The recent COVID-19 health crisis has shown that traditional supply chains can be disrupted by a sudden change in the scale of demand. In light of this unprecedented economic and social scenario, it is essential that critical sectors adopt efficient, on-demand solutions that help reduce the risks of future supply chain disruption.

The sixth edition of the Additive Manufacturing European Conference (AMEC), originally planned to take place at the European Parliament (EP), was held in digital format on 2nd December. Members of the European Parliament, AM industry experts and the moderator, Dr. Fabian Zuleeg, Chief Executive of the European Policy Centre, discussed the advantages of combining digital supply chains and additive manufacturing solutions.

The conference highlighted that the AM sector will play a crucial role in the upcoming review of the European industry strategy. Furthermore, the future market uptake of this technology will help different sectors transition towards the adoption of both digital and sustainable business-to-business services and solutions.

Below you can read the main takeaways from the interventions of each speaker during the 2-panel conference.

During the conference, policymakers underlined the importance of the recently adopted EP report on “A New Industrial Strategy for Europe”. The proposal will set the conditions for an innovative, inclusive, resilient, digitalised society and will make a major contribution to the global competitiveness of European industries.

The EP expects that their input will be considered by the European Commission ahead of the revision of the New Industrial Strategy.

The Members of the EP stressed that the following factors could accelerate the future growth of the AM sector:

- Use the Horizon Europe framework and the Structural funds to invest in R&D, which would help reduce the cost of materials and allow for the application of AM technology in new fields
- Reduce the skills gap by reskilling the workforce and training a new generation of workers in AM skills
- Avoid overregulating the sector by involving industries in the decision-making process

Susana Solís Pérez, Member of the European Parliament, RE

The EU has to support an industrial strategy that contributes to the EU’s recovery from the current economic crisis, speeding up the twin green and digital transitions in the process. AM technology could be an enabler for industrial sustainability and a driving force of the European industrial competitiveness. In order to exploit the full potential of AM, EU policymakers need to ensure a supportive regulatory framework. That will require dialogue and cooperation with both AM industry representatives and other relevant stakeholders of the AM value chain.
Michael Bloss, Member of the European Parliament, Greens/EFA

A well-functioning and regulated EU internal market can make the difference for those industries that want to develop solutions in Europe. The EU needs to support both the transition towards its climate targets and the competitiveness of its manufacturing sector, which is the backbone of the broader European economy. It is important to provide targeted support to those sectors, such as AM, that can help the EU achieve its climate, sustainability, and competitiveness goals.

Christophe Grudler, Member of the European Parliament, RE

Europe is a leader in innovation in AM, as it stated in a recent study published by the European patent office. The use of AM can help the EU supply chain, reinforcing the competitiveness of local producers and kickstarting demand for high-quality jobs. EU and private funding will be key in supporting the adoption of AM by SMEs and those sectors which are still not fully harnessing the potential of this technology (e.g., in terms of energy consumption).

The industry representatives underlined the importance of decentralisation of production, highlighting its many challenges. Some of the most relevant ones were the certification of the printing process and quality assurance of printed part, as well as the development of new business opportunities, such us onsite, on-demand printing.

Stewart Lane, Corporate Manager, Renishaw plc & Chairman of Additive Manufacturing Committee, CECIMO

The recent supply chain disruption caused by COVID-19 in the medical industry should be a wake-up call for other sectors, such as automotive. These sectors should not underestimate the importance of a flexible supply chain and, from now on, should try to build domestic capacity to prevent the risk of sudden output interruptions in the future. To raise awareness on this subject, CECIMO decided to support the AM sector by showcasing some of the best practices and highlighting new potential growth opportunities for the AM application in manufacturing supply chains.

Paul Heiden, Senior Vice President Product Management, Ultimaker

The use of AM is perfect for on-site manufacturing. A good example of this is the maritime sector, where in boat crewmembers have employed on-board 3D printers to produce tools or spare parts, should these be needed. Having the digital file of a component gives companies the freedom to transfer it where it is needed. Digital supply chain and AM will have an impact on the use material and the environment (e.g. avoiding overcapacity), something that will not be neglected by companies in the future.
Angeline Goh, Digital Manager Supply-Chain & 3D Printing/Additive Manufacturing Lead, Shell

Shell is one of the early adopters of AM in the energy sector, using it to print spare part, novel design (e.g. printing “impossible parts”) and prototyping. The company is undergoing a radical change in its supply chains, moving away from “buy just in case” to “buy just in time”. Accelerating the adoption of AM solutions will need cooperation across operators and vendors standardisation, data knowledge sharing and, overall, setting common goals.

Roberta Sampieri, Head of Global Additive Manufacturing Planning & Development, FCA Group

Companies need to examine how AM can improve different parts of their supply chain. For this reason, FCA conducted a test-run of AM technologies in its production chains, logistics and other services. In 2016, FCA started working on product design for AM by identifying eligible parts. The company also built a business case that included the cost of producing said parts and outlined production, standardisation, and quality processes. To ensure further adoption of AM in the automotive sector, it is essential to link innovation to business cases, as it would help find cheaper materials and allow companies achieve higher productivity levels and greater reliability of processes.

Cristian Fracassi, CEO, Isinnova

It is important to invest in a new generation of workers, one that can operate AM technologies and integrate AM in companies’ production chains. AM can become an enabler of a sharing economy where designs can be made available to those in needs of a specific products. The quality of printed parts is an important factor, particularly when a company needs to print a large number of parts in different countries. For this reason, Isinnova, as part of its commitment to the fight against covid-19, decided to share online the files of those parts which do not have complex shapes and were easy to reproduce with any 3D printer.

Mariel Diaz, CEO, Triditive

After the disruption caused by COVID-19, supply chains will need to be reshaped to ensure efficiency, flexibility, and resilience. Distributed manufacturing will require thorough monitoring of the production line. This can be achieved by using real data from the manufacturing process or directly from the machines. Collecting and examining data will give companies pointers as to how to improve production, reduce the number of miscalculations in the overall industrial process and optimise the productivity of machines.

The event was concluded by Filip Geerts, Director General, CECIMO, who highlighted that Additive Manufacturing has an important role to play in increasing the competitiveness of European industry and in supporting circular economy models. Therefore, to ensure an appropriate legal and policy framework, it will be essential to develop industry-specific standards, promote skills in this business area and provide financial support to those industries that aim to implement changes in their supply chain.