

# Adapting infrastructure assets in practice: Facing up to future challenges

A co-convened workshop between  
the Interreg North Sea Region FAIR  
project and the Environment Agency

## Context

Collectively EU Member States invest an average of €3 billion per year on flood protection infrastructure. But a combination of climate and socio-economic change is increasing the annual average damage caused by flooding. Complex and difficult decisions will need to be taken in response to these threats, especially in coastal regions, as rising sea levels challenge the sustainability of existing policies and plans. These challenges are compounded by the ageing asset base and multiple demands on resources that exist across different sectors and countries.

This session will focus on sharing practical examples of the how these challenges are being addressed across the EU Member States and further afield. Specifically, what are the drivers for adaptation (including for example new evidence on climate change), what are the barriers to progress and, importantly, what are the enablers (in terms of innovative designs, asset management approaches that explicitly recognise future uncertainty, as well as governance and funding arrangements).

## Motivation for the workshop

In 2015 the EU funded the FAIR programme that brings together flood protection asset owners, operating authorities and researchers from across the North Sea Region (NSR) to share the policy, practice and emerging science of asset management. FAIR recognises that despite the diverse character of the NSR, asset managers face common challenges across the region; in particular around how to best manage flood defence infrastructure and ensure they are appropriately adapted to an uncertain future. During the summer of 2019 Environment Agency launched its draft consultation strategy for the future of flood risk management. Central to this strategy was the need for flood and coastal risk management to meet the challenge of climate change. The themes of resilient communities and infrastructure alongside promoting an adaptable approach are all important to the aims of the strategy. These challenges are not however confined to the FAIR partners and the Environment Agency. This workshop seeks to share information, including emerging science, policy and practice between all those involved in the planning and management of flood and coastal risk management infrastructure. The workshop aims to help address barriers to adaptation by providing practical and innovative solutions through the planning, design and maintenance of flood assets.

FAIR identifies four priority policy recommendations: Prepare for change: Develop flexible strategies and asset designs that can be adapted to meet changing requirements in future. This workshop will expand the challenges and practical approaches to responding to this recommendation. A Policy Brief of four recommendations from the FAIR is available here: [https://northsearegion.eu/media/8638/aw\\_interreg-policy\\_a4\\_web.pdf](https://northsearegion.eu/media/8638/aw_interreg-policy_a4_web.pdf)

## Practical information

**Where:** Exeter College, University of Oxford, Turl Street, Oxford, OX1 3DP, United Kingdom

**When:** 4<sup>th</sup> February 2020 Adaptation and Workshop

**RSVP:** Please respond with confirmation of attendance to **Theresa Rook** ([theresa.rooke@environment-agency.gov.uk](mailto:theresa.rooke@environment-agency.gov.uk))

**Technical contacts:** Paul Sayers ([paul.sayers@sayersandpartners.co.uk](mailto:paul.sayers@sayersandpartners.co.uk)) or Owen Tarrant ([owen.tarrant@environment-agency.gov.uk](mailto:owen.tarrant@environment-agency.gov.uk))

## Organisation of the day

The session will be run as a combination of presentations followed by an extended interactive discussion to elicit 'how we can deliver adaptation in practice - what are the opportunities and barriers'.

The presentations will be drawn from the selected abstracts (including, but not limited to, submissions from FAIR). The Panel will be Co-Chaired by the Rijkswaterstaat and the Environment Agency supported by representation from the other Risk Management Authorities, Researchers and Consultants.

## Outline of the day (tbc)

Time	Activity
<b>4<sup>th</sup> February 2020</b>	
9:30	Registration and coffee
10:00	<i>Welcome to the meeting</i> <b>Jim Barlow</b> : Deputy Director, Asset Management
10:15	<i>Setting the scene</i> The challenges and opportunities for adaptive asset management in the England and the Netherlands; <b>Jim Barlow</b> and <b>Bart Vonk</b> , Rijkswaterstaat (Joint present by Co-chairs)
<b>Part I - Emerging examples of adaptative management: Strategic, tactical, operational</b> Examples of adaptive flood protection infrastructure: Short introduction and then a discussion of the challenges of adopting an adaptive approach to asset management	
10:30	FAIR framework of Asset Management and policy recommendations– strategic, tactical and operational - <b>Paul</b> and <b>Bart</b>
11:50	Welsh coastal communities responding to climate risk – adaption in practice: <b>Robin Campbell</b> , Arup
<b>11:15-11:30</b>	<b>Coffee break</b>
10:50	Developing and implementing an adaptive asset management plan for the HJIK Netherlands: <b>Marco Weijland</b> (Dutch Water Board)
11:30	Developing, implementing and adapting a long-term asset management plan for the Thames: TE2100 10-year review: <b>Katy Francis</b> (Environment Agency)
12:10	<b>Breakout #1: Round table discussion</b> (facilitated by Owen and Paul) Are these examples, what we mean by an adaptive approach? If not, why not? If yes, what makes them ‘adaptive’?
<b>12:45-1:45</b>	<b>Lunch</b>
13:45-2:10	<b>Reporting back and plenary discussion</b> Reporting the characteristics of an adaptive approach (and associated illustrations from the presentations or other examples from attendee’s #own experience)
<b>Part II - Emerging tools to support successful adaptative management</b> <b>Focusing on the how to make it happen in practice – from making the case to the design details</b>	
2:10	Valuing adaptive capacity: Are any of the appraisal options practical? <b>Paul Sayers</b> (SPL and FAIR partner)
2:25	Embedding multi-functionality into flood protection infrastructure: examples and opportunities: <b>Berry Gersonius</b> , RWS Consultant
2:40	<b>Breakout #2</b> Research gaps and opportunities of cooperative learning – principles of adaptive planning
3:00	<b>Tea break</b>
<b>Part III Next steps</b>	
3:30	<b>Plenary discussion</b> : Chaired by <b>Jim</b> and <b>Bart</b> <i>What is adaptive assessment management in practice – what does it look like? What are key research gaps to get there?</i>  Opening summary of points from the Day – <b>Paul</b> and <b>Owen</b> (5mins) Are these the right issues? What is missed? Chaired Discussion <b>Jim</b> and <b>Bart</b>
4:30	<b>Summary reflection</b> : Jim and Bart
5:00	<b>Depart</b> and reconvene for <b>Dinner @ 7pm</b> (in an Oxford College, courtesy Environment Agency)

## Further reading

More information on the FAIR project can be found on the FAIR project website:

<https://northsearegion.eu/fair/>

## Partners

FAIR brings together Asset Owners (facing real problems and challenges) and leading scientists (with domain expertise) to share and develop innovative solutions to the management of flood protection assets. In doing so, FAIR is the first collaboration of its kind.

