

AS SEEN IN:  
**INNOVATIE NU | JUNE 2021**

# **A MESSAGE FROM THE EDITOR**



**ADVANCED  
MANUFACTURING  
CENTER**

ISSN 2772-428X

**A**s the world changes, one issue continues to affect industry: sustainability. The ongoing pandemic and increased environmental activism have made it crucial that businesses minimise wastage- not only from a financial perspective, but in terms of sustainability and reducing our carbon footprints. Nowadays, green standards that used to be a nice benefit have become an expected point of attention for manufacturers. Reducing water and energy consumption, minimising waste and decreasing emissions should be prioritised on the corporate agenda.

But this also brings a pressing paradox: how do we strive for industrial growth while also valuing our planet's resources and minimize the environmental impact? The world is on a fast track to consume our planet's natural resources. And the UN has also warned that CO2 emissions must be almost halved by 2030 to protect the planet from additional threats of climate change – a target that has to be met in less than 10 years! There is no doubt that the time for change is now. Green manufacturing, sustainable manufacturing, or whatever name one would give to the process: the environmental challenges in manufacturing must be addressed on a systemic level.

There are tangible ways to promote sustainable practices, both within the production facilities, in the supply chain, and the customer base. The Industrial Internet of Things (IIOT) offers the opportunity to tap into digital innovation to do more with less and to move towards a zero waste-to-landfill framework. This potentially means a reduction in the use of natural resources and energy, lower carbon footprint, technological advances that consider efficiency, resiliency, and sustainability throughout the production life cycle and a strong basis for a global circular economy. The latter one, requires a fundamental change in the way goods are produced. The traditional trajectory of production is rather linear: a straightforward path from cradle to landfill, where products are made, used, and discarded. Sustainable manufacturing will change this status quo: it goes beyond the traditional approach towards one of “repair, reuse, refurbish, remanufacturing, and recycle”, promoting optimal resource usage and longer product life.

Sustainable manufacturing can leverage the revolutionary advances in productivity and efficiency without the drawbacks of waste or pollution. Within this issue of InnovatieNU the power of sustainable manufacturing will be revealed, the path a low-carbon reality and a green, high-tech industry.

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