The Public-Private Partnership keeping Europe at the forefront of technology development

Electronic components and systems (ECS) are a pervasive Key Enabling Technology, impacting all industrial branches and almost all aspects of life. A **smartphone**, a smart **card**, a smart **energy grid**, a smart city, even smart governance; everything 'smart' is based on integrating semiconductor chips running embedded software. They provide the fabric on which the **internet** runs; they give life to **portable phones** and **tablets**; they drive driverless cars and trains, fly airliners, drones and satellites. In modern times, no national economy can win in the global competition without mastering this technology, with unparalleled systemic and strategic impact.

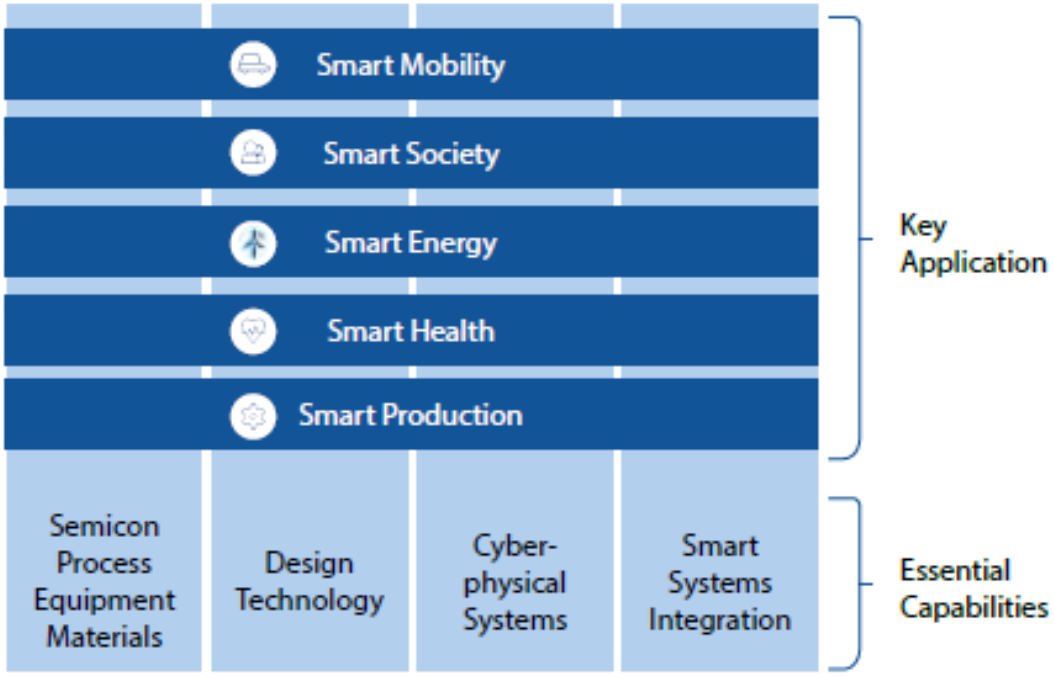
ECSEL JU Objectives:

- Contribute to the development of a strong and globally **competitive electronics components** and systems industry in the European Union;
- Ensure the availability of electronic components and systems for **key markets** and for addressing societal challenges, bridging the gap between research and exploitation;
- Align strategies with Member States to attract private investment;
- Maintain and grow **semiconductor and smart system** manufacturing capability in Europe;
- Secure and strengthen a **commanding position** in design and systems engineering;
- Provide **access** for all stakeholders **to** a world-class **infrastructure** for design and manufacturing;
- Build a dynamic **ecosystem** involving Small and Medium-Sized Enterprises (SMEs), strengthening existing clusters and creating new clusters.

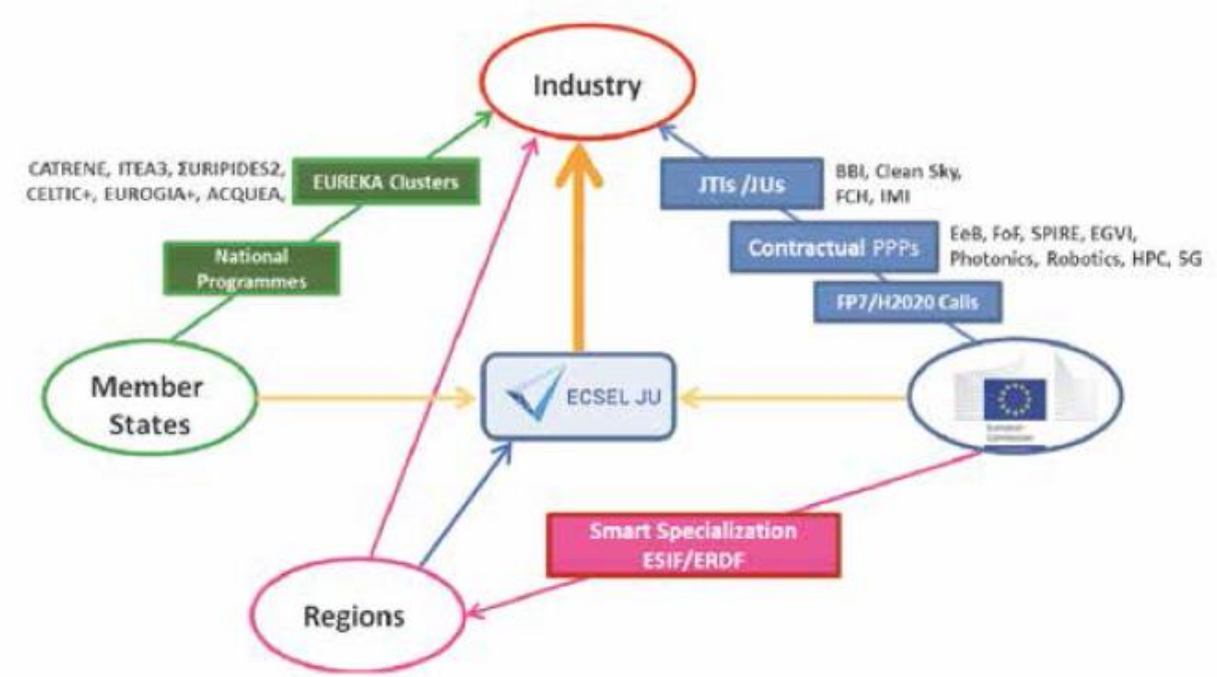
Members

- the **European Union** (through the Commission);
- **Member States** and Associated Countries to the Framework Programme Horizon 2020 on a voluntary basis;
- Three **associations** (ARTEMIS Industry Association, EPoSS and AENEAS) representing the actors from the areas of Embedded & Cyber-Physical Systems, Smart System Integration and Micro- and Nano-electronics.

ECSEL Work Plan



FUNDING OPPORTUNITIES: the Tri-partite funding model



FUNDING OPPORTUNITIES: the Tri-partite funding model

ECSEL complements other European instruments for funding of R&D projects. In addition to a marketfacing programme, it provides combined funding from National / Regional authorities and from the EU (via Horizon 2020, with capability to include "structural funds" via ESIF/ERDF). This approach efficiently leverages matching investments from the R&D actors, augmenting Europe's industrial innovation capacity. ECSEL JU will offer two main funding instruments that projects may call upon:

- **Innovation Actions**

- Large-scale, integrating projects;

- Pilot lines and test beds, large demonstrators and zones of full-scale testing;

- Specifically include higher TRLs (4 to 8).

- **Research and Innovation Actions**

- RD&I projects that should not work in isolation but cluster with other ECSEL actions;

- Typically addressing lower TRLs (2 to 5).

ECSEL JU STRUCTURE

FUNDING OPPORTUNITIES: the Tri-partite funding model

SUMMARY

ECSEL JU will strengthen European global competitiveness, both of its electronics industries and of industries that rely upon electronics to further their innovation potential by offering: □

- A PPP model with tri-partite funding; □
- Market-facing programs supporting major initiatives; □
- A rich strategic plan that will encourage impactful projects and pilots in a program embracing the whole ECS value chain.

CALL ECSEL-2014-1 RESEARCH AND INNOVATION ACTIONS

Scope and objectives

The call will be open for the following topics: **Chapter** **Sub Chapter** **Open/Closed**

Key Applications

1 **Smart mobility**	11 Resource-efficient transport
	12 Less congestion, more safety
	13 Next generation vehicles
2 **Smart society**	21 Securing critical community assets
	22 Trusted components and systems
	23 Next generation digital lifestyle
3 **Smart energy**	31 Sustainable energy generation and conversion
	32 Reducing energy consumption
	33 Efficient community energy management
4 **Smart health**	41 Home care and well-being
	42 Hospital and heuristic care
	43 Food processing and safety
5 **Smart Production**	51 Sustainable and integrated manufacturing
	52 Semiconductor manufacturing

Essential technologies

1 Process technologies	11 More Moore
	12 More than Moore
2 Design technologies	21 Yield, Robustness and Reliability
	22 Managing complexity and diversity, including safety and security
	23 Model-based engineering and virtual engineering
3 Cyber-physical systems	31 Architectures
	32 Autonomy and cooperation
	33 Platforms - computing architecture and energy management
4 Smart systems integration	41 Building blocks, controls and interfaces of smart systems
	42 Integration methods enabling functionality, automation and operation
	43 Interfaces for the safe, secure and efficient transfer of data and energy

Eligibility conditions

- **ECSEL**

At least **three** legal entities. Each of the three shall be established in a different Member State or associated country. All three legal entities shall be independent of each other.

Evaluation criteria Type of action

- **Evaluation criteria**
- The following aspects will be taken into account, to the extent that the proposed work corresponds to the topic description in the work plan.
- The extent to which the outputs of the project should contribute at the European and/or International level to:

Quality and efficiency of the implementation

- The following aspects will be taken into account:
- ECSEL Research and Innovation Action
- 1. Clarity and pertinence of the objectives;
- 2. Credibility of the proposed approach.
- 3. Soundness of the concept, including trans-disciplinary considerations, where relevant;
- 4. Extent that proposed work is ambitious, has innovation potential, and is beyond the state of the art (e.g. ground-breaking objectives, novel concepts and approaches)
- **Excellence**
- 1. The expected impacts are listed in the MASP for each relevant topic under the title “Impact”
- 2. Enhancing innovation capacity and integration of new knowledge;
- 3. Strengthening Europe and the competitiveness and growth of companies by developing innovations meeting the needs of European and global markets; and, where relevant, by delivering such innovations to the markets;
- 4. Any other environmental and socially important impacts (not already covered above);
- 5. Effectiveness of the proposed measures to exploit and disseminate the project results (including management of IPR), to communicate the project, and to manage research data where relevant.
- **Impact**
- 1. Coherence and effectiveness of the work plan, including appropriateness of the allocation of tasks and resources;
- 2. Complementarity of the participants within the consortium (when relevant);
- 3. Appropriateness of the management structures and procedures, including risk and innovation management.

Project selection and monitoring

- As part of the H2020 programme, ECSEL will evaluate proposals against the following criteria:
- - Excellence
- - Impact
- - Quality and efficiency of the implementation

Indicative timetable for evaluation and grant agreement Information on the outcome of the evaluation

- Maximum 5 months from the final date for submission

Indicative date for the signing of grant agreements

- Maximum 3 months from the date of informing applicants

Reimbursement rate for establishing the EU contribution for Research and Innovation Actions

- Funding percentages are to be calculated on the eligible costs according to H2020. Type of partner EU Contribution as % of the Eligible Cost according to H2020
- Industry 50%
- SME 50%
- University/Other 50%

CALL ECSEL-2014-2 INNOVATION ACTIONS

- **Scope and objectives**
- The call will be open for the following topics: **Chapter** **Sub Chapter** **Open/Closed**
- ***Key Applications***
- 1 **Smart mobility** 11 Resource-efficient transport
- 12 Less congestion, more safety
- 13 Next generation vehicles
- 2 **Smart society** 21 Securing critical community assets
- 22 Trusted components and systems
- 23 Next generation digital lifestyle
- **3 Smart energy** 31 Sustainable energy generation and conversion
- 32 Reducing energy consumption
- 33 Efficient community energy management
- 4 **Smart health** 41 Home care and well-being
- 42 Hospital and heuristic care
- 43 Food processing and safety
- 5 **Smart production** 51 Sustainable and integrated manufacturing
- 52 Semiconductor manufacturing
- ***Essential technologies***
- 1 Process technologies 11 More Moore
- 12 More than Moore
- 2 Design technologies 21 Yield, Robustness and Reliability
- 22 Managing complexity and diversity, including safety and security
- 23 Model-based engineering and virtual engineering
- 3 Cyber-physical systems 31 Architectures
- 32 Autonomy and cooperation
- 33 Platforms - computing architecture and energy management
- 4 Smart systems integration 41 Building blocks, controls and interfaces of smart systems
- 42 Integration methods enabling smart functionality, automation and reliable operation in harsh and complex environments
- 43 Interfaces for the safe, secure and efficient transfer of data and energy

Reimbursement rate for establishing the EU contribution for Innovation Actions

- Funding percentages are to be calculated on the eligible costs according to H2020. Type of partner EU Contribution as % of the Eligible Cost according to H2020 (*)
- Industry 25%
- SME 35%
- University/Other 50%

Consortium agreement and Participation

- In line with the Rules for Participation and the Model Grant Agreement, participants are required to conclude a **consortium agreement**
- Proposers must refer to ECSEL JU Work Plan 2015 and ECSEL MASP in their proposals and must describe their proposal using the Part B template (MS Word) of ECSEL JU
- In order to submit a project proposal proposers must use the on-line tools provided for this purpose by the EC through its "**Participant Portal**" which can be accessed through the Call pages: ECSEL-2014-1 or ECSEL-2014-2
- For contacts: ecsel-office@ecsel.europa.eu