



Lightme



OPEN INNOVATION TEST BED ECOSYSTEM



Monitoring

Process Control
Process Monitoring



Upscaling

3 Casting Lines
2 AM Lines
1 Powder Metallurgy
/ Extrusion Line



Testing

Structural Characterization
Functional properties testing
Field tests
Environmental Impact
LCA



Modelling

Process Optimization
Simulation
Predictive modelling



Innovation Management

Business plan
Marketing
Technology transfer
Training



Market Uptake

Regulation
Standardization
H&S
Nano-Safety



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www.lightme-ecosystem.eu

Lightme

Open Innovation Ecosystem for upscaling production processes of lightweight metal alloys composites

The LightMe project aspires to be a point of reference for boosting innovation in the field of lightweight metal matrix nanocomposites (MMnC) setting up an Open Innovation Ecosystem (test bed) that will boost the introduction of new functionalities, features and capabilities to lightweight metals.



Sustainable Ecosystem

Sustainable open innovation ecosystem for efficient, low cost and fast upscaling of lightweight metal alloys and nanocomposites



Increase Volume Production

Increase volume production of HPDC by optimizing several parameters such as melt volume, melt temperature, stirring rate vane design, ultrasonic probe shape/material and depth, ultrasonic frequencies and pulse rates, and melt feed rates into the shot die



Reduction of faulty parts

Reduce 70% the amount of faulty parts per day produced by the Borealis machine via integration of a closed loop control able to detect and correct online the deposition errors occurring during the DED process



Establish clustering and networking channels

To establish clustering and networking channels with EPPN (European Pilot Production Network), AM- Motion, European Materials Characterization etc.



Collaborate with European initiatives

Collaborate with European initiatives including open data repositories (e.g. EPPN, Nanosafety cluster, enanomapper etc.) and regulatory agencies.



GROUP KAMPARAS

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