

Executive Forum for Advanced Manufacturing

FORTIFYING EUROPE'S COMPETITIVE EDGE IN ADVANCED MANUFACTURING

As the current European Commission nears the end of its mandate and EU elections approach, we, the undersigned members of Orgalim's Executive Forum for Advanced Manufacturing (EFAM), wish to provide a set of recommendations for Europe to fortify its competitive edge in advanced and smart manufacturing.

Europe needs to become more competitive and increase economic growth while delivering on its net-zero ambition. Advanced manufacturing is at the forefront when it comes to delivering cutting-edge solutions to climate change, and Europe has a competitive advantage in this field. State-of-the-art technologies (such as AI, automation, cloud computing, cloud-edge continuum, big data analytics, as well as digital twins enabling product and production simulation) are revolutionising industrial products and processes, by creating a digitally interconnected industrial ecosystem. This allows for more energy-efficient and sustainable production processes, as well as a higher degree of electrification of all applications. Ultimately these are fundamental preconditions for European industries to achieve sustainable growth in the long term.

We welcome Europe's efforts to scale up renewable energy production to meet its carbon neutrality target by 2050. But this is only one part of the picture. If there is not a general rethink of the way products are manufactured, a large share of that energy supply, alongside other human, financial and material resources, will be wasted. Advanced manufacturing is key to optimising production processes, and thereby ensures that scarce resources and carbon-neutral energy are used with maximum efficiency – materially speeding up our progress towards net-zero.

Consider the example of digital twins. This technology allows product designers, as well as production and process operators, to identify, prevent, and fix issues that cause malfunction or failure of a piece of industrial equipment before actual failure, hence maximising its lifespan. This is just one of the many use cases for such technologies. It is estimated that, at their current level of technological sophistication, digital twins could save 7.5 billion tonnes of CO₂ worldwide over about 10 years.¹

Advanced manufacturing also enables the development of innovative products that have the potential to deliver major sustainability benefits. For example, the production of solid-state batteries requires sophisticated manufacturing techniques, such as thin-film deposition and advanced ceramic processing. Compared to traditional Li-ion batteries, solid-state batteries promise higher energy densities, longer lifespans, and faster charging capabilities.

We are fully committed to support Europe's net-zero ambition, by providing the technological solutions that will enable more sustainable products and radically reshape industrial processes to ensure a more efficient use of resources and energy.

¹[The critical role of virtual twins in accelerating sustainability](#)

However, the key incentive provided by the net-zero ambition will not be enough to ensure full-scale deployment of advanced manufacturing in Europe. Fostering the competitiveness of Europe's industrial base must be put at the top of the EU political agenda. For the upcoming EU political mandate, we call for an increased focus on properly implementing already existing regulations and promoting 'enabling' legislation that creates the right framework conditions for the wide-scale deployment of advanced manufacturing in Europe. For Europe to retain and expand its competitive edge in the global transition to advanced manufacturing, we see three key priorities for action:

1. Support functioning and scalable manufacturing data spaces – Achieving an ambitious deployment of advanced manufacturing requires trustworthy data spaces with an international reach, where different actors across the entire production process and product lifecycle can exchange data securely without compromising trade secrets and intellectual property. It is essential to avoid over-regulation and to support industrial initiatives like Manufacturing-X and Catena-X. Interoperability, trust, openness, addressing the skills gap and granular uptake of data spaces, especially by SMEs, will be crucial to their success and ability to deliver for the green transition.



2. Ensure access to capital – There is an urgent need to scale up investment in advanced manufacturing in and for Europe. The crucial factor here remains the creation of the right framework conditions, with a decreased regulatory burden for technology companies operating in Europe. However, we fully support dedicated initiatives such as the [Made in Europe](#) partnership and call for increased funding of such initiatives in the upcoming EU budgetary discussions. Big leaps in the uptake of advanced manufacturing require access to a variety of financial instruments, simplified application procedures and better distribution of grants. Public financing can be useful in addressing market failures; however, market forces and private capital must remain the primary drivers of investment into advanced manufacturing. It is therefore key that advanced manufacturing is recognised as a key enabler of the achievement of Europe's sustainability goals and hence labelled as sustainable under the EU Taxonomy for sustainable finance.



3. Maintain Europe's openness to international trade –

Advanced manufacturing rests on industry-developed open standards such as the Asset Administration Shell and OPC UA, which allow fully interoperable and digitally interconnected industrial environments. We call on the EU to promote such market-driven, inclusive standard development processes where industry is in the driving seat, firmly based on international standards. We urge the EU to leverage bilateral fora like the EU-US Trade & Technology Council, to promote joint positions in international standard development organisations such as ISO and IEC. Standards are crucial for the international scale-up of our offerings in manufacturing domains.



We stand ready to cooperate with EU decision makers, before and after the 2024 EU elections, to create a fruitful environment for the deployment of advanced manufacturing at scale. In this process, it is imperative to ensure that the achievement of Europe's net-zero ambition does not come at the expense of the international competitiveness of its manufacturing base.

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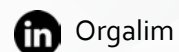
The Executive Forum is a limited membership forum bringing together high-level executives across manufacturing sectors to connect, access valuable insights and influence the industry agenda. The Executive Forum serves as an advisory forum to Orgalim's Board of Directors and gathers company leaders shaping today's industrial transformation.



Orgalim represents Europe's technology industries, comprised of 770,000 companies that innovate at the crossroads of digital and physical technology. Our industries develop and manufacture the products, systems and services that enable a prosperous and sustainable future.

Ranging from large globally active corporations to regionally anchored small and medium-sized enterprises, the companies we represent directly employ 11.19 million people across Europe and generate an annual turnover of €2,906 billion.

Orgalim is the foremost voice of Europe's technology industries at the EU level, working with policymakers to strengthen their sectors' growth and global leadership, maximise their contribution to Europe's economy and society and foster a new relationship of trust between businesses and citizens. We are shaping a future that's good.



SHAPING A FUTURE THAT'S GOOD

Boulevard A Reyers 80 | B1030
Brussels | Belgium

✉ communications@orgalim.eu
☎ +32 2 206 68 83

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