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

- Smart Mobility
- Smart Society
- Smart Energy
- Smart Health
- Smart Production

Key Application

Essential Capabilities

- Semicon Process Equipment Materials
- Design Technology
- Cyber-Physical Systems
- Smart Systems Integration
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 market-facing 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 GOVERNANCE
Union Body, Legal Personality, 4 Bodies:

- **GOVERNING BOARD**
  - ECSEL Members
  - (Public Authorities, Private Members)
  - Strategic orientation and operations
    - Membership, financial rules, budget and staff
    - Adopts MASP, WP, Annual Activity Report etc.

- **EXECUTIVE DIRECTOR**
  - Programme Office
  - Chief Executive, day-to-day management
    - Legal representative accountable to the board
    - Consolidates Multi Annual Strategic Plan (MAFP)
    - Elaborates Work Plan (WP)

- **PUBLIC AUTHORITIES BOARD**
  - European Commission, ECSEL Participating States
  - Funding decisions
    - Rules of procedure for calls for proposals
    - Proposals ranking, allocation of public funding

- **PRIVATE MEMBERS BOARD**
  - AENEAS, ARTEMIS-IA, EPoSS
  - Research agenda
    - Multiannual strategic research and innovation agenda (MASRIA)
    - Annual research and innovation activities plan (RIAP)
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:

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<th>Chapter</th>
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<td>11 Resource-efficient transport</td>
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<td>13 Next generation vehicles</td>
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<td>2 Smart society</td>
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<td>3 Smart energy</td>
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<td>5 Smart Production</td>
<td>51 Sustainable and integrated manufacturing</td>
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<td>52 Semiconductor manufacturing</td>
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Essential technologies

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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. groundbreaking 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:
• **Key Applications**
  • 1 Smart mobility
  • 12 Less congestion, more safety
  • 13 Next generation vehicles
  • 2 Smart society
  • 22 Trusted components and systems
  • 23 Next generation digital lifestyle
  • 3 Smart energy
  • 32 Reducing energy consumption
  • 33 Efficient community energy management
  • 4 Smart health
  • 42 Hospital and heuristic care
  • 43 Food processing and safety
  • 5 Smart production
  • 52 Semiconductor manufacturing
• **Essential technologies**
  • 1 Process technologies
  • 12 More than Moore
  • 2 Design technologies
  • 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
  • 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

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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