



## **Commission presents new initiatives boosting European industrial leadership in advanced materials**

Strasbourg, 27 February 2024

Today, the Commission has proposed an encompassing strategy to move towards EU industrial leadership in advanced materials, a key enabling technology highly relevant for the twin green and digital transition. The Communication on Advanced Materials for Industrial Leadership puts forward concrete steps enabling to align research and innovation priorities and investments in the EU, ensuring European leadership in this key technology. This initiative, eagerly anticipated by the Member States and industry, is the first step towards a common European approach for advanced materials, laying the groundwork for further action.

Advanced materials are intentionally designed and engineered materials to display superior performance or special functions, which can be developed with unprecedented speed thanks to today's scientific understanding and computing power. They are fundamental for example for innovation in energy, electronics, construction and mobility, and therefore crucial for the green and digital transition. The first list of research areas is expected to be expanded overtime in dialogue with the Technology Council to be set-up.

The demand for advanced materials is expected to increase significantly in the coming years, for instance for the production of renewable energy, batteries, zero-emission buildings, semiconductors, medicines and medical devices, satellites, space launchers, planes or for other dual-use applications as well as defence equipment.

The strategy aims to enhance the EU's long-term competitiveness by ensuring the Union remains at the forefront of new material technologies, supporting development, testing and deployment capacities. The actions will also strengthen the EU's open strategic autonomy and economic security by reducing dependencies on critical materials by replacing them or supporting their recycling and reuse.

The Communication proposes actions along five main pillars to be implemented together with EU Member states, industry players and other key stakeholders:

1. Strengthening the European research & innovation ecosystem on advanced materials.
2. Fast-tracking innovative materials to the market. This includes developing a "materials commons", a European digital infrastructure for advanced materials research and innovation. It will significantly accelerate the design, development and testing of new advanced materials in a controlled environment, also using AI.
3. Increasing capital investment and access to financing. As part of this package of actions, the EU will set up a new partnership with the industry under Horizon Europe, aiming at €500 million of investments for 2025-2027, with at least €250 million coming from private sources.
4. Fostering the production and use of advanced materials. This includes procurement for innovation, standard setting and the launch of an Advanced Materials Academy with the European Institute of Innovation and Technology to make sure European workforce has the necessary skills.
5. Creating a Technology Council for advanced materials to advise on the steering of this initiative with Member States, countries associated to Horizon Europe and industry.

### **Background**

An example of advanced materials is graphene. It is the thinnest, strongest ever material which outperforms copper as a conductor of heat. It is used in TV screens, computers, and smart phones. The energy efficiency and new performance features are only possible due to new design qualities.

Europe has a strong position in the development of advanced materials, but continuous innovation is key to ensure technological sovereignty and strategic autonomy across the lifecycle of advanced

materials. Over the years, the EU R&I Framework programmes have actively supported R&I in advanced materials including for example the [Graphene Flagship](#) as well as several [European Technology Platforms](#) and [ERA-NETs](#).

In February 2022, key industrial stakeholders called on the Commission [in the Materials 2030 Manifesto](#) to establish a strategic roadmap and effective governance for R&I on advanced materials and a new European strategic R&I agenda for the next generation of advanced materials.

Following wider consultations with Member States and stakeholders the current Communication addresses not only R&I needs, but also efforts towards strengthening the production, use and uptake of advanced materials.

## For More Information

[Communication on Advanced Materials for Industrial Leadership](#)

[Factsheet](#)

[Advanced Materials webpage](#)

[EU funded innovative research results in advanced materials](#)

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### Quotes:

*"The EU's competitiveness relies on our technological edge and steady supply of advanced materials for our green and digital transitions. We must both support the development of these materials and deploy them efficiently in a sustainable way. Having listened to industrial stakeholders and national authorities, we are proposing a way forward that is beneficial to our long-term economic resilience."*

Margrethe Vestager, Executive Vice-President for a Europe Fit for the Digital Age - 27/02/2024

*"Today, we are proposing a strategy for a joint action in the EU to boost our position in advanced materials, a key technology area for the future of our industries. This strategy will create new opportunities for EU companies and will equip Europe with the necessary infrastructures and skills to remain a strong player on the international scene. This is crucial for our competitiveness, open strategic autonomy and economic security."*

Iliana Ivanova, Commissioner for Innovation, Research, Culture, Education and Youth - 27/02/2024

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