EFECS, Helsinki, 19 November 2019

Joint statement on preparations for a partnership on key digital technologies

1. ECSEL is delivering on its promise

In 2020 ECSEL, the Joint Undertaking (JU) on Electronic Components and Systems (ECS), will launch its last calls for proposals. As its three private partners, the industry associations AENEAS, ARTEMIS-IA and EPoSS are pleased to note that ECSEL is delivering on its promise. Its unique tri-partite public-public-private partnership is operating effectively and efficiently, with the EU contribution leveraged by national co-funding and in-kind contributions from project participants. Furthermore, thanks to its pan-European agenda for research and innovation (R&I) and its co-funding mechanism, it aligns European and national R&I efforts and thus implements the European Research Area in the ECS domain. Preliminary results from the ECSEL impact assessment find four major impacts realised by ECSEL's actions to date:

- Improving collaborative behaviour along the ECS value chains and beyond;
- Maintaining the competitiveness of the European ECS market at the global level;
- Driving innovativeness and scientific excellence of the ECS ecosystem;
- Contributing to addressing European societal challenges.

The evidence gathered confirms that ECSEL's way of working yields great benefits for organisations involved in its projects.

2. Recent geopolitical and technological developments

Meanwhile, however, the geopolitical situation has changed dramatically, with trade wars and protectionism threatening unconstrained access to the Key Digital Technologies (KDT) essential for making Europe fit for the digital age and realising its ambitions, for instance in Artificial Intelligence (AI). At the same time, China, South Korea and other competing regions have drastically stepped up their investments, pouring tens of billions of euros per year into R&I and new production capacity in KDT.

Technologically, the digital domain is undergoing very rapid evolutions and even disruptive revolutions. Consequently, experience from ECSEL has shown the need to extend the scope of R&I efforts. Advanced computing technologies and other hardware and software technologies related to ECS now need to be co-integrated to build complex systems, open up new avenues of application and offer project proposers more options for technology choices and optimal hardware/software co-design.

3. Proposal for a European Partnership for Key Digital Technologies

Taking into account our favourable experiences with ECSEL, the positive results of its interim evaluation, the preliminary findings of the impact assessment and recent geopolitical and technological developments, AENEAS, ARTEMIS-IA and EPoSS believe that the activities of ECSEL

should be continued after 2020 with an extended scope, intensified R&I efforts and further improvements in its way of working. That is why the three industry associations, together with the European Commission and Member States, are currently preparing a proposal for an institutionalised European Partnership for KDT under Horizon Europe (2021-2027).

The overarching objective of the KDT partnership is to reinforce Europe's innovation potential by contributing robust electronic components and systems, software technologies, sub-assemblies, and systems of systems (SoS) to complete value chains/networks and providing secure and trusted technologies tailored to the needs of user industries. Furthermore, it aims to better align R&I policies and achieve more synergies among its participating states to reach the critical mass needed for achieving Europe's sovereignty in KDT. Particularly through the involvement and financial support of the EU, Member States, regions and Associated Countries the partnership will be an ideal basis for coherent actions of public and private stakeholders all across Europe, with a broad impact.

4. Improvements envisaged

For the KDT partnership, the three industry associations, collaborating closely as agreed in their Memorandum of Understanding of November 20, 2018, are proposing a number of improvements. The most important are the following:
- An extension of the scope to related aspects of photonics and software, advanced computing technologies, biosensors and flexible electronics;
- A doubling of R&I efforts to €10 billion, roughly twice the volume of ECSEL;
- Dedicated measures to increase SME participation;
- Synergies with the European Structural and Investment Funds and the Digital Europe Programme;
- A referral mechanism for good proposals lacking EU funding to EUREKA clusters;
- Enhanced collaboration with adjacent partnerships, programmes and projects, with Lighthouse Initiatives in a pivotal role for joint approaches;
- An improved co-funding mechanism that simplifies participation for beneficiaries;
- Sharing JU back office tasks with other JUs and EC services.

With these improvements we expect to achieve a step change with respect to ECSEL.

AENEAS is an Association, established in 2006, providing unparalleled networking opportunities, policy influence & supported access to funding to all types of R&D&I participants in the field of micro and nanoelectronics enabled components and systems. See https://aeneas-office.org

ARTEMIS Industry Association strives for a leading position of Europe in Embedded Intelligence. The multidisciplinary nature of the membership provides an excellent network for the exchange of technology ideas, cross-domain fertilisation, as well as for large innovation initiatives. See https://artemis-ia.eu

EPoSS, the European Technology Platform on Smart Systems Integration, is an industry-driven policy initiative, defining R&D and innovation needs as well as policy requirements related to Smart Systems Integration and integrated Micro- and Nanosystems. See www.smart-systems-integration.org