

PRESS RELEASE CYBER PHYSICAL SYSTEMS

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ARTEMIS INDUSTRY ASSOCIATION IS DRIVING TO GROW INVESTMENTS IN CYBER-PHYSICAL SYSTEMS TO ENSURE EUROPE'S #1 POSITION IN PRODUCING ADVANCED COMPLEX AND SAFETY RELEVANT PRODUCTS

Berlin, March 10, 2015. At the Co-Summit, ARTEMIS Industry Association is presenting technology projects that are based on the research and innovation in Cyber-Physical Systems. European companies with different disciplines are bundling their unique expertise to support Europe's future leading position in producing next generation's complex and safety relevant products.

According to ARTEMIS Industry Association, overall European investment in CPS should increase by 100% over the coming years in order to safeguard the leading position of Europe. This means that Member States should, by 2020, double annual total public spending on ICT (Information and Communication Technology) research and development spending from €5.5 billion to €11 billion (which includes EU programmes), in ways that leverage an equivalent increase in private spending from € 35 billion to € 70 billion.

Heinrich Daembkes, Chairman of ARTEMIS Industry Association, states: *"ARTEMIS is THE European Industry Association for all R&D players in Embedded Systems and Cyber-Physical Systems. Currently, European countries do not have sufficient focus on driving this important Digital Technology to further exploitation. This situation needs to improve to the benefit of Europe's position in this area, which will lead to the creation of some 150,000 jobs annually. We are actively supporting the industry to address the public authorities with their insights to ensure priority of investments in CPS."*

Life in our society, along with security and safety, will increasingly depend on Embedded and Cyber-Physical Systems (CPS). Mainly in the areas where the European Industry is holding a strong position, such as in automotive, avionics, and smart production, CPS increases market opportunities. We depend on high tech processes in development and manufacturing for the sustainable production of safety relevant high-tech products. Europe's competitiveness lies in speed of development, increased functionality and performance at equal cost of products. CPS technologies supporting this demand with a strong focus on safety and security are key to the development of the European economy. ARTEMIS is demonstrating at the Co-Summit how this was achieved and should be further extended.

Thomas Weber, Daimler Board member and Chief Technology Officer emphasises: *"Emission-free driving, connected cars and autonomous driving represent the key future-oriented focuses of R&D work at Mercedes-Benz. For the intelligent networking of our vehicles, powerful electrical and electronic systems and innovative software solutions are a decisive factor."*

Heinrich Daembkes reacts: *“Cyber-Physical Systems are key to realize such an intelligent network where an increasing amount of electronic and software systems will lead to an entire car depending on Cyber-Physical systems.”*

Daimler was project leader of ARTEMIS project MBAT and won this year’s recognition award. MBAT provided the European industry with a new, powerful yet affordable and effective validation and verification (V&V) technology, resulting in reduced costs of leading-edge V&V of embedded systems in the development process.

Daimler is also an active partner in the ARTEMIS projects DESERVE and CRYSTAL. With the market of Advanced Driving Assistance Systems expected to grow rapidly over the next decade, DESERVE aims to build an innovation ecosystem for European leadership in embedded systems for assisted and automated driving with partnering automotive R&D actors and possible applications in other industrial domains. CRYSTAL will establish workflows based on current and emerging technologies and enable their use in the engineering environment of relevant industrial domains to reduce system design costs through the improvement and smart integration of system analysis, safety analysis and system exploration tools as well as a reduction of design cycles by developing reusable technological bricks in alignment with the IOS and RTP.

Also the **avionics sector’s** need for increased safety is controlled by CPS. Project EMC2, will develop an innovative, sustainable service-oriented architecture for mixed criticality applications in dynamic and changeable real-time environments, helping the European Embedded Systems industry to maintain its leading edge position.

Progress in **automated systems in industrial applications** in e.g. agriculture, chemistry and healthcare is only possible by intensive use of CPS. The project Arrowhead is working on Networked systems in production by providing a technical framework, including solutions for integrating legacy systems, to implement and evaluate cooperative automation through real application pilots in electro-mobility, smart buildings, infrastructures and cities, industrial production, energy production and the “virtual energy” market, leading the way to further standardization and showcasing the actual impact in real life.

Note for editors, not for publication:

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About ARTEMIS

(Advanced Research and Technology for EMbedded Intelligence and Systems)

ARTEMIS Industry Association is the association for players in Embedded & Cyber-Physical Systems within Europe. As private partner, the association represents its members - industry, SMEs, universities and research institutes - in ECSEL Joint Undertaking.

ARTEMIS Industry Association continuously promotes the Research & Innovation (R&I) interests of its members to the European Commission and the Public Authorities of the participating states. It continues the work of the European Technology Platform ARTEMIS and is therefore responsible for the ARTEMIS Strategic Research Agenda (SRA) on Embedded & Cyber-Physical Systems, which reflects the R&I needs of the industry. The association strongly believes that the continued success of the Embedded & Cyber-Physical Systems sector in Europe depends on one coordinated, pan-European strategy.

ARTEMIS Industry Association is a membership organization with more than 180 members and associates from all over Europe. The multidisciplinary nature of the membership provides an excellent network for the exchange of technology ideas, cross-domain fertilization, as well as for large innovation initiatives. More information can be found in the company flyer.

About Cyber-Physical Systems:

Cyber-Physical Systems are embedded intelligent ICT systems that are interconnected, interdependent, collaborative and smart. They provide computing and communication, monitoring and control of physical components and processes in various applications.