



FLAMINGO

Fabrication of Lightweight Aluminium Metal matrix composites and validation In Green vehicles

## Deliverable D 2.3 SPECIFICATIONS REPORT ON PRODUCTION

Lead Beneficiary ÖGI

Delivery Date 30<sup>th</sup> July 2021



This project has received funding from the European Union's Horizon 2020 research and innovation programme under the grand agreement number 101007011

## Publishable Executive Summary

---

Composite materials will be increasingly used in battery electric vehicles (BEV) to make them lighter. The aims are to produce reinforced metal-matrix castings or extrusion parts (Al-MMC) with improved properties in terms of strength and/or stiffness, compared to the existing Al-alloys used in electric vehicles. One of the core tasks are the casting and the extrusion processes and their adaptations to include the nano-particles. Specific formulations fulfil the task of introduce NPs in a molten metal, these formulations, for all application, are produced by MBN using high-energy ball milling (HEBM). The document describes also the adaptation needed to manufacture the demonstrator components and reference components in the production lines, the different procedures for the evaluation of the mechanical properties are also identified.

