

WEBINAR Repairing with Additive Manufacturing

An opportunity to boost industrial sustainability



On the 14th of April, CECIMO organised a webinar titled "*Repairing with Additive Manufacturing: An opportunity to boost industrial sustainability.*" The webinar discussed the opportunities and challenges of using **Additive Manufacturing** (AM) to repair products and extend their lifetime.

The topic of the webinar elaborated on the recently announced European Commission initiative: "*the right to repair*", which is expected to be launched by the end of this year. This initiative aims to give consumers the *'right to repair'* the goods they buy, meaning manufacturers should be required to make spare parts for those products readily available and easily accessible by consumers.

The 'right to repair' was also supported by the European Parliament, who approved in February this year a report called the "*New Circular Economy Action Plan*". It is important to emphasize that during the preparation of this report, the European Parliament Transport Committee suggested the "*exploration of the potential benefits for repair processes of an efficient combination of scanning and 3D printing*".

Although it seems that the initiative will address only a limited market segment (e.g. consumer electronics), it will provide an opportunity for both governments and businesses to look at technologies that facilitate product repairing and give manufacturers access to a more circular approach to product development. Therefore, it offers a significant opportunity for the whole AM sector to help companies and citizens to increase the percentage of parts and product repaired.



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Stewart Lane, Corporate Manager at **Renishaw PLC** and Chairman of **CECIMO Additive Manufacturing Committee**, kicked off the event by introducing the webinar's topic and giving an overview of the current policy initiatives at both National and EU level.

The speakers focused on relevant topics such as intellectual property rights, energy saving, digital inventory, business models and opportunities to promote distributed manufacturing.





Pierre-Jacques Lyon, Co-founder & CEO of **MARKLIX** pointed out how blockchain could be the perfect solution to protect the digital files' intellectual property, as it will not allow the printing shop to have access to the original file or other relevant information (e.g. printing process or the orientation of the part in the machine).

Daniel Landgraf, Regional Director EMEA at **Link3D MES**, highlighted that shifting to digital inventories could minimise any manufacturer's inventory and supply chain costs. Such transition would be facilitated by raising end-users' awareness about AM and creating new collaboration opportunities between AM software providers and machine manufacturers.



Joachim Antonissen, General Manager at **Guaranteed**, presented an example that compared Wire Arc Additive Manufacturing technology to conventional manufacturing. The result was substantial energy and carbon emission savings, even without including transport and logistics.



Manuela Perrone, Engineering Manager at **Avio Aero**, stressed that if a company wishes to use AM to repair its products, it is essential to work on the different aspects of the process. For example, choosing the proper powder (even if it means to design and develop a new one), evaluating how each process parameter influences the quality of the print job and involving all the relevant company's departments in the discussion. Only by testing and using this technology can a company learn how to exploit AM full potential.



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Paolo Gregori, Managing Director at **ProM Facility** - **Trentino Sviluppo Spa**, stated that using AM gives access to on-demand and distributed manufacturing, which could boost regional and local economies allowing industries to locate the needed competencies in their area.

The speakers highlighted that for different sectors (namely aerospace, oil and gas and healthcare) facing the challenges of stocking hundreds of spare parts, there could be an excellent opportunity to develop new business models. Such new models look at the digitalisation of inventories and distributed manufacturing facilities to provide better service and avoid production disruptions.

The "right to repair" has brought the attention of the policymakers to the importance of having access to the products' digital files and promoting distributed manufacturing. The webinar made it clear that only cooperation between technology providers, end-users and policymakers could help achieve a production transition that would:

Reduce the environmental footprint,

Increase manufacturing efficiency,

Boost the creation of new business models based on distributed manufacturing.

