InnoMatSyn

Innovative Materials Ecosystem to Gain Synergies
of regional, national and EU Initiatives

SIO Grafen Spring Meeting

an IAM4Sweden and FAME-Ecosys Event

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Table of Contents

1 Introduction

This SIO Grafen Sprin Meeting took place on the 14th of April 2026 in Lund, Sweden and was organized with the collaboration SIO Grafen, IAM-I, IAM4Sweden and InnoMatSyn.

The event gathered and audience from all over Europe and became a deep dive into the Scandinavian and European ecosystem for advanced materials – focusing on how to accelerate advanced materials to the market.

During the event the newly published Swedish Strategic Compass was presented and the importance of strong national and international collaboration—an essential factor for advancing innovation across Europe was emphasized

The event explored how advanced materials can move from fundamental research to market-ready products, featuring three panel discussions with perspectives from researchers, startups, established companies, and funding agencies.

The outcomes of the event will contribute to strategic initiatives such as the IAM-I Strategic Research and Innovation Agenda (SRIA), the InnoMatSyn advanced materials ecosystem development and funding strategies, and RTI strategies, and will be communicated to the European Commission, particularly in the context of the Advanced Materials Act (AdMa-Act).

Stakeholders from across the European advanced materials ecosystem—including science, industry, policymakers, and funding organizations - were invited to participate. Their input has been key to help shape the future of advanced materials in Europe.

This brief recap of the event summarizes the main outcomes of the different sessions and panels.

A short Mentimeter Survey that was done to get the feedback of the audience, provided some helpful information about the audience as well as the topics addressed during the event. The survey defined:

- The audience profile: participants mainly represent academia and RTOs, followed by industry and public stakeholders. Most organisations they represent operate at national and European levels, with broad representation across European countries.
- Priority sectors for AdMa in next 5 years**:** Advanced materials are expected to be most relevant in sectors such as defence, energy, electronics, mobility, and health, as well as emerging areas including AI, quantum technologies, and advanced manufacturing.
- Key needs regarding funding are (i) increased access to funding, particularly for scale-up, (ii) stronger alignment between national and EU funding, (iii) reduced co-financing requirements, (iv) more support for pilot lines, testing, and demonstration, and (v) support for commercialization, especially reaching the first customer
- Strong value chains require (i) closer collaboration between academia and industry, (ii) risk-sharing and long-term partnerships, (iii) Improved scale-up capabilities and (iv) stronger networks and cross-sector collaboration,
- Reducing Time-to-Market needs (i) industry and end-users should be involved early, (ii) academic incentives should better reward collaboration, (iii) intellectual property processes need to be faster and clearer and (iv) better and enhanced understanding of value chains and market needs is required.
- Actions to strengthening collaboration between regions/countries include (i) building European Hubs and platforms, (ii) harmonization of funding rules across countries, (iii) increasing cross-border funding, (iv) supporting matchmaking and mobility, and (v) reducing language and structural barriers.

For more detailed information about the Event, we invite you to reach out and contact:

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2 Main keynotes and welcome presentations messages

The Event started with the presentation “Two years on from the Communication on Advanced Materials – where do we stand?” done by Sofie Norager (Senior Expert, DG-R&I, European Commission). She highlighted that two years after the European Commission’s communication on Advanced Materials, significant progress has been achieved and further initiatives are underway.

Key milestones include the establishment of the Technology Council (November 2024), the launch of IAM4EU-related Horizon Europe topics (May 2025), and the adoption of the revised Safe and Sustainable by Design framework (March 2026). Upcoming developments include the Advanced Materials Act and continued negotiations on ECF and FP10.

The European Commission aims to accelerate innovation by shortening the path from research to industrial application, increasing investment, and strengthening production and use of advanced materials across priority sectors such as energy, mobility, construction, electronics, and health.

Supporting initiatives include the Advanced Materials Academy, Materials Commons for Europe, and IAM-I. Additional efforts through the European Innovation Council and public procurement seek to scale solutions and stimulate market growth. Ongoing stakeholder engagement and policy development remain essential to advancing this agenda.

The event followed with a presentation from Elisabeth Sagström-Bäck (Programme Director, SIO Grafen). The presentation underlined that the European Commission’s focus on Advanced Materials has significantly increased national interest in Sweden, notably leading to the development of a Strategic Compass for Advanced Materials.

SIO Grafen, one of Sweden’s 17 strategic innovation programmes, aims to position the country as a leader in industrial 2D materials. Since 2014, it has mobilised €50 million, supported over 220 projects, engaged 250 organisations, many SMEs, and enabled around 20 startups. It also hosts the annual Swedish Graphene Forum. Additionally, IAM4Sweden, inspired by IAM4EU, serves as a national platform to coordinate stakeholders and align Sweden with European developments in advanced materials.

The next words were provided by Eva Schillinger (Secretary General, IAM-I). She presented the IAM4EU Partnership that is a co-programmed European partnership under Horizon Europe, with a €250 million budget over three years, aimed at advancing innovative advanced materials. It is led by IAM-I, the Innovative Advanced Materials Initiative, and it focuses on three pillars: Innovative Advanced Materials (IAMs) and associated technologies, cross-enabling tools and methodologies, and ecosystem enablers and synergies. Addressing Europe’s fragmented landscape, it seeks to accelerate market uptake through a holistic approach.

By 2026, IAM-I has 309 members across 31 countries. Its seven working groups and four task forces support key areas such as digitalisation, circularity, and policy. Strategic priorities include shaping the Advanced Materials Act, securing future funding, supporting startups, and expanding ecosystem integration.

The event followed with a presentation of the InnoMatSyn EU-funded Coordinated Support Action project, by Andreas Falk (CEO of BioNanoNet Forschungsgesellschaft mbH and Coordinator of InnoMatSyn). The project aims to strengthen collaboration across regional, national, and European initiatives in advanced materials. It addresses key barriers, geographical, economic, financial, and political, by connecting stakeholders and fostering coordinated action. With 14 partners and over 100 mapped initiatives, the project facilitates knowledge sharing, funding alignment, and strategic cooperation.

InnoMatSyn’s FAME-Ecosys event series focuses on bringing together countries and regions to promote cross-border collaboration and accelerate the uptake of advanced materials. Outcomes include identifying common strategies, leveraging strengths, and overcoming barriers to innovation. Results will contribute to shaping the European advanced materials landscape and inform the upcoming Advanced Materials Act.

The last presentation before giving the floor to the panel discussions, the Strategic Compass for Advanced Materials in Sweden, was presented by IAM4Sweden. The strategic compass is a concise and comprehensive national document on Advanced Materials, developed in Sweden during the fall of 2025, to guide future efforts. Financed by SIO Grafen and co-created with ten national platforms, it involved 200 experts from industry, academia, public authorities.

The initiative aims to support long-term economic, ecological, and social sustainability, strengthen national development, shorten time-to-market, enhance circularity, and build resilient value chains. Key needs identified include improving the innovation chain from research to industrial production, scaling-up capabilities, standardisation, regulatory clarity, testing infrastructure, and skills supply.

The 2035 vision emphasises security of supply, robust value chains, circularity, and industrialisation. Three strategic proposals include (i) establishing a national collaboration arena, (ii) implementing long-term funding programmes, and (iii) strengthening skills provision through initiatives such as a national PhD network.

These introductory and welcome presentations opened and set the perfect scene for the 4 different panel sessions, which highlighted some key take home messages, summarized in the next pages.

3 Summary and main messages from the panels

3.1 Panel 1: "Startups perspective on bridging innovative advanced material to use"

The panel highlighted key **barriers to the commercialization of advanced materials**, including *challenges in scaling production from laboratory to industrial levels* and *insufficient access to financing*. Transitioning from successful small-scale prototypes to large-scale, reliable production remains complex and costly, particularly given the *limited availability of accessible scale-up environments in Europe.*

Moreover, it was identified that a **critical bottleneck is funding**: a significant share of companies moving from startup to scale-up stages secure financing outside of EU, leading to loss of value creation. Public funding therefore remains an essential tool, especially considering the long development cycles characteristic of deep-tech sectors. The outlook is that Initiatives such as the European Competitiveness Fund shall aim to address this gap, though further support is needed.

Another important factor that was identified during the session is **early market validation**. *Securing a first paying customer is crucial* for learning and commercial progress, *yet public sector procurement rarely supports innovative solutions* due to risk-averse structures.

Additionally, structural improvements are required, including the *establishment of pre-production facilities* and *adoption of longer-term investment perspectives*. Strengthening these elements, alongside a supportive ecosystem, would significantly enhance Europe's ability to retain and scale advanced materials innovation.

3.2 Panel 2: *"The value chain perspective in bringing advanced materials to the market"*

The panel highlighted that Europe's advanced materials ecosystem faces **structural and strategic challenges across the value chain**, particularly in *scaling production* and *maintaining competitiveness globally*. A key issue is the **ambition to establish complete value chains within Europe**; *without political action and effective scale-up solutions, companies risk relocating outside the region*.

Financing and risk-sharing remain central concerns. *Public funding must play a stronger role*, particularly *in supporting scale-up activities* through *targeted investments and dedicated facilities*. **Government action is** also **critical** in *stimulating demand*, as *public procurement could serve as a powerful mechanism* for acting *as a first customer* and accelerating market uptake.

Market dynamics further highlight the **importance of early customer engagement and adaptation to user needs**. At the same time, some companies strategically manage standardisation to avoid commoditisation and preserve competitive advantage.

Regulatory frameworks present additional challenges. While well-intentioned, their *growing complexity and uncertainty regarding future requirements create hesitation for long-term investments*. Skills supply is another constraint, as attracting and retaining international talent is complicated by unclear migration conditions.

Looking ahead, **stronger mobilisation around European funding instruments**, notably the European Competitiveness Fund, **will be essential** to secure innovation capacity and ensure Europe's leadership in advanced materials.

3.3 Panel 3: "Research perspective, from basic research to innovation"

Key take home messages of the panel included that **the innovation cycle in advanced materials is inherently non-linear** and **requires long-term perspectives** rather than short-term project frameworks. While materials such as graphene demonstrate significant potential, their applications emerge gradually across diverse pathways. **A key challenge is bridging the gap between academia and industry,** *where differing objectives and communication hinder effective collaboration*.

Improved interaction mechanisms are essential, including *matchmaking platforms that connect partners* and *build trust*. **Intermediary actors**, such as research and technology organisations and industry clusters, play a **critical role and should be more effectively utilised**. **Long-term collaboration**, based on stable teams and relationships, **is vital for enabling co-creation and innovation**.

Industry-led research environments can further **strengthen alignment** by *exposing researchers to real-world conditions and scale-up challenges*. **Increased mobility**, including *industrial sabbaticals* and applied programmes such as *Industrial PhDs*, **would enhance knowledge exchange**.

Finally, a key message that was shared is that **stronger European networks and better access to research infrastructure are essential** to reduce barriers and accelerate innovation.

3.4 Panel 4: "Regional, national & European ecosystems: how to work seamlessly together"

Collaboration across regions was identified by the panel as **essential to advancing circularity and strengthening the advanced materials ecosystem**. Initiatives such as the *collaboration between the Graphene Flagship and SIO Grafen demonstrate the value of linking national and European efforts* to enhance integration and ecosystem development. **Broader transnational cooperation** further **reduces barriers** for industry participation and supports innovation uptake.

Seamless value chains across regional, European, and global levels are critical for competitiveness and market deployment. This requires trust-based collaboration and mechanisms to connect stakeholders and align efforts across sectors and geographies.

However, **the field remains highly complex**, involving *diverse actors, materials, and applications*. **Fragmented incentives make it difficult to navigate and identify opportunities**, highlighting the *need for stronger collaboration* and *clearer communication*, particularly toward policymakers.

Looking ahead, **closer links between advanced materials and fields such as artificial intelligence present opportunities to accelerate innovation**. Continued **focus on trust, integration, and communication will be key** to future progress.