

ECS SRA 2019 Update

Introduction

Patrick Cogez, ECS SRA Chair

 Our
digital
future
2018

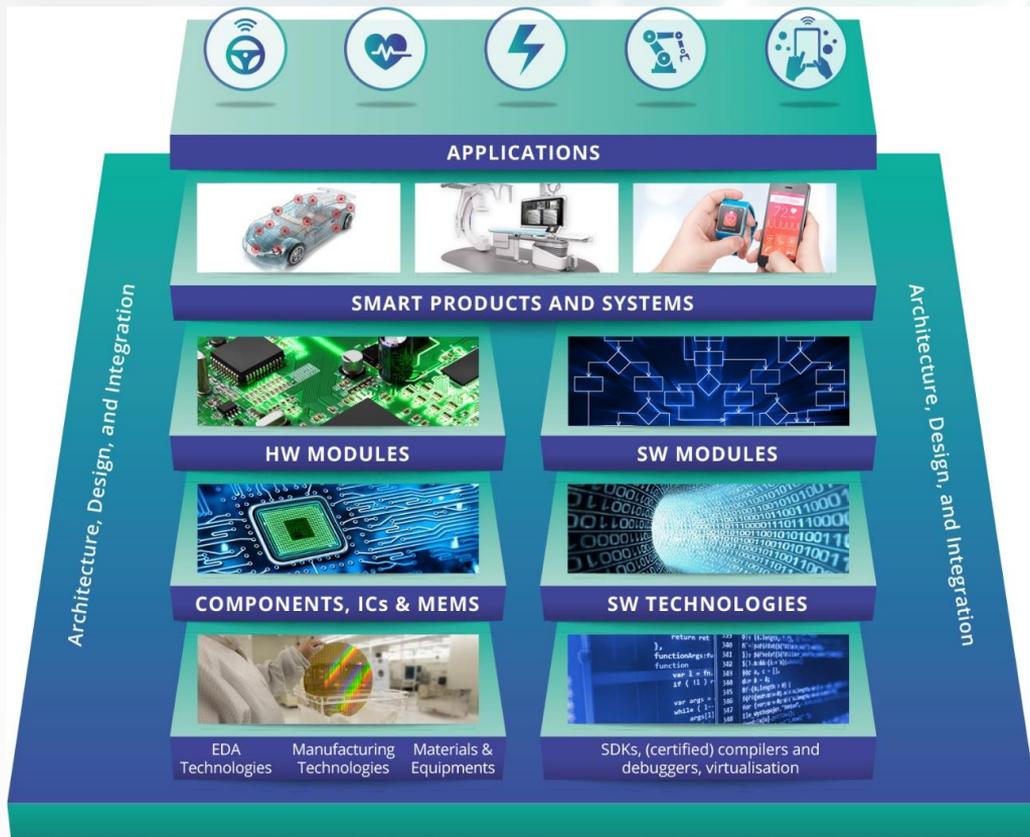
Organised by:
AENEAS, ARTEMIS-IA, EPoSS, ECSEL-JU &
European Commission

Associated organiser:
EUREKA

ECS Strategic Research Agenda Covering the whole ECS value chain

ECS 2018

Our digital
future

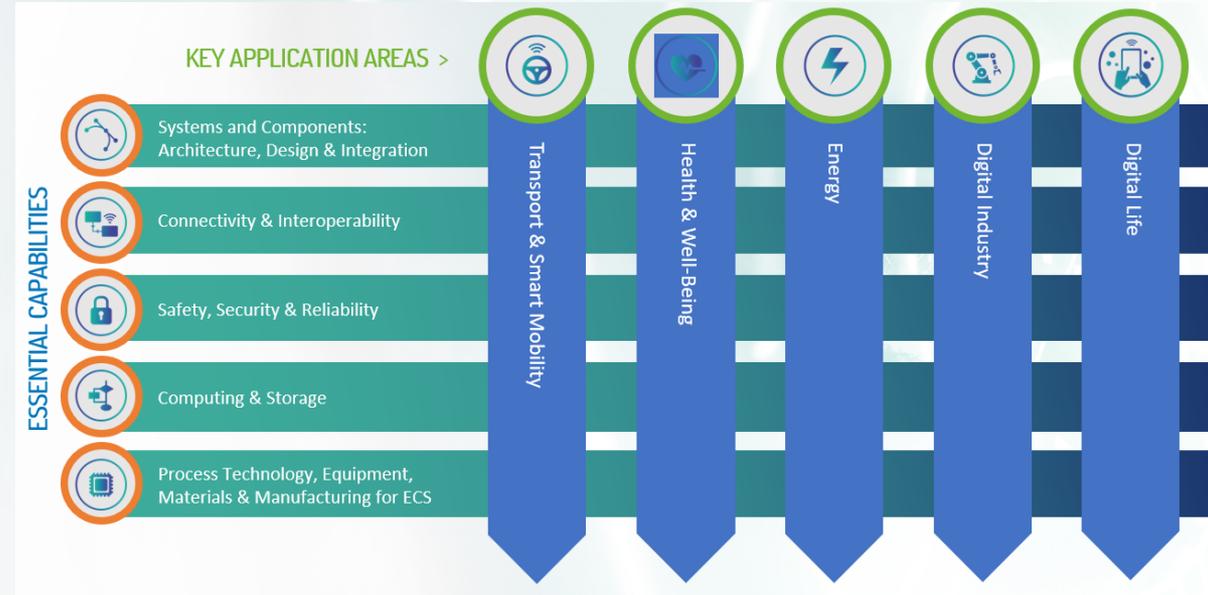


Strategic guidance for technology, business and regulation

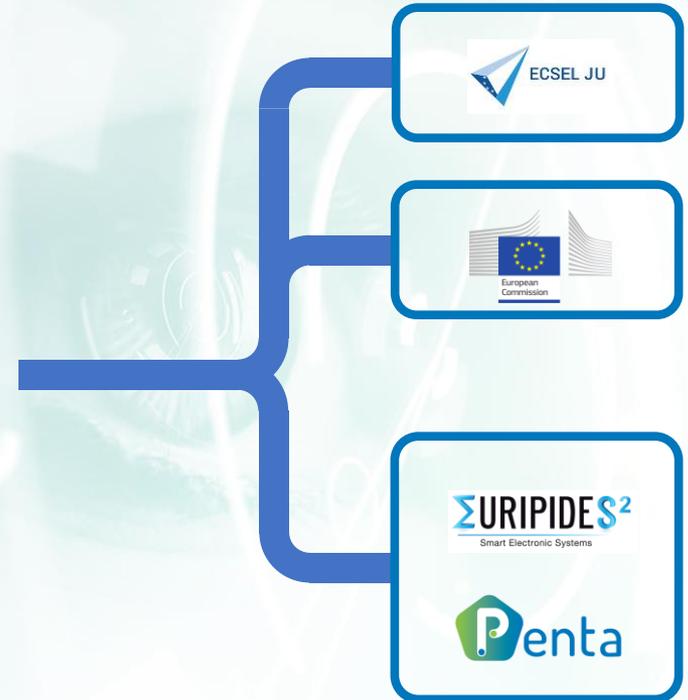
ECS 2018

Our digital future

- Applications and capabilities to meet Europe's challenges
- Game-changers
 - Artificial Intelligence, Internet of Things, new computing paradigms, 3D printing...
 - New business models
 - New non-technical paradigms
- Enabled by Digital Single Market, harmonised regulation and high-quality education
- Safeguarding sovereignty in vital electronics components and systems



Pivotal role on all ECS-related funded projects



ECS-SRA 2019 Update - Rationale



Our digital
future

- Initial ECS-SRA Edition: January 2018
 - Major update every 3 years
 - Minor annual updates in-between
- Why an update?
 - Industry is moving fast
 - SRA is guidance for ECS community RD&I: Need to be aware of trends
 - Possibility to involve other communities
 - Roadmap useful if strong adoption across the Digital Economy
 - In line with ECSEL yearly process (input for the MASP and WP)
- Update contents
 - If trends indicate need for new topic / change of priority => should be reflected in SRA update
 - SRA update is a continuous process (every year): if input not mature yet, shift to next updates



ECS-SRA 2019 Update – Main changes

 ECS 2018

Our digital
future

- Create a new chapter on Long Term Vision
 - Guiding the Community on longer-term trends (lower TRL, e.g. 2-4)
 - Most contributions coming from RTO's
- Chapter 1: Transport & smart mobility
 - More explicitly include all transportation means, e.g. maritime, railroad and multi-modal
- Chapter 4: Digital Industry
 - Digital farming
 - Substantial contribution by AIOTI WG 6
- Chapter 6: Systems and Components: Architecture, Design and Integration
 - Clarify the challenges
- Chapter 9: Computing & storage
 - Significant inputs from the Open Hardware community
- Focus of this ECS-SRA session



ECS-SRA 2019 Update – Additional changes



Our digital
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- General
 - Timelines adjusted to span the period 2019-2028.
 - Artificial Intelligence is a recurring theme of the document.
- Introductory and Overview Chapter
 - Artificial Intelligence indicated as most prominent game changer.
 - Long-term vision section replaced by introduction to LTV chapter
 - Annex on impact of export control laws pertinent for all domains
- Health and Wellbeing
 - Text aligned with the ECSEL Lighthouse HEALTH.E
- Energy
 - Added sub-chapter Digitalization & Energy
 - Updated graphics and numbers where available
- Safety, Security and Reliability
 - Addition of disruptive threats linked to cloud, big data and quantum cryptography
 - Updated Table of major challenges
- Process Technology, Equipment, Materials and Manufacturing for Electronic Components & Systems
 - Chapter title change
 - Revise high priority areas
 - Addition of need for specific R&I on equipment and materials required for the development of quantum technologies



