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

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Industry 4.0
Tallinn 2019
Key facts

• The budget M€ 13,1
• Period 2019 – 2022
• 25 partners
• 15 countries

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

In these industries, the use of lightweight materials and design is expected to grow even more in the coming decades. Aviation currently uses the most lightweight materials in terms of share, but, for the automotive industry, the importance of lightweight will grow at the speed of light and the share of the lightweight materials used in production will more than double in the next 20 years.
LightMe open access innovation Ecosystem structure

- Business plan
- Marketing
- Technology transfer
- Training

Innovation management
(Axia, SD, EWF)

Upscaling
(Ubrun, OGI, INOF, IRIS, AIMEN)

Monitoring
(Stam, ISQ, VISUM)

Testing
(PoliMi, LeUn, Brunel, INOP, ISQ, Vertech)

Modelling
(ACCESS, AIMEN Stam, INOP)

Market Uptake
(EWF, ISQ, PoliMi)

LightMe Ecosystem

Pilot lines:
- 3 Casting Lines
- 2 Additive manufacturing Lines
- 1 Powder metallurgy/Extrusion Line

- Process monitoring
- Process control

- Structural characterization
- Functional properties testing
- Field tests
- Environmental impact
- LCA

Internal Services
- Legal Aspects – IPR (TimeL)
- Data management (IRES)
- IT support (RDC)

- Process optimization
- Simulation
- Predictive modelling

Regulation
- Standardization
- S&H
- Nano-safety

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Let's START!