

RECET4RAIL Reliable Energy and Cost Efficient Traction for Railway

WS1 « 3D Additive Manufacturing and new manufacturing technologies »



Objectives :

- ✓ Identify where AM technologies can contribute to traction drive system development (cooling of power module).
- ✓ Improve conception lead-time, prototype manufacturing through a multidisciplinary design optimisation workflow.
- ✓ Workflow application for a newly designed AM part.



520
K euros

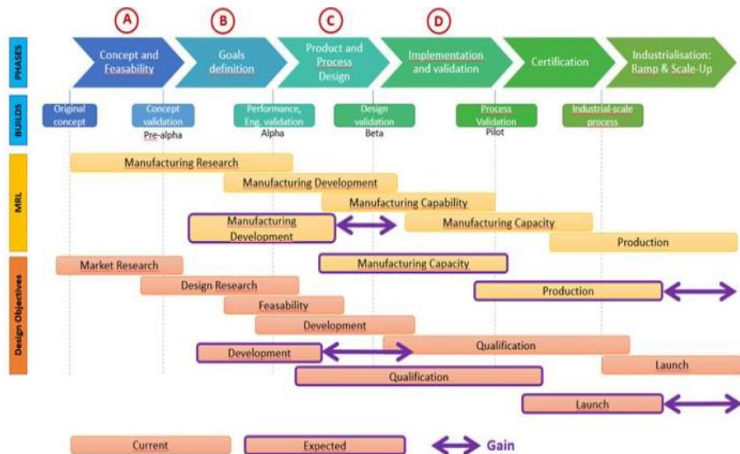


40
months
T0: 12/2020

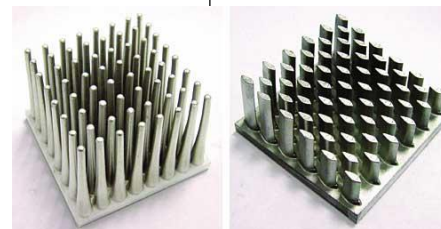
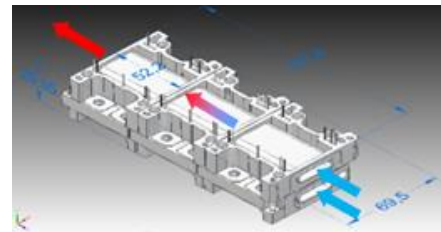


IRT (Leader), ICAM, AKKA
European coordinator: UNIFE
Final user: ALSTOM

Application case example (Liquid cold plate)

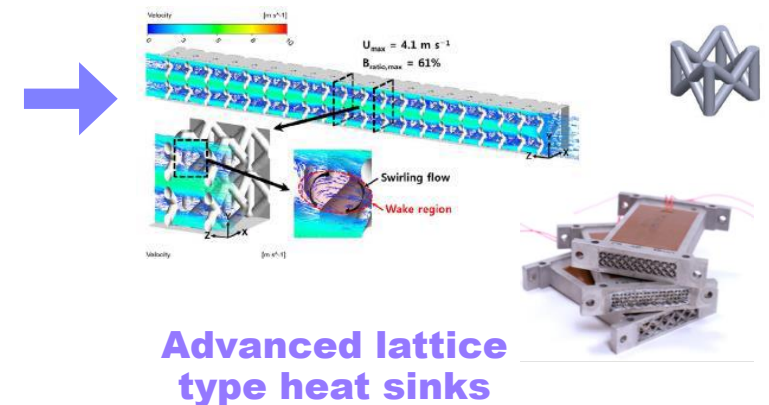


Expected gain with MDO design for Additive Manufacturing



Complex state of the art pin heat sinks (metal injection)

Multi-disciplinary optimisation
+
Additive manufacturing design opportunities



Advanced lattice type heat sinks