

ANUNCIO DE LA CONVOCATORIA ECSEL JU 2020 <https://www.ecsel.eu/calls/calls-2020>

ECSEL Joint Undertaking (<https://www.ecsel.eu/>) es una empresa común público-privada que financia investigación, desarrollo e innovación en Sistemas y Componentes Electrónicos (ECS) como tecnologías clave para la era de la economía digital y de acuerdo a la normativa que lo estableció (COUNCIL REGULATION (EU) No 561/2014 of 6 May 2014 establishing the ECSEL Joint Undertaking).

Asociaciones industriales, estados miembros y la Comisión Europea forman ECSEL JU. ECSEL JU financia proyectos de investigación, desarrollo e innovación que incluyen ECS a través de convocatorias anuales de proyectos transnacionales.

Se encuentra abierta la convocatoria 2020 (<https://www.ecsel.eu/calls/calls-2020>). Esta convocatoria incluye dos tipos de instrumentos:

- Acciones de innovación H2020-ECSEL-2020-1-IA-two-stage (ECSEL-IA)
- Acciones de investigación e innovación H2020-ECSEL-2020-2-RIA-two-stage - (ECSEL-RIA)

Además de la financiación directa de ECSEL JU (2020-1-IA 93M€ y 2020-2-RIA 61M€), la Agencia Estatal de Investigación (AEI) y el Ministerio de Asuntos Económicos y Transformación Digital (MINAETD) financian entidades públicas y privadas españolas con presupuestos de 1,3M€ y 10M€ respectivamente.

ECSEL JU promueve ECS como tecnologías críticas básicas en un amplísimo rango de áreas y financia proyectos de gran envergadura en lo que se refiere a consorcios y presupuestos. Pueden ver debajo las áreas y objetivos de la convocatoria abierta.

Topics and Major Challenges

Transport & Smart Mobility

- Major Challenge 1: Developing clean, affordable and sustainable propulsion
- Major Challenge 2: Ensuring secure connected, cooperative and automated mobility and transportation
- Major Challenge 3: Managing interaction between humans and vehicles
- Major Challenge 4: Implementing infrastructure and services for smart personal mobility and logistics

Health and Wellbeing

- Moving healthcare from hospitals into our homes and daily life requiring preventive and patient centric care
- Restructuring healthcare delivery systems, from supply-driven to patient oriented
- Engaging individuals more actively in their own health and wellbeing
- Ensuring affordable healthcare for the growing amount of chronic, lifestyle related diseases and an ageing population
- Developing platforms for wearables/implants, data analytics, artificial intelligence for precision medicine and personalised healthcare and wellbeing

Energy

- Major Challenge 1: Ensuring sustainable power generation and energy conversion
- Major Challenge 2: Achieving efficient community energy management
- Major Challenge 3: Reducing energy consumption

Digital Industry

- Major Challenge 1: Developing digital twins, simulation models for the evaluation of industrial assets at all factory levels and over system or product life-cycles
- Major Challenge 2: AI-enabled cognitive, resilient, adaptable manufacturing
- Major challenge 3: Developing digital platforms, application development frameworks that integrate sensors/actuators and systems
- Major Challenge 4: Human-centred manufacturing
- Major Challenge 5: Sustainable manufacturing in a circular economy

Digital Life

- Major Challenge 1: Ensuring safe and secure spaces
- Major Challenge 2: Ensuring healthy and comfortable spaces
- Major Challenge 3: Ensuring anticipating spaces
- Major Challenge 4: Ensuring sustainable spaces

Systems and Components: Architecture, Design and Integration

- Major Challenge 1: Managing critical, autonomous, cooperating, evolvable systems
- Major Challenge 2: Managing Complexity
- Major Challenge 3: Managing Diversity
- Major Challenge 4: Managing Multiple Constraint
- Major Challenge 5: Integrating features of various technologies and materials into miniaturised smart components
- Major Challenge 6: Effectively integrating modules for highly demanding environments
- Major Challenge 7: Increasing compactness and capabilities by functional and physical systems integration

Connectivity and Interoperability

- Major Challenge 1: Strengthening the EU position on differentiated technologies and enabling it to capture higher value by moving to system/module level
- Major Challenge 2: Autonomous interoperability translation for communication protocol, data encoding, security and information semantics
- Major Challenge 3: Architectures and reference implementations of interoperable, secure, scalable, smart and evolvable IoT and SoS connectivity

Safety, Security and Reliability

- Major Challenge 1: Safety, security and privacy by design
- Major Challenge 2: Reliability and Functional Safety

- Major Challenge 3: Secure, safe and trustable connectivity and infrastructure
- Major Challenge 4: Privacy, data protection and human interaction

Computing and Storage

- Increasing performance at acceptable costs
- Making computing systems more integrated with the real world
- Making “intelligent” machines
- Developing new disruptive technologies

Process Technology, Equipment, Materials and Manufacturing for Electronic Components & Systems

- Major Challenge 1: Develop advanced logic and memory technology for nanoscale integration and application-driven performance
- Major Challenge 2: Develop Technology for Heterogeneous System-on-Chip (SoC) Integration
- Major Challenge 3: Develop technology for Advanced Packaging and Heterogeneous System-in-Package (SiP) integration
- Major Challenge 4: Extend world leadership in Semiconductor Equipment, Materials and Manufacturing solutions

Long-term vision

- New computing paradigms (‘Beyond CMOS’).
- Process technology, equipment and materials
- Systems and components: architecture, design and integration
- Health & wellbeing
- Energy
- Digital Industry
- Transport and smart mobility
- Connectivity and interoperability
- Data science and Artificial Intelligence