



Ferramentas e Engrenagens Reparadas Aditivamente



## FERA Feasibility Study - Tools and Gears Repaired Additively

### Motivation

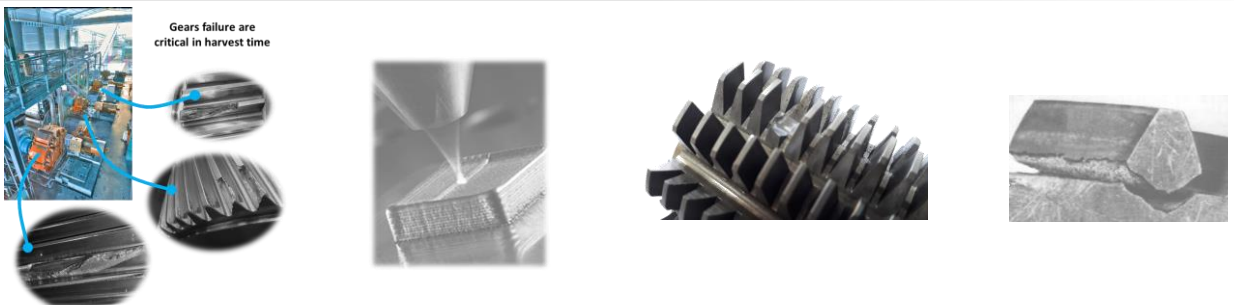
The study focuses on the subject of additive manufacturing applied to the repair of large gears and gear cutting and forming tools. Such products are characterized by high costs, long manufacturing times and being manufactured in small batches, thus being productively compatible for the application of additive manufacturing. However, the technology is still recent and the technical and economic knowledge is not mature enough to affirm the feasibility of its application.

### Objective

This feasibility study aimed to explore the challenges of additive manufacturing application for gear teeth repair and the evolution to a robust design.

### Approach

1. Technological benchmarking, comprising literature review and market research of available additive manufacturing machines.
2. Experimental investigations, contemplating pre-processing, additive manufacturing and post-processing steps.
3. Project proposal based on the study performed



Contact: +55 (12) 3947-6948

Praça Marechal-do-Ar Eduardo Gomes - Vila das Acácias  
São José dos Campos - SP, 12228-900

Project Responsible: Prof. Dr. Ronnie Rodrigo Rego