plans with successful bidders would allow for reallocation of funds within an agreed total.

Q. Strand iii of the call envisaged 'proof of concept' projects. How critical was the use of open source software in such projects?

A. Although there was no specific requirement to use open source material, the fact that VREs would form part of a large scale, long-term infrastructure meant that as far as possible, software used should be open source. The minimum requirement was that project outputs should be made available free at the point of use within the JISC community.

Q. To what extent should bids seek to support the wider research community?

A. The larger, framework-type proposals should aim to support a wide range of users. It might however be acceptable for smaller-scale bids to be more focused on a particular set of users.

Q. With regard to phase iii 'proof of concept' proposals; was it appropriate to leave bids 'open' with regard to which tools might be used, and for the initial phase of a project to be an evaluation of the tools available?

A. Yes, this would be acceptable.

Q. Could the panel clarify further the difference between the work done under the e-science programme/research councils and the VRE work?

A. The research councils fund research aimed at identifying new knowledge, and developing new paradigms. JISC, on the other hand, funds near-market research and development; looking at technologies which already exist and which might be deployed on a wider front to support the community. JISC also has a remit to raise awareness of innovative ICT within the academic community. There are well known difficulties in capturing user requirements where new technologies are concerned, so projects would have to demonstrate a robust method of prototyping.

Q. What would the evaluation strand project be required to do? Would the existence of such a project discourage other projects from carrying out their own evaluation work?

A. The evaluation strand project would provide a link between the other projects, to aid with knowledge transfer. But individual projects would also be expected to carry out formative evaluation.

Q. In investigating possible linkages between VLEs and VREs would it be acceptable to make connections to an existing project; i.e. to build on a project in the core middleware area?

A. There would be no objection in principle: however there was a clear risk here of double-funding, and it would be necessary for bidders to clearly demonstrate the additional outputs from a VRE project. This might be a case where more detailed budgetary information was needed, to show which funds were supporting which piece of work.

Q. The circular was initially addressed to Heads of IT Services. Did this imply that JISC were unable/unwilling to fund projects from within academic departments?

A. No; JISC was prepared to fund projects within academic departments, provided it could be demonstrated that the work funded was of benefit beyond departmental/institutional boundaries.

Q. Would the JISC be able to help in brokering partnerships?

A. Whilst JISC is willing to help as far as possible in a responsive mode, it might be that giving help to one particular bidder would disadvantage others. Given the number of prospective bidders, it will not be possible for JISC to proactively seek out bidders and identify possible partner organisations. There was also the risk that if an individual became too closely involved in advising an institution or consortium, his or her impartiality might be called into question at the evaluation stage. If bidders asked specific questions, the Executive would advise to the best of their ability.

Q. Would it be appropriate to partner with non-English institutions/private sector organisations?

A. Yes, but the lead site must be an English HE institution. There is also a value for money issue to be considered when partnering with private sector bodies; their daily consultancy rates tend to be high and this might result in a bid scoring low on this evaluation criterion.

Q. Would projects related to support for research management processes be within scope?

A. This is an interesting topic, and one which was raised at the consultation workshops. A project in this area would be of great interest, providing the issues addressed were relevant to a range of institutions; anecdotal evidence suggested that research administration tended to be done very differently in individual institutions.

Q. In strand iii, there is a reference to the needs of 'specific communities'. Should proposals investigate tools that are only applicable to a specific community?

A. JISC is trying to discover what works and what doesn't; it might not be possible to provide support for a highly specialised niche where the wider community could not gain from its deployment. However, if it could be demonstrated that experience gained in prototyping a tool in a specific community would be of value to the wider community, this could qualify for support.

Q. The focus on international collaborations seems to be exclusively with the US; what about the EU, which has recently announced a large funding allocation for collaborative research?

A. There is no intention to focus exclusively on the US; we are aware of the EU's infrastructure projects and also have strong collaborative links with Australia.

Q. I am involved with a group undertaking work-based research; members of the group tend to feel isolated and I am looking to develop tools to provide online support and enable collaboration. Would a bid based around this be in scope?

A. Yes; this sounds like a potential strand iii project.

Q. How seriously does JISC take the issue of accessibility?

A. Accessibility of JISC projects and services is taken very seriously. As members of the audience may know, JISC funds an advisory service on accessibility to ICT, and JISC's projects and services are required to adopt best practice in this respect.

Q. Is it possible to seek funding for staff already in post?

A. There is no objection to this in principle, but it must be made clear in the proposal what proportion of their time will be dedicated to the project.

Q. Who will answer queries regarding proposals?

A. Nicole Harris at the JISC London office should be first point of contact (details are in paragraph 29 of the circular).

Q. In linking the different strands together, how will the role of the Programme Manager differ from that of the evaluation project?

A. The Programme Manager will have a range of duties, including progress chasing, reporting to the JCSR etc. The evaluation project's role will go deeper than this; investigating project impacts, user behaviour and so forth.

Q. How will JISC go about linking the various strands?

A. It is difficult to answer at this early stage. The division into the various strands was not hard and fast; we had a set of questions to be answered and it might be that one project might address more than one of these.

Q. There appear to be a number of sub-projects leading to a VRE. Is it the intention of JISC to ultimately develop a single VRE solution, and how would this be managed?

A. The VRE Working Party and JCSR did consider focusing entirely on a single solution, and concluded that this was not feasible given the present state of understanding of this area. It is not JISC's practice to commission single multi-million pound software development projects, not least because it does not have the structures to manage projects on this scale. It is also JISC's aim to ensure that its funding is shared across a significant range of institutions in order to grow capability within the community as a whole.

In addition to the questions listed above, several individuals offered to help prospective bidders with particular aspects of VRE-related work.