2025 Oct. 17 (Fri) - AI & Semiconductor Strategic Innovation

PM 02:10 - 02:40

歐盟微電子研發補助前景以及產業協會扮演的角色

The European microelectronics funding landscape and the role of industrial associations in its governance and shape

Dr. Patrick Cogez

Technical Director, 歐盟奈米電子研發產業協會 (AENEAS)

The European microelectronics funding landscape and the role of industrial associations in its governance and shape

Patrick Cogez, Technical Director

The 26th International Conference on Industrial Technology Innovation

17/10/2025

Presentation outline

- What is AENEAS ?
- AENEAS in the European Funding Landscape
  - Chips Joint Undertaking
  - EUREKA Xecs Programme
- The ECS Strategic Research and Innovation Agenda
  - Structure and elaboration
- Other AENEAS activities relevant for EU-Taiwan cooperation
  - International Cooperation on Semiconductors
  - Tackling the talent gap

AENEAS association

Visit https://aeneas-office.org/

AENEAS is a **not-for-profit Industrial Association** representing its members in the **Electronic Components and Systems (ECS)** value chain:

Large industries, Small and Medium Enterprises, Research institutes, universities and associated org.

AENEAS aims at:

- Fostering **R&D&I**
- Creating an effective funding landscape

Supporting the Sustainable Digital transition of Europe:

- To maintain a competitive position
- To support its societal goals

AENEAS initiates and implements actions that:

- Promote networking
- Encourage collaborative consortia work
- Facilitate access to funding support

AENEAS synergies and partnerships with other communities

- Agreement between **AENEAS, EPoSS & Inside** related to ECSEL, KDT and the Chips JU
- MoU with **SEMI Europe** since 2018
- MoU with **6G IA** since 2022
- MoU with **QuIC**, the Quantum Industry Consortium, since 2022
- Member of the **Alliance on Processors and Semiconductor Technologies**
- **ICOS** CSA on International Collaboration On Semiconductors, 2023-2025
- **European Chips Skills Academy**, ERASMUS+ project, 2023-2027, including a **Summer School**

AENEAS members are key industrial players

Jochen Hanebeck, CEO of Infineon, is AENEAS President

570+

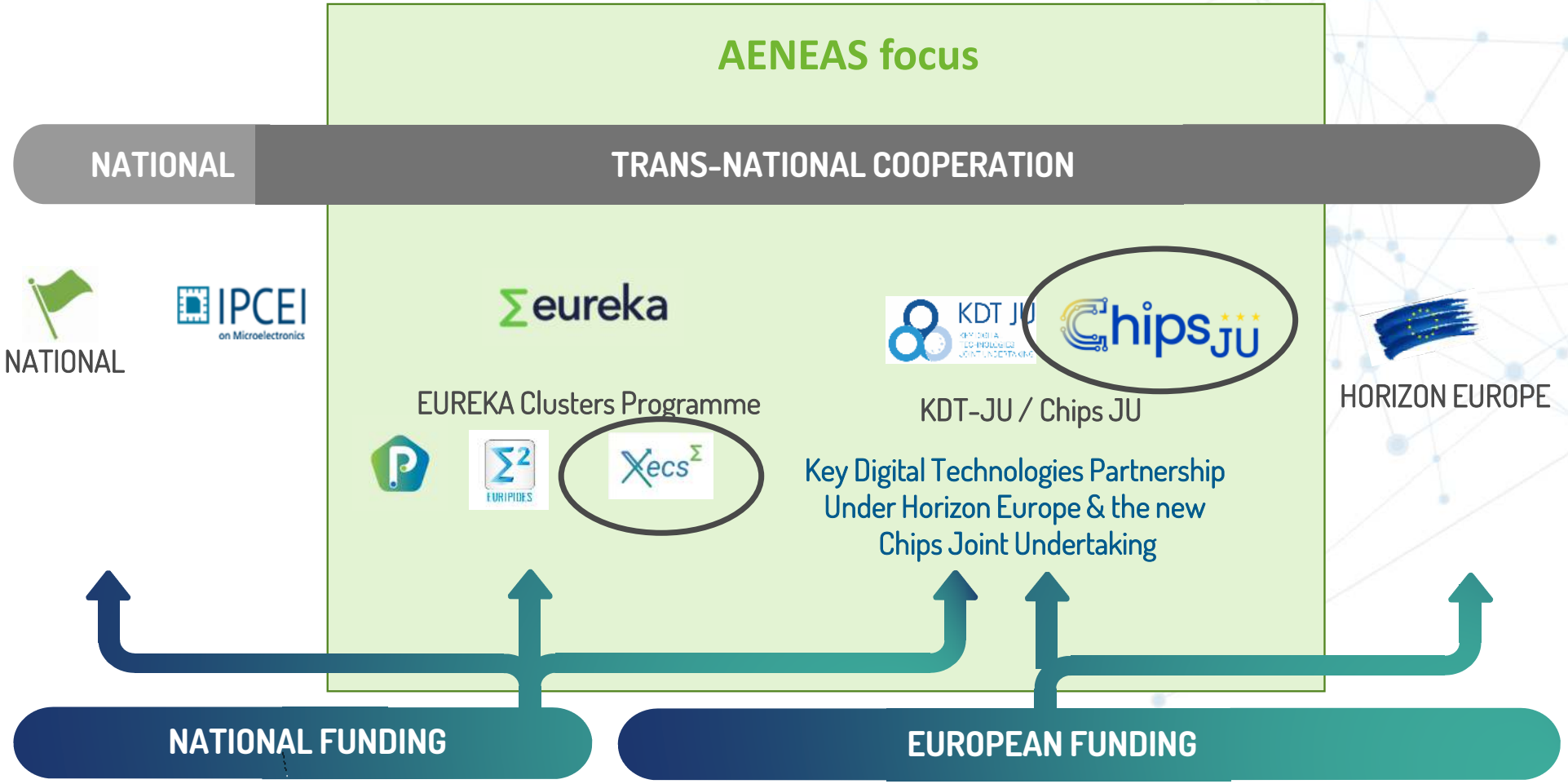
20 seats of the Supervisory Board:

- 4 SME (Chamber A)
- 4 RTO (Chamber B)
- 12 Large Enterprises (chamber C)

570 members in June 2025:
49% SMEs, 24% RTO, 23% Corporate, 4% Associate

See https://aeneas-office.org/

The EU RD&I funding landscape for the ECS industry



AENEAS role in the ECS funding landscape

AENEAS operates Xecs: the Xecs Office is part of AENEAS:

- Launches the Calls
- Appoints technical experts to evaluate the proposals
- Organises funding decision with the Public Authorities
- Monitors the projects (reviews, reports, etc.) until their end
- Highlights impact after the project end

AENEAS focus

TRANS-NATIONAL COOPERATION

EUREKA Clusters Programme

KDT-JU / Chips JU

Key Digital Technologies Partnership Under Horizon Europe & the new Chips Joint Undertaking

AENEAS represents Industry in the Chips JU:

- Sits at the Governing Board, with EC & PS
- Holds voting rights
- Is part of the Private Members Board:
  1. Delivering the SRIA
  2. Contributing, and negotiating the contents of the Calls and budgets
  3. Organising EFECS
- Pays for the Chips JU office (with the EC)

1 - The Chips JU

- The Chips JU is a **tri-partite** Public-Private Partnership between the European Commission and Participating States as public members and 3 Industry Associations AENEAS, EPoSS and INSIDE as private members
- **The Chips JU partnership** (2021-2027) is implemented as a **Joint Undertaking**, enlarging the preceding KDT JU with an extended scope and budget
- Total Chips JU programme size around **11B€**
- **It is made of 2 parts,** each operating with **yearly Calls:**
    1. **The regular R&I** programme, industry-driven, called **"ECS"** based on the ECS Strategic Research and Innovation Agenda, which may include Focus Topics (in continuation of KDT)
    2. **The Chips for Europe initiative,** as pillar 1 of the **EU Chips Act** (since 21 Sept 2023), deals with Pilot Lines, Design Platforms, Quantum chips and Competence Centers
- Selected projects receive funding from EC and Participating States

Chips JU governance

GB (Governing Board)

Industry associations (Private Members)

Participating States (PS)

European Commission (EC)

PMB

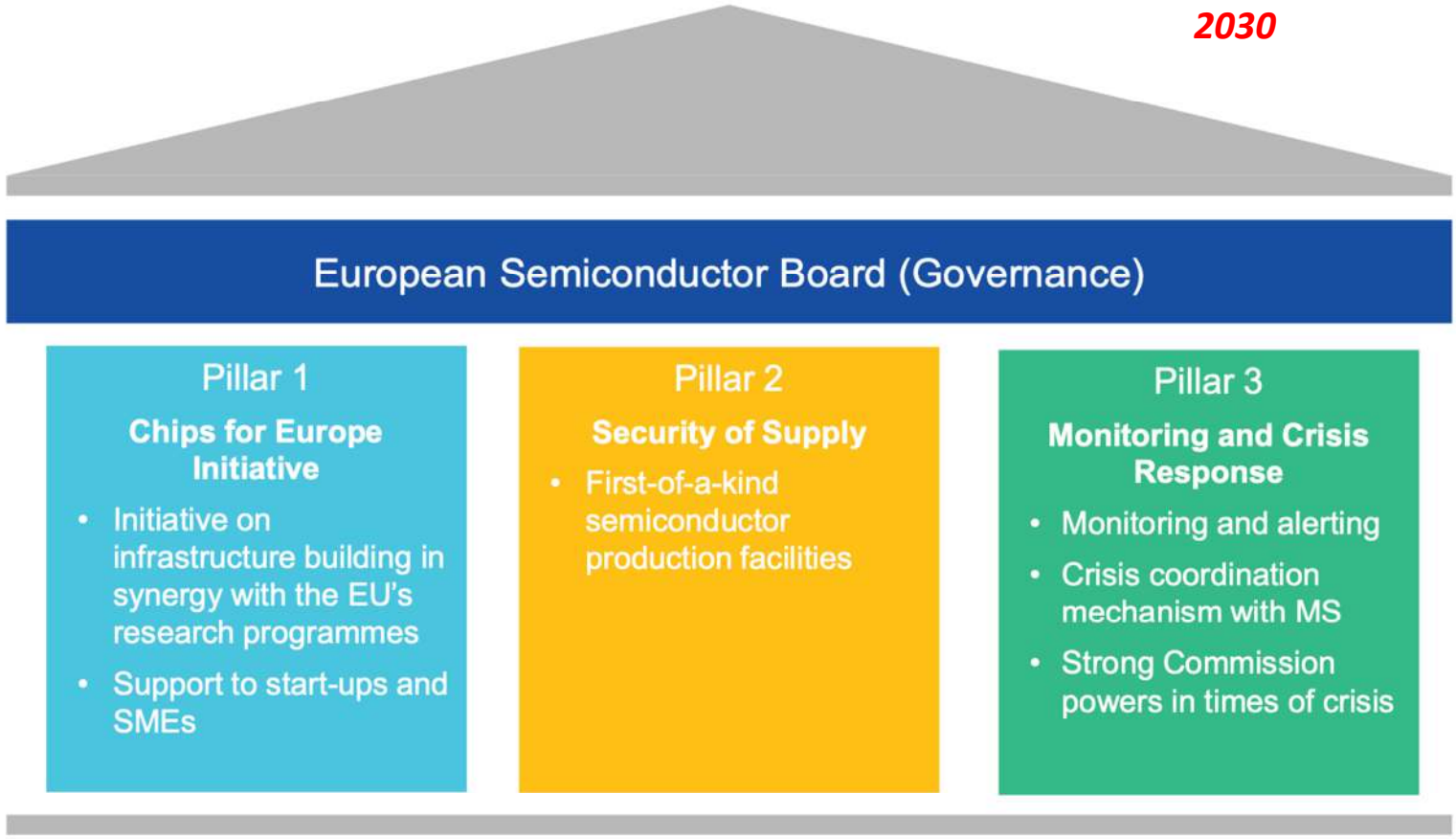
PAB

Chips Act package: European Commission

Three pillars of the Chips Act

***Comment*: Chips Act > 43B€ public private investment up to 2030**

***Comment:* AENEAS focusing on Research & Innovation (R&I): Pillar 1 "Chips for Europe Initiative". The Chips Joint Undertaking replaces the KDT Joint Undertaking**



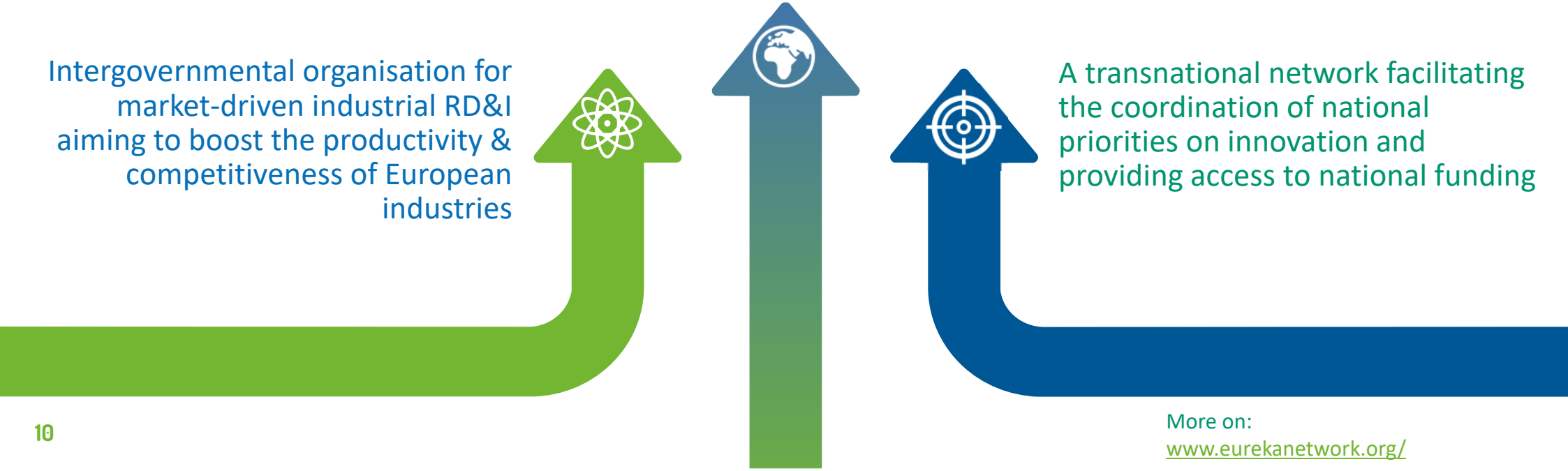
European Commission

2 – Eureka Cluster Xecs

What is ∑eureka ?

The world's biggest public network for international cooperation in RD&I, present in over 45 countries.
Mainly European, but also including
Canada, Israel, Singapore, South Africa and South Korea

Intergovernmental organisation for market-driven industrial RD&I aiming to boost the productivity & competitiveness of European industries



A transnational network facilitating the coordination of national priorities on innovation and providing access to national funding

More on:
www.eurekanetwork.org/

Xecs – A Eureka Cluster

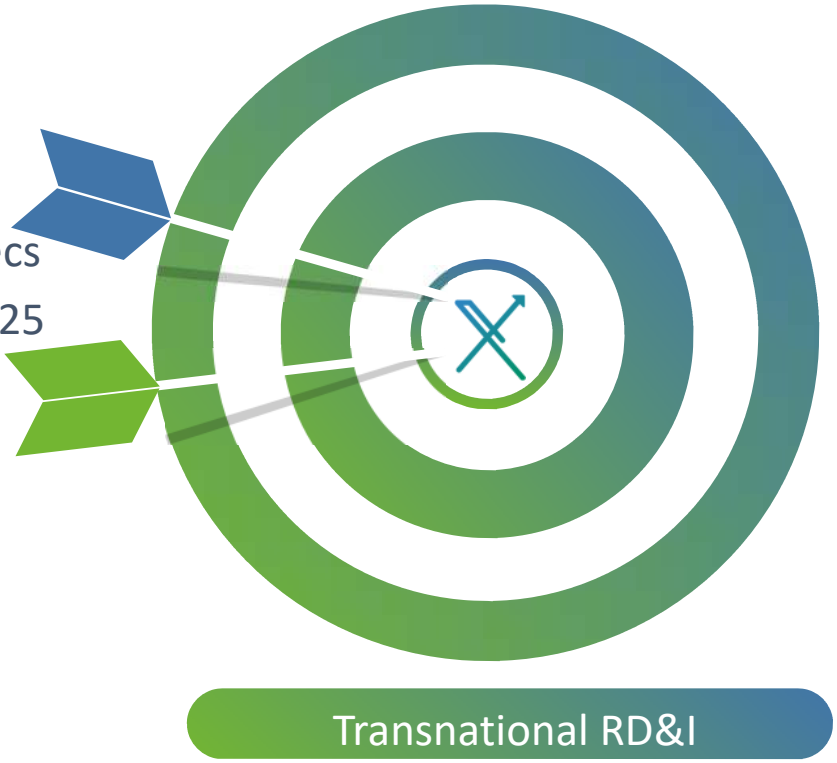
supporting RD&I in the field of Electronic Components & Systems

Public Authorities

- > 25 countries support Xecs
- Label renewed in June 2025

Private sector

- Large enterprises,
- SMEs,
- Universities,
- RTOs

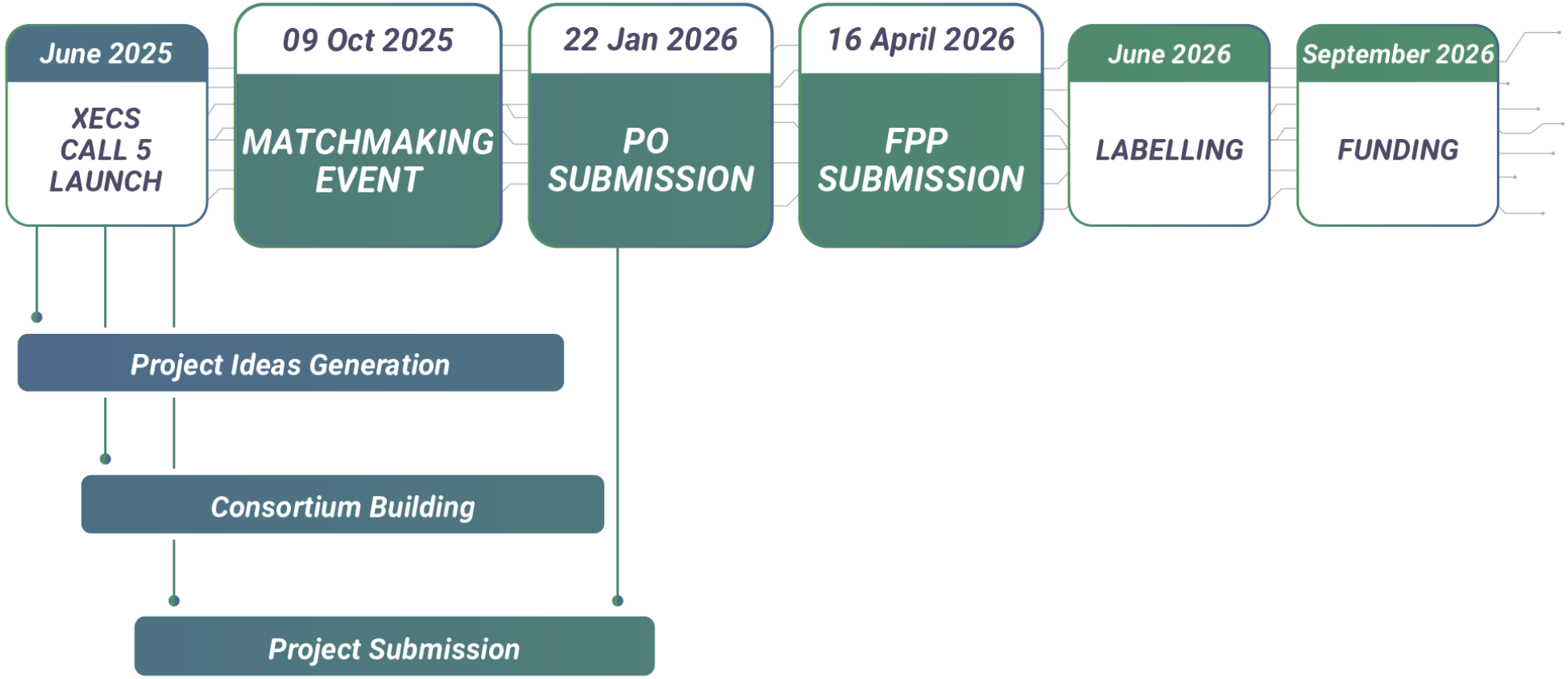


Transnational RD&I

Xecs office is embedded in AENEAS benefiting from:

- Complementary activities with the Chips Joint Undertaking
- Direct experience from Eureka Catrene, Euripides² and Penta Clusters
- Supported also by EPoSS and Inside Industry Associations

Xecs Call 5 timeline



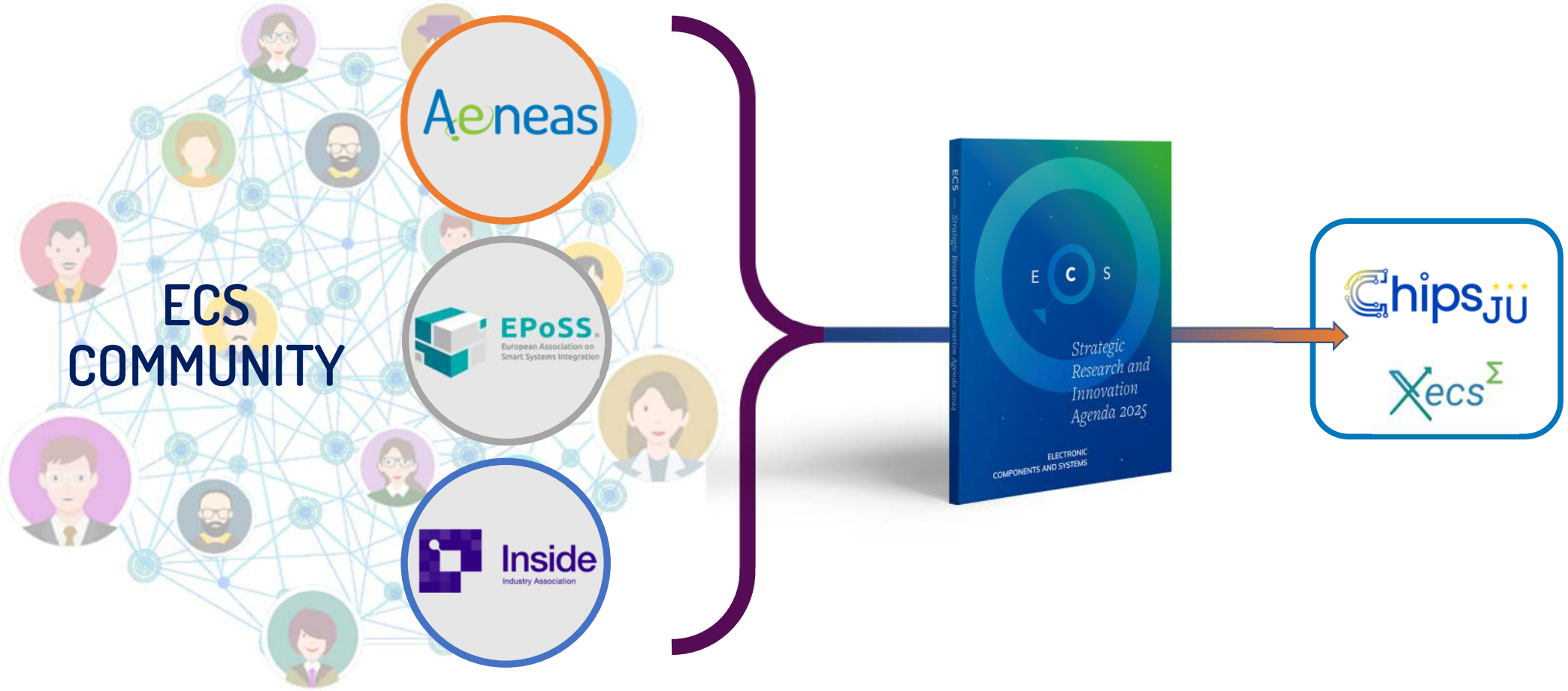
Eureka Cluster Xecs

- Open to all 47 Eureka countries and beyond
- National funding according to national rules

- Xecs is an additional EUREKA funding opportunity beyond GlobalStars
  - Provided that Taiwanese Public Authorities fund that programme
- Current call schedule (PO deadline January 22nd, 2026) well suited for Taiwanese partners to join now

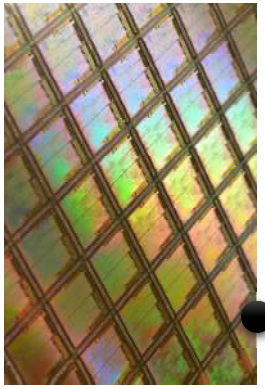
- High flexibility in the course of the project e.g. for changes in the project
- Low administrative overhead, even SMEs can take the role of a project leader

The ECS SRIA - Why ?
Align and coordinate research policies across Europe



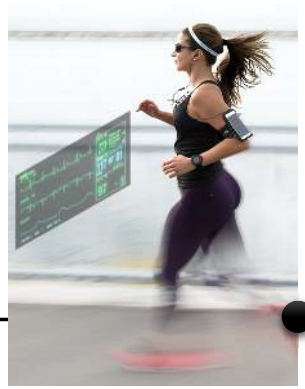
The ECS SRIA – What ?

- 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, …

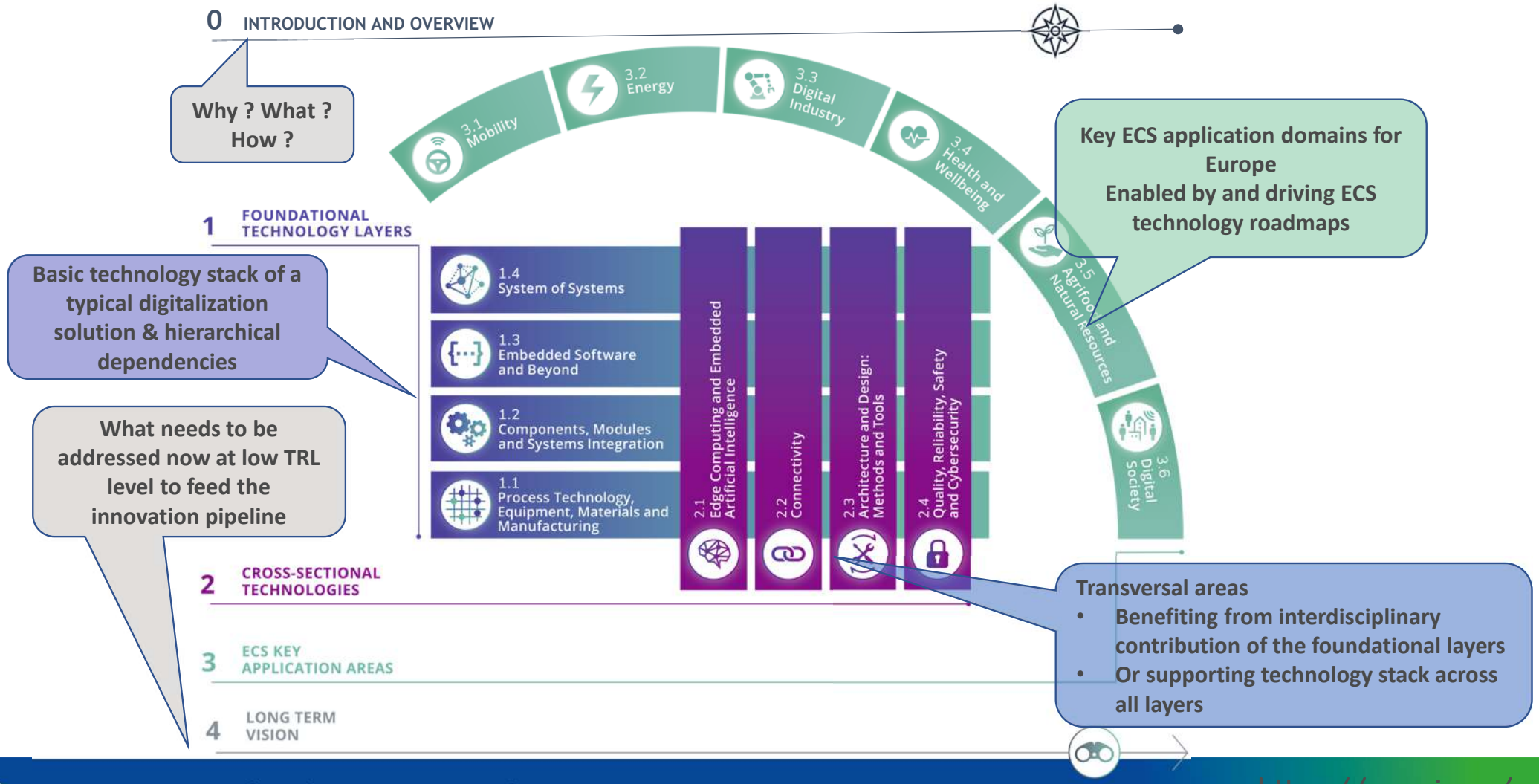
Smart sensors, integrated devices, edge AI, embedded SW, …



Systems and applications, value creation, societal goals, …

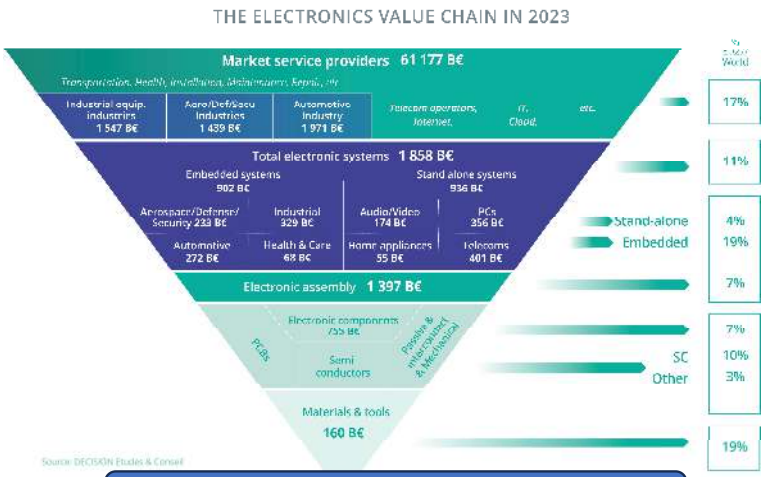
ECS engineering tools

ECS-SRIA structure



Ch. 0 - Strategic overview

- Why ECS matter



Strategic importance for the EU

Addressing societal challenges

- What? SRIA content, including new and/or expanded cross-cutting themes

Chiplets

Open Source Hardware

AI

Silicon Photonics

Quantum Technologies

2005 ECS SRIA Edition available online

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

- https://ecssria.eu/

Patrick Cogez
AENEAS
Chairman

Paolo Azzoni
INSIDE IA
Co-chairman

Matthias Küntzel
EPoSS
Co-chairman

The 2025 ECS SRIA – Who ?

Core Team

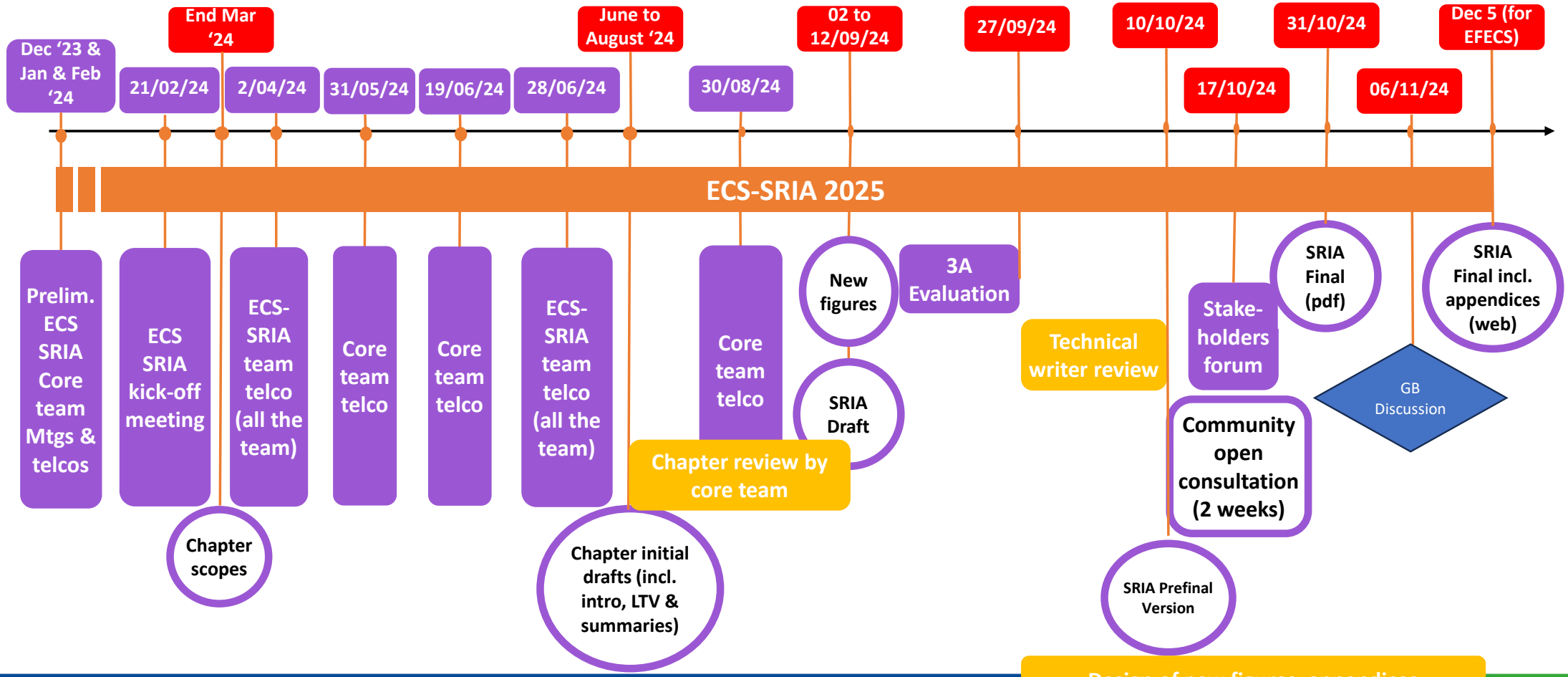
- Arco Krijgsman - ASML
- Christophe Wyon - CEA
- Jerker Delsing - Lulea University of Technology
- Jürgen Niehaus - SafeTRANS
- Patrick Pype - NXP
- Sven Rzepka - Fraunhofer
- Wolfgang Dettmann - Infineon Technologies AG

More than 280 European experts

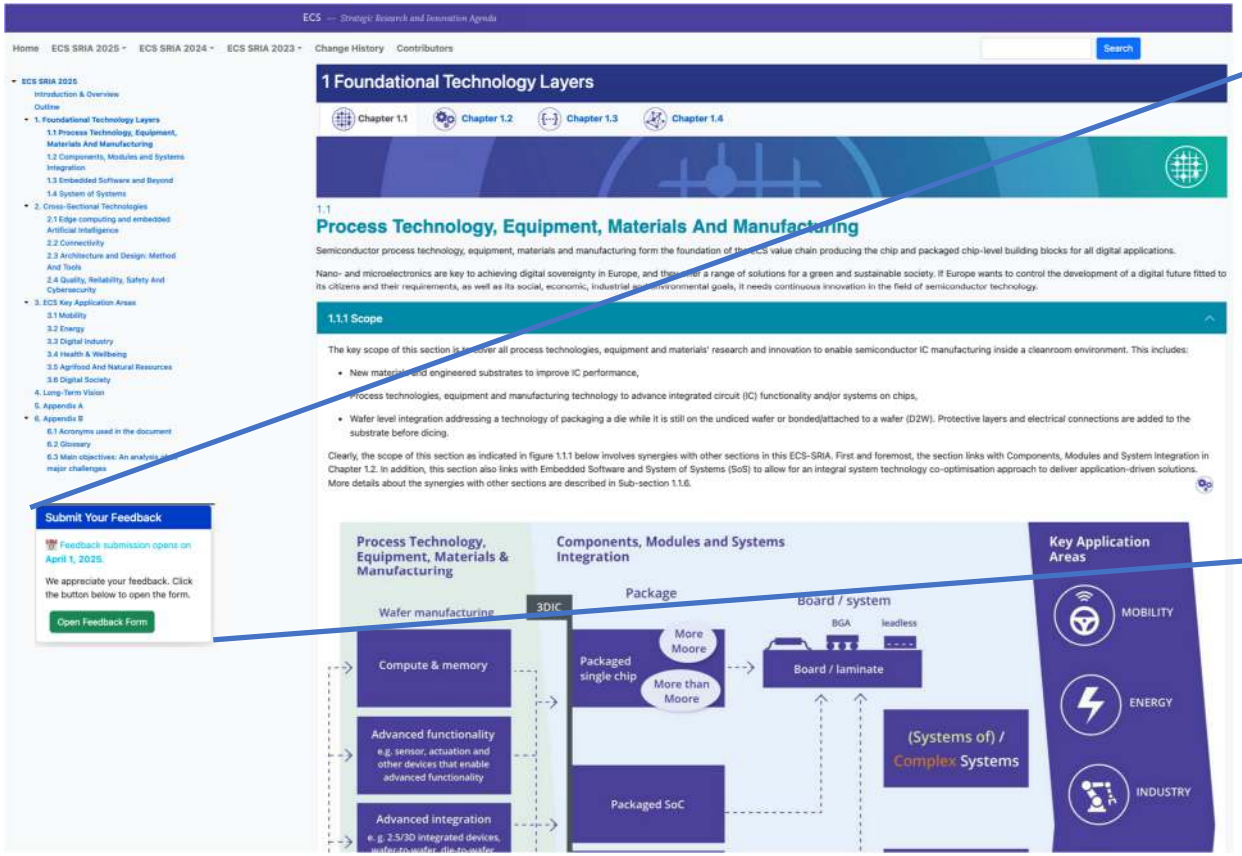
- Interdisciplinary
- Across the whole ECS value chain
- Representing industry, RTO and academia
- 24 countries

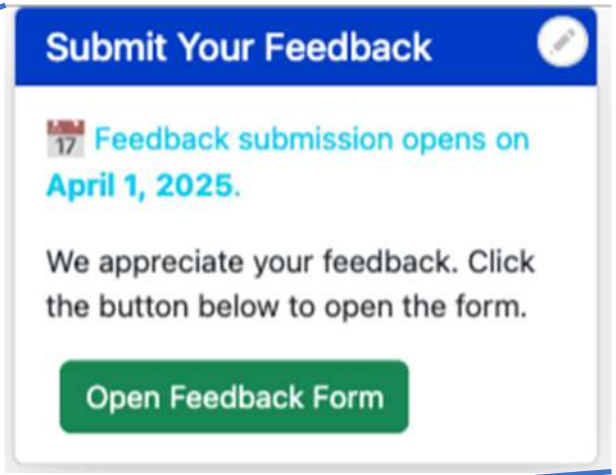
Complemented by an open consultation

ECS SRIA 2025 Timeline
Target availability: End of previous year



Process improvement:
ECS SRIA 2026 online open consultation (now closed)





Other AENEAS activities relevant for EU-Taiwan cooperation

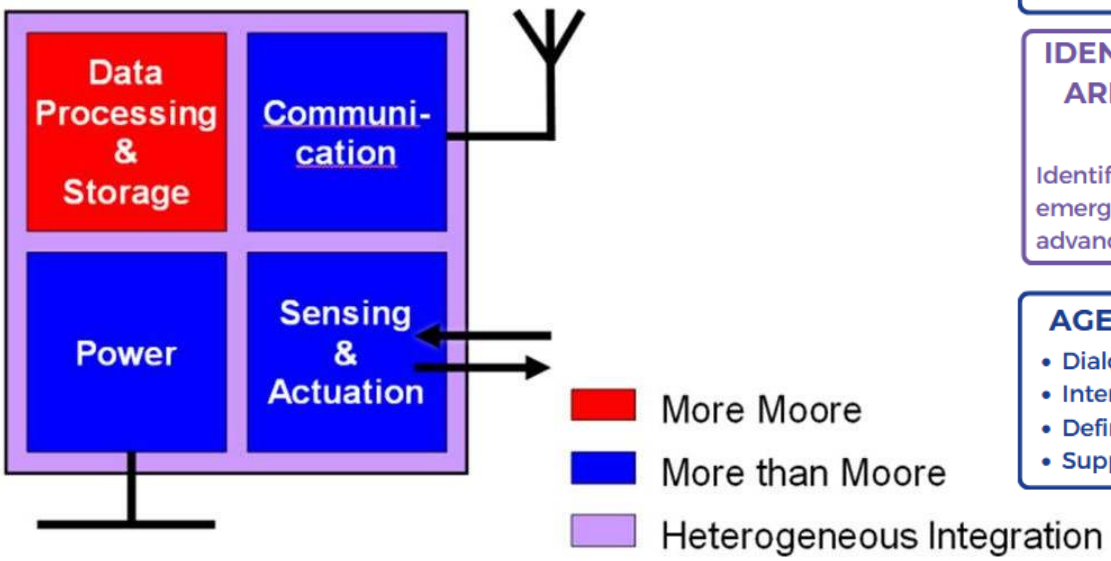
1 – International Cooperation on Semiconductors

ICOS – International Cooperation on Semiconductors

- Coordination and Support Action, Jan 2023 – Feb 2026
- Provide advice to the European Commission and support actions with the aim
  - To identify and support the establishment of the most promising scientific international collaborations
  - To build balanced semiconductor partnerships with like-minded countries
  - To set out cooperative framework on initiatives of mutual interest
  - To strengthen Europe's and partner Country's positions in global value chains in this area and to contribute to the EU Chips Act, Green deal and Digital Agenda

Scientific Coverage & General Approach

- Advanced computing & Advanced functionalities: sensing, RF & optical communications, optical devices, energy harvesting, power devices, …



IMPLEMENTATION

EXHAUSTIVE ANALYSIS OF SEMICONDUCTORS' VALUE CHAINS, FOR ELECTRONICS & PHOTONICS

Identification of :

- EU's economic and industrial strengths & weaknesses
- Strategic dependencies
- Market and cooperation opportunities

IDENTIFICATION OF RESEARCH AREAS FOR INTERNATIONAL COOPERATION

Identification of next generation & emerging technologies, especially in advanced computation and functionalities.

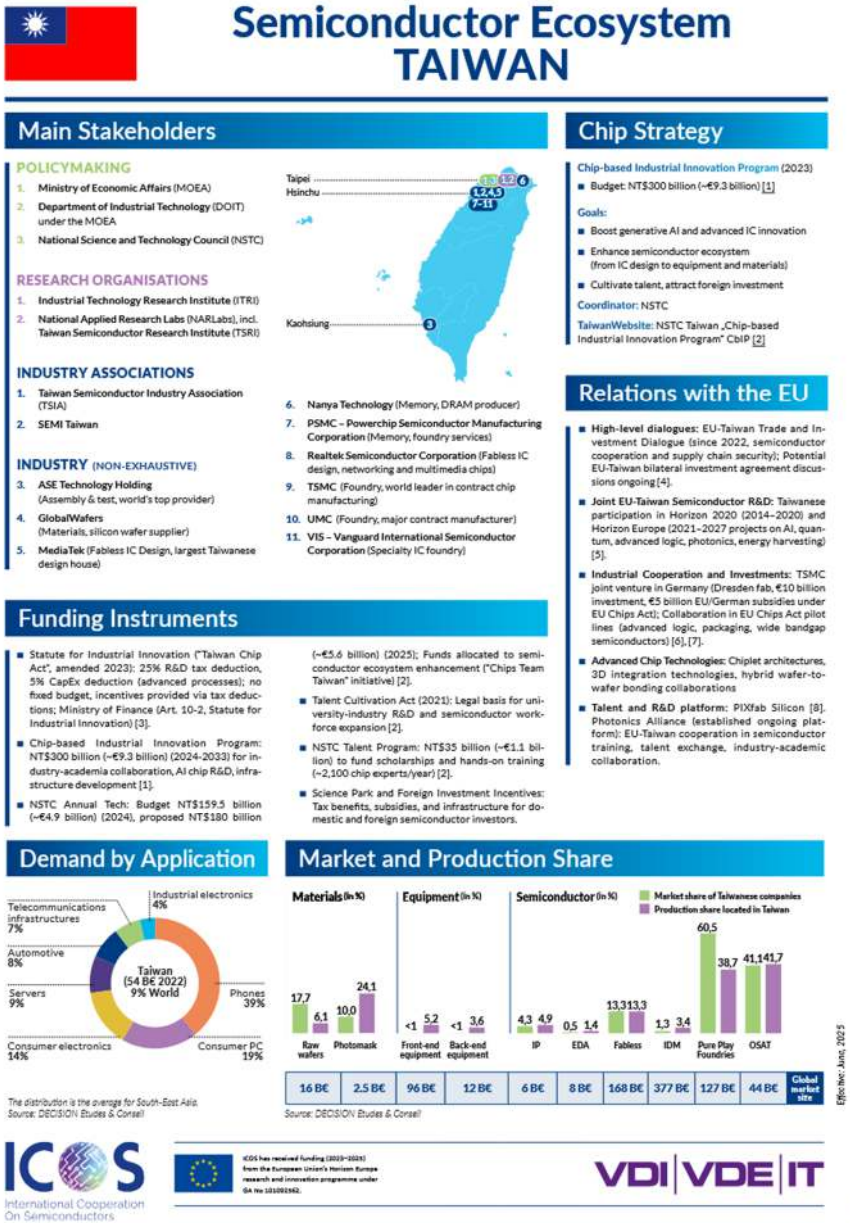
DETERMINATION OF MOST INTERESTING COUNTRIES FOR INTERNATIONAL COOPERATION

Identification of challenges for which international cooperation is critically important.

AGENDA FOR AND INITIATION OF INTERNATIONAL COOPERATIONS

- Dialogue with actors of existing cooperation
- International collaboration with non-EU national authorities
- Define standardisation needs and activities
- Support the European Commission

Geographical coverage



Outcomes

- Reports
  - Economic analysis
  - Analysis of EU-international cooperation
  - Future technologies in advanced computation
  - Future technologies for advanced functionality
  - Recommendations for International Research Cooperation
- Factsheets
- Joint workshops
  - So far Japan, South Korea, Singapore
- Joint Chips JU calls
  - South Korea, Japan
  - Taïwan under discussion for 2026
    - https://icos-semiconductors.eu/other-outcomes/factsheets/
    - https://icos-semiconductors.eu/public-deliverables/
    - https://icos-semiconductors.eu/

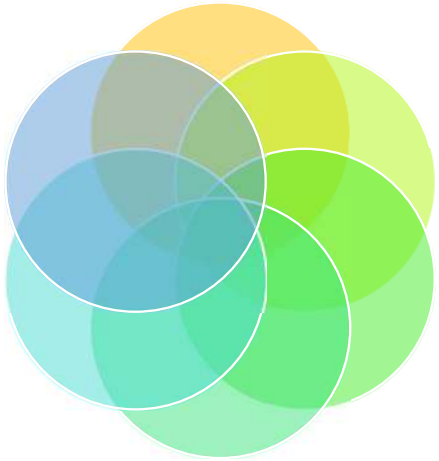
Possible Joint activities

- Webinars
- Workshops
- Contribution to Regional & International Technology Roadmaps (IRDS)
- International R&D&I cooperation on topics of mutual interests
- Exchange of researchers
- Access to Research Infrastructures
- Standardisation needs for emerging technologies

Other AENEAS activities relevant for EU-Taiwan cooperation

2 – Tackling the talent gap

Talent Gap To Be Tackled Via Many Angles



- **Potential areas for cooperation on skills**

Opportunities for collaboration between Taiwan and Europe

Where can AENEAS help?

- Collaborative international R&I projects
  - Xecs
- Identifying topics of common interest
  - Investigate joint workshop Chips JU / Taiwan
- Researcher mobility
- Tackling the talent gap
  - Sharing best practices
  - Joint actions

Aeneas

Thank you

For more information

www.aeneas-office.org

cogez@aeneas-office.org