

JTI KDT (Key Digital Technologies)

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<https://www.kdt-ju.europa.eu/>

KDT JU
Key Digital Technologies Joint Undertaking

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ECSEL JU becomes KDT JU

- successor to ECSEL JU - is a EU-driven, public-private partnership, funding innovation in electronic components and systems.

KDT JU continues to support the ongoing activities of the ECSEL JU.

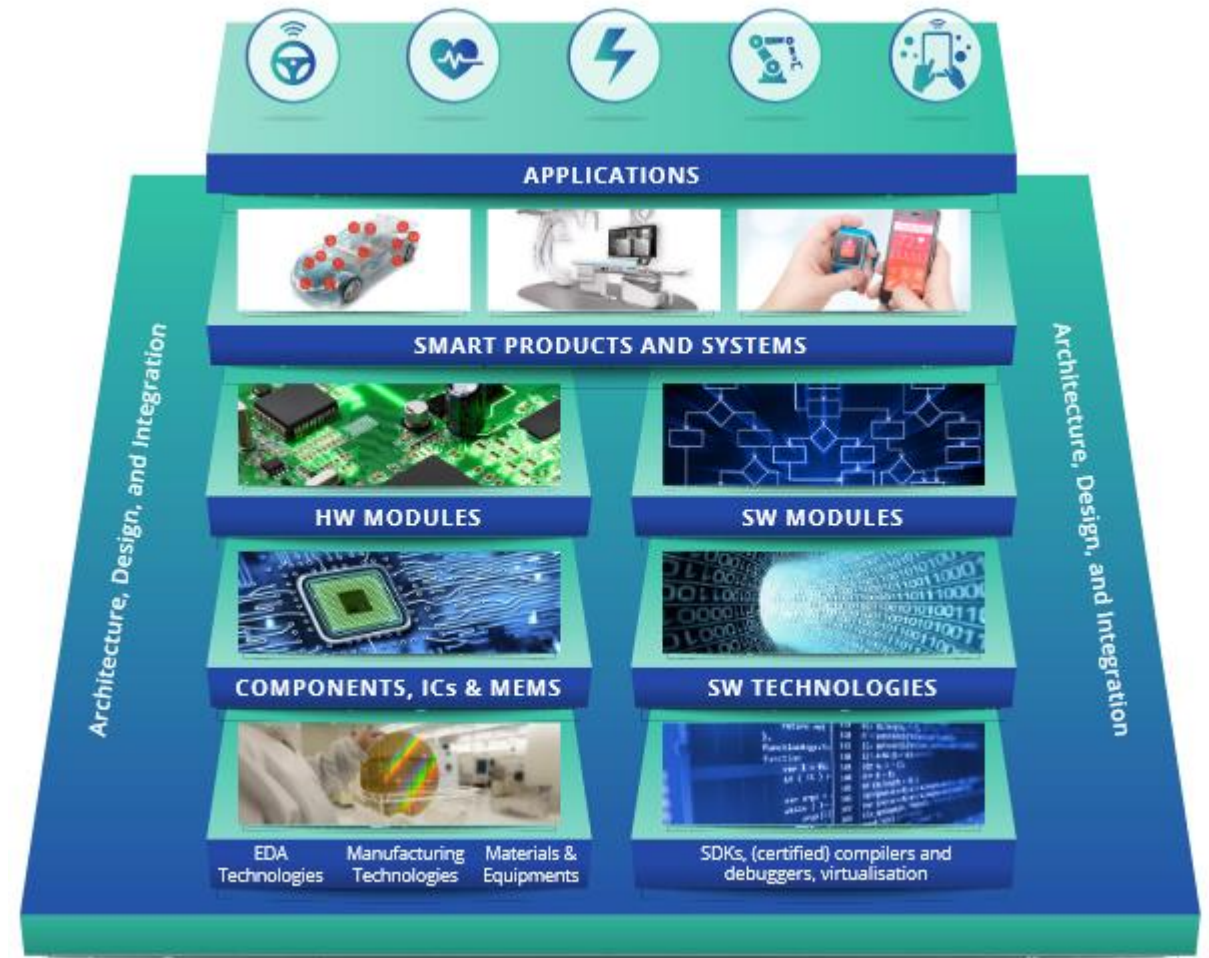
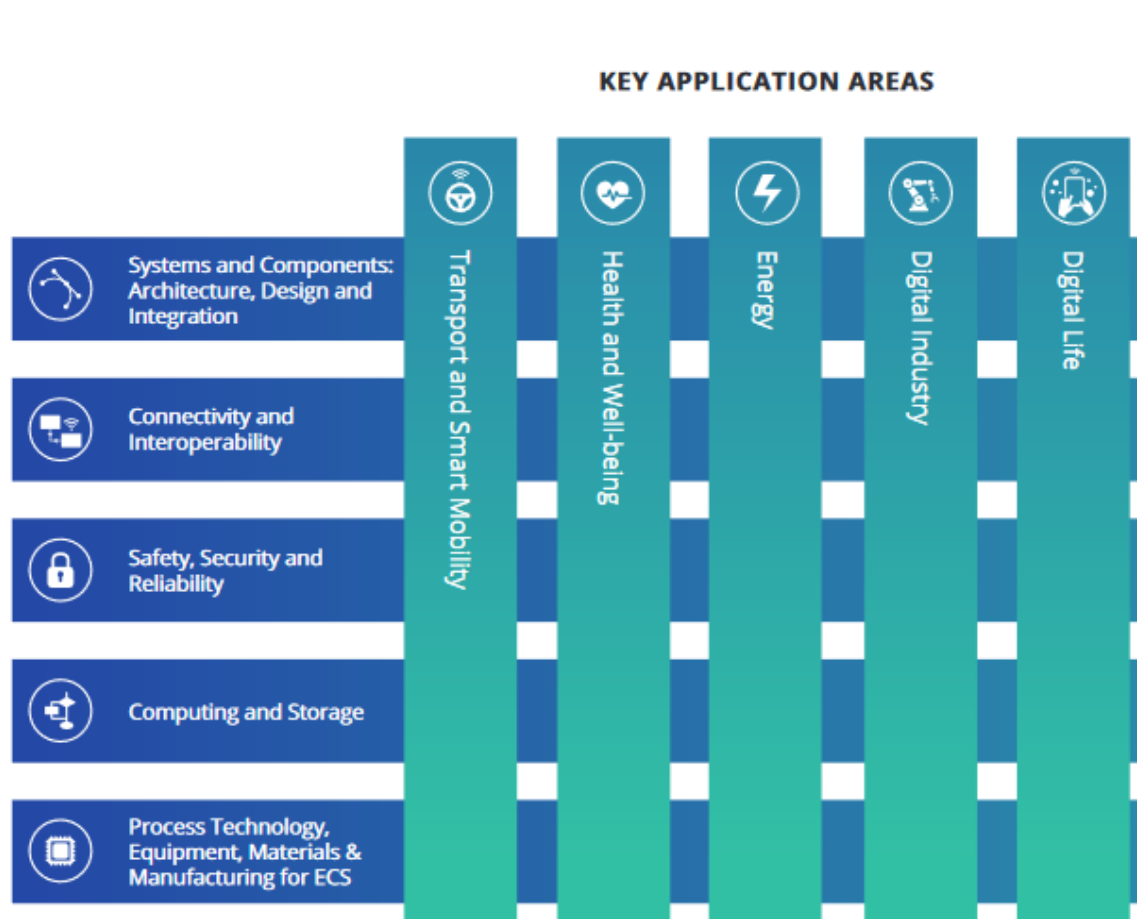
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ECSEL JU Achieved:

- 16 Calls
- 92 Projects
- More than 3100 participations
- 4.8 bn€ RDI cost
- 2.2 bn€ EU and National funding
- 2.6 bn€ Industries' own financing

Importància de la Micro/Nanoelectrònica

- Tecnologies Habilitadores Clau: KETS
- Recent escassetat de semiconductors. Chips Act. PERTE,...



Tipologia de Projectes

- TRLS alts. IA, RIAS i CSAs
- Normalment Molt grans (50-70 partners. 50-100 M Euros, 10-15 països, però també algun de més petit)
- Finançament tripartit EC(JTI)-Països-Self funding (No s'arriba al 100%)
- A España dues agències finançadores: MINECO per empreses i centres tecnològics, AEI per a OPIs i UU
- Finançament projectes seleccionats en funció de disponibilitat dels països
- KDT (ex-ECSEL) y Futur XIPS, s'està emportant molts diners del PM-HE.
- Tota tipologia d'aplicacions. Mirar SRA de ECS

Preguntes

- Quins son els beneficis d'adherir-se a una partnership si volen ser més actius a Horizon Europe
 - KDT/Chips s'endurà una part molt important de diners d'HE en l'àrea del semiconductors: 6.000 M€ fins al 2030 total. 2500 M€ Comunitaris.
 - Es reduiran els tòpics típics d'Horizon Europe, perquè es passarà el suport de la EC cap a la JTI
 - Projectes molt grans amb un caire molt industrial i amb actors europeus molt importants.
- Millor estratègia per poder aprofitar al màxim aquestes associacions.
 - Difícil liderar. Buscar entrar en consorcis que s'estiguin formant.
 - Xarxa de contactes o a través d' Info days. ECS brokerage events,
 - A través de les associacions industrials AENEAS; Eposs, Inside
- Explicar breument algun projecte que s'hagi gestat a la partnership i en el qual hagin participat.
 - ENSO: Energy for Smart Objects. Coordinador ST Microelectronics
 - AGRARSENSE: Smart Systems for Agrifood. Coordinador.
 - IREL: Fiabilitat de components i sistemes electrònics (Mobilitat, Salut, Indústria,....)

Calls 2023:

2.1 Launch of KDT JU calls

The EU contribution is based on the budget foreseen for the JUs in the general Union budget.

The proposal establishing the Joint Undertakings under Horizon Europe (COM(2021) 87, 23 February 2021) indicates an estimated maximum operational budget for the KDT JU in 2023 of almost 317,704,061 Euro for the calls, and an amount of 700,000 Euro will be reserved for contracting experts involved in the evaluation of projects and monitoring of the project implementation.

In 2023, the KDT JU will launch three calls for proposals:

- A **first** call for **Innovation Actions** (higher TRLs) and will consist of a global topic and 3 focus and run in 2 phases.
- The **second** call for **Research and Innovation Actions** (lower TRLs) and will consist of a global topic and one focus topic and run in 2 phases.
- A **third** call will include three actions one RIA and two CSA that will be implemented as one phase call without national contribution.

Call 2023: (II)

The two global topics focus on all chapters of the SRIA and aim at the reinforcement of the industrial competitiveness, stimulating industrial innovation and transfer of innovation from research environments (RTOs and Universities) to SMEs and Large Enterprises. Research and Innovation Actions (RIA) and Innovation Actions (IA) essentially differ by the Technology Readiness Level (TRL) and therefore by the reimbursement rates.

Projects selected should demonstrate high impact, Europe wide collaboration with a mixed participation of large enterprises, SMEs and academia.

Expected outputs are novel technologies and applications, pilot lines, large scale demonstrators, and platforms for innovative product developments.

Next to those two global topics, the **following focus topics are included in the IA call:**

- Topic 2 IA: Focus topic on *6G Integrated Radio Front-End for TeraHertz Communications*;
- Topic 3 IA: Focus topic on *Integration of trustworthy Edge AI technologies in complex heterogeneous components and systems*;
- Topic 4 IA: Focus topic on *Electronic Control Systems (ECS) for management & control of decentralized energy supply & storage*.

Call 2023: Focus Topics

And the following **focus topic is included in the RIA call:**

- Hardware abstraction layer for a European Vehicle Operating System (RIA)

The **third call** will cover three actions:

- Improving the global demand supply forecast of the semiconductor supply chain (IA)
- Pan-European network for Advanced Packaging made in Europe (CSA)
- Coordination of the European software-defined vehicle platform (CSA)

EU estimated expenditure for the calls 2023

Action	Topic	Estimated EU Expenditure (M€)
Call 2023-1-IA T1	Global call according to SRIA 2023 (IA)	153.0
Call 2023-1-IA T2	Focus topic <i>6G Integrated Radio Front-End for TeraHertz Communications</i> (IA)	20.0
Call 2023-1-IA T3	Focus topic on <i>Integration of trustworthy Edge AI technologies in complex heterogeneous components and systems</i> (IA)	20.0
Call 2023-1-RIA T4	Focus Topic on <i>Electronic Control Systems (ECS) for management & control of decentralized energy supply & storage</i> (IA)	20.0
Call 2023-2-RIA T1	Global call according to SRIA 2023 (RIA)	76.7
Call 2023-2-RIA T2	Focus Topic on <i>Hardware abstraction layer for a European Vehicle Operating System</i> (RIA)	20.0
Call 2023-3-IA T1	<i>Improving the global demand supply forecast of the semiconductor supply chain</i> (IA)	5.0
Call 2023-3-CSA T2	<i>Pan-European network for Advanced Packaging made in Europe</i> (CSA)	1.0
Call 2023-3-CSA T3	<i>Coordination of the European software-defined vehicle platform</i> (CSA)	2.0
	Total	317.7 M€

National Budgets for the call 2023

Participating states	Call 2023-1 T1	Call 2023-1 T2	Call 2023-1 T3	Call 2023-1 T4	Call 2023-2 T1	Call 2023-2 T2	Total (M€)
AT							7.0
BE-FL							12.0
BE-BR							
BE-WL							
BG							
CY							
CZ							3.0
DE							32.0
DE TH							
DK							
EE							0.75
EL							0
ES AEI							
ES MAETD							
FI							

Major Challenges for Mobility:

Mobility		
	Major challenge 1: Enable electrification and sustainable alternative fuels for CO2-neutral mobility	Open

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	Major challenge 2: Enable affordable safe and environmentally neutral light mobility (bicycles, tricycles, wheelchairs, small drones, etc) and mobile machinery (as smart farming)	Open
	Major challenge 3: Enable affordable, automated and connected mobility for passengers and freight on road, rail, air and water	Open
	Major challenge 4: Provide tools and methods for validation and certification of safety, security and comfort of embedded intelligence in mobility	Open
	Major challenge 5: Achieve real-time data handling for multimodal mobility and related services	Open

Alguns Projectes concedits aplicació mobilitat

- **ArchitectECA2030:** Trustable architectures with acceptable residual risk for the electric, connected and automated cars
- **INSECTT: Intelligent Secure Trustable Things.** smart infrastructure, building, manufacturing, automotive, aeronautics, railway, urban public transport, maritime as well as health.
- **IREL 4.0: Intelligent Reliability 4.0.** The project supports new applications and reliable chips push applications in energy efficiency, e-mobility, autonomous driving and IoT.
- **NEXTPERCEPTION:** Next generation smart perception sensors and distributed intelligence for proactive human monitoring in health, wellbeing, and automotive systems. Smart mobility, Smart health.

Projectes (II)

- Energy ECS: Support of ever more advanced digitalisation, through improving energy management of electric vehicles
- HiEFFICIENT, TRANSFORM, YESvGaN and GaN4AP: Materials
- AI4CSM: managing electric vehicles in transport systems),
- COMP4DRONES). AI and the extension of automated drone technologies to address a broad range of potential markets and applications.
- PRYSTINE:Transport & Smart Mobility

Conclusió:

- Interessant, però t'ho has de currar:
 - Assitència a info-days, networking, etc...
- Potser no hi haurà alternativa a Horizon Europe
- Ànims...