



HYBRID MANUFACTURING

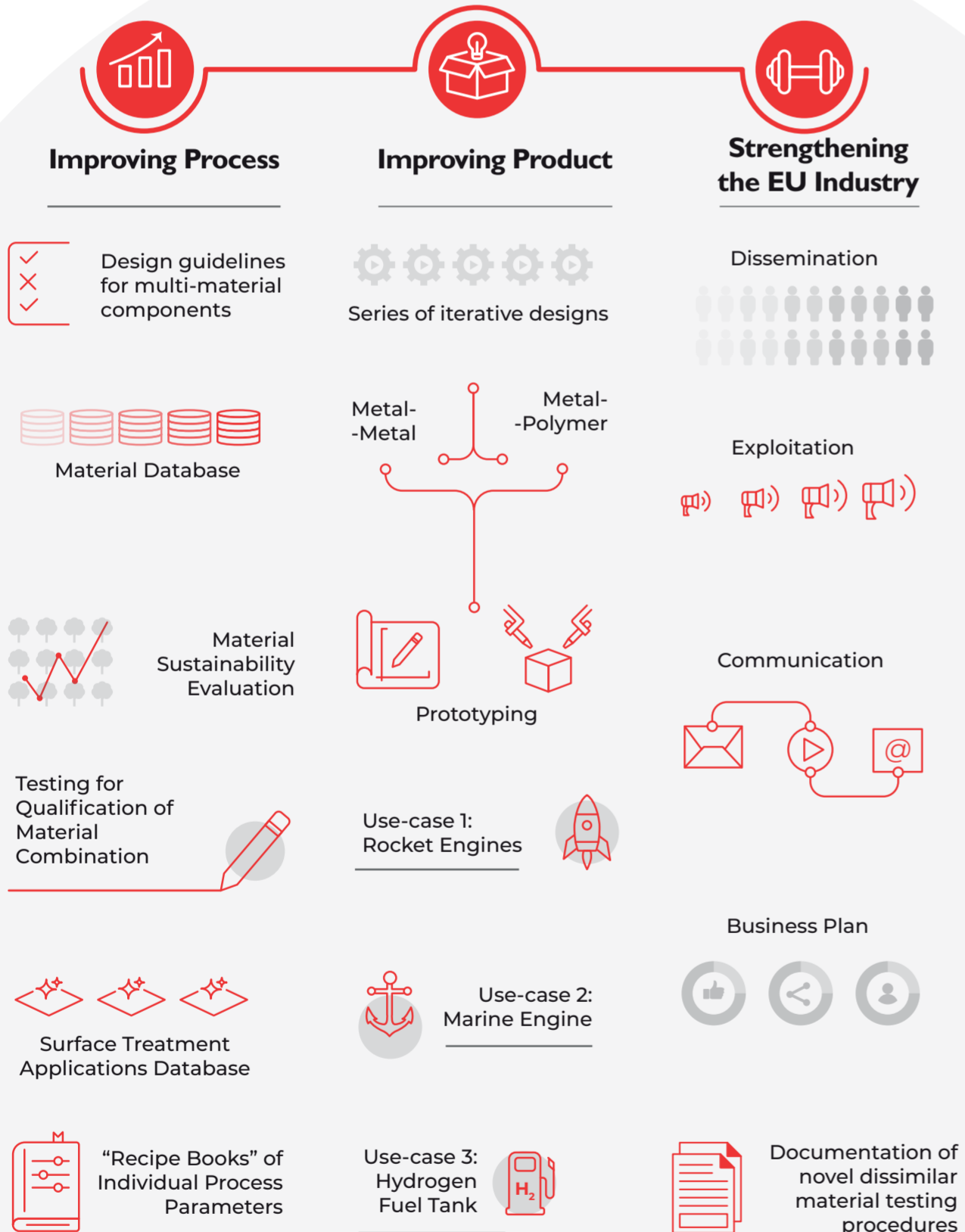
Multi-material | Lightweight | Complex Geometry

ABOUT

The DISCO2030 project aims to develop two innovative hybrid manufacturing methods for joining dissimilar metal-metal and metal-polymer materials. Both proposed methods are underpinned by Additive Manufacturing (AM) technologies from the emerging technology families of Powder Bed Fusion (PBF) and Directed Energy Deposition (DED).

DISCO2030 combines the advantages of PBF and DED to enable the manufacturing of multi-material lightweight, complex geometry components/structures that can operate in harsh environments.

Impact

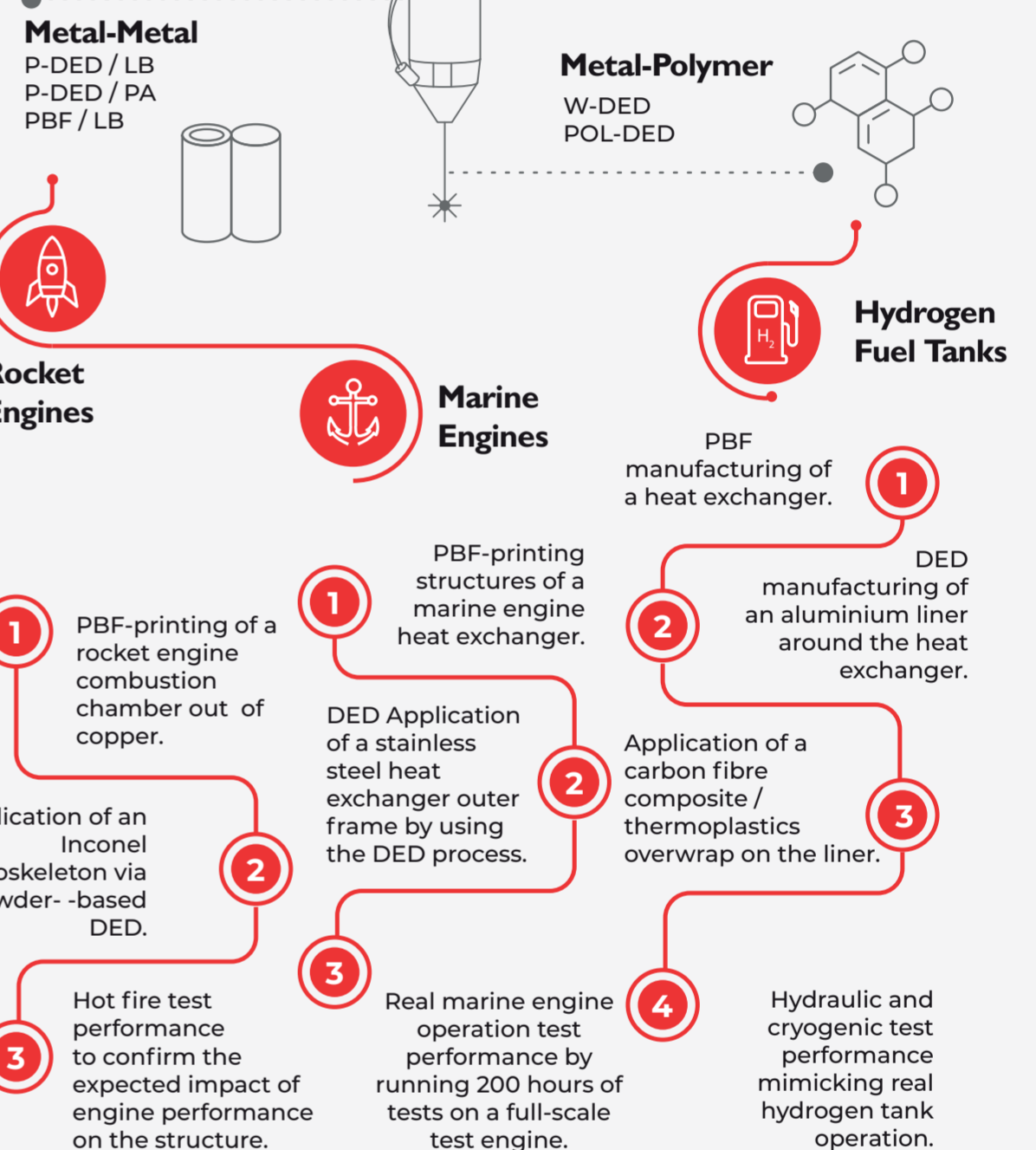


Challenge:

Achieving Multi-Functionality

Alternative:
AM Technology

Lightweight, complex geometry multifunctional devices able to operate in harsh environments



O1 | Re-confirm the use-case KPIs to be achieved during the demonstration phase, qualify the candidate materials, and develop novel dissimilar material testing protocols.

O2 | Develop a first-of-a-kind hybrid manufacturing method for joining dissimilar metal-metal and metal-polymer materials.

O3 | Upscale and demonstrate the two novel hybrid manufacturing technologies in relevant environment as part of three use-cases.

O4 | Disseminate, exploit and communicate the project results, paving the way for technology commercialisation post-project.

OBJECTIVES

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