

# Production of composite tidal blades

HOBIT Project



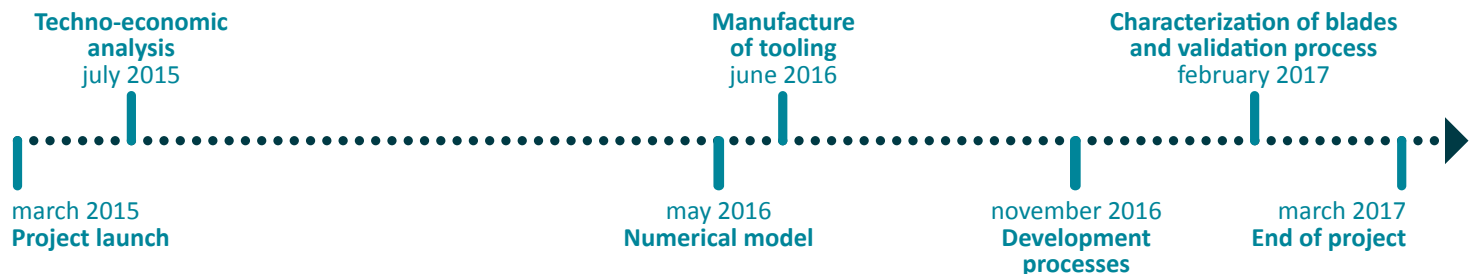
This project aims to develop a series of manufacturing, automated, low cost and large volume tidal blades. In order to have the closest possible future industrial data applications, specifications have been forwarded by a key player in the sector. This project brings together a set of regional SMEs.

## Technical and economic impacts

- ▶ Increase the pace (production referred to 1000 units/year)
- ▶ Weight gain

## Keywords

- Composite // Large dimensions
- High speed // Heating equipment
- Modelization // Innovative coating



## INDUSTRIAL CONTEXT

The HOBIT project fits into an example of direct industrial application whose annual production potential is in the order of several thousand parts. The sector has a high visibility given the strong energy potential that represents the energy of the tides and the favourable geographical location of the France and the United Kingdom.

The industrial need concerns blades for turbines (size ranges about 8 m) and blades for industrial ventilation (size ranges about 3 m).



## INNOVATIVE FEATURES

- ▶ Development of reliability calculations
- ▶ Development of high production rates of production-specific processes and tools
- ▶ Formulation of a protective coating
- ▶ Automate finishing operations



## INDUSTRIAL APPLICATIONS

The automation of the manufacturing process will allow to increase the production rate of tidal blades and thus meets the market needs of marine renewable energies that represent a great potential in coming years.

## Partners

- ▶ IRT JULES VERNE
- ▶ EUROPE TECHNOLOGIES
- ▶ LOIRETECH
- ▶ OMEGA SYSTEMES
- ▶ PINETTE EMIDECAU INDUSTRIES
- ▶ MECA
- ▶ HYDROCEAN
- ▶ MULTIPLAST
- ▶ SOCOMORE

## Equipments

- ▶ Means of High-Capacity injection

## Budget

- ▶ 2 640 k€

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Development of a new numerical model tools of reliability mechanical and hydrodynamic



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Development of an innovative manufacturing process Low Cost and high volume



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► Preg technology



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► RTM technology  
► Development of innovative tooling



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► Industrial equipment



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Development of an innovative resistant, durable and antifouling coating



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Development of a robotized finishing step



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