

VALERIA TIRELLI  
President & CEO

Italy Ambassador



WMF -YML  
Nov. 25th 2022



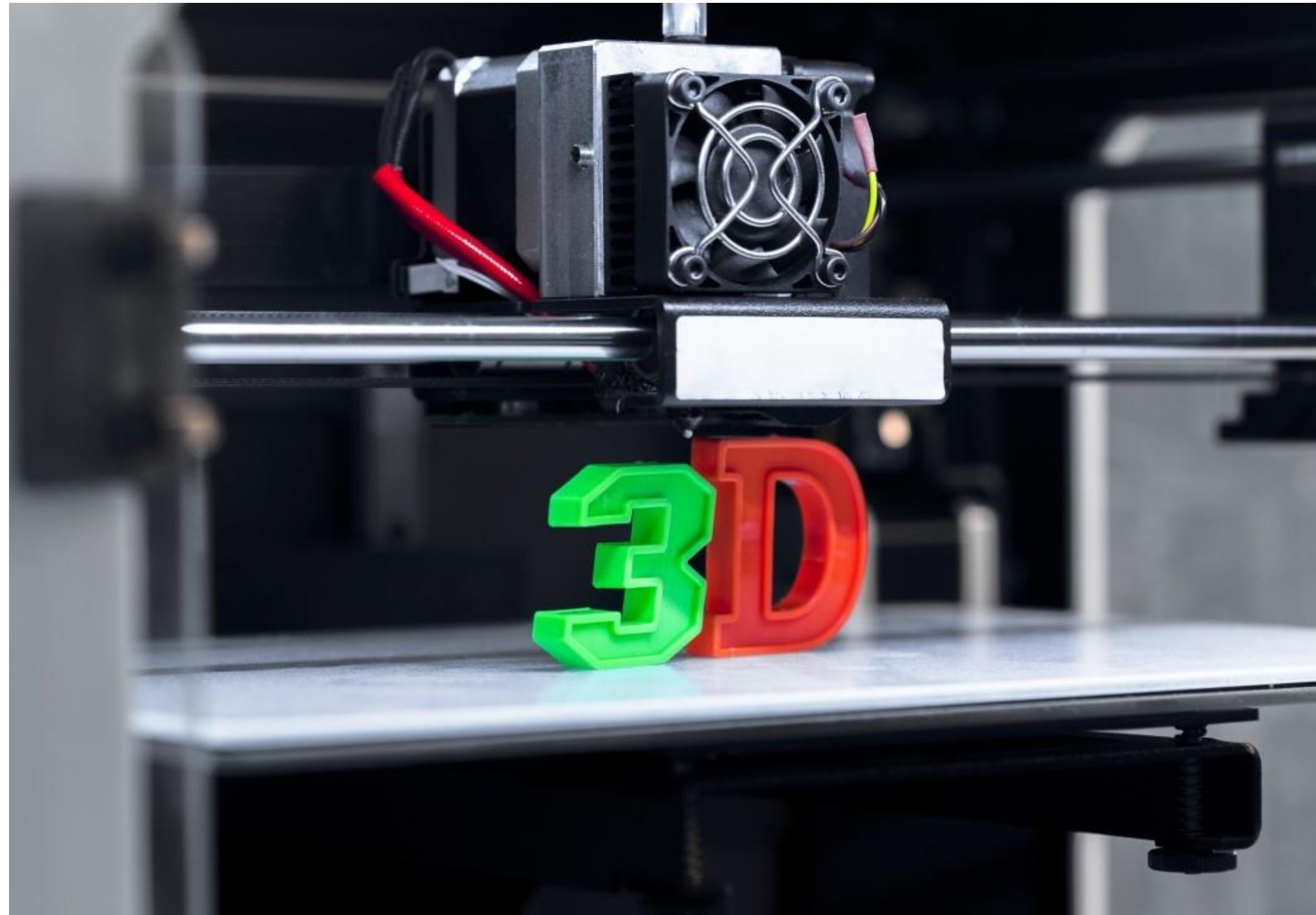
PASSION LED US HERE





**WHAT  
WHERE  
WHEN**

**YOU NEED IT**









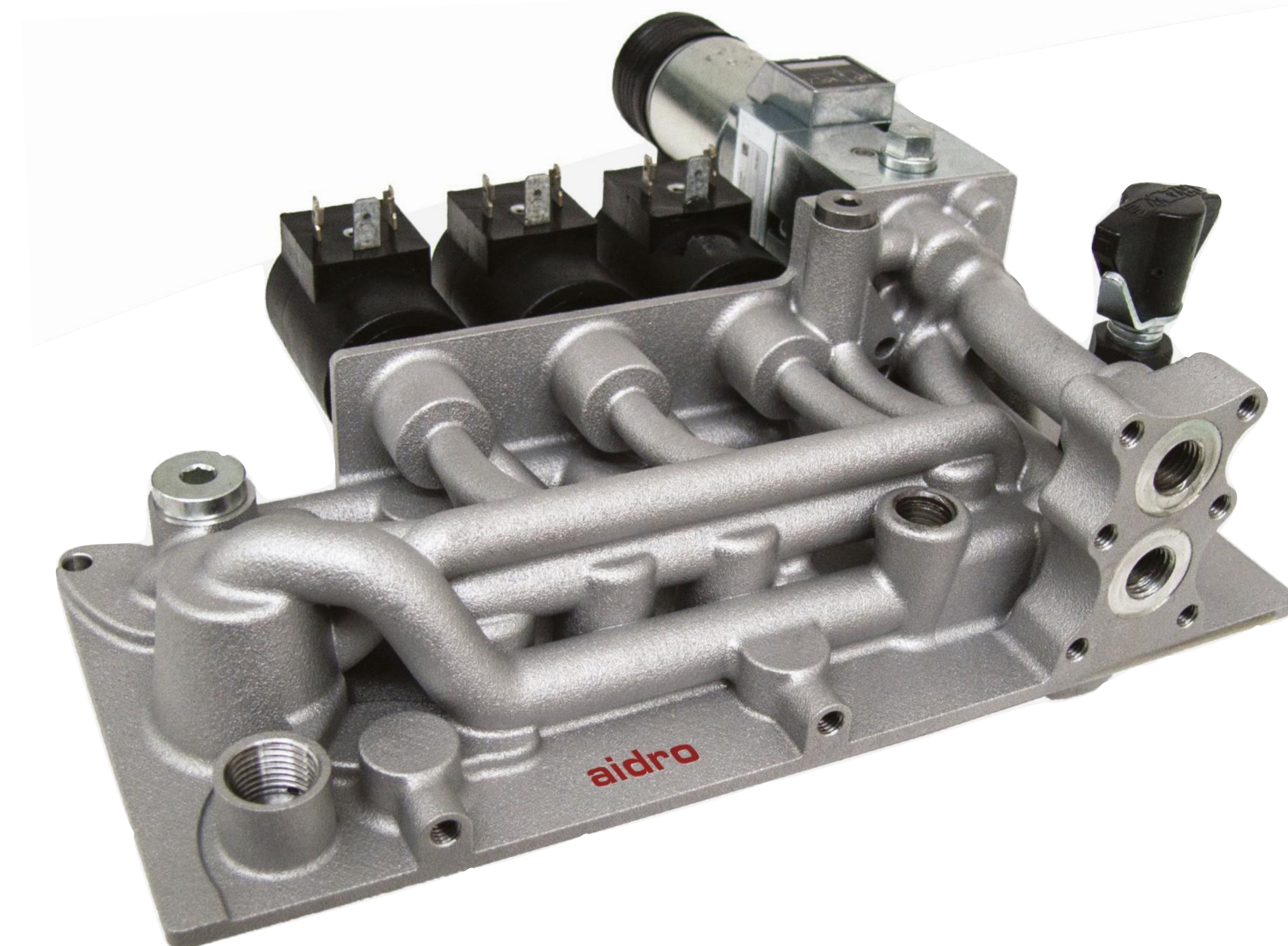
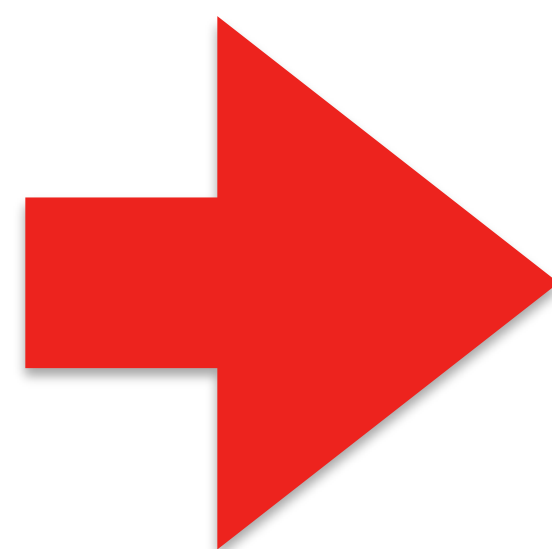
**THINK**  
**outside**  
**THE BOX**







5 Kg



1,3 Kg

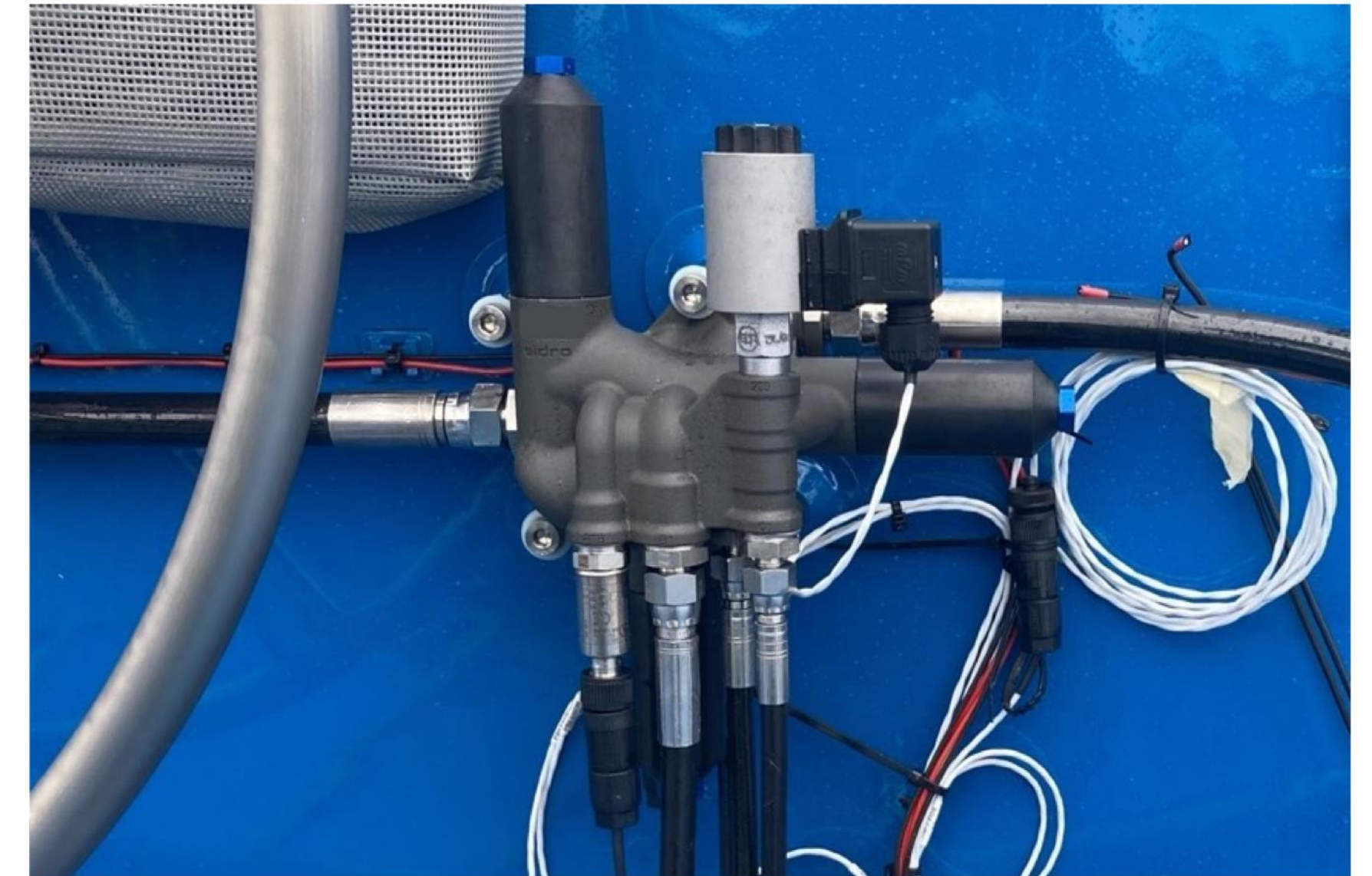




courtesy of Leonardo Helicopters



# Lightweight Oil-Hydraulic Manifold



In house activities: Design for AM, 3D printing in AlSi10Mg, post-finishing, anodizing, test at 350 bar. Weight: from 4.4 kg (traditional manufacturing) to 0.7 kg (AM)





Courtesy of Dynamis PRC – Politecnico di Milano

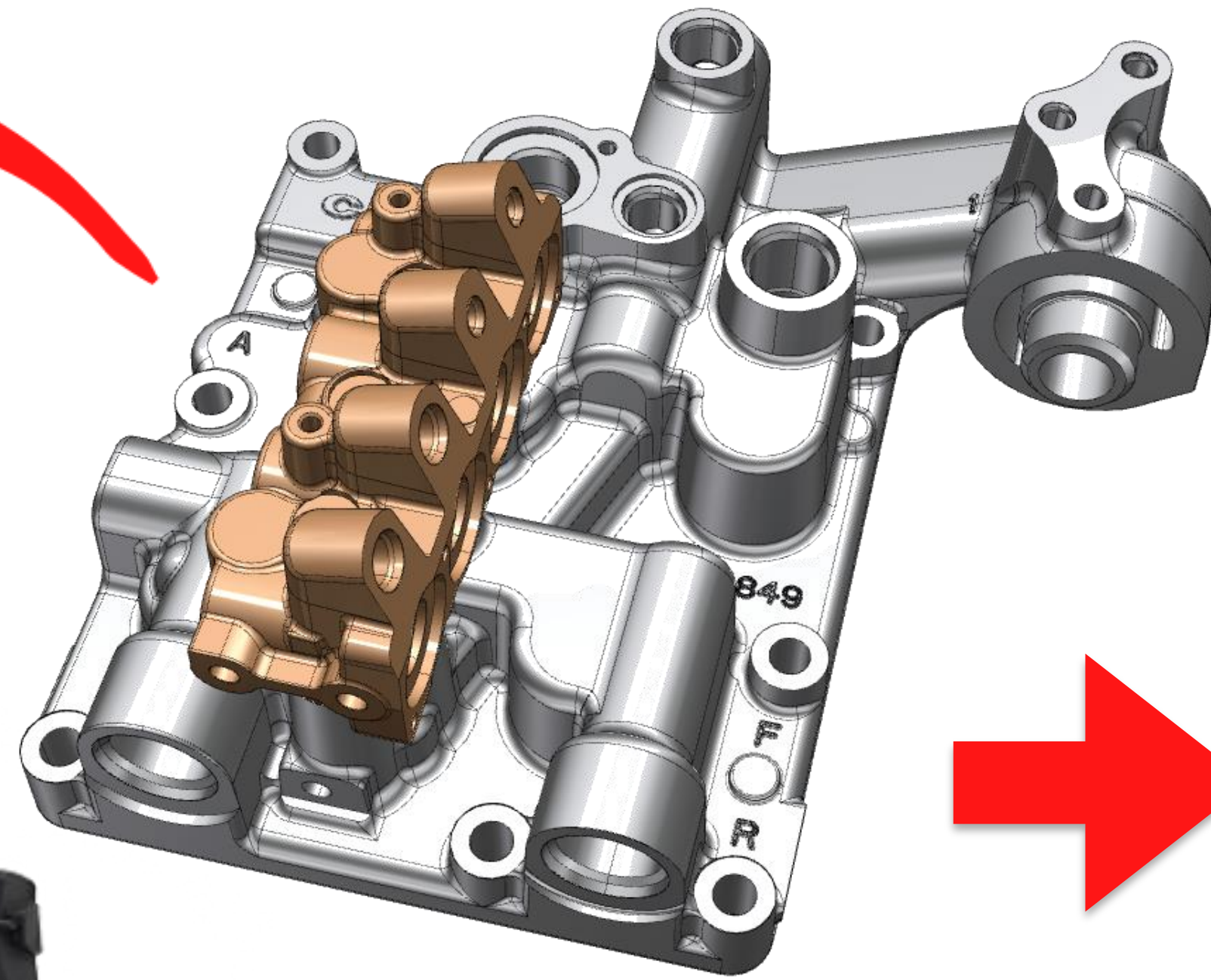




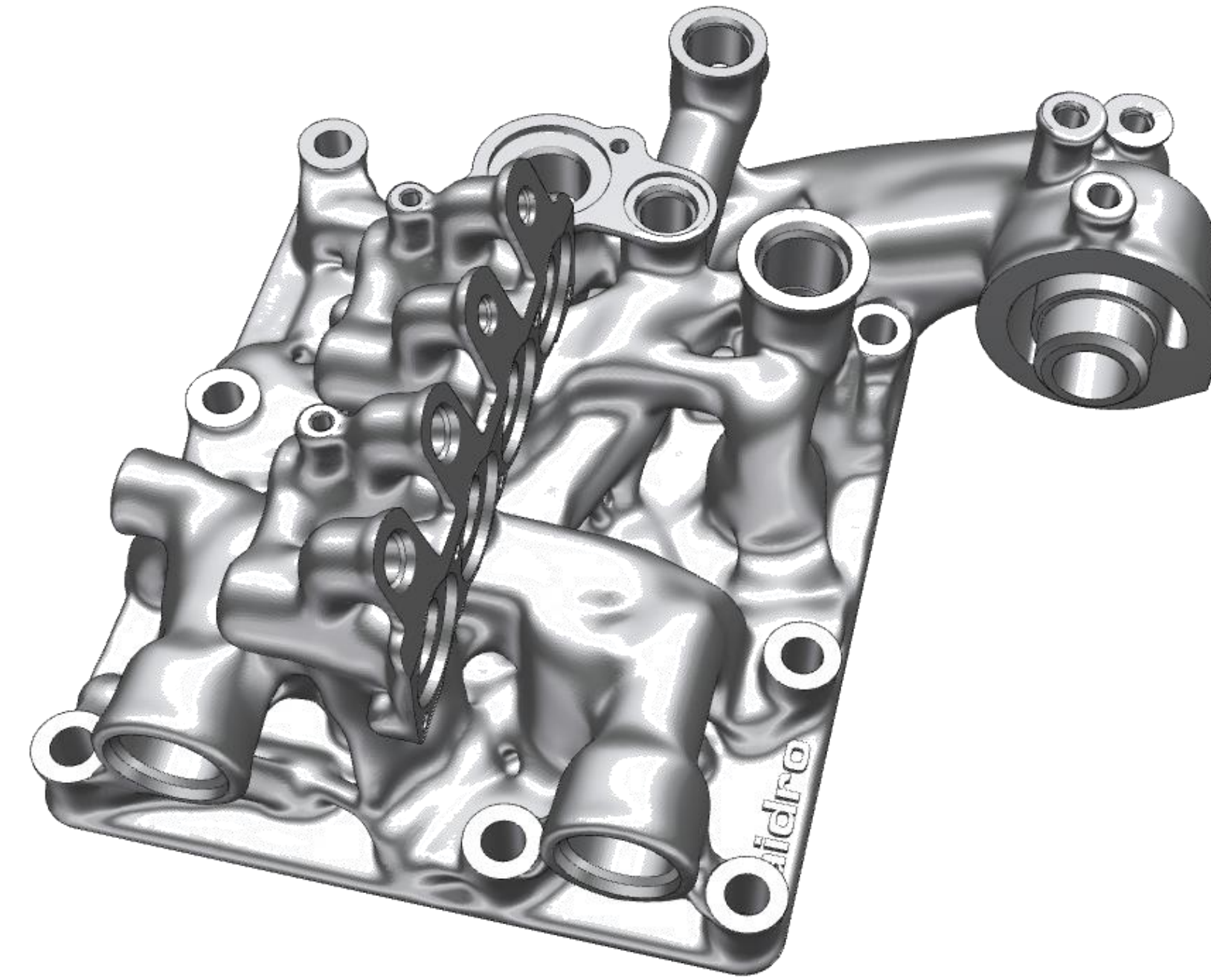
**SUSTAINABILITY**



Conventional manifold



3D Printed manifold



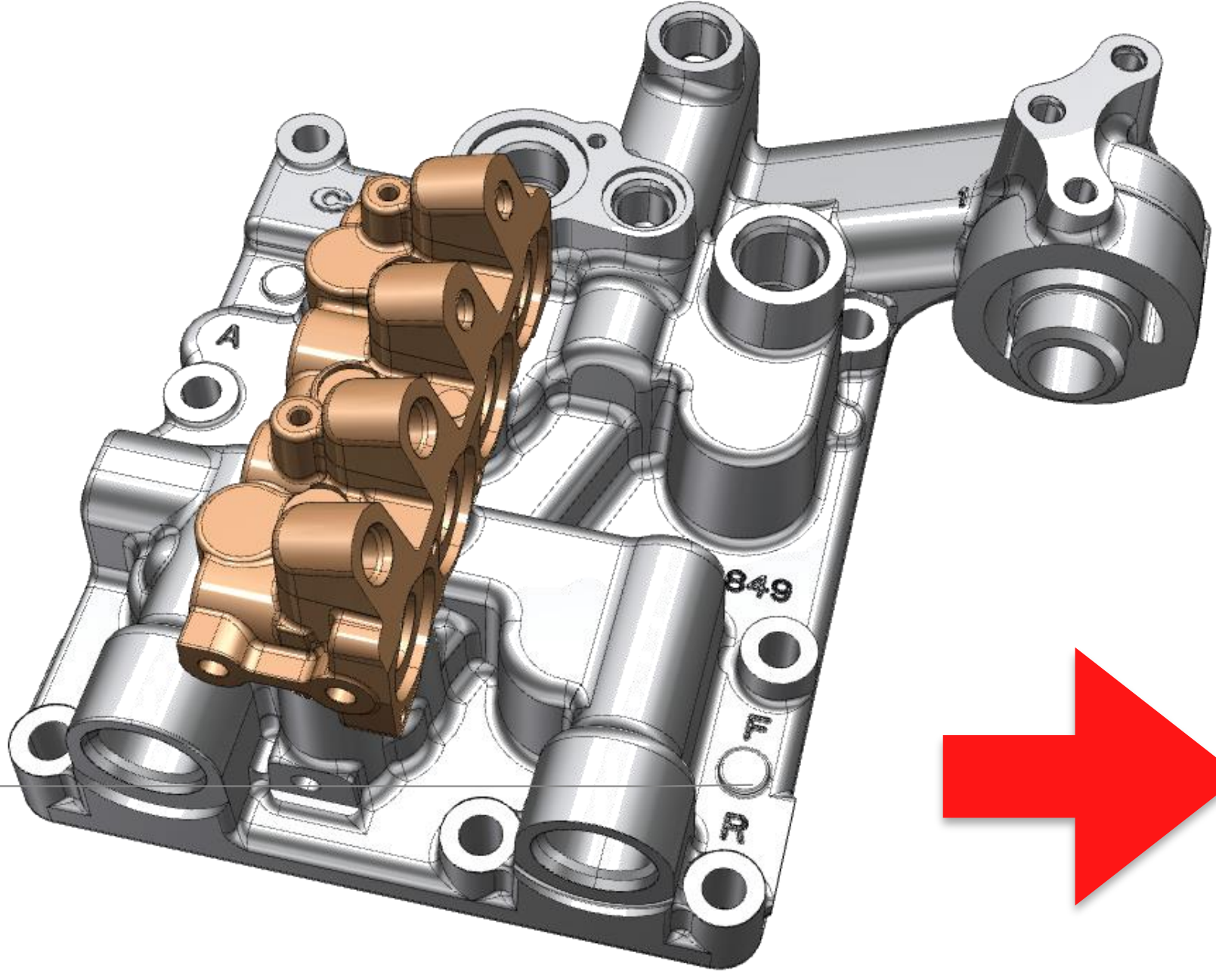
*Joint project between*

**aidro**  
Desktop Metal Company

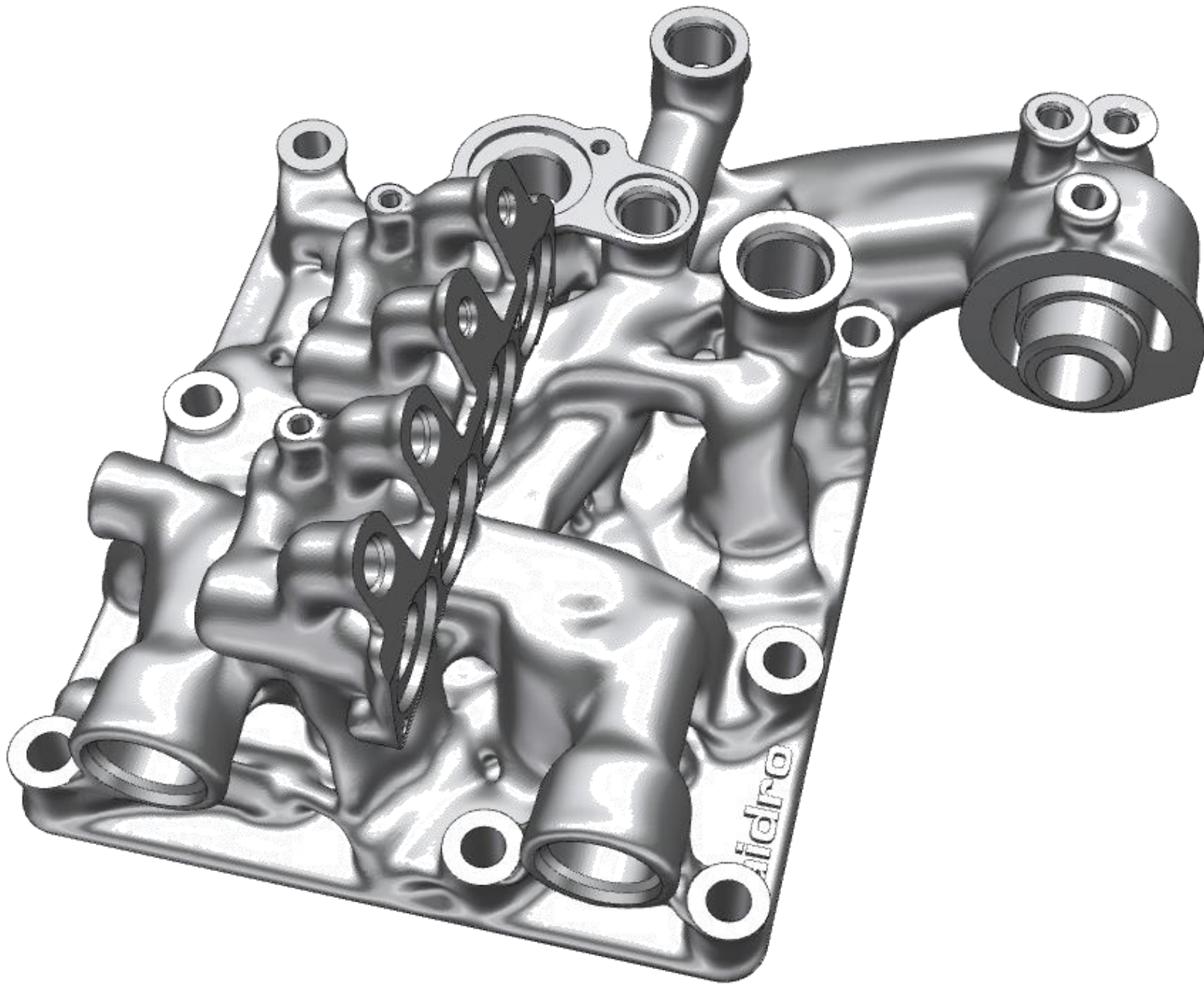
**CNH**  
INDUSTRIAL



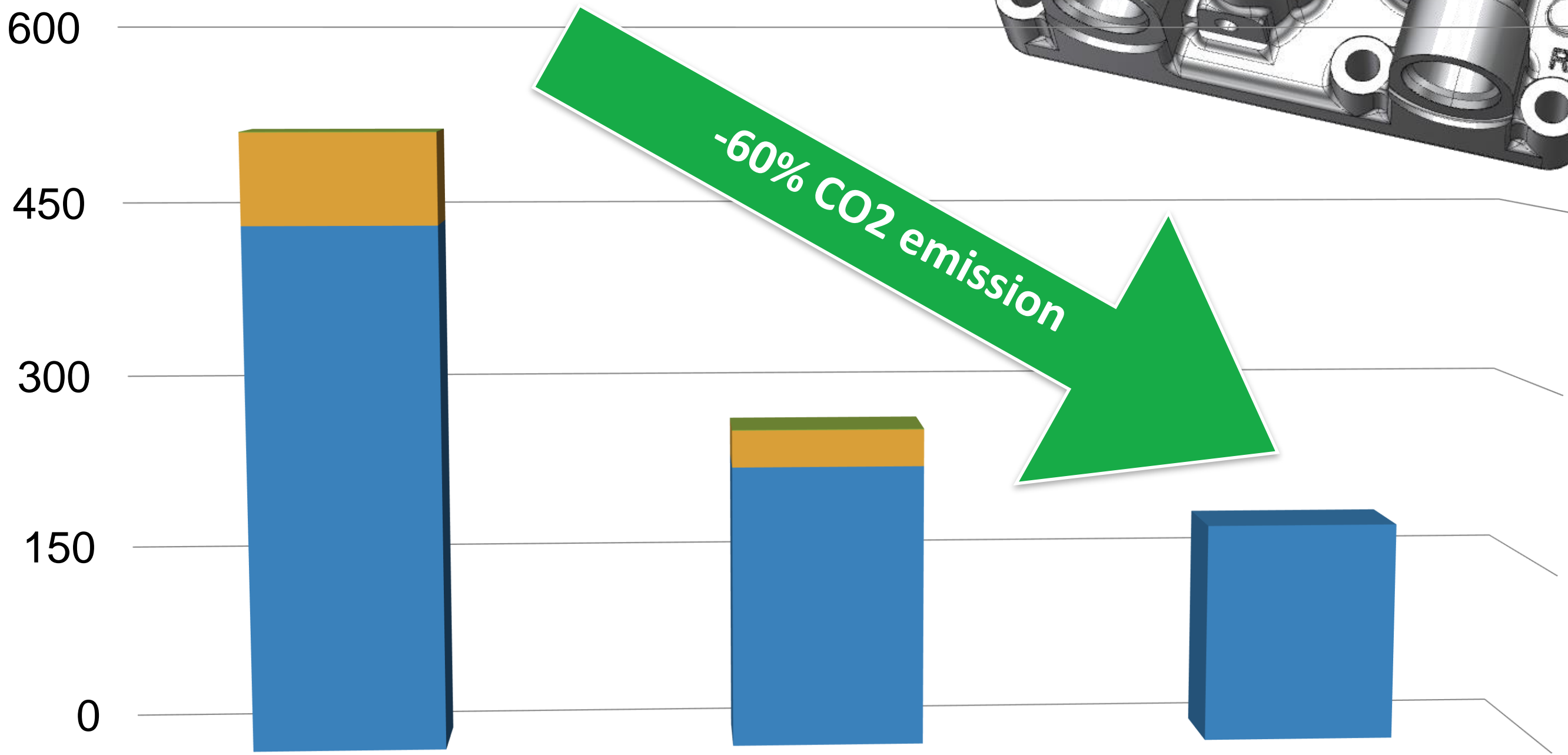
Conventional manifold



3D Printed manifold



LIFE CYCLE ASSESSMENT (LCA)



Conventional manifold      3D Printed "as is"      3D Printed optimized

■ Main manifold    ■ Auxiliary Manifold    ■ Assembly utilities

GWP = Global Warming Potential (kg CO2-equivalents over 100 years)









**IM-POSSIBLE**