

# Accelerator Challenge:

Acceleration of advanced materials development and upscaling along the value chain

## Backing visionary entrepreneurs

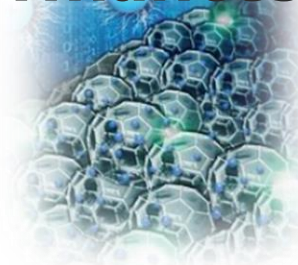
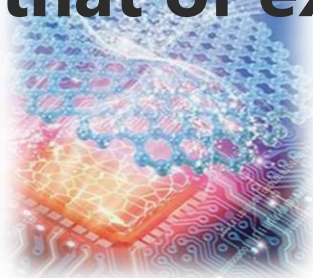
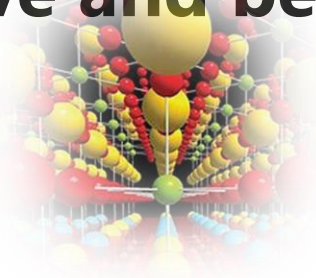
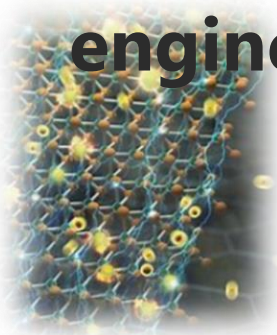
Paolo Bondavalli  
Programme Manager  
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European  
Innovation  
Council





**Advanced Materials are defined as materials that are engineered with a view to enhancing functional performances above and beyond that of existing materials.**



**Advanced Materials © Wiley-VCH GmbH, Weinheim**

They are **key enablers for the development of game-changing products and innovative solutions** in many industrial sectors, such as energy, mobility, electronics, and construction.

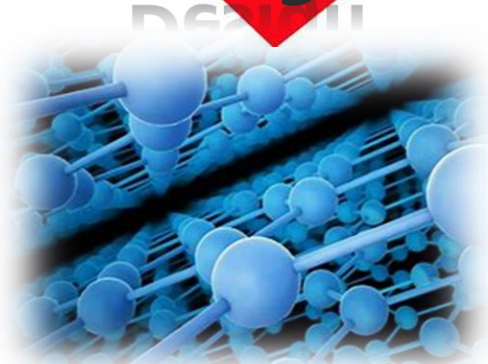




## There is an urgent need to boost all the stages of development of advanced materials at different stages



**Design**



*[Electrically Conductive 2D Material Coatings for Flexible and Stretchable Electronics: A Comparative Review of Graphenes and MXenes.](#) Image Credit: Mopic/Shutterstock.com*



**Scale up**



*[The Business Case for Building a Handicap Accessible / ADA Compliant Website](#) \* [Accessible Adirondack Tourism](#)*



**Manufacturing from Lab to Fab**



*[\(4\) Financial Ratios for Manufacturing Companies | LinkedIn](#)*

# Acceleration of advanced materials development and upscaling along the value chain



This requires investment to identify and bring **breakthrough innovations to the market that cover the full value chain**

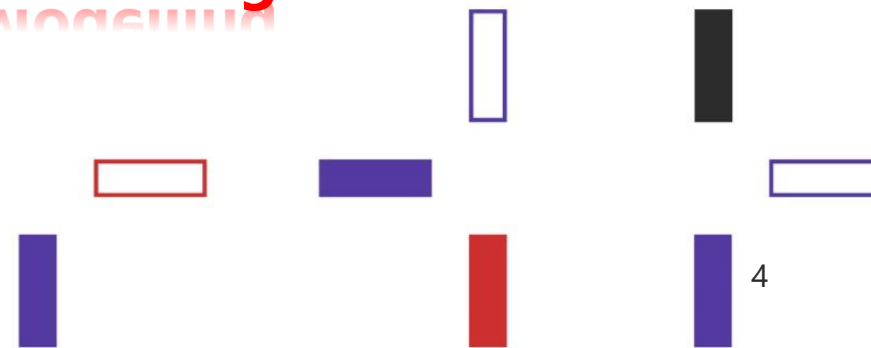
**Developers and  
producers of advanced  
materials**

**Companies developing  
tools**

**Designing**

**Modelling**

**Characterization**



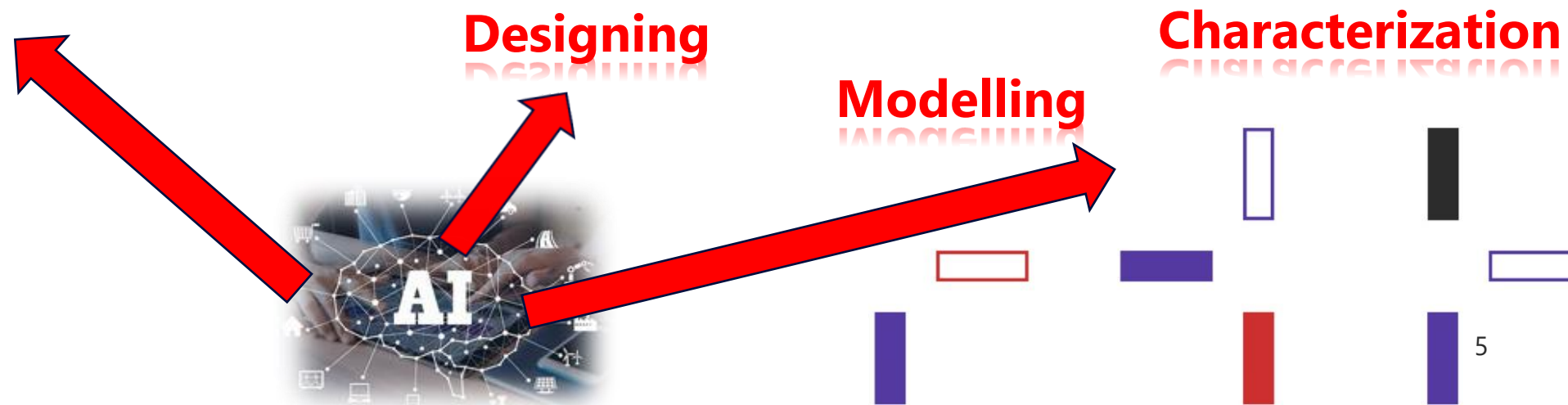
# Acceleration of advanced materials development and upscaling along the value chain



This requires investment to identify and bring **breakthrough innovations to the market that cover the full value chain**

**Developers and producers of advanced materials**

**Companies developing tools**





## Scope

This Challenge aims at scaling SMEs belonging to the whole value chain of advanced materials in several sectors



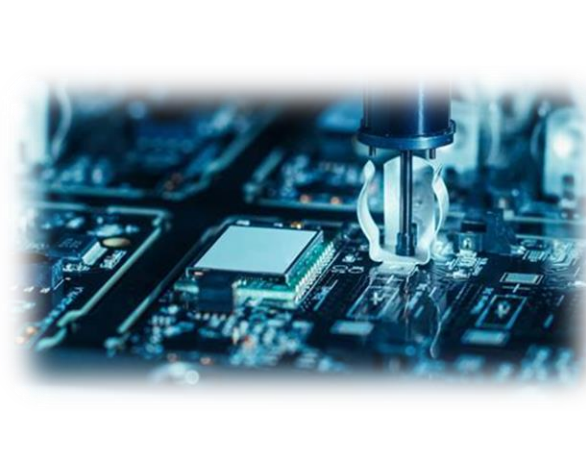
**Energy**

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**Construction**

[HD wallpaper: architecture, building, construction, design, job, profession](#)



**Electronics**

<https://lnkd.in/eM4ubriX>



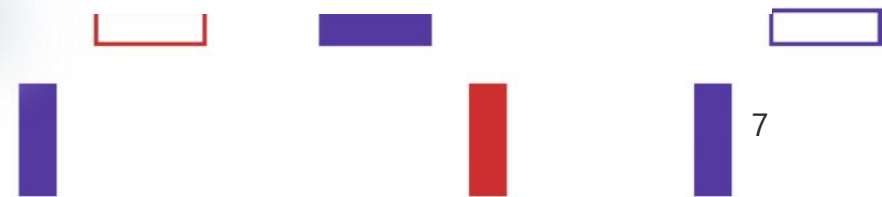
**Mobility**

[MAXTIME cv - Q-Free](#)

# Acceleration of advanced materials development and upscaling along the value chain



It contributes to a common European approach in accelerating the **scaling up of advanced materials**, a critical technology identified under the Strategic Technologies for Europe Platform (STEP) , and thereby **addresses the risks to the EU's future strategic autonomy in this area.**

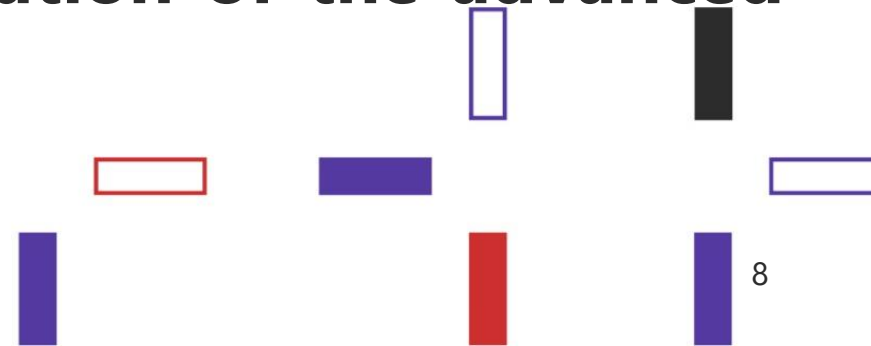




## Specific objectives:



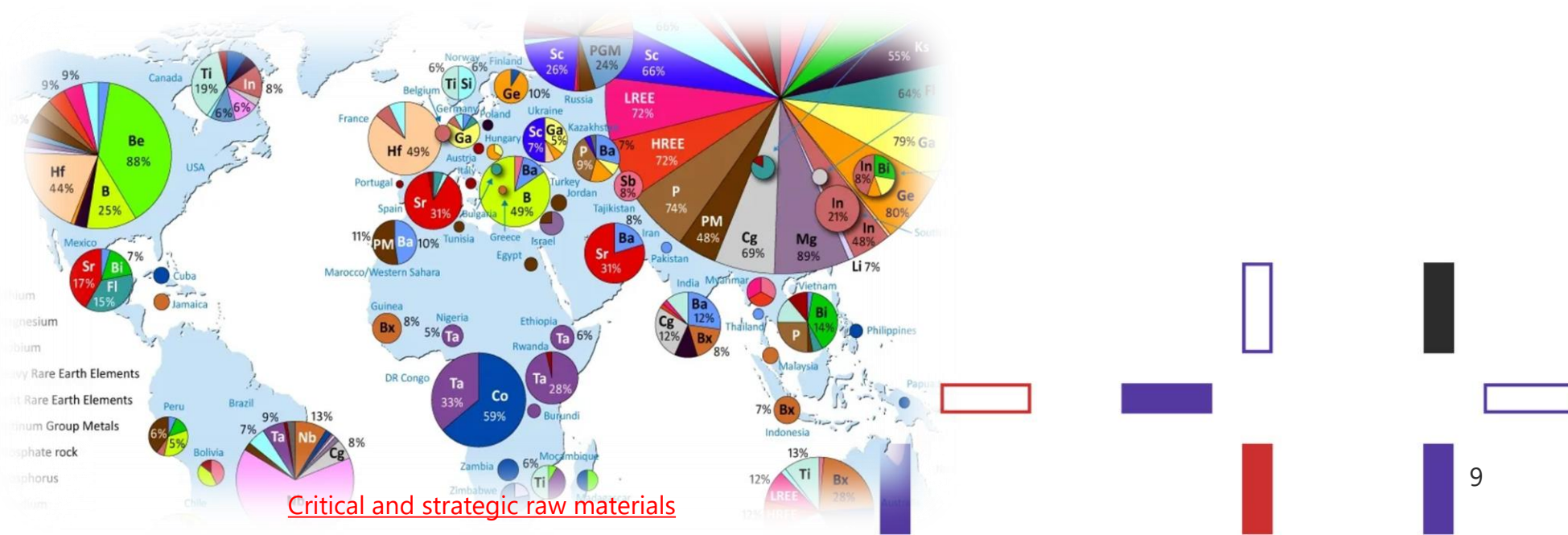
- ➔ **Technologies for design, synthesis, characterization, up-scaling, and production of advanced materials.**
- ➔ **Scaling up processes** to reach the targeted functionalities or improved performance of advanced materials, such as surface functionalization of nanoparticles, or additive manufacturing approaches which may enable **a fast integration of the advanced materials into smart devices.**





# Acceleration of advanced materials development and upscaling along the value chain

The advanced materials and associated processes in the abovementioned four key application areas must be developed **minimizing the use of resources, in particular critical raw materials (CRMs), and the environmental footprint.**





## Expected outcomes and impacts:

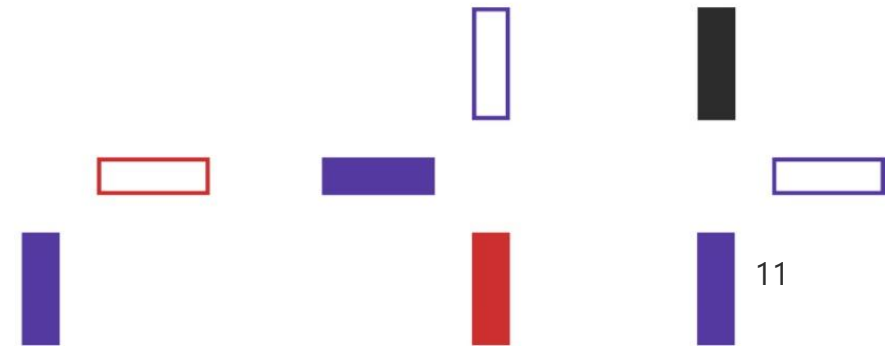


- ➔ **Strengthen the European value chain** of advanced materials in the energy, mobility, electronics, and construction application areas.
- ➔ **Enable a more diversified, digitally driven, and risk-aware configuration** of the European advanced materials value chain and associated processes and technologies.
- ➔ **Accelerate market uptake** of advanced materials in the energy, mobility, electronics, and construction industrial sectors.
- ➔ **Address the EU's industrial dependency** on imports of resources, such as CRMs, for the energy, mobility, electronics, and construction sectors.

# Acceleration of advanced materials development and upscaling along the value chain



Companies selected for support under this Challenge will become part of the **wider advanced materials ecosystem** to be fostered by the different actions set out in the Advanced Materials for Industrial Leadership.





# Thank you!

<https://eic.ec.europa.eu>

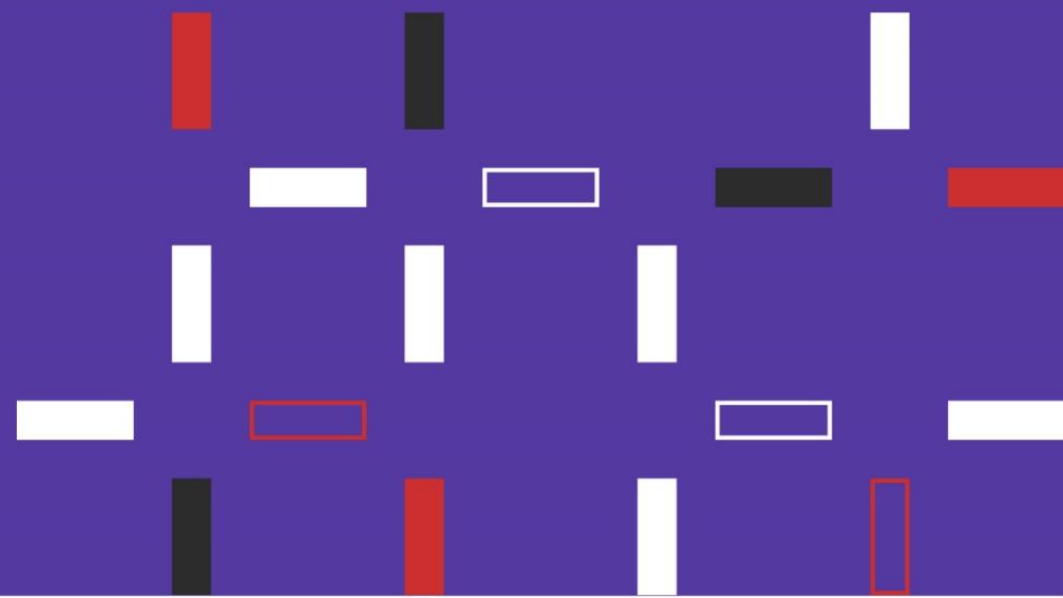
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# Key links:

- [Acceleration of advanced materials development and upscaling along value chain](#)
- [Info Day recording](#)
- [Challenge promotional video](#)
- Cut-off date(s): 12 March 2025; 1 October 2025
- Indicative budget: € 50 Million
- [EIC Work Programme 2025 Challenge link, at page 82](#)