Press Release

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**A call to action to double investment for the benefit of society and industry**

**ITEA ARTEMIS-IA**

**HIGH LEVEL VISION 2030**

**OPPORTUNITIES FOR EUROPE**

**The impact of software innovation on revenue and jobs**

There is a wide consensus that from now to 2030 change and disruption will be permanent features in society, with the way of living and doing business becoming fundamentally different from what it is today. Digital Technology has a major role to play in mastering the changes in Europe. An industry strong in software innovation is a prerequisite for maintaining global competitiveness and in securing high-value jobs in Digital Technology and in other, more traditional industries that are increasingly dependent on Digital Technology. This view was echoed and amplified by the government and industry keynote speakers at the opening of the ARTEMIS & ITEA Co-Summit in Stockholm on 4 December. Daniel Johansson, State Secretary to the Swedish Minister for Enterprise, Energy and Communications, expressed how pleased he was that ARTEMIS and ITEA came not only as enablers but also as part of the solution.

The High Level Vision 2030 document version 2013, the joint result of the industry represented in the ARTEMIS Industry Association and ITEA, coins the term “Digital Technology” to encompass the notions of hardware, software, IT services, internal IT and embedded software. The publication focuses on seven identified areas of major change – “Grand Challenges” and the need for research and innovation in Digital Technology that will produce economic impact in terms of revenues and jobs. The global market of Digital Technology is estimated at USD 3,300 billion, corresponding to around 50 million jobs. The share of Europe in digital technologies is about 9.1 million jobs. Europe’s position is characterised by a strong presence in vertical markets. In Europe there are 0.2 million jobs in hardware, including 0.1 million in semiconductors, and 8.9 million jobs in software and services. Of these, 1.1 million are working in Embedded Systems. Within Digital Technology, ARTEMIS and ITEA are addressing innovation in Software, IT Services, Internal IT and Embedded Software, collectively denoted as ‘Software innovation’. In other words, Software innovation thus addresses a global market of around USD 2,600 billion, corresponding to 44 million jobs.

Both ARTEMIS and ITEA have built innovation eco-systems of closely interacting companies and research organisations. These eco-systems are essential to enable European organisations, including SMEs, to keep up with the fast changing reality in Digital Technology, its increasing complexity and to remain at the forefront of innovation.

The ARTEMIS-IA vision nurtures the ambition to strengthen the European position in Embedded Intelligence and Cyber-Physical Systems. Achievement of world-class leadership in this area is achieved by establishing an environment that supports innovation, stimulates the implementation of the latest achievements of Cyber Physical and Embedded Systems on a European scale, and avoids the fragmentation of investments in R&D&I. As a very conservative estimate, the European applications industry spends more than 20% of its R&D effort in the domain of Embedded Digital Technologies, resulting in a cumulative total R&D&I investment of €150 billion in the period 2013-2020, €15 billion of which is expected to be allocated to collaborative R&D&I projects in Embedded Digital Technologies. A survey among the leading European industrialists in the technical domains reveals that today more than 50% of the key selling features of their products are determined by the built-in Embedded Systems. The trend is increasing towards 70% in 2020.

The importance of EUREKA projects in general is demonstrated by positive results and the manner in which cooperation facilitates such results. Pedro de Sampaio Nunes, Head of EUREKA Secretariat, praised ITEA for showing the way in this respect. The results of ITEA projects are also borne out in econometric evaluations. Extrapolating these results, ITEA 3 will create or maintain 44,400 jobs, generate €11.4 billion additional turnover and generate annual public tax revenue of €266 million. Based on the importance of software innovation and open innovation in general, we see plenty of opportunities to increase the size of the ITEA programme in the coming years. The target domain of ITEA 3, addressing all vertical industries and all categories of Digital Technology, offers plenty of opportunities for high-quality proposals and initiatives focused on “Seizing the high ground”.

The conclusions drawn in **HIGH LEVEL VISION 2030 OPPORTUNITIES FOR EUROPE, the impact of software innovation on revenue and jobs**, can be summarised as:

* For ARTEMIS the R&D investments in Digital Technology by the vertical industries justify and require at least a doubling of the industry and public funding (by the European Commission and Member States) investments in Embedded and Cyber Physical Systems R&D&I.
* The ARTEMIS industry priorities target reinforcing the strength of the EU industries, especially in the domains of commercial and professional technologies (where Europe is still strong), but also
* the recovery of EU industry positions by stronger use of Digital Technologies in all areas.
* For ITEA the high-level ambition of seizing the high ground is a strong argument for doubling the investment in software innovation.
* Finally, an economic impact analysis on job creation and ROI through tax revenue fully justifies the doubling of industry and PA investment in ITEA. The playground of business in systems and services based on software innovation provides a plenitude of promising investment opportunities.

Such opportunities are vital, according to European Commission representative at the Co-Summit, Werner Steinhӧgel, who confirmed that investment was being increased by 40% for Horizon 2020. Overall, the Commission welcomes and supports the joint position paper Vision 2030. In essence, then, this increase in investment in software innovation, although less than the doubling requested, is aimed at keeping Europe on a par with the rest of the world to sustain the benefits of Digital Technology for the European economy and society.

**About ITEA 2**

ITEA 2 (Information Technology for European Advancement) stimulates and supports innovative and pre-competitive R&D projects that will contribute research excellence to Europe’s competitive Software-Intensive Systems and Services (SiSS) sector. SiSS is a vital growth engine for Europe’s economy and a key driver of innovation in Europe’s most competitive industries – such as automotive, aerospace, communications, healthcare and consumer electronics. ITEA 2 and its predecessor ITEA have a proven track record with major achievements and results in these industries. From 2014, ITEA 2 will be succeeded by ITEA 3.

As a EUREKA Cluster programme, the ITEA approach is intergovernmental, bottom-up, market-oriented and industry-driven. Following the EUREKA structure, each ITEA 2 project partner can apply for national funding in their own country – allowing a project idea to attract funding from all participating countries. ITEA 2 is open to partners from large industrial companies and SMEs, as well as research institutes and universities.

The current set of more than 150 projects (ITEA + ITEA 2), with more than 1000 partners from 30 countries, has established a solid basis for further development. Many of these projects have led to the creation of completely new businesses.

**More information:** <http://www.itea2.org>

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**About ARTEMIS**

“Research and innovation are critical for creating new, sustainable jobs and economic growth, to improve quality of life and to boost Europe's global competitiveness. Partnerships between EU Member States, EU-industry and European Commission, implemented as Joint Technology Initiatives (JTIs), are the most effective way of boosting Europe’s electronics design and manufacturing capabilities in economic sectors such as transport modes, medical equipment, home appliances, energy networks and security systems. Between 2008 and 2012, the ARTEMIS JTI has achieved; 52 projects worth €935 million with public funding of €448 million (EU + Member states) involving more than 720 organisations (with more than 1200 project participations) of which around 39% are SMEs, 33% large enterprises and 28% research organisations. In 2014 the JTI’s ARTEMIS, ENIAC and EPoSS will join forces and merge into, one stronger JTI on Electronic Components and Systems called ECSEL (Electronic Components and Systems for European Leadership).”

In recognition of the strategic importance of embedded computing systems the European Union launched the ARTEMIS Joint Technology Initiative (JTI) as a Joint Undertaking (JU), or public-private partnership, between:

> The European Commission   
> Member States (23 countries)  
> ARTEMIS Industry Association

ARTEMIS aims to tackle the research and structural challenges faced by European industry by defining and implementing a coherent strategic research agenda for embedded computing systems. Its ambition is to help European industry consolidate and reinforce its world leadership in embedded computing technologies.

ARTEMIS Industry Association is a non-profit Industry Association under Dutch law for European R&D&I actors in embedded and cyber physical systems, and private partner in the ARTEMIS Joint Undertaking. ARTEMIS Industry Association creates the meeting place where key industry players and other R&D&I actors identify strategic high priority topics for collaborative R&D&I projects. The Industry Association supports the formation of consortia and the initiation of project proposals for joint collaboration. It represents an influential network of organisations focused on the innovation and development of embedded systems in Europe. About 200 members, being Large Enterprises, Small and Medium Enterprises, Institutes and Universities, joined the ARTEMIS Industry Association.

**More information about ARTEMIS:**

[www.artemis-ia.eu](http://www.artemis-ia.eu/) |[www.artemis-ju.eu](http://www.artemis-ju.eu) | [www.artemis.eu](http://www.artemis.eu)

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