Establishment of the "ARTEMIS Joint Undertaking" to implement a Joint Technology Initiative in Embedded Computing Systems

2007/0088(CNS) - 15/05/2007 - Legislative proposal

PURPOSE: to set up a Joint Undertaking: “ARTEMIS” on Embedded Computing Systems.

PROPOSED ACT: Council Regulation.

CONTENT: the 7th Framework Programme2007-2013 sets up four Specific Programmes: Co-operation, Ideas, People and Capacities. This proposal relates directly to the Specific Programme Co-operation, Theme “Information and Communication technologies”. The Co-operation programme underlines the need for ambitious pan-European **public private partnerships** to speed up the development of major technologies through large-scale research actions organised at a Community level. Joint Technology Initiatives, or JTIs, help fulfil this need. JTIs are born out of the “European Technology Platforms”, (ETPs), which existed under the previous, 6th Framework Programme. In a small number of cases, ETPs have achieved such an ambitious scale and scope that they now require the mobilisation of greater public and private investments.

Given that the ambition and scope of the JTIs are large they are being proposed in the form of Joint Undertakings with their own legal personality. The development of these new Joint Undertaking will, for the first time, create the legal basis allowing national, EU and private investment to be combined within a coherent framework. JTIs, in the form of Joint Undertakings are being proposed in a limited number of sectors only, including: hydrogen and fuel cells, aeronautics and air transport, medicines, nanoelectronics and global monitoring for environment and security.

Embedded systems, are computers that are used in larger systems to control equipments such as automobiles, home appliances, communication devices, control systems and office machines. More than 90% of computing devices are embedded and forecasts predict that by 2010 more than 16 billion embedded devices will be used and over 40 billion by 2020.

In spite of its economic importance, the EU’s research investment in embedded systems is lagging well behind that of the US and Japan. Furthermore, the EU funding landscape is fragmented and unable to provide a convincing response. The Community Framework Programmes have had made major investments in the past but their budget is severely limited compared to the overall public R&D budget in Europe. The inter-governmental programme Eureka is a valuable mechanism and some national programmes are active in this area. However, all these efforts are scattered and not focused on common objectives.

The purpose of this Regulation, therefore, is the implementation of a Joint Technology Initiative on Embedded Computer Systems through a Joint Undertaking entitled ARTEMIS, or the ARTEMIS JU. It will be based in Brussels and exist for a period ending on 31 December 2017. The financial impact on the EU budget will cease after 2013. It will be jointly funded by the founding members, namely the Community and the ARTEMISIA association with a combined budget of EUR 451 million. The maximum Community contribution will be EUR 420 million paid from the budget appropriations allocated to the Theme “Information and Communication Technologies” of the specific programme “Co-operation”.

In particular, the ARTEMIS JU will seek:

- to define and implement a Research Agenda for the development of key technologies for Embedded Computing Systems across different applications in order to strengthen European competitiveness;

- to support and implement R&D activities by awarding funding to participants in selected projects, following competitive calls for proposals;

- to promote a public-private partnership the purpose of which is to mobilise and pool Community, national and private efforts;

- to increase overall R&D investments in the field of embedded computing systems; and

- to foster collaboration between the public and private sectors.

In short, the ARTEMIS JU will seek to foster collaboration between all stakeholders such as industry, national authorities and academic/research centres with a view to co-ordinating research efforts. More concretely speaking the proposal requires the JTI on Embedded Computer Systems to address the design, development and deployment of ubiquitous, interoperable and cost-effective, powerful, safe and secure electronic software systems. It should be capable of delivering reference designs and architectures that offer common architectural approaches for given ranges of applications, middleware that allows seamless connectivity and interoperability and integrated system design methods and tools for rapid development and prototyping.

In summary, the other measures being proposed are as follows:

- the ARTEMIS JU should be able to organise competitive calls for proposals for Projects to implement parts of the research Agenda;

- the rules for the organisation and operation of the ARTEMIS JU should be laid down in the Statutes, which are attached in Annex to the proposed Regulation;

- the Commission and JU will need to report regularly on progress to the Council and the European Parliament;

- the JU should have a distinct financial regulation based on the principles of the framework financial regulation; and

- the intellectual property policy should promote knowledge creation and exploitation.

In other fields, the proposal seeks to simplify administrative procedures for public authorities and for private parties. Compared to current funding arrangements under Eureka, the proposed new JU will effect significant simplification by:

- removing budgetary uncertainty;

- avoiding evaluation duplication;

- reducing the time and costs involved in preparing R&D proposals; and

- streamlining reporting procedures during project execution. Projects will report only once to the Joint Undertaking instead of reporting to Eureka and to all States providing financing.

The **budgetary assessment** indicates maximum Community expenditure of **EUR 420 million** over the initial period of the ARTEMIS Joint Undertaking (up to 2017), which would need to be committed before 31 December 2013 when the FP7 budget comes to an end. An initial EUR 42.5 million is to be committed in 2008. The ARTEMIS Joint Undertaking should be a body set up by the Communities and discharge for the implementation of its budget should be given by the European Parliament, taking however into account the specificities resulting from the nature of JTIs as public-private partnerships and in particular from the private sector contribution to the budget.