Joint Technology

Using EUREKA best practices to empower industry

The Commission's Seventh Framework Programme (FP7) programme offers a new research tool to support industry-led, large-scale strategic research. The move is planned to address the current fragmentation and duplication in key areas for European competitiveness, to help them corner global markets and retain market share. EUREKA News charts its development, and investigates what it offers in the current landscape of research tools available.

By the end of this year, there should be a new research instrument on the scene. The European Commission, together with industry and public authorities is in the process of creating JTIs, 'Joint Technology Initiatives', using the little known Article 171 of the EU Treaty. The article allows for the creation of a separate legal entity to pool EU, national and private funding sources, including structural funds and the EIB, where appropriate, to jointly pursue an area of industry-driven research which is otherwise too large in scale and scope to fit comfortably into FP7, or any other existing schemes, come to that. Until now, Commission experience of using Article 171 is limited.



Evolution

As with EUREKA, JTI research will be industry-led. Bottom-up research agendas for each JTI will emanate from existing industry-driven European Technology Platforms (ETPs). These are not funded projects from the EU public pot, but the

Commission has been promoting them since 2003. The ETPs work by encouraging companies and other stakeholders to build alliances around a particular area of technology where technology development is of key importance in retaining Europe's market share and staving off competition from new emerging economies such as China, India and Brazil. Not only does the approach of an ETP focus on close-tomarket innovation, but its strength lies in the fact that it also shows where the will to co-operate is strongest. There are 30 such ETPs currently in existence, in areas ranging from nanotechnology and embedded software, to innovative medicines and hydrogen fuel cells. Although led by industry, public sector research organisations and public authorities are also involved in the platforms.

The approach is similar to that of EUREKA Clusters, says Michel Vieillefosse, the Head of the EUREKA Secretariat. However, the scope of EUREKA Clusters differs from that of European Technology Platforms. EUREKA Clusters participate where they find an overlap with their own focus area. For instance, EUREKA Clusters such as ITEA 2 in software intensive systems, and MEDEA+ in microelectronics, are participants in three of the ETPs.

The Strategic Research Agendas identified by the European Technology Platforms were taken into consideration when drawing up priorities for FP7. Over 20 are directly addressed by themes in the new Framework Programme. However, the nature of existing Community instruments can prove inadequate for addressing market failures arising from the high costs and risks associated with long-term, pre-competitive research. The JTIs will specifically address these cases and help the ETPs implement their medium- to longterm objectives for commercialisation. Set up as separate legal entities, the research proposals, their evaluation and selection will be handled by the JTIs themselves.



Funding

Split into six parts, funding for the proposed JTIs from the ETPs ARTEMIS and ENIAC is expected to follow a 3:2:1 funding ratio. Three parts (half) of the total budget for each JTI is expected from the private sector, at least one third from EU member and associated states and one sixth from the Community. A senior official in the cabinet of Janez Potočnik, the EU research commissioner, says 'Each JTI would command several hundred million euro from Community funding over the 2007-2013 period of FP7, otherwise, it's not worth doing.' The total budget of each of these JTI

Initiatives

over this period is estimated to be in the region of 3 billion euros.

Joint Technology Initiatives will also be automatically eligible to draw on the two billion euro risk-sharing finance facility that FP7 is establishing with the European Investment Bank. Framework funding here is being used to increase the EIB capacity to manage risk, allowing loans to projects previously considered too risky to support. It will also allow the bank to offer greater loans to technology projects with moderate risks.

Unlike EUREKA, research partners will not be expected to secure their own national funding. There will be a single entry point for partners and budgets will be pre-defined on a yearly basis by national authorities taking part. Proposals falling out of the scope of the JTI will be appraised for consideration by EUREKA. According to Kees van Mourik, office director of the EUREKA ITEA2 Cluster: 'The single funding and decision process will create a super time reduction in starting the collaborative research.'

Embedded software poised to be first

Pending adoption by the European Council of Ministers, one of the first JTI expected to be launched at the end of this year will stem from the European Technology Platform on embedded software. For the Commission, the JTI will fall under the responsibility of Viviane Reding, the EU commissioner for information society and media. Reding expects that it will command an overall budget in the region of 2.5-3 billion euro, with around 400 million euro of this coming from FP7. Of the 27 EU member states, 14 are pledging their financial support for this JTI at the time of going to press. The Finnish government has already pledged a total of 70 million euro over the initial seven-year period.

The embedded software ETP comprises around 20 European companies including Philips, Nokia, Thales, Daimler Chrysler and BT as well as the EUREKA Clusters ITEA2 and MEDEA+. The industry group working on the JTI management and funding structures would like the evaluation of research proposals to be based on pre-defined criteria and conducted by independent experts, half appointed by industry and half by the participating public authorities, including the Commission.



The industry group, chaired by the vice president of research at Philips, Jan van den Biesen, goes on to propose an open call for proposals for the collaborative research projects, to be based on, and handled by the EUREKA ITEA 2 Cluster, and the inclusion of ITEA 2 and MEDEA+ in the eventual steering board. This has been welcomed by the director of the ITEA2 office, since the office has already the requisite infrastructure and experience.

Although areas of ITEA 2 overlap with the ETP, van Mourik points out that ITEA 2 has a broader remit of software intensive systems and services than the focus of the ETP on embedded software. Van Mourik is not afraid of a cut in funding for areas of ITEA 2 which do not overlap, "I don't think public authorities who currently fund ITEA 2 will focus on just the one," he says.

The next two JTIs being prepared for launch are in the areas of nanotechnologies and aeronautics.

