Curious what's INSIDE?

Together we shape the future.

Paolo Azzoni

Secretary General

CPS Summer School, Alghero, 22-26/09/25

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Industry Association

The Chips Act

The European Chips Act formally entered into force on 21 September 2023.

Create a state-of-the-art European chip ecosystem

European Semiconductor Board (Governance)

Pillar 1
Chips for Europe Initiative
- to establish large-scale technological capacity building and innovation across the EU
- to finance technology leadership in research, design and manufacturing capacities

Pillar 2
Security of Supply
- First-of-a-kind semiconductor production facilities

Pillar 3
Monitoring and Crisis Response
- Monitoring and alerting
- Crisis coordination mechanism with MS
- Strong Commission powers in times of crisis

The Chips Joint Undertaking

The Chips JU implements Pillar 1 (*) of the Chips Act

- It replaces and enlarges the KDT JU (scope and budget)
- EU budget KDT 1.8B€ -> EU budget Chips 4.175B€
- Commensurate level of funding expected from Participating States
- 27 Member States and 3 associated: Israël, Türkiye and UK
- **Total Chips programme size around 11B€**

It is made of 2 parts, each operating with yearly Calls:

- The Chips for Europe initiative deals with Pilot Lines, Design Platforms, Quantum chips, Competence Centers
- The R&I industry-driven programme, called “ECS”, based on the ECS Strategic Research and Innovation Agenda, and may include Focus Topics (as in KDT)

(*) except the Chips Fund

Chips JU Budget

EU budget (B€) 2023-2030	Chips for Europe Initiative	ECS (non-Initiative, ex KDT)	Total
R&I (Horizon Europe)	1.425	1.300	2.725
Capacity building (Digital Europe Programme)	1.450	n.a.	1.450
Total	**2.875**	**1.300**	**4.175**

+ A commensurate participant state budget and private investments for a total of more than

€11 B

Chips-JU: Tri-partite organisation (PPP)

Chips JU

(Represented at Chips JU Governing Board)

Aeneas

EPoSS European Association on Smart Systems Integration

Inside Industry Association

Industry
(Private Members)

Participating States
(EU member states and associated countries)

European Commission

European Commission
(EC)

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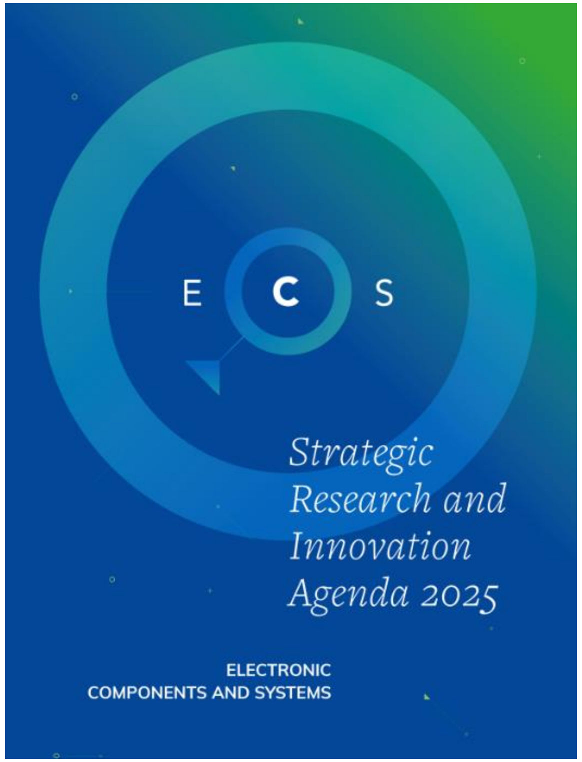
Role of industry associations in the Chips JU(1/2)

- Define strategic R&I orientations
- Deliver the ECS SRIA (https://ecssria.eu/)
- Participate in the definition of the Work Programme and contents of the Calls (including the definition of Focus Topics)
- Organise workshops supporting the WP and Calls



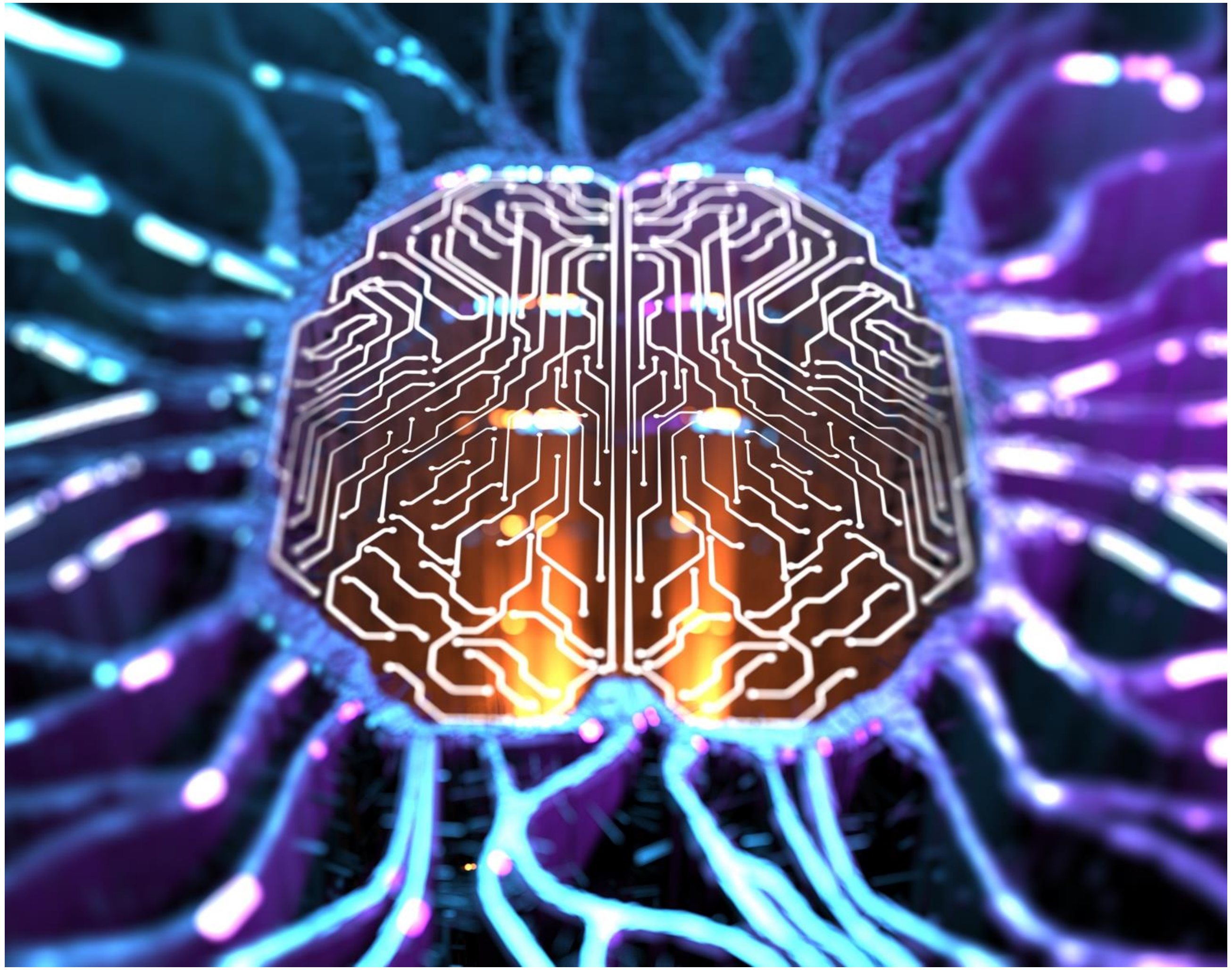
Role of industry associations in the Chips JU (2/2)

- Organise a yearly stakeholders' forum (EFECS)
- Organise the ECS Brokerage supporting the Calls
- Shape the future of the EU R&I in the Chips JU 2.0 under the next Framework Programme

INSIDE Industry Association

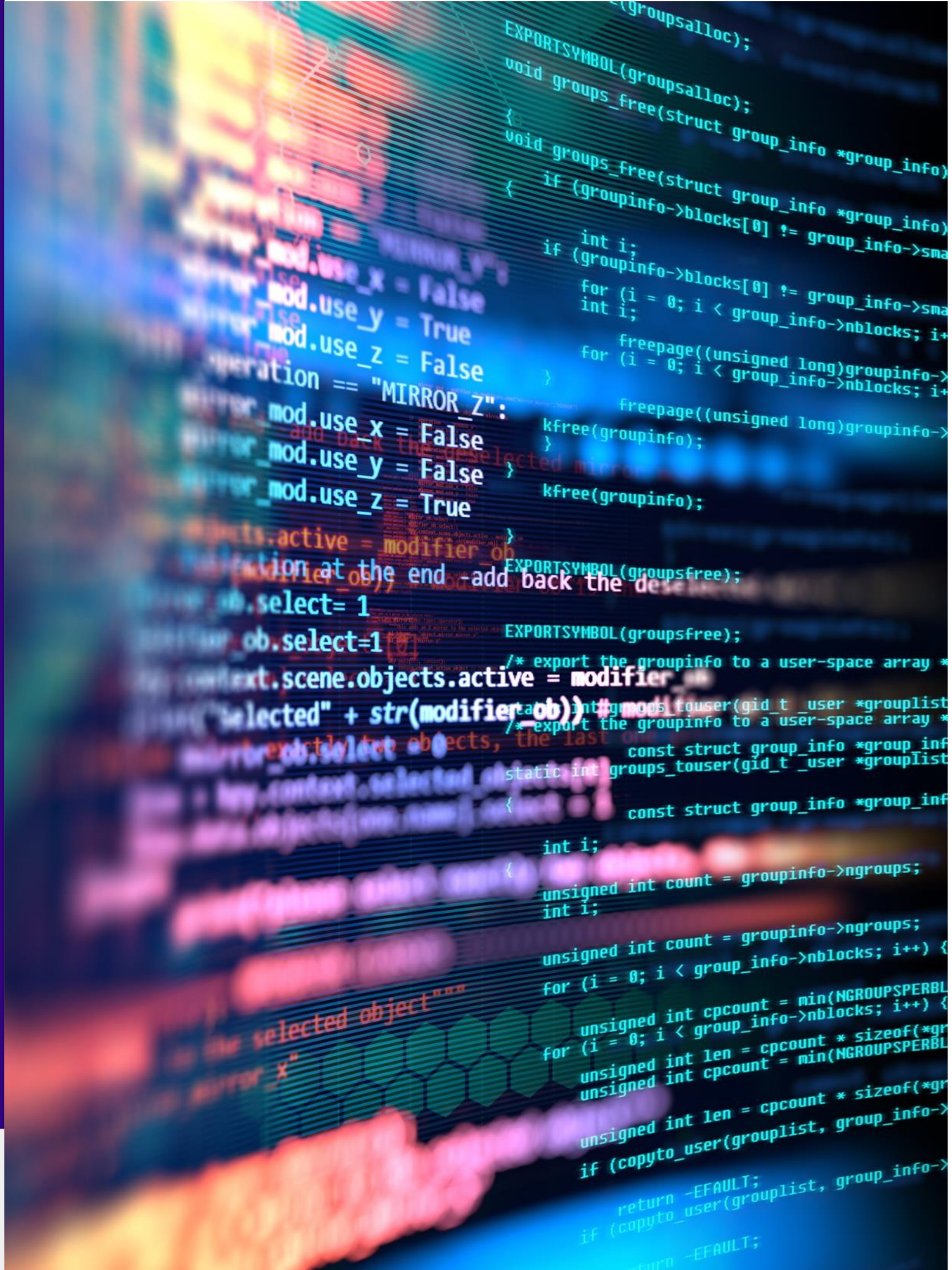
The Association

INSIDE Industry Association is the European Technology Platform for research, design and innovation on Intelligent Digital Systems and their applications.



Your interest, our goal!

We strive that the industrial world and academic community are supported and get funds contributing to create innovative, competitive, trustworthy, and sustainable solutions for the European industry and for European key application domains, in respect of European values.



What is INSIDE

- **We create Intelligent Digital Systems together**
  - Collaboration along the value chain is key.

- **We contribute to the creation of an eco-system**
  - Think big! From individual projects towards an ecosystem. Be part of the ECS value chain, invest in collaborative research, promote and exploit open innovation.

- **We build a more sustainable Europe**
  - We strive to establish and strengthen sustainable and resilient ECS value chains supporting the Green Deal and decarbonisation to halt climate change and contribute to a more solid European economy.

- **We are inclusive**
  - INSIDE embraces all layers in the ECS value chains, for SME's and start-ups. The association also strives to include the EU-13 countries (more recent EU members particularly in Central Europe) and actively welcomes their involvement with all parties to co-create our digital future.

Join the association and team up with a network of excellence, delivering innovation and impact along the entire value chain!

A grasp of our 300 members: large enterprises

Corporate Members

NXP, arm, ST, Valeo, F-Secure, PHILIPS, AVL NTC POWERTRAIN, Infineon, BOMBARDIER, NEWAYS, BMW, Honeywell, EUROTECH Imagine. Build. Succeed., intecs Group, Ford, VOLVO, MONDRAGON, FORVIA Inspiring mobility, AIRBUS, Raytheon Technologies, LEONARDO, ENEXIS ENERGIE IN GOEDE BANEN, SAFRAN, NOKIA, BARCO, SANDVIK, TTTech, acciona, Schneider Electric

- Together we have one strong voice
- Co-define the European R&I strategy on Intelligent Digital Systems
- Align with industry, research & university

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A grasp of our 300 members: RTO's

Academic and RTO Members

Together we have one strong voice

Co-define the European R&I strategy on Intelligent Digital Systems

Align with industry, research & university

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A grasp of our 300 members: SME's

SMEs and start-ups

Technolution
SYSGO EMBEDDING INNOVATIONS
TENSOR EMBEDDED GMBH
NUROMEDIA
GPTech
Critical software
CISC semiconductor
XENOMATIX AUTOMOTIVE VISION SOLUTIONS
virtual vehicle
verum.
Qentinel
ACORDE
Daitek
SINETIQ
NAVTOR
SOLVER Intelligent Analytics
SINETIQ
abinsula
AbsInt
AITIA
ps-tech
DAC
Vemco
bi/ond. Nourishing, Stimulating and Monitoring Cells
MARITIME ROBOTICS
eccenca mastering complexity
ITML

Together we have one strong voice

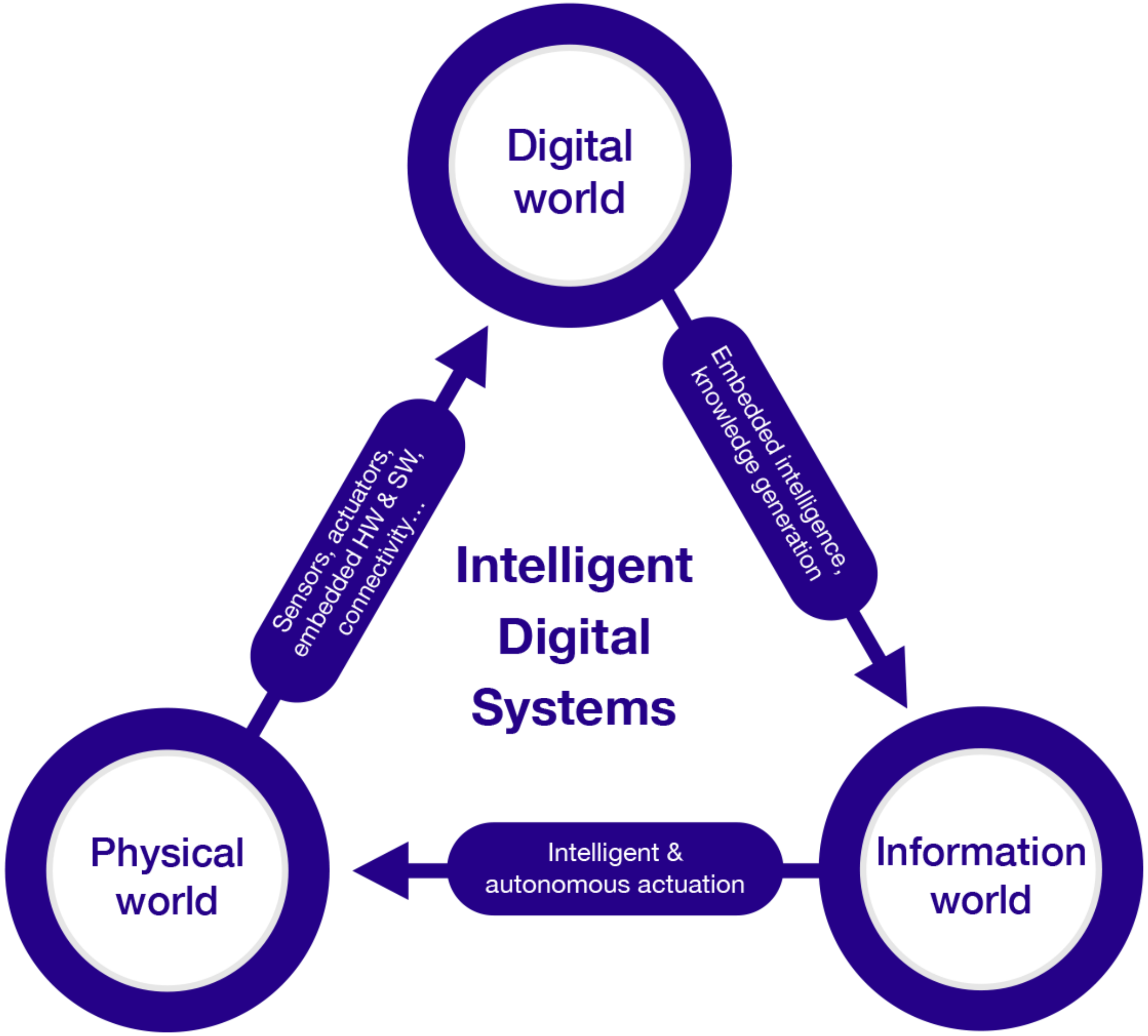
Co-define the European R&I strategy on Intelligent Digital Systems

Align with industry, research & university

Focus Areas

- Embedded & Cyber-Physical Systems: Hardware, Software and Connectivity
- Edge Computing & Embedded Artificial Intelligence
- Hyper-connected & High-Performance Embedded Systems
- Dependable & Trustworthy ECS (security, safety, reliability, explainability, ...)
- IoT & SoS Integration, Monitoring and Management
- Autonomous, Adaptative, Intelligent and Evolutionary Technologies
- Engineering Methods and Tools, Engineering Automation and ECS Lifecycle Management*
- Education & Professional Training *

* Cross focus areas



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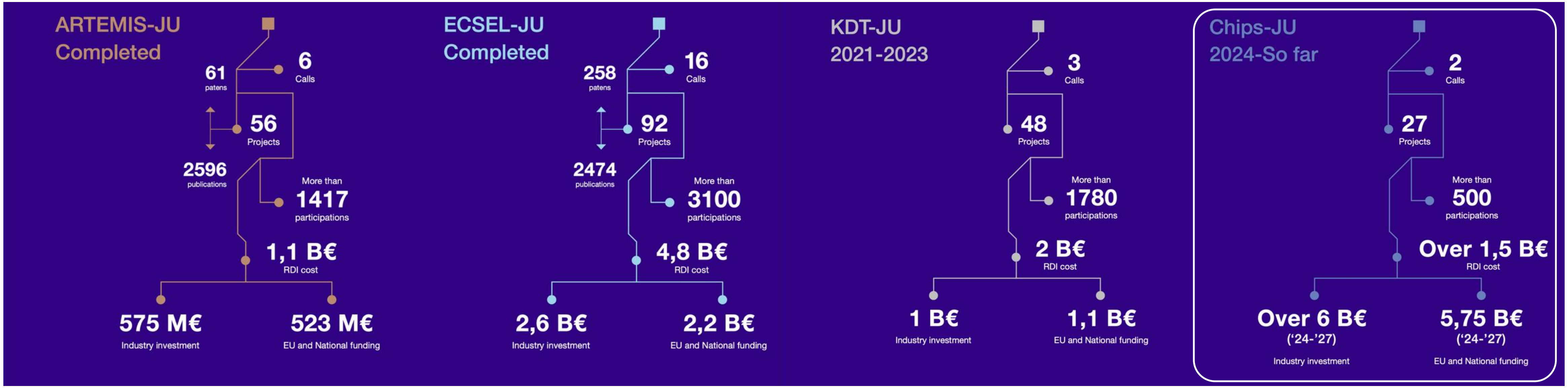
A successful story

INSIDE Industry Association was formerly known as **ARTEMIS** Industry Association:

- INSIDE started as ARTEMIS Joint Undertaking in 2006.
- It was member of ECSEL JU, of its successor KDT JU, and currently a member of the most recent Chips JU.

A story made of successful projects with a significant industrial impact.



The ECS-SRIA

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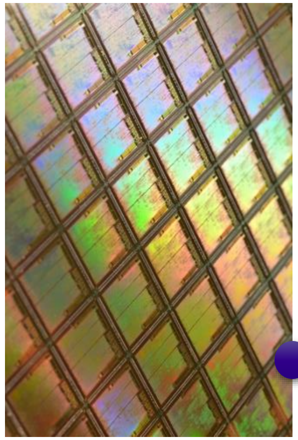
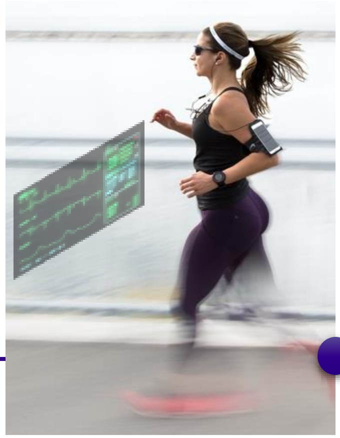
The 2025 ECS SRIA

- Presenting **research topics** to be investigated over next 15 years
- To foster and accelerate our European **digital transformation** reflecting European values
- Covering the **whole value chain of Electronic Components & Systems (ECS)**



Materials, processes, semiconductors, micro & nano electronic components, …

Smart sensors, integrated devices, edge AI, embedded SW, …

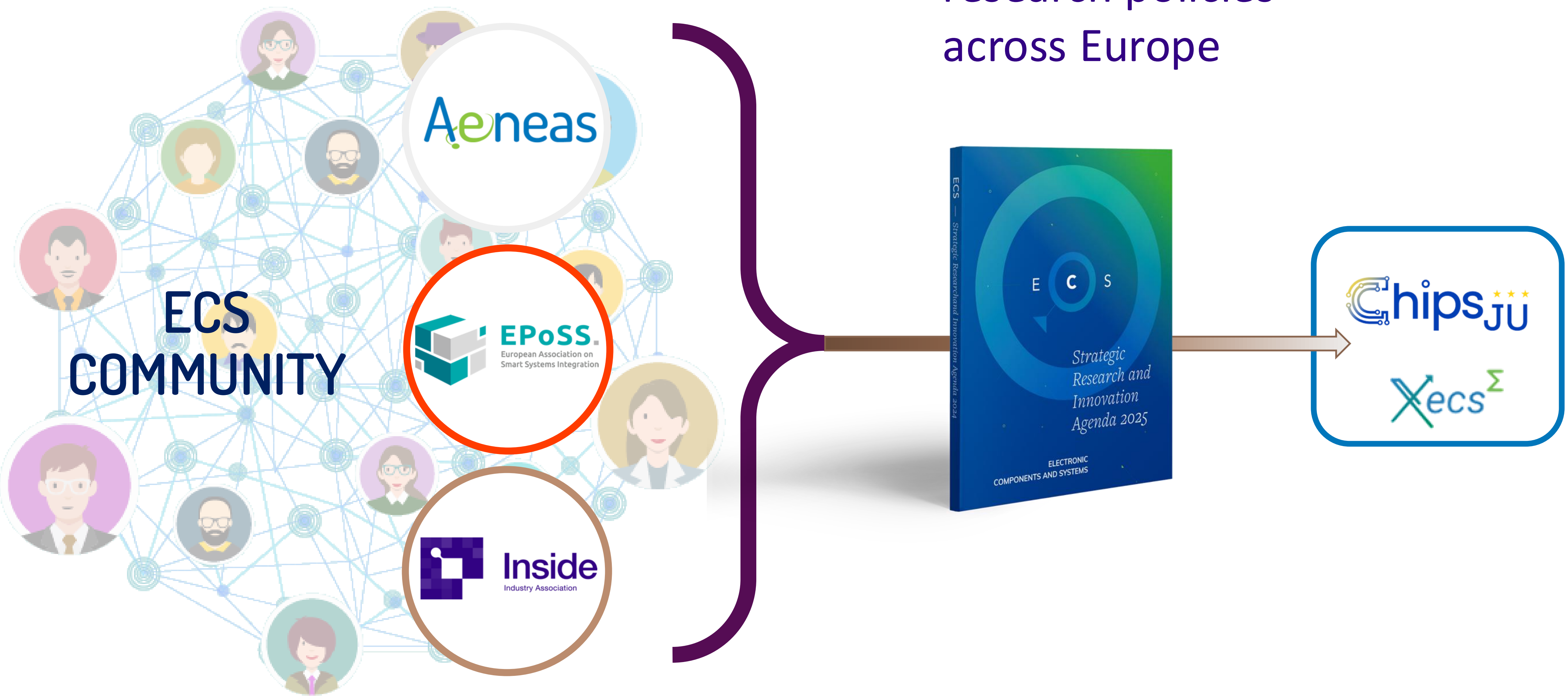


Systems and applications, value creation, societal goals, …

ECS engineering tools

ECS SRIA 2025

Align and coordinate research policies across Europe



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The 2025 ECS SRIA

Patrick Cogez
AENEAS
Chairman

Paolo Azzoni
INSIDE IA
Co-chairman

Matthias Küntzel
EPoSS
Co-chairman

Core Team

- Arco Krijgsman - ASML
- Christophe Wyon - CEA
- Jerker Delsing - Lulea University of Technology
- Jürgen Niehaus - SafeTRANS
- Patrick Pype - NXP
- Sven Rzepka - Fraunhofer
- Wolfgang Dettmann - Infineon Technologies AG

More than 280 European experts

- Interdisciplinary
- Across the whole ECS value chain
- Representing industry, RTO and academia
- 24 countries

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ECS SRIA 2025 is online

https://ecssria.eu/

- Native indexing and analytics
- More advanced functionalities for:
  - Topics search
  - Selective reading
- Increased visibility and accessibility
  - Attract new talents and experts

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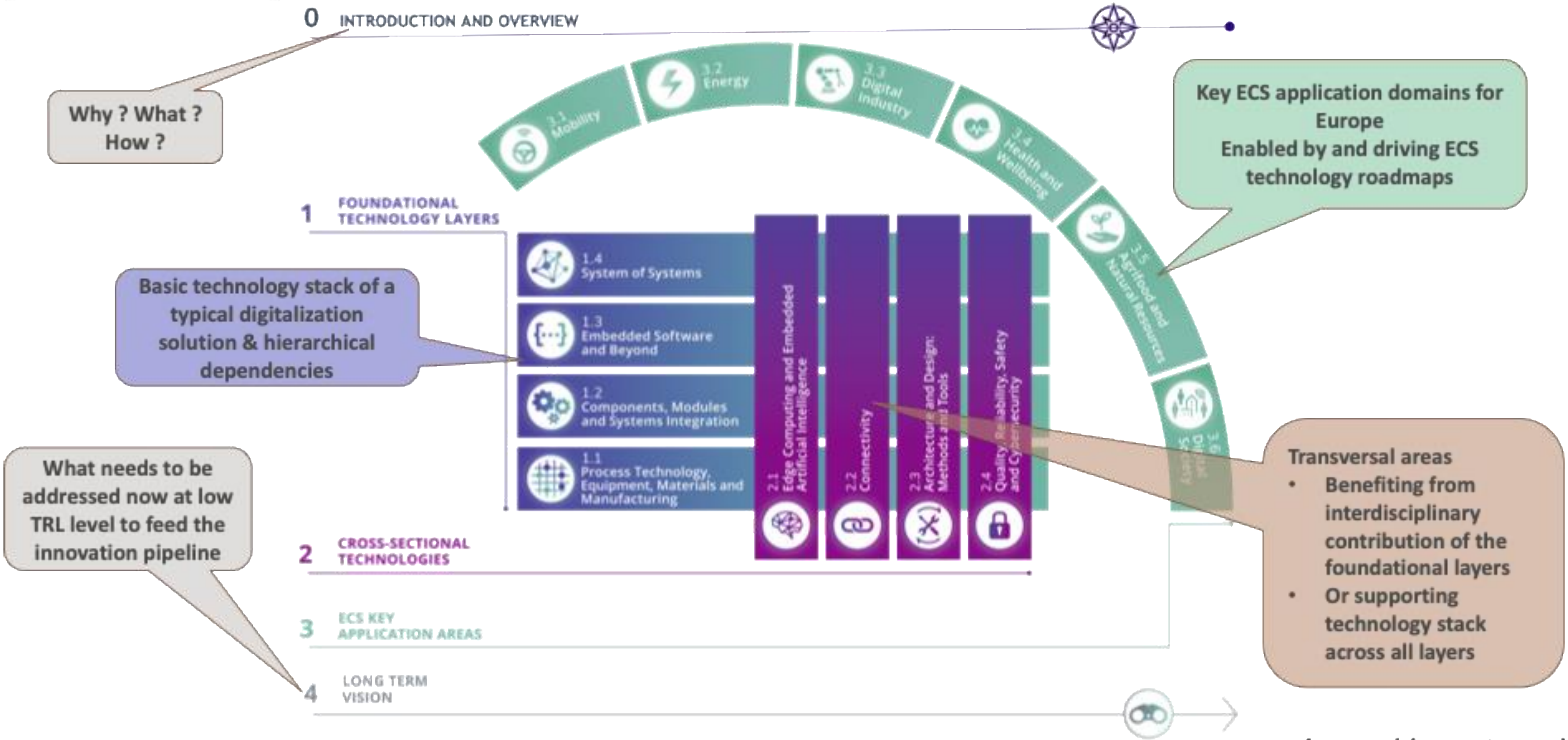
ECS-SRIA structure



https://ecssria.eu/

Foundational technologies

- The Foundational Technology Layers cover the technology stack of a typical digitalization solution based on ECS.
- The chapters have hierarchical dependencies, due to the inherent nature of ECS and the way they compose and integrate in complex entities.
- “Foundational” because are essential for creating the main components of a digitalization solution.
- Represent a very fertile ground where new interdisciplinary technologies, products and solutions can grow.

Cross sectional technologies

- Four Cross-Sectional Technology chapters focus on transversal areas, where innovative results emerge from the interdisciplinary contribution of the foundational layers: they potentially contribute to/depend on all the layers of the technology stack.
- E.g.: embedded intelligence on the edge requires
    - new integrated circuits
    - to develop innovative electronic components
    - that can be used to develop smarter and more connected components, modules and entire systems,
    - running smart software that will offer new functionalities and capabilities
    - that will allow these systems to interact, cooperate and merge in larger Systems of Systems.
- The innovation generated by cross-sectional technologies influences foundational layers and amplifies the effect of innovation also in the application domains.

Application chapters

- Six Application chapters describe the challenges of specific ECS application domains, that are key for Europe and identify the required R&D&I efforts.
- The application areas have a push/pull relation with the foundational/cross-sectional chapters,
  - Providing them the technology needs from vertical scenarios, and/or
  - Being inspired by them to create new solutions based on foundational/cross-sectional technologies.

Long Term Vision

- The Long-Term Vision chapter illustrates our vision of the ECS beyond the time horizon covered by the other chapters:
    - it seeks to identify the research subjects that must be addressed at low TRL levels
    - and help the research programs in the continuous improvement of European digital technology

Ready to become an INSIDEr?

Inside
Industry Association