



CECIMO PRESS RELEASE

New technologies help the shift towards circular economy in the manufacturing sector

Brussels, 27 May 2019 – The manufacturing sector can become more sustainable thanks to new technologies. CECIMO Conference on “Advanced Production Technologies for Circular Manufacturing” indeed proved how additive manufacturing, laser technologies, digital and other advancements help saving resources and contribute to circular economy. On the other hand, policymakers should continue supporting industry in its effort, also in the next political cycle.

Innovative and cutting-edge technologies, such as Additive Manufacturing, automation, digital or laser technologies provided by the machine tool sector help in achieving a more sustainable and circular manufacturing sector. This was the main outcome of a conference organized by CECIMO on 23 May 2019 in partnership with the 2019 EU Green Week and the European Economic and Social Committee.

The machine tool sector, as explained in the new CECIMO Report on “the European Machine Tool Sector and the Circular Economy”, has been dealing with sustainability for quite a long time. Juha Mäkitalo, Chair of the CECIMO Technical Committee, underlined that indeed *“repair, refurbishing and recycling of products are already a reality in our sector, but the role of machine tools and related manufacturing technologies as key enablers of the circular economy is as important as these aspects”*.

Companies speaking at the conference showcased concrete examples of how their applications can help to achieve more efficient and sustainable manufacturing processes and products.

One technology is laser surface texturing, as Stefan Dahl, Head of Advanced Manufacturing at GF Machining Solutions, explained. More than 80% of textures in manufacturing are done by chemical etching process. Laser texturing technologies provide a cleaner alternative to etching processes and create 3D textures directly out of digital data. It means no use of chemicals, a simplified process, no manual work, a reduced scrap level and a full digital process: all contributing to a more sustainable production and products.

The role of new digital technologies was highlighted by several companies. Digitization can also help in the remote servicing of machines, meaning a faster solution of problems, reduction of downtime and saving resources. According to the speakers, 30 to 50% efficiency gains can indeed be achieved through software improvements.



Philippe Reinders Folmer, General Manager of Renishaw Benelux, explained that machine tools are “blind”, they do not know exactly where the piece or the tool is. Through in process-monitoring and control, the operator can oversee the whole process rather than checking the piece at the end of it. The process can be then corrected while still running, which results in less waste and more efficiency. Monika Šimánková, CEO of Hestego, gave an example of how automation helped her company to reduce the environmental impact: it cut down power consumption by nearly 30% and CO2 by more than 400 tons/year.

Additive Manufacturing (AM) can contribute too to sustainability by using only the needed materials and by consolidating the number of components within an assembly. Both Philippe Reinders Folmer from Renishaw and Erik de Zeeuw from Materialise highlighted how AM helps to save resources and, in some cases, to produce lighter parts. Such a characteristic helps to reduce energy consumption during the use phase of the product, which is especially important in sectors like transport. Looking at the future, Materialise pointed out that further research should be done on material uses and efficiency for AM.

An important conclusion of the event was that technologies are key for circular manufacturing, but policy makers should facilitate the transition. They should provide a technology neutral framework, support digitization of European industry, and allocate funds for research and development of manufacturing technologies. During the event, representatives of the European Commission and of the current and next EU Presidencies assured that sustainability and circular economy will continue being a top priority in the next political cycle.

About CECIMO

CECIMO is the European Association of the Machine Tool Industries and related Manufacturing Technologies. We bring together 15 national associations of machine tool builders, which represent approximately 1500 industrial enterprises in Europe (EU + EFTA + Turkey), over 80% of which are SMEs. CECIMO covers 98% of the total machine tool production in Europe and about 33% worldwide. It accounts for more than 150,000 employees and a turnover of nearly €26 billion in 2017. More than three quarters of CECIMO production is shipped abroad, whereas half of it is exported outside Europe.

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