

# TARGETED PROJECTS



Tidal Energy



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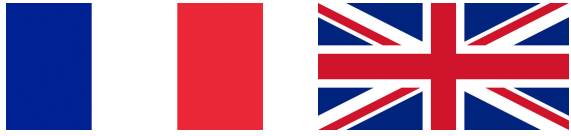
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# ABOUT THE PROGRAMME



The Programme is worth €315 million, with €223 million coming for the European Regional Development Fund.



## EUROPEAN TERRITORIAL COOPERATION

The Interreg France (Channel) England programme is an example of a European Territorial Cooperation programme. These programmes exist all over Europe and help fund high quality economic development projects in border regions between different European countries. The projects aim to find common solutions to common problems which exist in multiple countries.

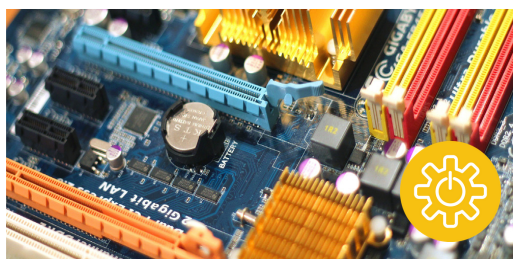
## PROGRAMME AREA

The France (Channel) England programme's eligible area is either side of the English Channel including the South of England, stretching from Norfolk to Cornwall and the north coast of France, from Finistère to Pas-de-Calais. A map of the full Programme area can be found above.

# ABOUT THE PROGRAMME

## Specific Objectives

The Programme has 3 Priorities divided into 5 Specific Objectives, which demonstrate the changes that the Programme plans to deliver within the eligible area.



### 1.1 Innovation

To increase the delivery and uptake of innovative products, processes, systems and services in shared smart specialisation sectors.



### 1.2 Social Innovation

To increase the quality and the effectiveness of service delivery to the most socially and economically disadvantaged groups through social innovation.



### 2.1 Low Carbon Technologies

To increase the development and uptake of existing or new low-carbon technologies in the sectors that have the highest potential for a reduction in greenhouse gas emissions.



### 3.1 Natural and Cultural Heritage

To realise the potential of the common natural and cultural assets to deliver innovative and sustainable growth.



### 3.2 Coastal and Transitional Water Ecosystems

To enhance and protect the coastal and transitional water ecosystems.



# Targeted Projects

## AN INTRODUCTION

The Interreg France (Channel) England Programme has introduced a new opportunity for organisations to benefit from cross-border working. The new initiative, known as a Targeted Projects, aims to tackle some of the key issues linked to the Programme's 5 specific objectives. These issues have been identified by the Programme as being particularly important to the economic and sustainable development of the Channel area.

Targeted Projects are larger than usual projects that will be developed by the Programme, in a 'top down approach'. This means we'll work closely with partners to build the project and to complete the application form.

The Programme is currently working on a number of Targeted Projects. This handbook will focus on the following thematic:

- Tidal stream energy

More information about this thematic can be found on page 8.

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# HOW WILL THE PROCESS WORK

## REGISTER YOUR INTEREST

If you are interested in taking part in this Targeted Project, you need to register your interest by visiting the following link: [bit.ly/targetedprojects](http://bit.ly/targetedprojects). Registration will close on the 27 June 2018.

 **Important:** We want to make sure all organisations can contribute to the development of the project so please take some time to consider and explain why you are interested in this project and what your organisation has to offer.

 **Important:** The Targeted Project will be supported with an event (see following section on Project Lab), please ensure you can attend this event before registering your interest.

## PROJECT LAB

The Targeted Project lab will be a one-day event, where organisations will have the opportunity to network and work closely with a team from the Interreg FCE Programme to start building the project.

It will be a hands on day where you will be able to agree on activities and outputs for the project, as well as a lead partner organisation.

This event is essential for anyone interested in participating as a partner on a Targeted Project.

*Please note that participation at the Project Lab does not guarantee a place on the project.*

## Date & Location

**Location:** Lion Gate Building,  
University of Portsmouth,  
Portsmouth

**Date:** 05 July 2018

# HOW WILL THE PROCESS WORK

## SUBMITTING THE APPLICATION AND PROJECT APPROVAL

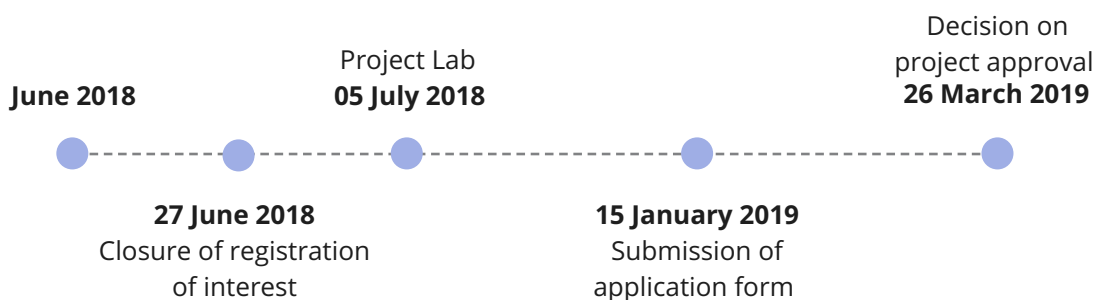
Once the partnership has been confirmed following the Project Lab event, a team from the Interreg FCE Programme will lead the drafting of the application form, working closely with the lead partner and the project partners.

Due to the additional support from the Programme, the application process will be much shorter with the full application planned for submission by mid-January 2019.

A decision on approval will then be taken by the Project Selection Committee at the end of March 2019.



## TIMELINE



# TARGETED PROJECT: TIDAL ENERGY

## EXECUTIVE SUMMARY

This project will focus on the improvement of tidal stream technology to help maximise the English Channel's marine energy resources.

The UK and France have a huge potential tidal energy resource with the total estimated tidal stream capacity in the UK placed at 10 GW and 5GW in France, approximately 12% of the world's tidal stream capacity. Added to this, both countries are global leaders in marine energy technology. But despite this potential, due to the slow development of the tidal energy sector, the amount of energy generated from tidal power is still very small.

This targeted project will aim change this by addressing some of the technical and manufacturing challenges of tidal stream technology to enable and accelerate commercial implementation.

The key goal of the project is to lower the €/MWh ratio of tidal stream energy to a level that will allow the tidal sites located in the Channel to be used for commercial generation.



## SPECIFIC OBJECTIVE 2.1: LOW CARBON TECHNOLOGIES





# TARGETED PROJECT: TIDAL ENERGY

## WHAT DO WE WANT THE PROJECT TO ACHIEVE?

The project will address investment needs to support cost reduction in two areas:

- Installation, maintenance and connection to the grid
- A more sustainable supply chain for the manufacturing and maintenance of tidal stream arrays.

Examples of installation, maintenance, implementation and manufacturing needs that have been identified by the Programme are:

- An improvement of the Channel area commercial landscape including SMEs to support the decision making process: commercial operators are engaged but decision makers need to have a clearer view of the situation in order to make informed choices regarding deployment, market price and environmental issues.
- The environmental impact: we lack information on the impact of tidal stream technology on the environment. Linking tidal stream turbines to the grid often affects protected areas. A Channel-wide study would help limit environmental risks.
- The durability of underwater technology needs to be improved when faced with:
  - a. corrosion and encrustation
  - b. maintenance difficulties in areas with strong currents
  - c. managing and improving constant lifting of machinery – 750 machines will be potentially lifted every 5 years in Raz Blanchard – 1 every 2.5 days



Photo credit: Green Energy Futures on Visual Hunt / CC BY-NC-SA

- Training: taking stock of the existing offer and addressing the skills gap with a view to improving the wider marine energy sector.

**This list is not meant to be exhaustive and other technical needs could be highlighted during the project lab events.**

The project should deliver against all four Programme output indicators for the Programme's specific objective 2.1. These are as follows:

- Number of new or enhanced low carbon products, services, processes or systems *designed*
- Number of new or enhanced low carbon products, services, processes or systems *produced*
- Number of supported Low Carbon multi-sectoral networks
- Number of participants in awareness raising or training events for take up and development of low carbon technologies.

# TARGETED PROJECT: TIDAL ENERGY

## WHY IS THIS TOPIC IMPORTANT FOR THE PROGRAMME AREA ?

The Channel is a shared resource of both France and the UK. Working together to develop tidal stream technology would allow both countries to maximise the potential offered by the various tidal stream sites that exist in both UK and French waters.

The project fits with the objectives set out in [Cooperation Programme](#) as it will contribute to a better uptake of tidal energy, therefore reducing the carbon emissions across the Programme area.

Both countries share expertise in marine energy and offshore engineering with a number of SME tidal energy manufacturers based or working within the eligible area. France has been a world leader in tidal energy since the 1960s with the development of the power plant in the Rance estuary and is now currently testing a number of prototype tidal stream turbines in the Channel area. The UK also benefits from over 50 years of technology development in subsea oil and the gas industry and more recently the wind industry which uses technology and expertise that can easily be transferred to the tidal stream energy industry.

Research institutes in both France and the UK offer further expertise and insight into renewable and tidal energy. For example Plymouth University is a leader in marine renewable energy research, while in France research organisations include ENSTA Bretagne, which offers an engineering programme to train experts in renewable marine energy technologies.

This project would bring together this world leading expertise in order to deliver the innovation necessary to support a commercial roll-out of tidal energy in the Channel, helping to make the Channel area a leading player in tidal stream energy.



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