

The ARTEMIS JU

Multi-Annual Strategic Plan

whence it came and where it goes

CALL 1 OF THE ARTEMIS JOINT UNDERTAKING (JU) IS NOW OPEN. THE RESULT OF A HUGE EFFORT BY A LARGE GROUP OF MOTIVATED AND EXPERT PEOPLE NOW RINGS IN THE START OF THE REAL WORK. INDUSTRY – WITH WHICH I ALSO EMBRACE EUROPE'S WORLD-CLASS INSTITUTES AND UNIVERSITIES – NOW HAS TO 'WALK THE TALK' BY EXECUTING RESEARCH PROJECTS THAT WILL YIELD THE INNOVATIONS NEEDED TO FULFIL THE VISION FIRST DESCRIBED BY LEADING INDUSTRIALIST AND RESEARCHERS BACK IN 2004, WHEN THE 'BUILDING ARTEMIS' REPORT WAS PUBLISHED. WITH THAT IN MIND, LETS REMEMBER WHERE ALL THIS STARTED, AND HOW IT GOT TO WHERE IT IS TODAY. A QUICK WALK THROUGH ALL THE STRANGE ACRONYMS THAT HAVE POPPED UP ALONG THE WAY WILL DO NO HARM, EITHER!



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In 2005, the ARTEMIS European Technology Platform (ETP), at that time a voluntary organisation of R&D stakeholders with a concrete yet informal structure, published its first strategic research agenda (SRA) for embedded systems (ES) in Europe. Starting from a vision where the importance of embedded systems to European prosperity through innovation is paramount, the document developed an approach to R&D covering the length and breadth of ES technology.

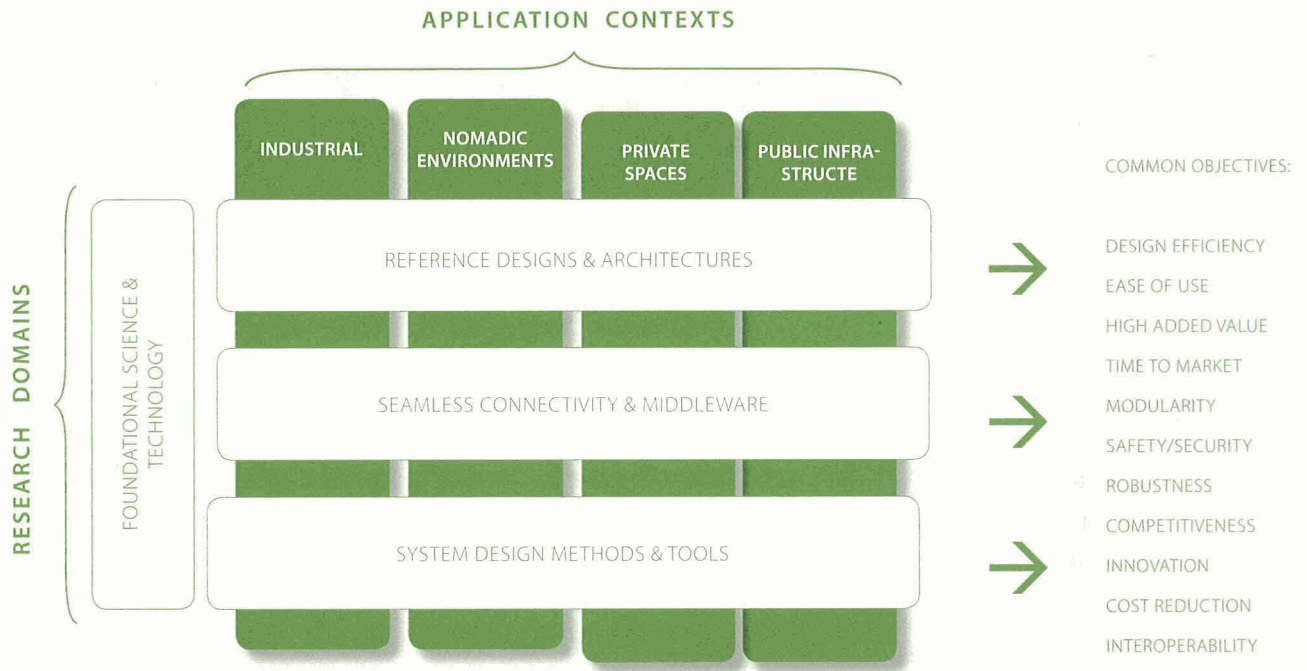
In addition to some very important support strategies aiming at building new and efficient innovation environments, the SRA grouped the R&D needed into three more-or-less transversal domains, where the technologies developed have a good chance of being reusable across several generic application contexts. This structure is drawn out

as a matrix, which has become the backbone of the ARTEMIS SRA and all that follows it.

SETTING CLEAR PRIORITIES ~ In the first of several 'summer camps' organised by the ARTEMIS ETP in 2006, these three research domains were studied in detail by groups of technical experts from industry and academia. The result was sets of clear priority topics for researching each of the three domains.

At that point, the structure of the planned Joint Technology Initiative (JTI) was becoming a little clearer. One implication of what was seen was the need to establish a body that could represent the interests of the R&D actors from industry, universities and institutes in this new type of venture in a coherent way. That body is now ARTEMISIA – a not-for-profit industry association that opened its doors on 17 January 2007.

Since then, the rather vague concept of a JTI has become clear and concrete. For ARTEMIS, this has taken the form of a Joint Undertaking (JU) with a well-defined legal structure. In addition to representing industrial interests in the JU, ARTEMISIA takes responsibility for the strategic research agenda and, importantly, the work programme for the JU that is derived from it.

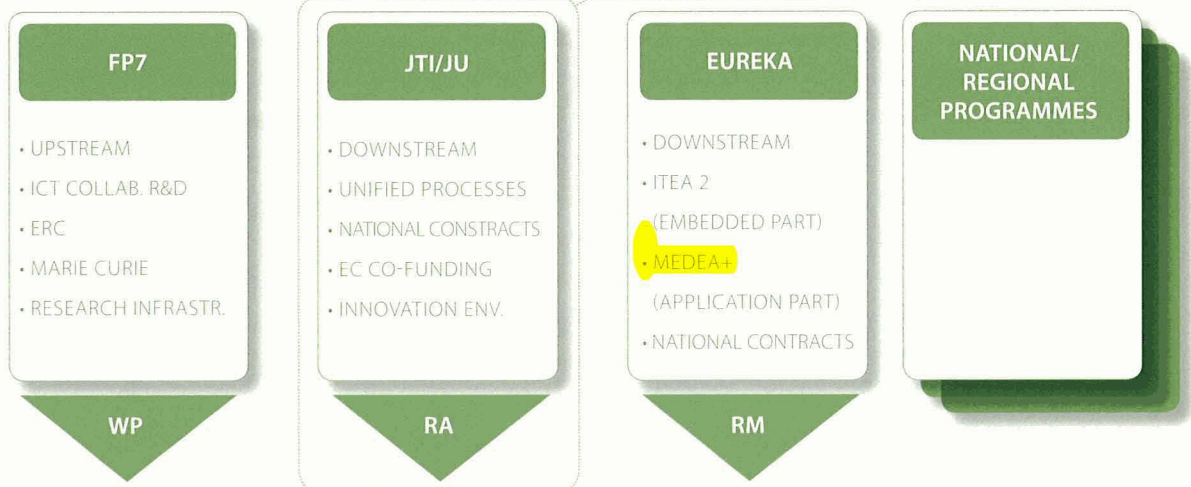


THE ARTEMIS - ETP SRA COVERS THE LENGTH AND BREADTH OF EMBEDDED SYSTEMS RESEARCH

THE ARTEMIS - ETP SRA IS REFERRED TO BY MANY RESEARCH STRUCTURES

ARTEMIS - ETP
INDUSTRY-DRIVEN VISION
COMMON PAN-EUROPEAN SRA
COORDINATION AND POLICY ALIGNMENT IN ERA

THE ARTEMIS - JU
FOCUSES ON THE DOWN-STREAM SUB-SET OF THE ARTEMIS - SRA



The programme for the JU is described in its Multi-Annual Strategic Plan (MASP) and research agenda (RA), which take a five-year look ahead into the future of ES. Basically, the RA describes what Industry wants to do, and the MASP says how and why we do it.

Of course, the JU must operate alongside other already existing research initiatives, so only specific and key parts of what is described in the ARTEMIS SRA should be addressed. Indeed, the SRA had already had an impact on the work programmes of these other initiatives, such as the EU Seventh Framework Programme (FP7). In order to derive these documents and the strategy that lies behind them, a working group based on the core team that wrote the original SRA was set up – the WG-SRA.

TOP DOWN AND BOTTOM UP ~ In a field as diverse as ES, deriving such a research agenda, which addresses the extremely broad industry base while at the same time providing adequate focus to be useful, was no easy task. The method used was a combination of top-down direction, provided by the members of the ARTEMISIA Steering Board, and bottom-up technical analysis provided by the research community itself.

To make this problem at all tractable, and on the advice of the steering board, a set of sub programmes was identified that represented areas where European industry would be able to provide technological answers to a set of well-known societal concerns, including cost of health care, energy efficiency and transport safety. Through the voluntary work of almost 100 technical experts from industry and academia, and using the guidelines and templates agreed with the steering board, the current set of eight sub programmes was defined and worked out in detail.

Several rounds of discussion between ARTEMISIA and the other partners in the JU

later (the European Commission and the participating countries), the RA and MASP were approved. The existing set of sub programmes is by no means set in concrete: the MASP and RA will be updated as the JU advances its work, to take account of the progress made and of any other emerging needs.

ANNUAL WORK PLAN ~ With the RA and MASP in place, the JU now has a clear plan of where to head and how to get there. The implementation of this plan will be carried out through annual calls for proposals for project that address the most important technical issues at the time of the call. This annual work plan (AWP) is derived from the relevant parts of the RA and MASP, providing topics for research and other activities in support of the research community itself. Et voila! With the AWP available, and all the supporting legal documents in place, the first Call of the JU is open.

That last statement may sound simple, but it does not do justice to the huge amount of work achieved by some highly motivated and competent people in industry, in the European Commission and in the participating countries. In particular, Eric Schutz of STMicroelectronics and Laila Gide of Thales put in a mammoth amount of their time, expertise and wisdom in making this happen, for which the ARTEMIS community is truly grateful. The ARTEMIS JU is literally a first-of-a-kind entity: nothing like this has ever been done before, and the legal and technical hurdles to be jumped were by no means simple.

In parallel with the development of the RA and MASP, a huge range of legal documents was needed, first to get the idea of the JU set up and accepted by the European Parliament and Council, then to negotiate and establish the proper legal framework for the JU itself,

and finally to properly support the calls. With partners from such diverse cultural background this was not always easy but, with dedication and a lot of hard work, the ARTEMIS JU is now a reality and is open for business.