

# Additive Manufacturing - High Deposition Rate for Aeronautics

## FAHRA Project

IRT  
JULES  
VERNE

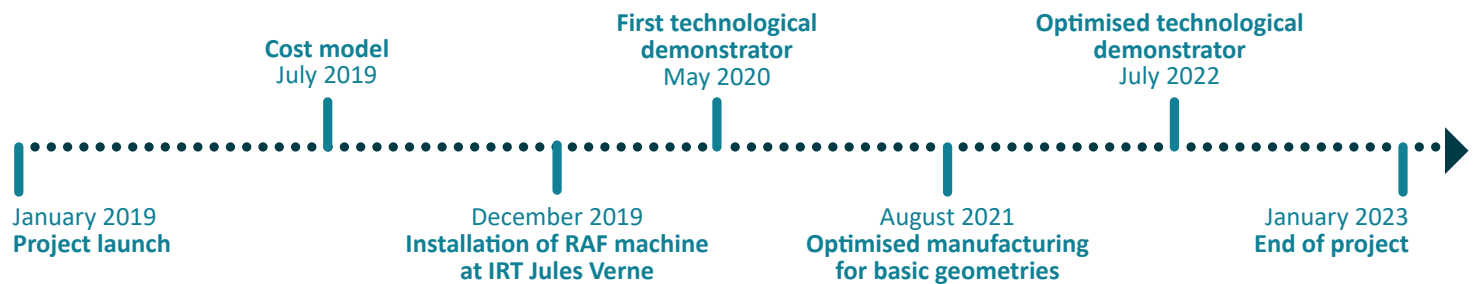
The project aims to optimise a robotic Wire Additive Manufacturing process (WAAM), based on the Rapid Additive Forging technology (RAF) developed by PRODWAYS, in order to manufacture large size blanks made of titanium alloy.

### Technical and economic impacts

- ▶ Reduce production time
- ▶ Reduce production cost
- ▶ Improve the «Buy-to-Fly» ratio
- ▶ Reduce waste quantity (and related recycling requirements)

### Keywords

W-DED // WAAM // Ti-6Al-4V  
// RAF technology



### INDUSTRIAL CONTEXT

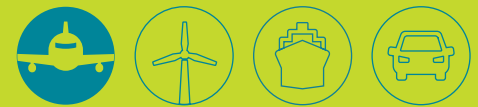
The project falls within the scope of an increase of production rates in the aeronautic industry. These developments aim to reduce the manufacturing time and cost, especially by improving the Buy-to-Fly ratio: it offers consequently an alternative solution to bulk machining.

### INNOVATIVE FEATURES

- ▶ Raw and net productivity
- ▶ Deformations and geometric compliance
- ▶ Manufacturing of large size parts

### INDUSTRIAL APPLICATIONS

The common subtractive manufacturing processes (machining from block or forgings) usually involve several machining passes and a relatively high Buy-to-Fly ratio. The manufacturing of blanks that have dimensions very close to the final part improves the Buy-to-Fly ratio and leads to a financial gain (used material, machining time and cutting tools).



### Partners

- ▶ IRT JULES VERNE
- ▶ AIRBUS OPERATIONS
- ▶ NEXTEAM SERVICES
- ▶ PRODWAYS RAF
- ▶ SAFRAN

### Budget

- ▶ 4 572 k€

### Equipment

- ▶ Rapid Additive Forging Machine from PRODWAYS RAF

### Sales contact

business@irt-jules-verne.fr

### Press contact

communication@irt-jules-verne.fr

www.irt-jules-verne.fr

