

Themed  
event

# Flooding

LONDON: JULY 10 2019



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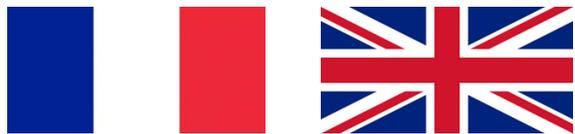
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# ABOUT THE PROGRAMME



The Programme is worth €315 million, with €223 million coming from 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.



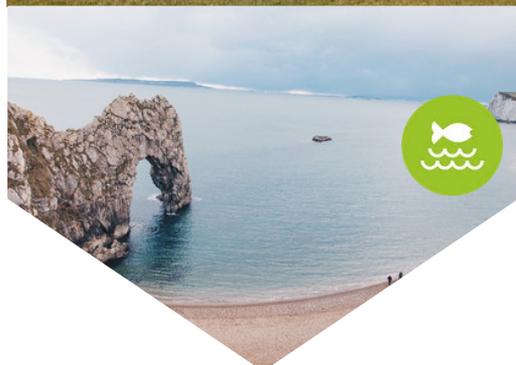
### 2.1 Low Carbon Technologies

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.

# FLOODING - THE CHALLENGE

The France (Channel) England area (FCE) is vulnerable to the effects of climate change.

Its estuaries and extensive coastline are particularly exposed and vulnerable to flooding.

The present and future sustainable development of the FCE area therefore depends on successful management of the challenges stemming from natural risks and human activities and their impacts.

Climate change is already leading to the melting of the polar ice caps, and with thermal expansion of the seas, this is predicted to cause a  $>0.5\text{m}$  of sea level rise in all climate change scenarios by 2100.

Our Flooding event will bring people together to generate projects that work towards addressing the Cooperation Programme's Challenge n°6: *Improve risk prevention and the capacity to adapt to and mitigate climate change*, which includes the aim to develop preventative mitigation measures for cross-border natural disasters, especially flooding and droughts.

This is Interreg France (Channel) England's cross-border annual event for 2019.

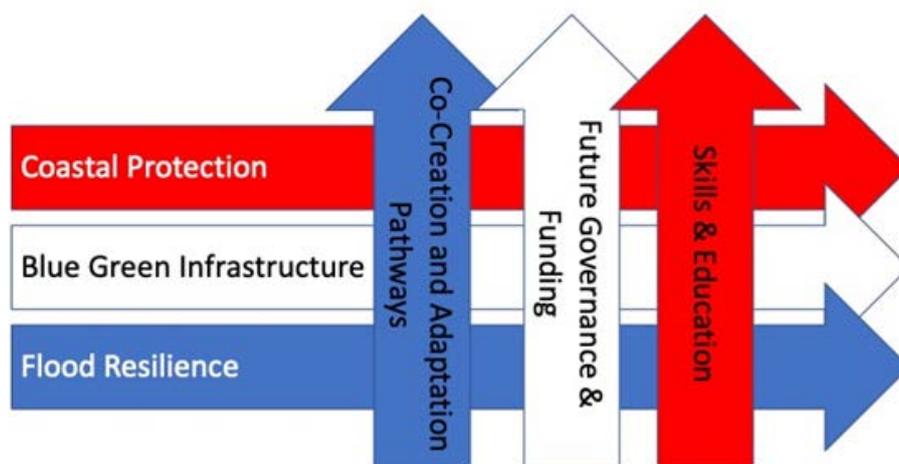


# FLOODING-THE CHALLENGE



Tackling flooding issues can be classed into the six themes below, which highlight the 'capital and operational' nature of Coastal Protection, Blue Green Infrastructure and Resilience, with the 'cross-cutting strategic and enabling' themes identified as Co-Creation and Adaptation Pathways, Future Governance & Funding, and Skills & Education.

All these inter-connected themes include a blend of infrastructure, collaboration, systems thinking, capacity building and capability. They are areas where cross-border cooperation would enable/deliver practical projects with tangible, measurable long-lasting results. Innovation is needed across all themes to deliver the capacity to adapt to and mitigate climate change.



Our Flooding event will gather people from the Programme area in the UK and France together to explore potential solutions to flooding issues, based on these themes. The aim is for participants to start creating partnerships and ideas that could develop into impactful projects. Tackling flooding issues is a huge challenge in the France (Channel) England Programme area, and any plans to address this must consider the impact of a changing climate on surface water run-off to fluvial systems in urban and rural areas and/or coastal and estuarial systems, through a rising sea level, and increased storminess.

# COASTAL PROTECTION



The UK's Committee on Climate Change reported in 2018 on 'Managing the [English] coast in a changing climate', highlighting the challenges facing coastal protection:

*"We will almost certainly see 1m of sea level rise at some point in the future, possibly within the lifetimes of children alive today, and we must account for this change in long-term land use and coastal defence plans. "Meanwhile, the number and value of assets at risk on the coast has steadily been increasing. Many of these assets are protected by coastal defences that date back to the last century, so are deteriorating in the face of rising sea levels and eroding coastlines."*

The French National Observatory on the effects of climate warming (ONERC) believes an 'optimistic' prediction for sea level rise is 0.40m, a 'pessimistic' prediction is 0.60m and an 'extreme' prediction would be 1m of sea level rise by 2100, compared to the year 2000. France's national strategy for the Sea and Coast has a goal to achieve good resilience and adaptation to natural hazards and the consequences of climate change.

Many stakeholders maintain that existing plans to protect coastal locations through hard defences are not likely to be cost-effective.

## Opportunities for potential collaborative projects:

Coordinated systematic evaluation across recent and ongoing coastal protection projects to identify transferable lessons, tools and opportunities.

Exploring the opportunities for small coastal communities to think differently in their coastal protection solutions.

Developing products/services to support 'Flood Resilience by Design' across professions.

Innovative approaches to managing closed landfill sites which are within flood zones or at risk of coastal erosion.

Demonstration of coastal protection schemes which can also deliver economic regeneration and ecosystem improvement

Regenerating and protecting beaches which are linked to economic development.

# BLUE GREEN INFRASTRUCTURE



## Opportunities for potential collaborative projects:

Strategic assessment of opportunities for natural flood management (NFM) on the coast, reflecting social, environmental and economic criteria.

Development of design and creation services for natural capital that deliver both NFM and environmental quality improvement outcomes.

Enabling community-level innovation in leadership and ownership of natural flood management solutions.

Development of effective and efficient scheme appraisal (cost/benefit) models/scorecards that reflect the value natural flood management and the wider multiple benefits (economy, carbon, ecology etc).

Development, and assessment, of natural flood management/natural capital delivered on a catchment, urban community and/or coastal cell scale.

The increasing awareness of the role of blue-green infrastructure delivering multiple benefits to water management has led to this being seriously considered to help deliver adaptation measures for flood risk and environmental quality.

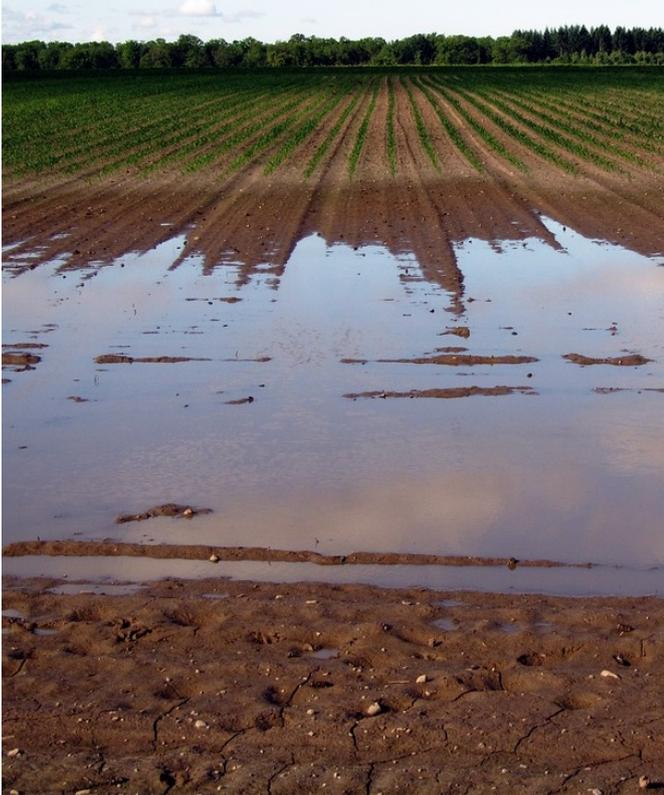
In effect, this is taking action to manage flood and coastal erosion risk by protecting, restoring and emulating the natural regulating function of catchments, rivers, floodplains and coasts.

The integration of natural measures alongside 'hard' defences has been an established practice. However, as options for protection measures in communities now facing the impacts of climate change become more limited (for example, building ever higher flood walls), natural flood management and so-called 'upstream thinking' is expanding rapidly in its application. The key outcomes for natural approaches are reducing flood and coastal erosion risk, whilst protecting, improving and increasing habitats and biodiversity.

The wider environmental benefits should therefore also aim to improve environmental quality. For example, as land management is a key influence on flood risk, reducing the rate of water run-off so reducing soil losses from land and wash out of fish and invertebrates from river reaches and being low or carbon neutral/positive.



# FLOOD RESILIENCE



## Opportunities for potential collaborative projects:

Supporting communities to develop flood resilience.

Exploring the potential for an equivalent of the National Flood Forum in the French eligible area.

Development of social innovation products and services to support resilience.

Better tools for informing building and infrastructure designs and solutions for flood resilience.

Transfer/franchising of flood resilience businesses between countries for economic development.

The term 'flood resilience' is increasingly being used, with the acceptance that not all flooding can be prevented. Flood risks to communities and local economies are closely linked to the resilience of the local infrastructure, in particular the energy, transportation and communications systems which they use and depend on. It can be defined as:

'The capacity of individuals, communities, businesses, organisations and systems to survive, adapt, and grow in the face of flood risk, and even transform when conditions require it.'

Flood resilience approaches have been piloted and implemented in the UK eligible area, and there are stakeholders such as the National Flood Forum who support communities to develop their flood resilience, and documents eg 'Homeowners guide to flood resilience'. Stakeholders in France have highlighted an exponential growth in interest in flood resilience (in part since the 2016 Seine floods in Paris), but with little evidence of change in planning and development projects.

The role of the 'professional' in flood resilience is clearly key, but the plethora of tools and guidance for communities does not seem to be replicated for professional audiences who need to be considering resilient buildings, infrastructure and systems.

Innovation and investment in flood resilience as a theme could significantly reduce the impacts of flooding and the large-scale economic consequences.

# CO-CREATION & ADAPTATION PATHWAYS, FUTURE GOVERNANCE & FUNDING, SKILLS & EDUCATION

## Co-Creation and Adaptation Pathways

Co-Creation is the sharing of information, and leadership of the issue with stakeholders to develop new actions and ambitions. Adaptation Pathways indicate a series of interrelated structured options which make sense under specific conditions and timeframes. Approaches such as Co-Creation and Adaptation Pathways are being increasingly used to bring stakeholders together in their thinking and planning for uncertain futures.

### Opportunities for potential collaborative projects:

- Training and developing professionals to use cocreation and adaptation pathways approaches.
- Development of flood resilience products and services with support alternative responses to flooding.
- Developing tools and services to systems thinking.
- Monitoring and warning products and services for communities and businesses.



## Future Governance and Funding

Calls to strengthen flood risk governance are echoed across Europe amidst a growing consensus that floods will increase in the future.

### Opportunities for potential collaborative projects:

- Translating research on Flood Risk Governance into pilot projects to develop new products and services.
- Envisioning the inland and coastal futures through the eyes of communities to support adaptive pathways, using technology (for example AR/VR) to develop options for future incremental management of flood risk, and develop community resilience through a 'common ground' approach.

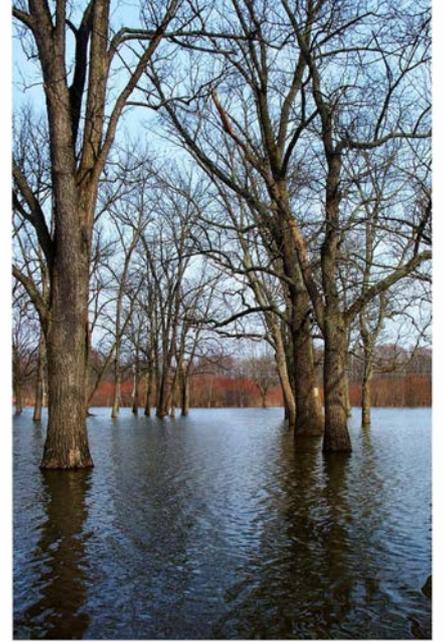


## Skills and Education

The gap in flood risk skills is a real challenge.

### Opportunities for potential collaborative projects:

- Developing skills for flood resilient citizens and professionals.
- Transferring the French Ministry project from the Mediterranean coast to be applied across the France Channel England region.
- Using interactive technologies to engage and educate stakeholders e.g. ESRI Story Map 'My School is Underwater'.



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