INDUSTRIAL CONTEXT

More and more industrial sectors (e.g. automotive, aeronautics, wind energy, boatbuilding, etc.) are demanding high performance composite materials to face new challenges related to creative design, weight reduction, resistance under extreme conditions, environmental concerns, etc. This issue represents a very strong driving force to further develop the composite technologies. Carbon fibre and glass fibre unidirectional continuous tape composites are one of the new options for hybrid materials with higher promising properties.

INNOVATIVE FEATURES

- Novel UD tape manufacturing process
- Overmoulding of single and bi-layer UD tape composite for the automotive sector
- In-situ consolidation of fire-proof parts for the aeronautic sector
- Novel mathematical modelling and predictive computational simulation tools

INDUSTRIAL APPLICATIONS

FORTAPE will develop a sustainable and efficient technology for the manufacture of UD tapes and its implementation for the fabrication of complex parts for the automotive and aeronautic sector.

Technical and economic impacts
- 30% reduction of material usage
- 20% reduction of energy consumption
- Elimination of faulty manufactured parts

Keywords
- Composite manufacturing // UD tapes
- Energy and material efficiency // Carbon
- Glass fibre // Overmoulding

Equipment IRT Jules Verne
- Tape placement and injection machine

Budget
- 5,030 k€