

# A MESSAGE FROM THE EDITORS

**O**n Tuesday, 10th October, the University of Twente proudly opened its Advanced Manufacturing Centre. This AMC provides a long-awaited equipment base to support the offerings of the Fraunhofer Innovation Platform for Advanced Manufacturing at the University of Twente (FIP-AM@UT). Local manufacturers can collaborate with FIP-AM@UT to explore how advanced manufacturing technologies can be used to further their own offerings through a ‘test before invest’ concept. Companies are facing increased pressure from all directions and in countries like the Netherlands the demand must be focused on high added-value due to high labour costs and other socio-economic factors. Efficiencies must therefore also be high and the increased focus on environmental impact requires us all to think about how we can reduce energy costs and material wastage.

Every engineer understands the principles of inertia. It is much easier for manufacturers to remain moving in one direction than to instigate change. This form of organizational inertia has worked for many companies in the past. However, disruptions like COVID have proven that if a company is unwilling or unable to quickly change, it could easily go out of business. Modelling manufacturing processes at a digital level and having technology that can be easily adapted to new purposes can reduce the energy and cost required to implement change when required. With the world that we are seeing today, advanced manufacturing technology can be a good option towards future-proofing our local manufacturing industry.

## IAN GIBSON

*Director*

*Fraunhofer Innovation Platform  
for Advanced Manufacturing  
at the University of Twente*

**I**n the spirit of progress that my co-editor so aptly described with the opening of the University of Twente’s Advanced Manufacturing Centre, this edition of our magazine widens the lens to the vast business landscape. We’re not only toasting to the grand opening of a cutting-edge centre (and our magazine’s 10th issue, no less); we’re welcoming the start of an exciting new chapter in the way businesses work.

In the articles that follow, you will discover how cutting-edge technologies like ChatGPT, generative design, and additive manufacturing (AM) are injecting unprecedented value into various business operations—from human resources and supply chains to customer service and sales—and across a multitude of industries.

These innovations may not have the shock value of the steam engine or the internet, but their impact is no less significant. Instead of inventing the wheel, the innovations we’re focusing on today are enhancing the wheel’s performance, refining and redefining processes with a level of sophistication and efficiency that far surpasses the old models. This reflects a broader trend where the driving force behind today’s tech evolution is not the invention of brand new technologies but the ingenious integration of existing ones. These integrations are not just improvements; they are leaps in capability, enabling us to do familiar things in unfamiliarly effective ways.

Echoing my co-editor’s insights, we recognize that the manufacturing sector, particularly in high-cost socio-economic environments like the Netherlands, is under immense pressure to deliver high value. The AMC, with its ‘test before invest’ concept, is a beacon for companies navigating these pressures, offering a tangible way to embrace these (unfamiliar) advanced manufacturing technologies. It’s about minimizing the inertia that so often holds firms back, providing the tools and the testbeds to adapt swiftly and sustainably.

## GIJS BEUMKES

*Program Lead EDIH /  
Research Engineer*

*Fraunhofer Innovation Platform  
for Advanced Manufacturing  
at the University of Twente*