

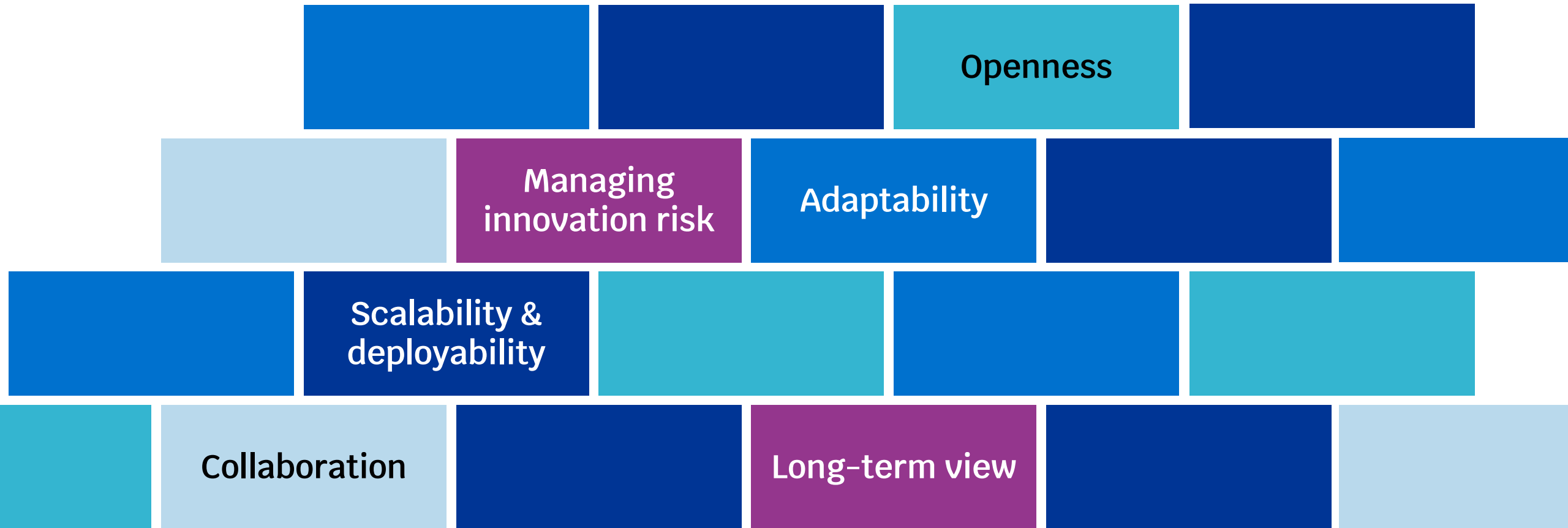
Innovation Fund

Ben Tam & Harry Armstrong



Building the sector's capacity to innovate

We've identified some innovation enablers that we believe will be critical to grow the water sector's capacity to innovate. The fund will support initiatives that demonstrate and further strengthen innovation enablers, including:





Ofwat 5 Strategic Innovation Themes

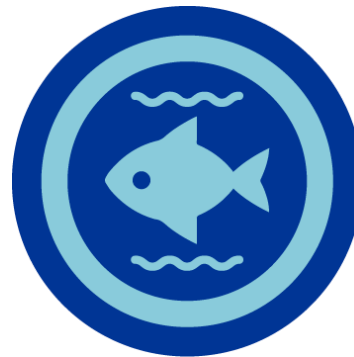
Climate Change



Delivering Public Value



Impact of Extreme Weather & Pollution



Unlocking the power of open data



Operational Resilience





The fund so far...

11 October

FUND
ANNOUNCED

6 May 2021

BREAKTHROUGH
1 LAUNCHED

11 October 2021

BREAKTHROUGH
2 OPENS

2022 - 2025

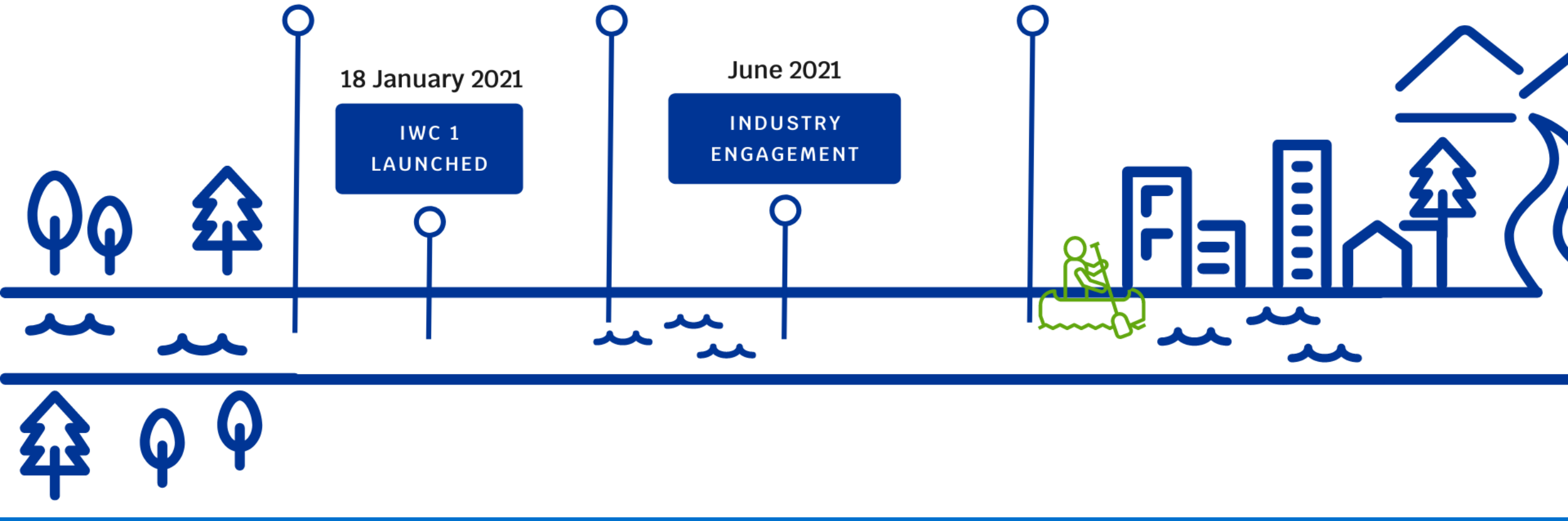
POST-PILOT....

18 January 2021

IWC 1
LAUNCHED

June 2021

INDUSTRY
ENGAGEMENT





Changes from Round 1

Innovation In Water Challenge

£2m available for entries between £50k and £250k

Water Breakthrough Challenge

£40m available for entries between £1m and £10m



- Interviews, workshops and surveys to gather feedback on competition design
- Public consultation on IPR policy
- Altered prize amounts to close the funding 'gap'
 - Combined two separate challenges into one single competition with two funding streams to streamline the process
- Catalyst stream similar to IWC1

Water Breakthrough Challenge 2

Catalyst Stream

~£5m available for entries between £100k and £1m

Transform Stream

~£34m available for entries between £1m and £10m



Water Breakthrough Challenge 2 Timelines

Catalyst Stream

~£5 million available
Bid for £100,000 - £1 million

ENTRIES OPEN

11 October

ENTRIES CLOSE

8 December

WINNERS
ANNOUNCED

mid-March 2022

OCTOBER

NOVEMBER

DECEMBER

JANUARY

FEBRUARY

MARCH

APRIL

Transform stream

~£34 million available
Bid for £1 million - £10 million

11 October

ENTRIES OPEN

16 November

STAGE 1
ENTRIES CLOSE

15 December

STAGE 2
ENTRIES OPEN

8 February

STAGE 2
ENTRIES CLOSE

Late April

WINNERS
ANNOUNCED



Water Breakthrough Challenge – What we are looking for

1

Positive impact for consumers, society and the environment

2

Innovation enablers and innovative solutions

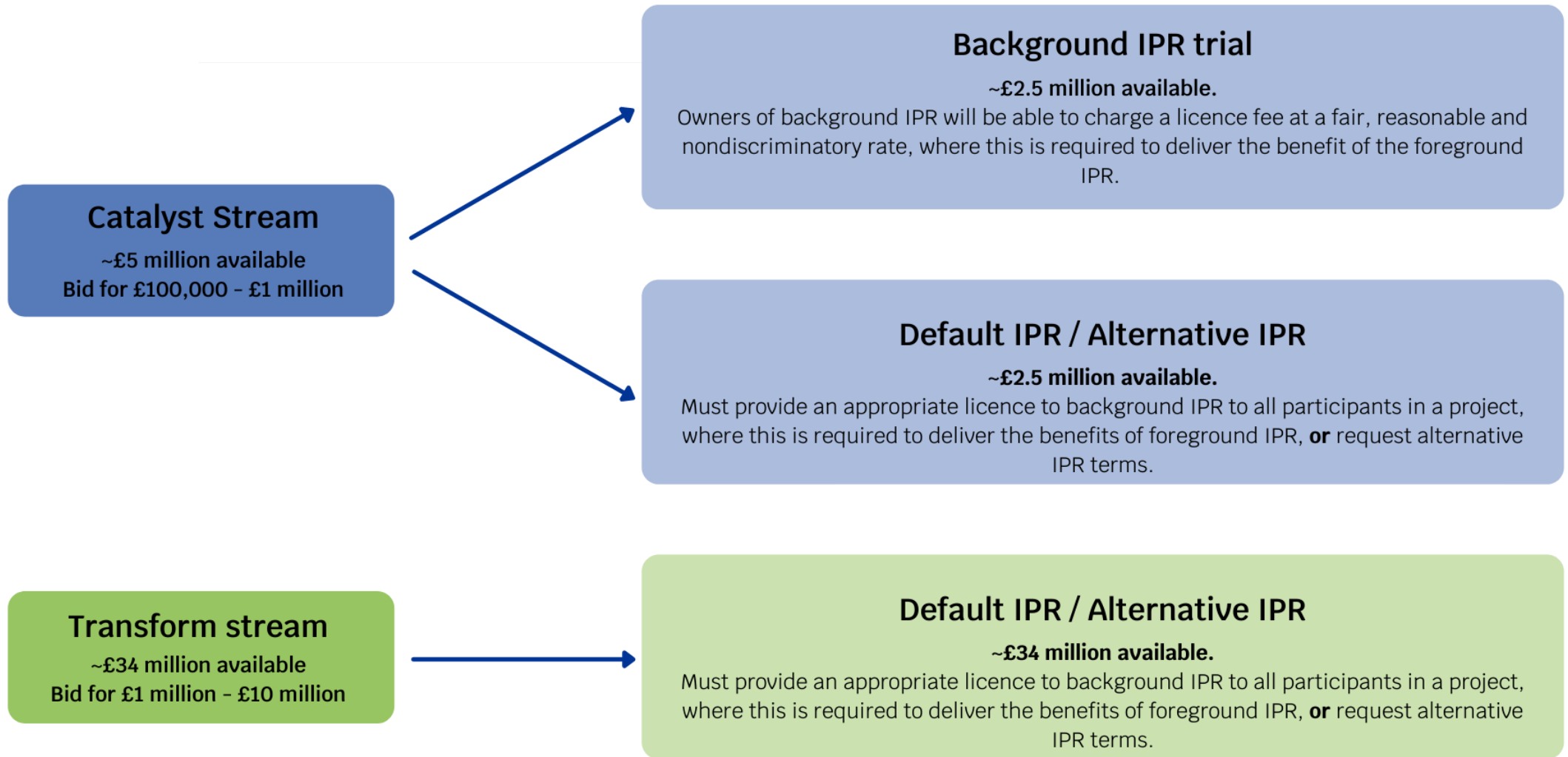
3

Capacity, capability and commitment to deliver

**Our
Assessment
Categories**

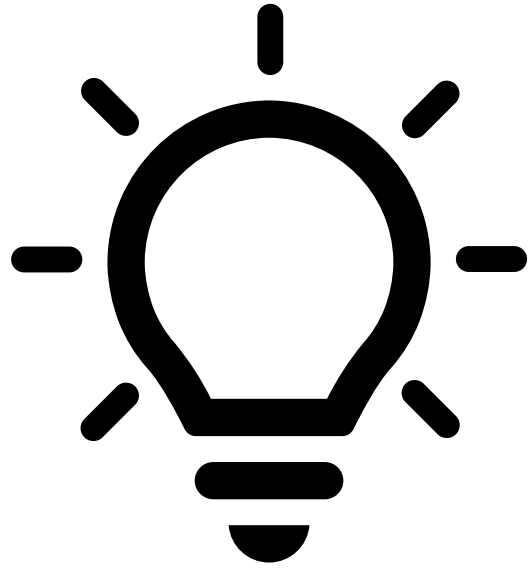
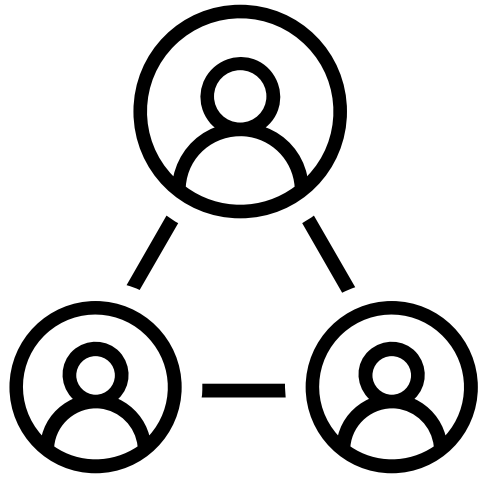


Catalyst stream: IPR Options





Where next for leakage entries





Entrant support from Science Practice

Science Practice help funders identify important problems and design responsible and effective programmes to solve them.



Naomi Penfold



Andrea Wong



Ana Florescu





Reflecting on innovation fund so far



We've seen a fantastic response to the fund from the sector. We've funded 20 projects so far in the first round of the competition across a range of areas including leakage.

- **Collaboration**; there has been a step change in collaboration across and outside the sector
- **Risk**; we have started to see more higher-risk initiatives that have the potential to deliver transformative benefits
- **Innovation enabling projects**



Safe Smart Systems

The project will use artificial intelligence and mathematical optimisation to improve long-term operational resilience in the face of climate change and rapid population growth.

It will identify, predict, and manage vulnerabilities to reduce leakage, interruptions, and pressure issues across the whole water cycle. Safe Smart Systems focuses on the first steps to achieve autonomous control in water systems across the UK.

Project partners: *Anglian Water, Affinity Water Limited, Airbus Defence and Space, BIM4Water, Bristol Water, Centre for Digital Built Britain, Imperial College of Science, Technology and Medicine, Jacobs UK Limited, Microsoft, Portsmouth Water Limited, Skanska UK PLC, South West Water Ltd, Unity Software Inc, The University of Sheffield.*





Leakage – Detection using Dark Fibre

This initiative will use unexploited optical fibre strands in existing telecoms cables to detect and therefore prevent leaks in water and wastewater networks.

Project partners: Costain Ltd, Dŵr Cymru (Welsh Water), and Focus Sensors. Led by Hafren Dyfrdwy.





What we want to see more of in future

- Learning and collaboration on shared problems with organisations in other sectors
- Greater pace within entry plans and an intention to fail fast, experiment and then adapt plans quickly.
- A more iterative and less linear approach to innovation, more checkpoints, faster pace, and better acknowledgement and management of the innovation risks.
- Openness to new perspectives and voices
- Continued participation from across the sector
- A breadth of projects



Future funds

As we come to the end of the pilot period we will be reviewing our progress so far and looking at how the fund can be designed to best meet our objectives

We are considering changes in a number of areas and will continue to discuss these with the sector going forward;

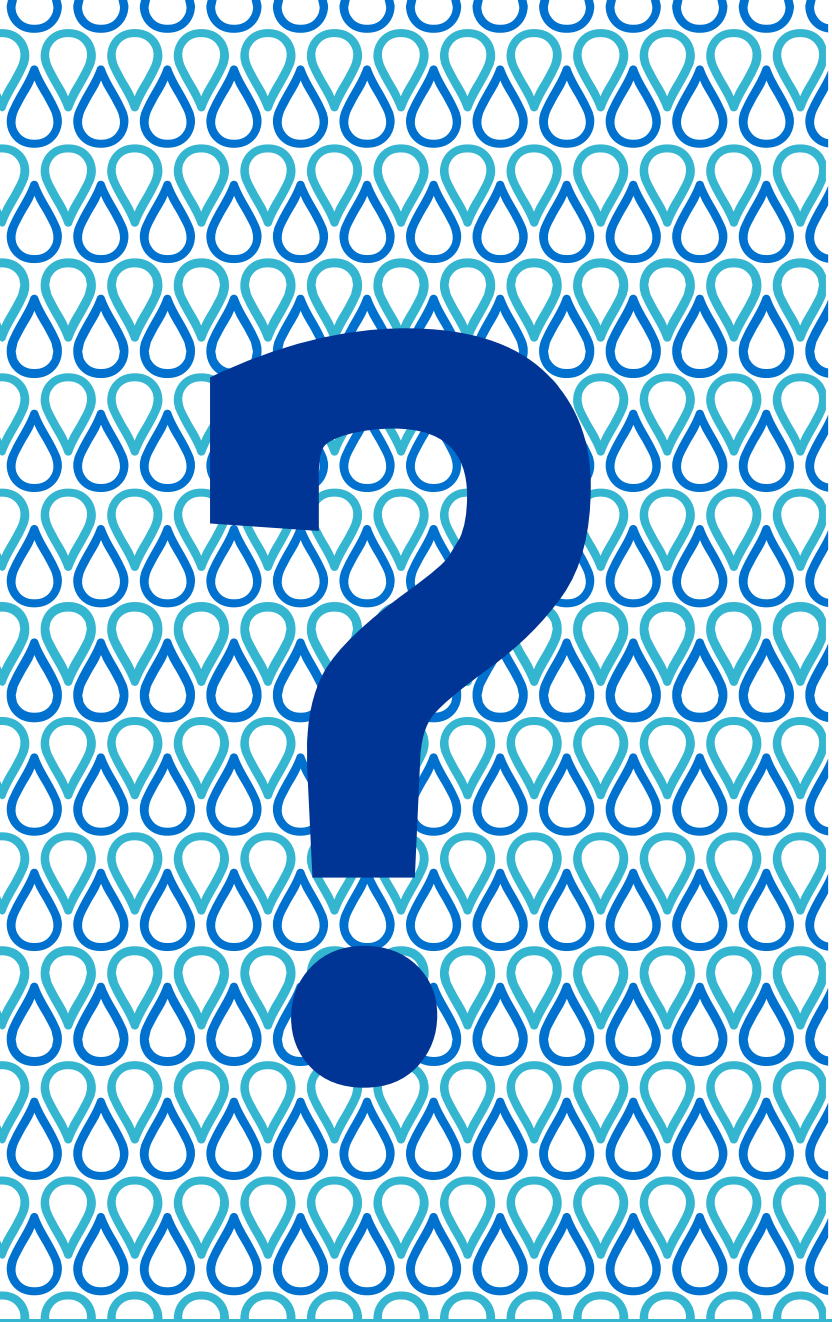
- Wider direct access to the fund
- IPR
- Using challenges rather than a broader thematic focus
- Coordination with other funds (e.g. Ofgem's innovation fund)



Wider support for innovation in the water sector

Beyond the ofwat innovation fund there are lots more opportunities to support innovation in the sector.

- Ofwat is working with DWI and EA to create a shared innovation query portal and improve the way we work together on important innovation opportunities like NBS
- Spring will launch in December and will be another way in which wider and better collaborations can be supported
- The sector strategy
- Wider initiatives being developed by Isle and others to target specific barriers to testing and adopting of innovation



Any questions?