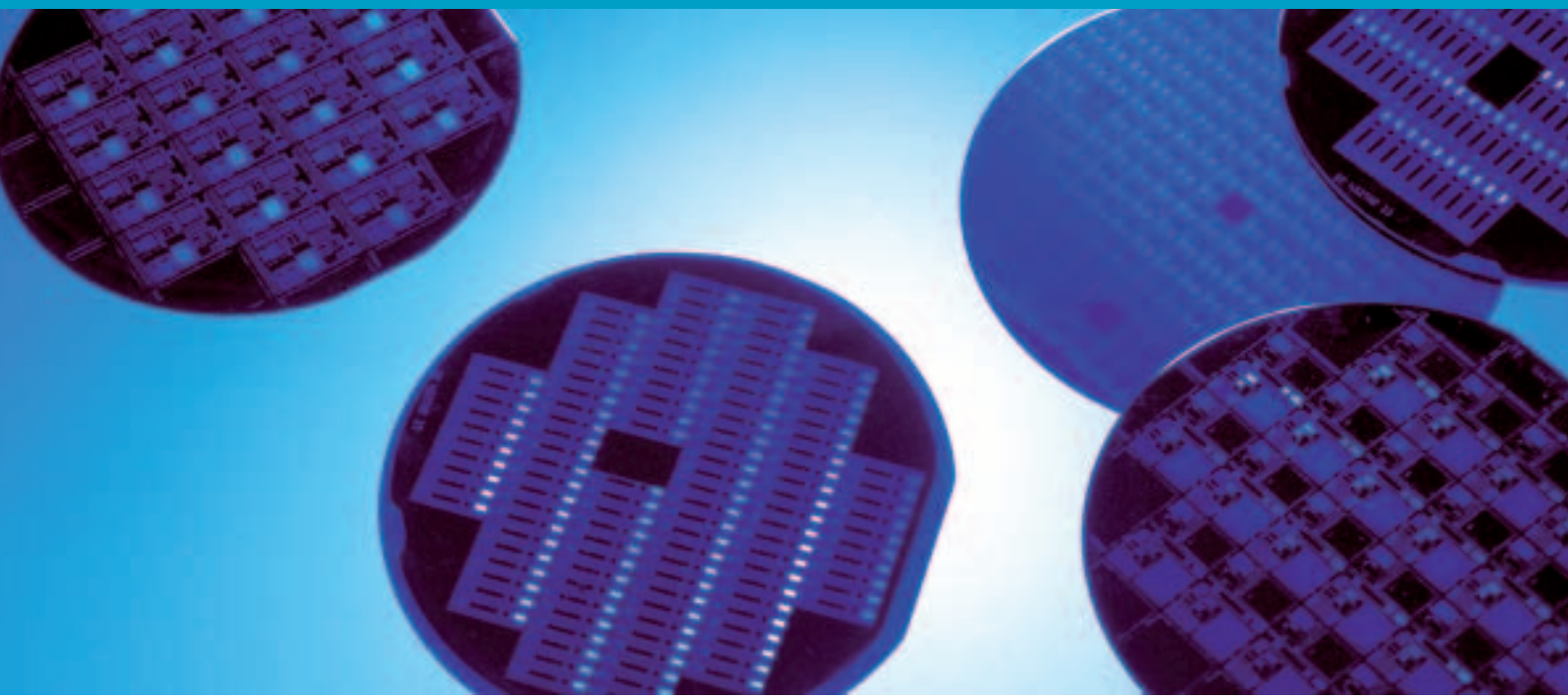
The Embedded Computing Systems Initiative (ARTEMIS)



Objectives, milestones and deliverables

Society has come to recognise personal computers as icons of the information and communication age. However, by far the most common forms of computer in use today are 'embedded' computers, which are often hidden in electronic equipment and machines of all kinds.

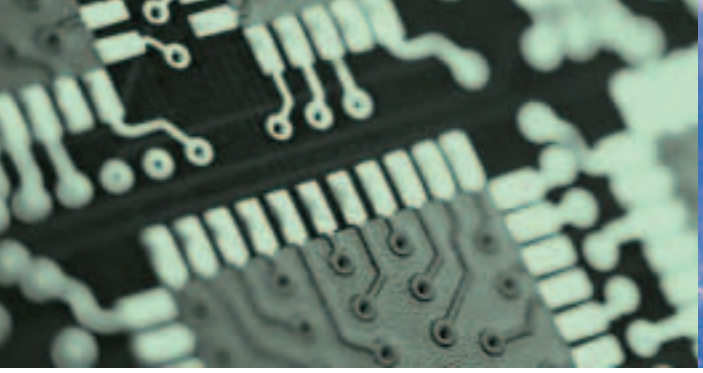
This reflects the trend whereby computers are moving away from the desktop and are finding themselves in everyday devices like mobile phones, cars and planes and in places like homes, offices and factories. They are becoming an integral and often invisible component of the world around us and today they are just about everywhere.

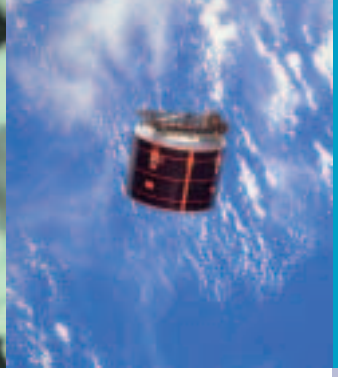
More than 90% of computing devices are embedded, and forecasts predict more than 16 billion embedded devices by 2010 and over 40 billion by 2020. Within the next five years, the share of embedded systems in the value of the final product is expected to reach unprecedented levels in key industrial sectors. Take the example of a car - over 20% of its value is due to embedded electronics and this will double in the next few years.

Embedded computing systems are facing unprecedented challenges, with heavy competitive pressures from established and newly emerging global players, and the increasing number and complexity of embedded systems and applications. While the US has led the world in the personal computer and internet markets in the 1980s and '90s, Europe has led the revolution in embedded systems. Therefore, it is strategically important for embedded systems to remain one of the strongholds of European industry.

However, the current structure of the EU industry in this sector is highly fragmented and does not provide the necessary framework to cope with these challenges. To strengthen the competitiveness and ability of the EU to innovate, resources and funding from the Framework Programme, industry, national R&D programmes and intergovernmental R&D schemes (such as EUREKA) need to be combined.

This is the aim of the Artemis Joint Technology Initiative (JTI). Building on the Strategic Research Agenda developed by the European Technology Platform, Artemis aims to help European industry consolidate and reinforce its world leadership in embedded computing technologies. The economic impact in terms of jobs and growth is expected to exceed €100 billion over the next ten years.





JTIs

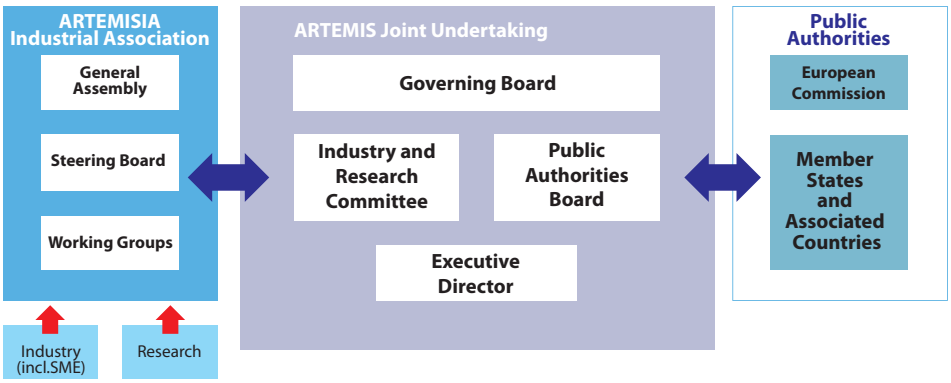
Membership and Structure

The founding members of the Artemis JTI are R&D performers (industry and the research community), the European Community and Public Authorities.

The main tasks of the Joint Undertaking, which is the organisation which would be set up to implement the JTI, will be to coordinate the research through organising calls for proposals and to manage the execution of research projects. The Artemis Joint Undertaking will be managed by an Executive Director. Its governance structure comprises a governing board, a public authorities board and an industry/research committee.

Industry and research organisations participate in the JTI through ARTEMISIA, the ARTEMIS Industrial Association, which was established in January 2006 under Dutch law by Philips, ST Microelectronics, Thales, Nokia and DaimlerChrysler. It currently has over 100 members and new applications for membership are in the pipeline from industry, SMEs and research organisations. The activities of the Artemis European Technology Platform, including the Strategic Research Agenda, have largely been taken over by ARTEMISIA.

ARTEMISIA is open to industry, SMEs, research institutes and universities who can apply via the website. Over a hundred organisations have applied since the beginning of 2007. Members of ARTEMISIA can vote in elections, participate in key decisions, and shape the policies and evolution of the Artemis research agenda. Membership also provides access to an extensive network of respected research partners.



Full title:

ARTEMIS (Advanced Research and Technology for Embedded Intelligence and Systems) Joint Technology Initiative

Founding members:

- European Community (represented by the Commission)
- Member States
- ARTEMISIA (industrial association)

Budget (2008-2017) is	**€ 2.7 billion**
European Community:	€ 0.4 billion
Member States:	€ 0.7 billion
Private sector:	€ 1.6 billion

Further information:

- http://cordis.europa.eu/ist/artemis

Contact:

Leonardo Flores
leonardo.flores@ec.europa.eu

Joint Technology Initiatives are a new way of realising public-private partnerships in research at European level. They provide a framework to mobilise and coordinate research efforts across Europe in order to define and implement common research agendas in key areas where research and development can contribute to Europe's growth and competitiveness objectives as well as to the wellbeing of its citizens.

http://cordis.europa.eu/fp7/jtis