ARTEMIS-ETP ACTIVITIES

By Ad ten Berg, Office Director, ARTEMIS Industry Association

Already from its first day of existence, ARTEMIS Industry Association represents/embodies the ARTEMIS European Technology Platform (ETP) covering the domain of Embedded Systems. The first and most visible activity is the creation and updating of the ARTEMIS Strategic Research Agenda (SRA) that provides a pan-European scope in the domain of Embedded and Cyber-Physical Systems. The SRA always formulates the industrial research challenges and priorities for at least ten years ahead.

The first version of the ARTEMIS SRA was finalised in 2006 and the second version was completed in 2011. As preparation for the first Multi Annual Strategic Research Innovation Agenda (MASRIA 2014) of ECSEL Joint Undertaking, an intermediate updated SRA has been realised in 2013. The next version of the ARTEMIS SRA is now planned for 2016, as has been decided by the ARTEMIS-IA Steering Board in its meeting of October 6, 2014. The ARTEMIS Working Group SRA, co-chaired by Laila Gide and Tatu Koljonen, manages all activities around this important strategic document.

As the ARTEMIS-ETP has been supported by a dedicated research programme on Embedded Systems, executed by ARTEMIS-JU, the focus over the last years has been on the support of the ARTEMIS programme, with the aim to create maximal impact and opportunities for our members.

However, as the ARTEMIS-ETP has a pan-European focus, ARTEMIS-IA also builds links to other organisations that are active in domains with a clear relation to Embedded and Cyber-Physical Systems. The most prominent relation is with ITEA, expressed by the Co-summit yearly event that we co-organise and the strategic document 'Vision 2030', which we co-developed.

The ARTEMIS-IA activities for reaching out to other organisations will get more attention in the coming years, to create even more opportunities for our members and strengthen the R&I community of Embedded and Cyber-Physical Systems. In this scope, we will approach a shortlist of ETP's and institutional PPP's for which Embedded and Cyber- Physical Systems are crucial enabling technologies to realise their research targets. The H2020 ICT community will also be addressed.

In order to make a start with this renewed reach-out, representatives of EFFRA and NESSI will present respectively the Factories of the Future PPP and the Big Data PPP at the ARTEMIS-IA General Assembly and Pre-Brokerage event in December 2014, Vienna. The supporting activity CyPhERS will present its findings that are relevant for the CPS community. The Working Group SRA is also active to create better links to the relevant sections of the LEIT ICT programme of Horizon2020. As a result, this year for the first time, the WG SRA has provided input of the ARTEMIS-IA members to the LEIT ICT work programme for 2016-2017. We consider this an important step to create broader opportunities for ARTEMIS-IA members and to make existing opportunities more visible.

CP-SETIS, A STANDARDISATION SUPPORT ACTION

By Ad ten Berg, Office Director of ARTEMIS Industry Association
and Jürgen Niehaus , Managing Director of SafeTRANS

Additionally, as ARTEMIS ETP, ARTEMIS Industry Association will participate in the CP-SETIS project, an Innovation action in Horizon2020. CP-SETIS is an acronym for: "Towards Cyber-Physical Systems Engineering Tools Interoperability Standards". CP-SETIS is also supported by the Working Group Standardisation, with Josef Affenzeller and Laila Gide as co-chairs of the WG. The coordinator of CP-SETIS is Jürgen Niehaus of SafeTRANS. This project will push the complex topic of managing Interoperability Standards for CPS engineering tools to the next stage.

CPS require multiple engineering competences across various engineering disciplines. The development of such systems is a huge challenge, also because of the heterogeneity of engineering tools involved in development platforms across the development lifecycle. In order to overcome this challenge, past and on-going EU research projects, most of them in the ARTEMIS-JU programme, have developed the basis for a Standard for Development Tool Interoperability, the so-called Interoperability Specification (IOS). However, due to lack of coordination, current IOS-related activities - especially with respect to its standardisation and possible extensions - are uncoordinated, endangering the huge financial effort that has been put into the IOS and the chance to establish it as a formal International Open Standard.

The main goal of CP-SETIS is to conceive and setup a sustainable organisational structure as a platform, joining all stakeholders to coordinate all IOS-related activities. CP-SETIS will ensure the commitment of all stakeholders to coordinate all IOS-related activities within this structure. In this way, CP-SETIS will secure the huge effort that has been put into the IOS, furthering and enabling the setup of the IOS as a formal standard, and enabling the enormous potential of the IOS for innovations in interoperable tools needed for engineering future generations of Cyber-Physical Systems. CP-SETIS will also use lessons learned during this process to update the ARTEMIS/PROSE Standardisation Agenda.