

**Andrea Bongiovanni**

Stellantis

Topic

### **Different Approaches to Hybrid Manufacturing for New and Future Structural Automotive Components**

In this talk, a new design and manufacturing paradigm based on Adding-Value Functional Features (AVFF) is presented. AVFF are small-scale 3D geometric features deposited on a preformed substrates manufactured by conventional technologies. AVFFs are designed to provide one or more additional functionalities to vehicle systems, such as static and dynamic stiffening, heat dissipation, vibration dumping, energy absorption guidance, etc. The talk will explore the overall concept (CRF patented), the design (CRF and GEM), and the manufacturing (CRF and FhG-IWS) methodology approaches that will enable a future economic and environmental mass production in the future of transportation.

### **About the Speaker**

My name is Andrea Bongiovanni, I am currently a consultant researcher in the Material Technical Expertise department at Stellantis. After a Bachelor and Master in Material Engineer at Polytechnic of Turin, I am finalizing my PhD on Material Science, focusing on high-pressure die-casting aluminium alloys coming from end-of-life recycling. I recently won the Aldo Daccò Award for foundry and solidification.