

ARTEMIS Joint Undertaking

Visiting address:
White Atrium Building
Avenue de la Toison d'Or 56-60
B-1060 Brussels
Belgium

Postal address:
TO 5605/23
B-1049 Brussels
Belgium

enquiry@artemis-ju.europa.eu
www.artemis-ju.eu



ARTEMIS Industry Association

High Tech Campus 69-3
5656 AG EINDHOVEN
The Netherlands

T +31 (0)88 00 36 188
F +31 (0)88 00 36 180

info@artemis-ia.eu
www.artemis.eu

WHY ARTEMIS?

Antonio Pérez Berdud is Electronic Area Manager and Embedded Systems Research Line Coordinator at IKERLAN-IK4. As Embedded Systems Research Line Coordinator at IKERLAN-IK4, he is in charge of the embedded systems research strategy.



"IKERLAN-IK4 is a research centre for the Mondragon Group, one of the leading industrial and economic groups in Spain. One of IKERLAN-IK4's six lines of research is "embedded systems", so ARTEMIS Industry Association is a key platform for us when it comes to developing the centre's strategy, and that is also why IKERLAN-IK4 is on the Artemis steering board. On the basis of our experience in embedded systems, we feel that it is important to participate in the review of the new strategic agenda, and to maintain contacts and establish new ones with other centres, companies and universities affiliated to ARTEMIS. The companies we collaborate with also require us to operate as a connecting hub with a global network, and membership of ARTEMIS Industry Association enable us to keep up and improve contacts in the European ecosystem of embedded systems."

Luca D'Onofrio, Automotive SW Engineer at Intecs s.p.a



"Intecs s.p.a. has been involved in managing all the phases of the lifecycle of software for embedded systems in many application domains for more than 30 years, and we made a strong commitment to ride the wave of evolving technologies and new systems in each of them. For this reason we joined the ARTEMIS-IA and we are strongly interested in building partnerships with European industry and research leaders, by means of the ARTEMIS JU projects, and, hence, being an active player in the market ecosystem of embedded systems."

Dr. Helen Finch, R&D Funding & Collaborations Manager, Infineon UK. She is responsible for the identification, development and coordination of collaborative R&D projects.



"Infineon UK designs microcontroller and multi-core technology for real-time embedded systems, principally for automotive applications. We see close alignment between the aims of ARTEMIS and our R&D activities: the Summer Camp is a great opportunity to inform and shape both the future of ARTEMIS and our own strategic thinking. Collaborative R&D is quite new for Infineon UK so we are keen to learn and to get more involved. This collaborative approach also helps to raise our profile."

ARTEMIS in general

The story of ARTEMIS started in 1994 with the initiative for a European Technology Platform (ETP) on Embedded Systems called **ARTEMIS: Advanced Research & Technology for Embedded Intelligence & Systems**. It was an initiative of the European Commission, industry and Member States to develop and drive a joint European vision and strategy on Embedded Systems. The goal is to create and keep jobs in Europe; through products and related services and through design and manufacturing excellence. It is important to maintain a strong Embedded Systems technological capability by overcoming fragmentation.

The world faces increasing challenges in making industries, transport, healthcare, security and safety sustainable. Innovations in Embedded Systems are key to providing solutions to these growing societal issues. Europe can address Societal Challenges by using its sophisticated Embedded Systems Research and Development resources in industry and research institutes if coordinated well and if funded adequately. In a global world EMBEDDED SYSTEMS are a crucial KEY ENABLING TECHNOLOGY for Europe's industrial and societal future.

ARTEMIS: Intelligence on the spot

Networked Embedded Systems are the NEURAL SYSTEM OF SOCIETY. Embedded Systems pervade all arte facts of life, from mobile phones to space probes and from transportation vehicles to healthcare systems. Embedded Systems will be part of all future products and services, providing intelligence on the spot and capabilities to clever connect to the abundance of systems in their environment, either physical or at cyber-space level, in real time.

ARTEMIS VISION

All the stakeholders in the ARTEMIS Joint Undertaking share the same vision in which mankind benefits from a major evolution in our society whose world is widely supported by intelligent Embedded Systems. Large-scale application will boost quality of life and enhance sustainability, resulting in healthier living and greater security for the benefit of the European citizens.

Europe, with its world class automotive, aerospace, communication, and medical equipment industries, still has an excellent position in Embedded Systems, which play a key role in enhancing the capabilities, availability and usefulness of these products. Only through adequate coordination and collaboration and with the help of public funding can this position be maintained to help solve the enormous societal challenges and, at the same time, spur European competitiveness in many areas.

ARTEMIS takes the lead

ARTEMIS, through its Industry Association with more than 200 members, takes the lead to set the Embedded Systems scene with its pan-European Strategic Research Agenda 2011 and by its Joint Undertaking with Call 2008, Call 2009, Call 2010, Call 2011 and Call 2012 R&D projects that are co-funded by private project consortia, the 23 ARTEMIS Member States and the European Commission.



ARTEMIS INDUSTRY ASSOCIATION & JOINT UNDERTAKING

ARTEMIS Industry Association

ARTEMIS Industry Association is the association for Embedded Systems actors in Europe. It represents the research community including industry, universities and research institutes in the ARTEMIS Joint Undertaking. It is entrusted with continuing the work of the European Technology Platform and thus the ARTEMIS Strategic Research Agenda, set up in March 2006 and revised in 2011. ARTEMIS Industry Association strongly believes that the continued success of the Embedded Systems sector in Europe depends on a coordinated, pan-European strategy.

ARTEMIS Industry Association is a membership organisation of more than 200 members and associates from all over Europe. The multidisciplinary nature of the membership provides an excellent network for the exchange of technology ideas, cross-fertilisation and radical innovation initiatives.

Industry in the driving seat of innovation

The ARTEMIS Industry Association is responsible for the preparation of the ARTEMIS Multi Annual Strategic Plan, associated Research Agenda and the Annual Work Programme that define the strategy and technical content for the calls for project proposals. A strong European Embedded Systems strategy, defined and driven by a unified industrial forum, is necessary to convince Public Authorities and the European Commission to support economically crucial R&D programmes. ARTEMIS is such a programme, and the ARTEMIS Industry

Association is the body that represents and continuously promotes the R&D interests of its members at the European Commission and the Public Authorities of the Member States.

Benefits of membership

Apart from the opportunity to shape the right R&D environment for Embedded Systems in Europe, the ARTEMIS Industry Association offers you a powerful network to build strong partnerships with other participants in ARTEMIS projects. Consortium building is backed up by an on-line Partnering Project Idea Tool and first-hand information, giving members a considerable advantage when submitting proposals for competitive selection. Next to this the members have a voice in the ARTEMIS Joint Undertaking. Membership is your lobby in Brussels to help shape the future of Embedded Systems in Europe.

Members of ARTEMIS Industry Association shape their innovation environment - they define the general Embedded Systems R&D strategy for Europe and give input for the annual Work Programme for the ARTEMIS innovation programme.

ARTEMIS Industry Association wants to:

1. create the networking place where one can identify topics for major R&D projects that one want to pursue together, form consortia and initiate projects proposals for joint collaboration;
2. manage the activity of the ARTEMIS European Technology Platform and therefore foster the ARTEMIS Strategic Research Agenda for Europe; referred to by many European research initiatives;
3. give a voice to the interests of its members in the ARTEMIS Joint Undertaking.

Industry in the driving seat of innovation

ESSENTIALS ARTEMIS INDUSTRY ASSOCIATION:

- > ARTEMIS Industry Association connects you with more than 200 European organisations in Embedded Systems – Large Enterprises, SMEs & knowledge centres;
- > Is the private partner in the ARTEMIS Joint undertaking;
- > It holds 50% of the voting rights in the Governing Board of the ARTEMIS Joint Undertaking;
- > It provides two-thirds of the operating funds of the ARTEMIS JU office, ensuring continuity of the programme;
- > ARTEMIS Industry Association is the meeting-place for forming collaborative consortia, either for ARTEMIS-JU funded projects or for larger-scale Centres of Innovation Excellence (innovation clusters);
- > Is open to all R&D parties active in Embedded Systems – researchers, institutes, large and small enterprises – as Members and Industry Associations or individuals as Associates;
- > Members enjoy first-hand information and support on the regular ARTEMIS-JU calls for funded projects;
- > Members have free access to ARTEMIS events;
- > Members have exclusively access to Summer Camps where the input for the next call will be defined.

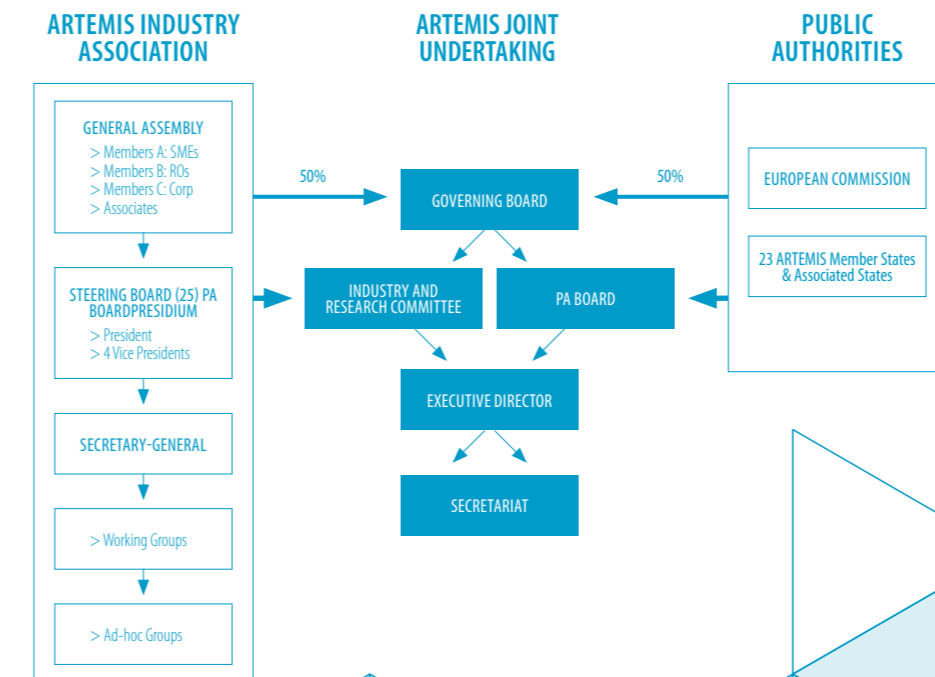
ARTEMIS Industry Association

ARTEMIS Joint Undertaking

In recognition of the strategic importance of Embedded Systems, the European Union launched the ARTEMIS Joint Undertaking in 2008. It is the Public Private Partnership between:

- > The European Commission
- > 23 ARTEMIS Member States: Austria, Belgium, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, the Netherlands, Norway, Poland, Portugal, Romania, Slovenia, Spain, Sweden, the United Kingdom.
- > ARTEMIS Industry Association (200+ members)

Investment in Embedded Systems R&D generates high return, as does partnering with other players in the value chain. Within widespread, complex, multidisciplinary markets and applications, collaborative R&D on Embedded Systems is the cornerstone of European innovation and competitiveness. It is financially supported by European states and the EC through various schemes, including the ARTEMIS Joint Undertaking. Collaboration between traditionally different domains is encouraged so that appropriate background technologies can be re-used across domains, thereby shortening the innovation lead-time.



ARTEMIS JU PROGRAMME

ARTEMIS classifies technological research for Embedded Systems into three domains:

- > Reference Designs and Architectures
- > Seamless Connectivity and Middleware
- > (System) Design Methods and Tools

The domains, however, are so generic that, without establishing a link to specific areas of innovation, research results risk becoming fragmented collections of single-application-specific technology. To combat this tendency, a set of 8 ARTEMIS Sub-Programmes (ASP) has been identified by the members of the ARTEMIS Industry Association:

- ASP1 Methods and processes for safety-relevant ES
- ASP2 ES for healthcare and wellbeing
- ASP3 Embedded systems in smart environments
- ASP4 Manufacturing and process automation
- ASP5 Computing platforms for ES
- ASP6 ES for security and the protection of critical infrastructures
- ASP7 ES to support sustainable urban life
- ASP8 Human-centred design of ES

The sub-programmes are also the seed of potential innovation eco-systems, or groups of complementary players who establish mutually beneficial, durable collaborations. A logical extension of the active clustering of ARTEMIS projects are ARTEMIS Innovation Pilot Projects (AIPP) as introduced in the ARTEMIS Call 2012

- AIPP 1 Critical Systems Engineering Factories
- AIPP 2 Innovative Integrated Care Cycles
- AIPP 3 Seamless Communication & interoperability - smart environment
- AIPP 4 Production and Energy System Automation
- AIPP 5 Computing platforms for embedded systems
- AIPP 6 'Intelligent-Built' environment and urban infrastructure for sustainable and friendly cities

Industry driven programme

The ARTEMIS Joint Undertaking programme focuses on downstream research: converting technological developments to close-to-market innovations with the potential to quickly become exciting products and services. It ensures sustainable benefits with a high, positive impact on the target market.

The ARTEMIS Joint Undertaking will manage and coordinate research activities through open calls for proposals in a 10-year, €2.5 billion research programme on Embedded Computing Systems. The programme is open to organisations in European Union Member States and Associated Countries. Selected projects will be co-financed by the Joint Undertaking and the Member States affiliated to ARTEMIS. The ARTEMIS Joint Undertaking will implement the ARTEMIS Strategic Research Agenda as defined by the members of the ARTEMIS Industry Association.

ARTEMIS Joint Undertaking