

# **Industrial Alliance on Processors and Semiconductor Technologies**



Bringing together key actors involved in microelectronic value chain

### **MISSION**

Bridging stakeholders across
Europe (industry, research,
associations, RTOs and others)
to identify current gaps and
challenges in the production of
microchips and the technology
developments needed for
companies and organisations
to thrive, no matter their size.



**Official EC initiative.** The EC acts as a facilitator to the Industrial Alliance, promoting its activities



Over 60 organisations have joined the Alliance as of today



Any organisation can apply to join the Alliance if it fits the eligibility criteria



The Alliance is **led by stakeholders for stakeholders** and jointly defines joint actions







## **Industrial Alliance background and timeline**

**July 2021** 

Terms of Reference established

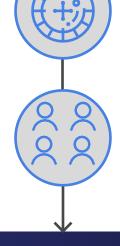
The Alliance complements the European Chips Act and will strengthen collaboration across existing and future EU initiatives.

8 February 2022

Proposal for the Chips Act published

21 September 2023

Chips Act officially comes into force



9 July 2024

First inaugural webinar of Alliance and **Working Groups** 

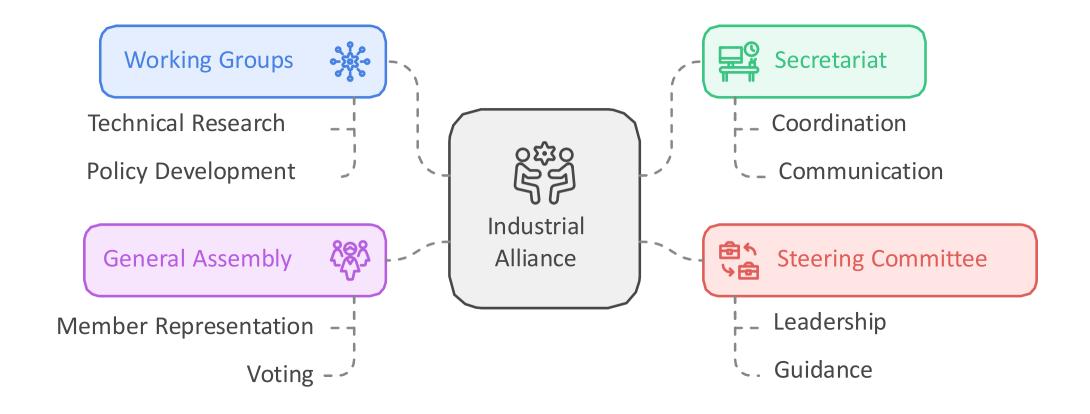








## **Industrial Alliance structure**







# **Industrial Alliance objectives and tasks**

### **Gap Identification**

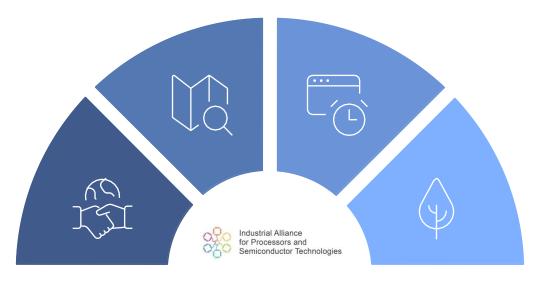
Identifying critical gaps and developing plans to address them.

## **Investment Synergies**

Leveraging synergies across EU programmes for innovation and investment.

### **Stakeholder Collaboration**

Facilitating cooperation among stakeholders to meet EU microelectronics goals.



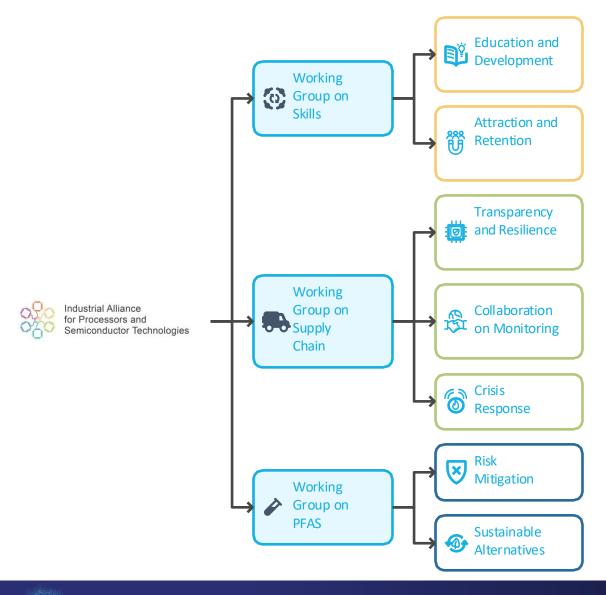
### **Growth and Resilience**

Ensuring growth and resilience in the semiconductor sector.





## **Working Groups – Structure and roles**



- The Working Groups are led by industry through the elected Co-Chair.
- The European Commission member is a facilitator in discussions to progress the work of the WG;
- ALLPROS.eu provides a Secretariat per WG;
- Alliance Members and Participants combine their technical and domain expertise to **draft and contribute to deliverables**.
- Non-Member stakeholders can be invited as Observers by the Working Groups on ad hoc basis; e.g. NGOs, representatives from Member States or other European Commission DGs





## **Working Groups - Benefits**



• **Public acknowledgement and recognition** - Members will receive public recognition in final iterations of the deliverables. Names and logos of participating organisations will be prominently featured in all official documents and publications.



 Visibility - A dedicated space on the Alliance/ALLPROS.eu platform with specific pages for member profiles, showcasing expertise and commitment. Regular mentions and features across ALLPROS.eu's social media platforms, newsletters, and other communication channels such as videos and interviews.



• Recognition within the European Commission - Receive recognition within the EC as a supporter of policy priorities for semiconductors. Direct engagement with EC officials, providing members the chance to influence and shape future policies related to semiconductor skills development.



**Networking and presentation opportunities** - Members will have the opportunity to present their work at key online and physical events organised by Alliance/ALLPROS.eu.











# Working Group on Skills

**MARCH 2024** 

The WG on Skills started its preliminary work



OUTCOME

Blueprint report with 7 recommendations on how to address the Skills Gap

NOW

The WG on Skills held 3 meetings with over 30 members



- Definition of objectives, deliverables and actions
- **Election of Co-Chairs**

**NEXT STEPS** 

The WG will elaborate on joint actions based on the 7 recommendations



- **Roadmap of actions**
- Mapping of local skills initiatives
- **Deliverables**

### **Practical Engagement**

Need for hands-on tools (e.g., FPGA boards, open-source software) to make training attractive and relevant for students.

### **Challenges in Education**

Marketing the semiconductor sector to students and retaining their interest through impactful learning experiences.

#### **Outcomes from first discussions**

#### **Role Models**

Coaching programmes like MINT to Be encourage women to share their experiences and inspire future professionals.

#### Microcredentials

Importance of flexible, targeted learning pathways to complement traditional courses.









## Working Group on Supply Chain

Oct. 2024

Identify opportunities and strategies that will steer future policies



- Propose and implement measures to increase supply chain resilience & transparency
- Support with analysis/knowledge and advise on possible future actions

NOW

Developing a clear definition of supply chain, including "downstream" and "upstream" vendors



Need for a comprehensive mapping of EU Semiconductor Ecosystem to have a transparent picture of strengths, gaps, and vulnerabilities

**NEXT STEPS** 

The WG is working to clarify the scoping of the WG in relation to already existing initiatives



- Based on the scoping deliverables and actions will be defined
- **Election of Co-Chairs**

#### Connection with already existing initiatives

The WG aims to strengthen the bridge with the European Semiconductor Board with regular reporting and interaction

### Focus on preparedness and risk management

The WG needs to take into account vulnerabilities also in terms of physical integrity of infrastructure, cybersecurity, raw materials and components to achieve a systematic risk assessment and comprehensive resilience

#### Outcomes from first discussions

#### First deliverables ideas

The WG acknowledges the need for a comprehensive exercise in terms of: Mapping initiatives and framing the scope of the WG – Include all stakeholders involved in SC to identify and perform risk assessment and prioritization.

#### Workshop & digitisation ideas

SC stress test workshop and investigation on how Digital Twin technologies can optimise SC









## **Working Group on PFAS**

Oct. 2024

Framing of WG scope and objectives



- Foster R&D efforts to identify, test, and implement suitable **PFAS alternatives**
- Advise the EC on policy actions in compliance with environmental and health regulations

NOW

The WG on PFAS held 2 meetings identifying key gaps & existing initiatives



- Lack of sufficient analytical standards and detection methods
- Proper evaluation of existing technologies for capturing and destroying PFAS emissions

**NEXT STEPS** 

The WG will elaborate on short, medium and long-term actions through a Research Roadmap



- **Definition of** deliverables and actions
- **Election of Co-Chairs**

#### Advancements in process chemistry

Need for technological advancements in process chemistry to replace PFAS and concern over the complexities of adopting alternatives due to high costs and low technology readiness levels.

#### **Collaboration among stakeholders**

Importance of collaborating across all sectors of the semiconductor value chain and include a wide range of stakeholders, such as competence centers, SMEs, small players and chemical manufacturers.

#### Outcomes from first discussions

#### Viable PFAS alternatives

Need for exploring eco-friendly materials, digital tools (e.g., simulation platforms), and other innovations for PFAS-free production modeling.

#### International cooperation

Importance of international cooperation, particularly with US, Japan and South Korea to share insights and research findings on PFAS, avoid duplication of efforts and maximise global collaboration.







## Let's shape Europe's semiconductor future together!



Join the Alliance!

Events coming up in Q1 2025!
 Alliance General Assembly and online webinar on SMEs in semiconductors.
 Subscribe to our newsletter at www.allpros.eu

Have questions about the Alliance or its Working Groups?

Reach out to us at alliancesecretariat@allpros.eu & EU-semiconductors
Alliance@ec.europa.eu



Showcase your innovation on the ALLPROS.eu Marketplace!
 Share your products, technologies, or contributions with the semiconductor community





