IAM4EU/IAM-I

The Horizon Europe Public Private Partnership for Advanced Materials and the Association behind

Materials Day, Rome
July 16, 2026

Why do Advanced Materials matter?

European policy perspective

Advanced materials are an important factor for the competitiveness of European industries ([2]) and are crucial building blocks for the **EU's resilience and open strategic autonomy.** They are included in the list of 10 critical technology areas for the Union's economic security ([3]).

Advanced materials offer a wealth of solutions for a successful implementation of the European Green Deal. They drive innovations in new clean energy technologies provided for in the Net-Zero Industry Act and have the potential to substitute certain Critical Raw Materials (CRMs), thus contributing to the objectives of the CRM Act. Advanced materials

Communication on Advanced Materials for Industrial Leadership(2024)

I am convinced: the future of clean tech will continue to be made in Europe. But for that, we also need to make sure that our industry has the materials here in Europe. And the only answer here is creating a truly circular economy. So we need to move faster on the Circular Economy Act. And move ahead in those sectors that are ready. Finally, we need to keep up the speed. So the Commission will propose an **Industrial Accelerator Act** for key strategic sectors and technologies. In sum, when it comes to digital and clean tech: faster, smarter and more European.

State of the Union address, President von der Leyen (2025)

Demand for **innovative advanced materials** will increase exponentially in the coming years, attracting investments and reshaping global supply chains. The Commission will put forward an **Advanced Materials Act** to provide the framework conditions to support the whole lifecycle, from research and innovation to start-up creation until manufacturing and deployment.

A Competitiveness Compass for the EU (2025)

Trans-Regional Circularity Hubs to promote smart specialisation and economies of scale for recycling. The Hubs will identify strategic projects based on proposals by groups of Member States and/or industrial actors, enabling the pooling of diverse regional streams. This approach will ensure a sufficient scale, allowing the installations to achieve the necessary size to operate continuously. They will build on the experience of Strategic Projects under the Critical Raw Materials Act and apply similar approaches to the technical and biological materials on which our industries depend. Furthermore, the Commission will actively assist Member States in the design of a potential new IPCEI on circular advanced materials for clean technologies.

The Clean Industrial Deal (2025)

The risk. Modern economies are deeply interconnected and rely on a wide range of inputs, intermediate goods and essential services from partners globally. In some cases, supply is highly concentrated – often in countries that do not share the same strategic interests and that have the capability and willingness to increase and weaponise such dependencies. These risks to the EU's supply chains are particularly visible in our reliance on certain **critical raw, processed and advanced materials, clean tech components,** and **mainstream semiconductors**, as well as in **financial services, pharmaceuticals, aeronautics, digital and space technologies**. They are also

Communication Strengthening EU economic security(2025)

Advanced materials drive technological innovation and are **critical to Europe's industrial competitiveness**, resilience, sustainability, circularity, and open strategic autonomy.

Horizon Europe partnerships

March 2025 (Cluster 4)
Digital, Industry and Space

- ADRA
- Clean Steel
- IAM4EU → 250m€ EU budget
- Made in Europe
- Photonics21
- Processes4Planet
- Textile

Last batch of new partnerships adopted by European Commission on March 19th, MoU signed.

Priorities

Strategic Research and Innovation Agenda 2024

SPECIFIC

IAMs and associated technologies

Cross-enabling tools & methodologies

Ecosystem enablers and synergies

Resilient & circular industrial value chains, from IAM design to end-of-life

High-level capabilities to accelerate the innovation cycle

A multi-disciplinary, cross-sectorial, collaborative EU-wide R&I ecosystem along the innovation cycle

IAMS AND ASSOCIATED TECHNOLOGIES

P#1 - CRM-free/lean and efficient catalysts for energy conversion and CO2 reduction

P#2 - High-conductivity and durable membranes for efficient H2 production and conversion

P#3 - Innovative concepts, designs & components for efficient H2 and thermal energy storage

P#4 - CRM-free/lean magnetic phases for high-performance permanent magnets in circular value chains

P#5 - Innovative electrodes, electrolytes, binders and separators for electrochemical energy storage.

P#6 - IAM-enabled surfaces & interfaces for multifunctional components & products

P#7 - IAMs for lightweight, durable and sustainable structural systems

P#8 - IAMs for energy efficient, multi-functional, photonic, electronics, spintronic, and quantum technologies

P#9 - IAMS based on (Design for) recyclable polymers/polymeric composites

P#10 - IAMS as PFAS alternatives or based on PFAS alternatives on PFAS alternatives

CROSS-ENABLING TOOLS AND METHODOLOGIES

P#11 - FAIR and semantic interoperable digital materials data space

P#12 - Predicting performance and lifecycle of materials

P#13 - Valid test methods supporting the implementation of SSbD

P#14 - Data management & curation for efficient SSbD

ECOSYSTEM ENABLERS AND SYNERGIES

P#15 - New business models

P#16 - Synergy with the “Advanced Materials Academy”

P#17 - Networking and widespread use of technology infrastructures

P#18 - LRI, OITB and MAP integration

P#19 - Contributions to further development of standards and norms

Horizon Europe work programme 2026/2027

#	Title	Type	Total Budget	Deadline
1	HORIZON-CL4-**2027**-01-**MATERIALS-PRODUCTION-22**: **Innovative advanced materials and new production processes – reducing dependencies on Critical and Strategic Raw Materials** *With Processes4Planet*	**IA**	**36m€**	**February 2, 2027**
2	HORIZON-CL4-**2026**-01-**MATERIALS-PRODUCTION-23**: **Accelerating the discovery and development of chemicals and innovative advanced materials through digitalisation and artificial intelligence**	**IA**	**51m€**	**April 21, 2026**
3	HORIZON-CL4-**2026/2027**-01-**MATERIALS-PRODUCTION-05/06**-two-stage: **Circular innovative advanced materials: facilitating the transition from design to markets** *With Made in Europe*	**RIA**	**37.5m€** **36m€**	**April 21, 2026** **February 2, 2027**
4	HORIZON-CL4-**2027**-02-**MATERIALS-PRODUCTION-32**: **Efficient energy input from renewable sources and energy management in the process industries** *With Processes4Planet*	**IA**	**60m€**	**February 2, 2027** **September 2, 2027**
5	HORIZON-CL4-**2026**-05-**MATERIALS-PRODUCTION-25**: **New or enhanced Innovative Advanced Materials (IAM) enabled sensing functionality**	**RIA**	**24m€**	**April 15, 2026**
6	HORIZON-CL5-**2027**-04-**Two-Stage-D2-07**: **Novel approaches towards next-generation battery concepts, leveraging the enabling role of innovative advanced materials** *With Batt4EU*	**RIA**	**48m€**	**April 14, 2027** **October 7, 2027**

Vision and Mission

Vision

IAM-I envisions a Europe where advanced materials solutions are developed, adopted and scaled with **speed and confidence across industries**, forming a cornerstone for Europe's **circular, resilient and competitive economy - powered by technological leadership**.

Mission

IAM-I is the voice of European Research and Innovation in advanced materials. We bring together a Europe-wide, **cross-sector R&I ecosystem** by linking stakeholders across **the full advanced materials value chain**. We target acceleration of the **market uptake of advanced materials** by identifying **focus topics** and advocating for **tailored policies and funding instruments**.

Main activities

- Implement and co-lead **IAM4EU, the European partnership** on advanced materials
- Provide a **collaborative hub** for all advanced materials stakeholders
- Provide a dedicated platform for advanced materials **startups and scaleups** to engage and advance
- Draft and maintain a **European strategic R&I agenda and derived roadmaps**
- Strategically align between **policy makers, institutions and private stakeholders**
- Advocate for **R&I policies, funding and financing** tailored to advanced materials
- **Showcase** advanced materials R&I achievements
- Identify **education & training needs** related to advanced materials

Members 2026

309 members, 31 countries

INDUSTRY

RESEARCH

ASSOCIATE

WGs & TFs

Kick-off meetings Sept 2025

Seven Working Groups

- ❑ WG#1 – AI, Materials digitalization & Data management
- ❑ WG#2 – Resilient & circular value chains
- ❑ WG#3 – Materials Innovation Markets (CONSTRUCTION)
- ❑ WG#4 – Materials Innovation Markets (ELECTRONICS)
- ❑ WG#5 – Materials Innovation Markets (ENERGY)
- ❑ WG#6 – Materials Innovation Markets (TRANSPORT)
- ❑ WG#7 – Materials Innovation Markets (HEALTH)

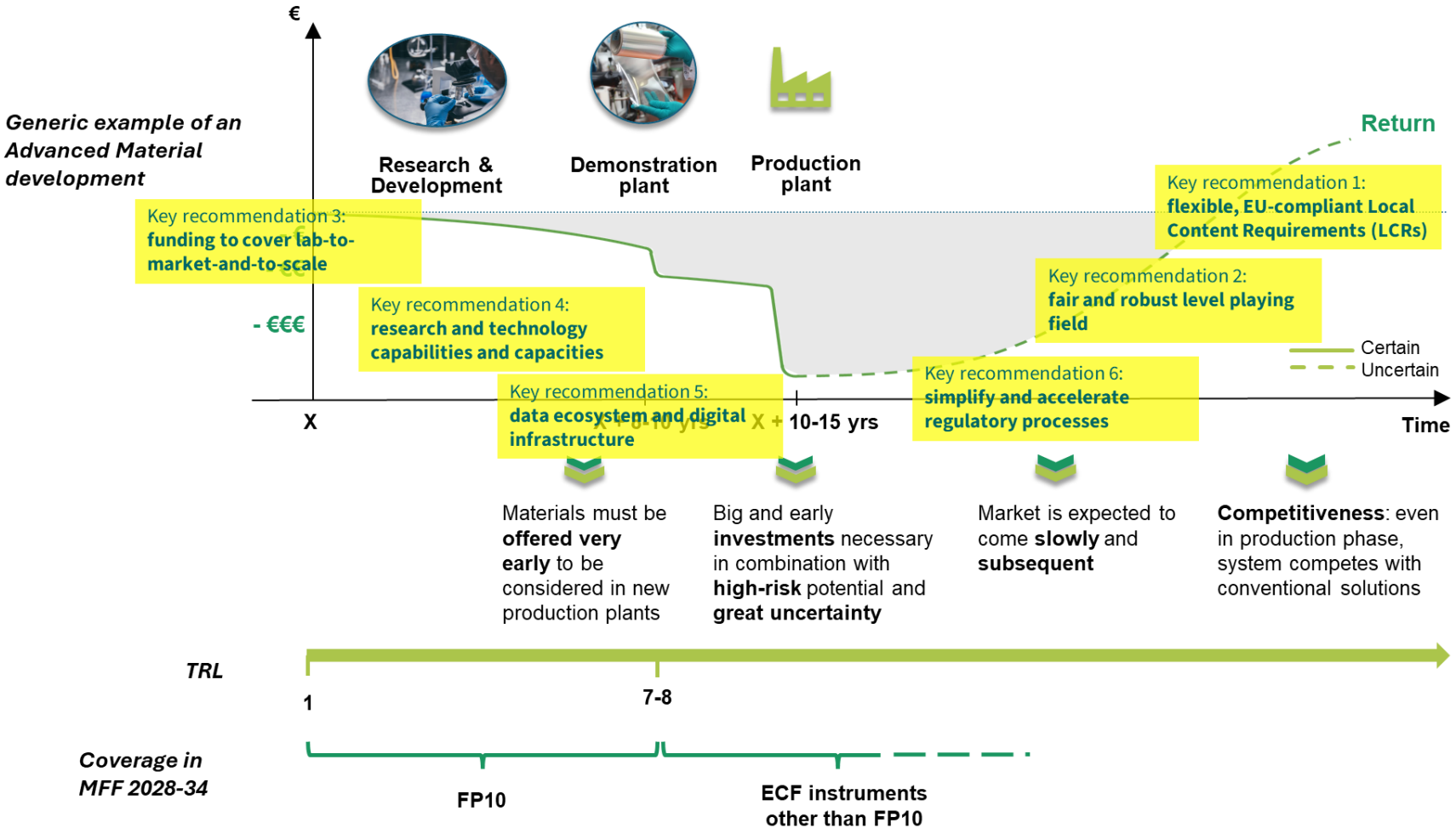
Four Task Forces

- ❑ TF#1 - Education & Workforce
- ❑ TF#2 - Standards & Norms
- ❑ TF#3 - Infrastructures, support to SMEs & Upscaling
- ❑ TF#4 - Policies, Funding & Strategy beyond HE

Achievements 2025

- Implemented a **fully functional association** governance and working group/task force structure
- Grew the **membership by ~20%** (from 262 to 313)
- Built a **membership portfolio** that represents different industrial value chains and value chain segments
- Organised first annual **IAM-I event with > 300 participants** from academia, industry and EU/national authorities, including policy session (focus: upcoming Advanced Materials Act)
- Drafted the **IAM-I position on the Advanced Materials Act** (publication: January 7, 2026)
- Achieved prominent **placement of advanced materials as " drivers of other key technologies"** in the German Federal Ministry of Research, Technology and Space position on FP10 (published 16.1.2026)
- Presented IAM-I and the advanced materials ecosystem at **more than 15 events and conferences**

Which effect will our main policy recommendationsfor the Advanced Materials Act (Q4/2026) have?

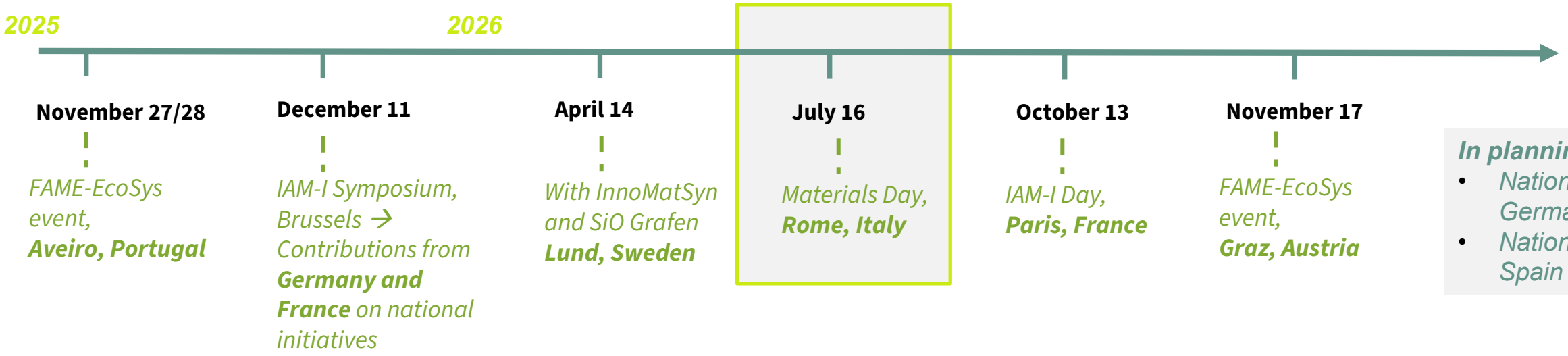


Read IAM-I's full position on the Advanced Materials Act:

Advanced Materials Act: IAM-I position paper and policy context | IAM-I

Linking national and European initiatives

National Advanced Material Events, co-organized by IAM-I



Positioning:

- placement of advanced materials as " drivers of other key technologies" in the German Federal Ministry of Research, Technology and Space position on FP10 (published 16.1.2026)
- IAM-I Secretary General as contributing expert in position paper of German industrial associations on Advanced Materials (published 9.6.2026)

Unique window of opportunity to engage

The regulatory framework, the research programme and the scale-up funding for advanced materials are being decided in parallel — choices made across 2026 and 2027 will set the terms for 2028–2034.

1

Advanced Materials Act

Proposal Q4 2026

The dedicated EU framework for the design, scale-up and market uptake of advanced materials. IAM-I set out its position in January 2026; the Commission proposal in Q4 2026 opens the co-legislative phase.

2

FP10 partnership

Horizon Europe, Pillar II

European Partnerships continue in FP10. The case for an advanced materials partnership — the innovation pipeline at TRL 3–7 — is being decided now, with IAM4EU being the natural foundation.

3

European Competitiveness Fund

Industrial scale-up · MFF 2028–2034

The instrument that turns proven results into industrial reality. Advanced materials cut across its policy windows; securing that place now sets the scale of downstream deployment.

The architecture is still open — but it closes soon. Agreement on the MFF 2028–2034 is targeted for the end of 2026, with entry into force in January 2028.

Positioning advanced materials across all three files now is what secures the mandate — and where IAM-I and its members engage.

Vision 2040 – how Europe accelerates

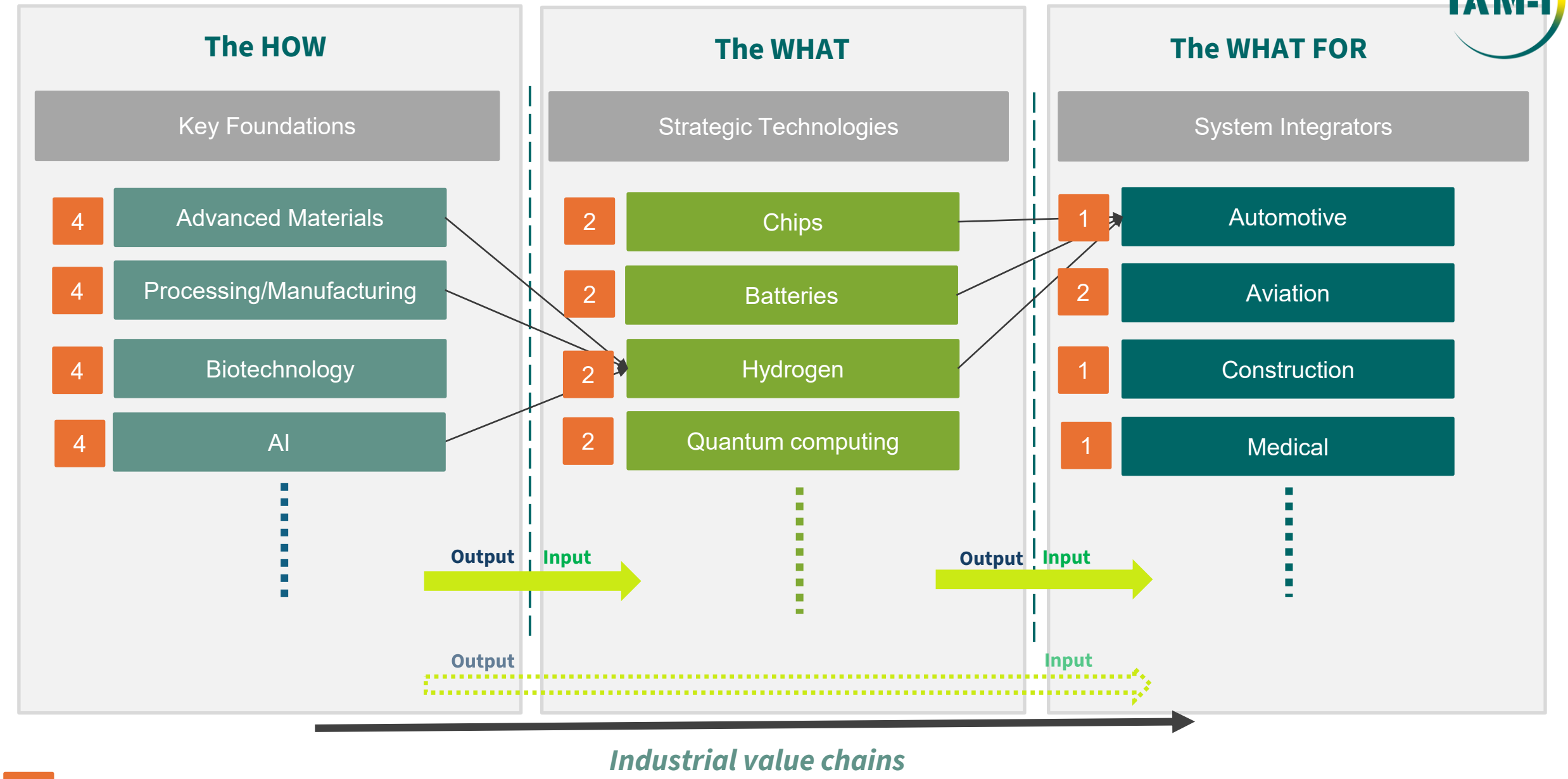
launch: September 2026

I. Advanced materials **digitalization** across the value chain
II. **Autonomous and robotic** experimentation
III. **Integrated demonstration**, qualification and regulatory pathways
IV. **Market** uptake and competitiveness

A crucial lever of execution: FP10 partnership on Advanced Materials under Pillar II, delivering:

- A **coherent, cross-sectoral advanced materials innovation pipeline** (TRL 3–7) that is tightly interfacing with advanced materials actions and initiatives under Pillar I, Pillar III and (the newly to be included) Pillar IV.
- **Directionality** enabling strategic technologies for construction, electronics, energy, mobility, health and other key sectors.
- The mid-TRL level collaborative foundation for advanced materials innovation to be **scaled up by dedicated instruments under the European Competitiveness Fund**.
- Providing the indispensable hub for the **European advanced materials ecosystem**.

Directionality approach



X : *# of European Competitiveness Fund policy windows affected in MFF 2028-2034*

iAM-i
INNOVATIVE
ADVANCED MATERIALS
INITIATIVE

Advanced Materials. Advancing Europe.