



# Innovator Handbook

Version 2, 20 March 2023

## About this Handbook

Welcome to the Water Discovery Challenge Innovator Handbook. This document, alongside the [terms and conditions](#) and the entry form will provide you with all the information you need to enter the Challenge.

If you're short of time, head directly over to the

[Online Entry Form](#) 

which takes you through all the essentials as you fill it in.

**Please submit your entry no later than Wednesday 5 April 2023 at 12 noon (BST).**

We have also created a list of [frequently asked questions \(FAQs\)](#) highlighting information from this handbook and the terms and conditions to answer the most commonly asked questions about the Fund and the Challenge. If you have read this handbook and the FAQs and have more questions, please contact the team at [waterinnovation@challengeworks.org](mailto:waterinnovation@challengeworks.org).

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## Our Mission – the Ofwat Innovation Fund

In 2020, Ofwat, the Water Services Regulation Authority for England and Wales, launched a pioneering £200 million Innovation Fund to support innovative initiatives which deliver significant benefits for customers, society and the environment. It ultimately aims to grow the water sector’s capacity to innovate, to enable it to better address challenges and meet the evolving needs of customers, society, and the environment.

Ofwat launched the Fund as a pilot in November 2020 and has awarded £63.5 million to date through 2 rounds of competitions. Following a review of the Fund pilot period<sup>1</sup>, Ofwat created the Water Discovery Challenge to support a wider range of innovation through the Fund.

# £200 million



of funding has been unlocked by the Ofwat Innovation Fund so far to unleash a wave of innovation in the water sector and tackle some of the major challenges of our time – delivering transformative benefits for customers, society, and the environment.

Three different innovation competitions, currently on the third funding round



41 initiatives have been funded in the first two rounds



## £63.5 million

has been awarded to date



Approximately **300** different organisations and partners have been involved in entries so far



Could you be next?

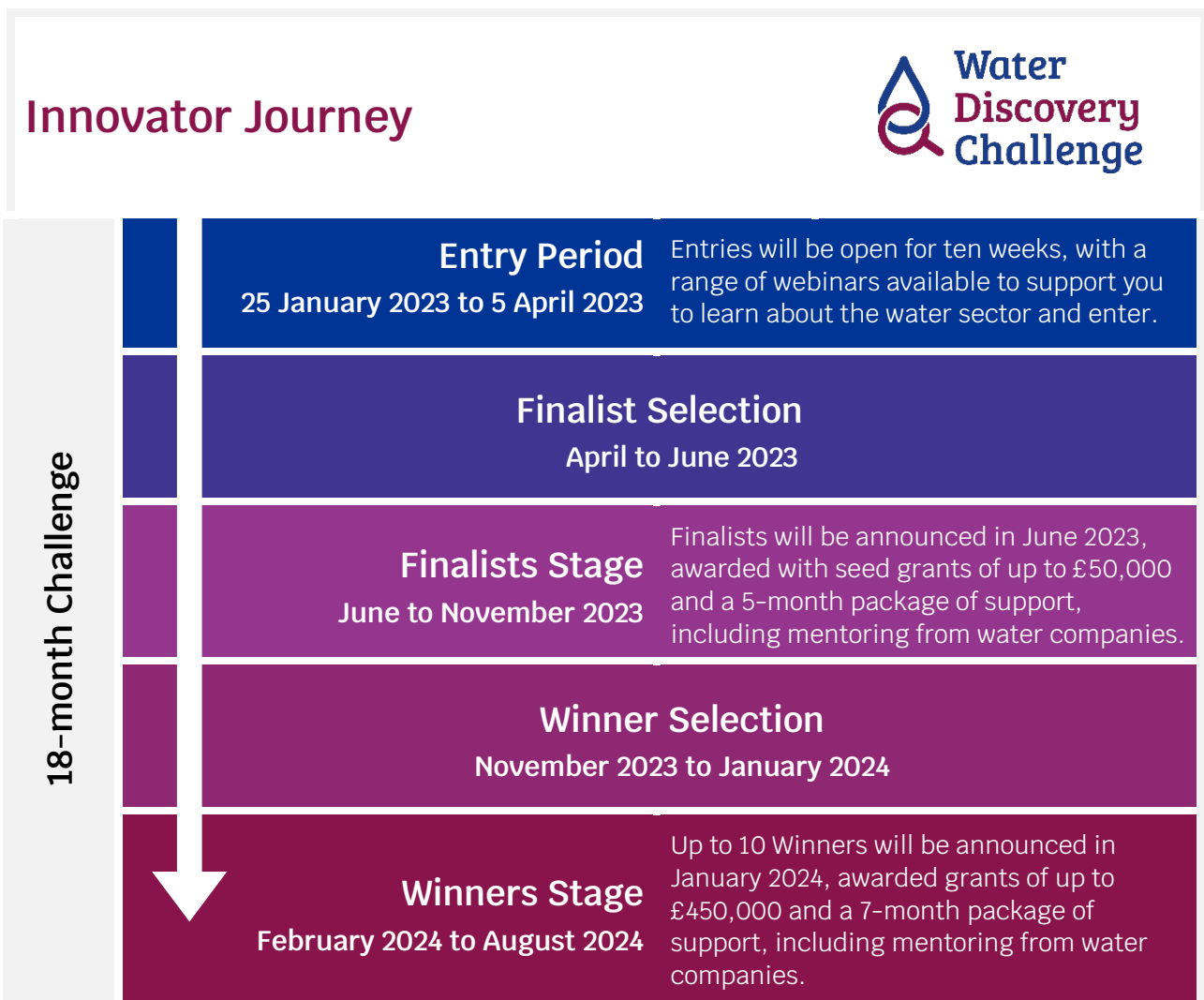
<sup>1</sup> Summarised in the [End of Pilot Report](#) and explored via [a consultation](#) launched in April 2022.

## Introducing the Water Discovery Challenge

The Water Discovery Challenge (Discovery) is a £4 million competition for bold and ingenious innovation that can help solve the biggest challenges facing the water sector today and in the future.

Discovery aims to accelerate the discovery, development and adoption of promising innovations by the water sector. It aims to achieve this by directly supporting organisations with innovative propositions and facilitating their engagement with water companies.

Discovery is an 18-month competition that brings together a blend of financial and non-financial support to support innovations to launch and succeed in the water sector in England and Wales. Finalist and winning teams retain all intellectual property rights and equity in their organisation. Entries can be entered into the Challenge confidentially.



## What we're looking for

The Water Discovery Challenge welcomes entries from all sectors, and innovative propositions can be from anywhere in the world. To be eligible to enter, organisations entering must:

- Be a UK incorporated entity<sup>2</sup>
- Hold a UK business bank account upon entry
- Comply with the [terms and conditions](#)
- Not be [a regional water or wastewater company](#) in England and Wales<sup>3</sup>,

We are seeking bold and ingenious innovation that can help solve the biggest challenges facing the water sector today and into the future.

In particular, we are looking for innovations that:

1. Have the potential to have a **positive impact for water customers, society and the environment**, guided by our four strategic innovation themes.
2. **Innovation enablers and innovative solutions** ready for concept proofing, testing, early feasibility studies, development and verification in the water sector.
3. Are delivered by teams that have the **capacity, capability and commitment to deliver**.
4. Have the **ability to succeed, be sustainable and/or gain wide adoption across the water sector in England and Wales**.

These four categories comprise our **assessment criteria** which we will use to assess and evaluate all entries received into Discovery. Each of these four categories is explored in detail below.

### 1. Positive impact for water customers, society and the environment

Under this assessment category, we are looking to understand the benefits an innovation seeks to deliver for customers, society, and the environment. We ask entrants to describe what kind of impact they envision their initiative could have and why that impact is important.

We will be looking to understand the following:

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<sup>2</sup> "UK Incorporated Entity" includes any private limited company, limited liability partnership, incorporated charity and Community Interest Company which is incorporated in part of the United Kingdom. Sole traders and unincorporated partnerships are excluded. Potential entrants are encouraged to ask if in doubt. Subsidiaries of international organisations are welcome.

<sup>3</sup> In this document, reference to a 'water company' means a water and/or sewerage undertaker holding an appointment under Chapter 1, Part 2 of the Water Industry Act 1991. Small water and sewerage undertakers, sometimes referred to as New appointments and variations (NAVs) and water retailers will be eligible to enter.

- Does the innovation address a relevant need for the water sector in England and Wales?
- Does the innovation have the potential to deliver positive benefits for customers, society and/or the environment?
- Does the innovation have the potential to deliver impact against one (or more) of the four Ofwat strategic innovation themes?

A strong entry should be able to explain how their proposition addresses a need or opportunity within the water sector and what kind of impact it could have. Entries should clearly outline how the outcomes and benefits directly or indirectly impact one (or more) of the four Ofwat strategic innovation themes.

The four innovation fund themes are set out below. These themes are broad but intended to highlight key areas where there is a need or opportunity for innovation in the water sector to have a positive impact.

We are looking for innovation that addresses the big challenges facing the water sector, and we aim to fund a wide range of entries that will showcase a diverse mix of innovative ways of working and solutions. All types of innovation are welcomed.

Our four strategic innovation themes are:



**1. Responding and adapting to climate change, including how to meet the sector's ambition of net-zero carbon, zero waste and zero leakage.**



**2. Protecting and enhancing the environment and natural systems to protect current and future customers from the impacts of extreme weather and pollution.**



**3. Delivering long-term operational resilience and understanding infrastructure risks to customers and the environment, finding solutions to mitigate these in sustainable and efficient ways.**



**4. Testing new ways of conducting core activities to deliver the services customers and society need, expect and value both now and in the future.**

New to the water sector? We recognise that providing more detail on areas where innovation is welcomed may be helpful to organisations who wish to understand if their product or service is currently in demand in the water sector.

Ofwat and water company representatives have worked together to provide guidance on areas where innovation would be particularly welcome. This is not intended to distinguish between the importance of these areas, but set out areas where water companies collectively and Ofwat are particularly seeking innovative solutions at this time, grouped by innovation theme.



- How might the sector **decarbonise energy use** and transportation through avoidance, efficiency and alternatives to fossil fuels?
- How might the sector become **net positive** through opportunities in natural capital, net zero carbon and minimal waste?

Water and wastewater require a lot of energy to transport through pipes. The water sector uses up to 3% of the total energy in the UK<sup>4</sup>, making it resource intensive. Yet current infrastructure is particularly vulnerable to the impacts of climate change, including droughts, unpredictable weather and storms. Adaptations to make the sector more robust could improve sustainability in water and energy demands for the sector.

There are tremendous opportunities to decarbonise and reduce waste in the water sector, for example, by producing energy from waste and increasing circularity through resource recovery.



- How might the sector **minimise adverse impacts from wastewater** and improve environmental quality?

A sustainable water supply relies on a healthy and functioning water system with thriving ecosystems and biodiversity, reliable pipework, and safe delivery of clean drinking water.

Water companies must end sewage overflows into rivers and the coasts, ensure waterways are healthy and find ways to prevent damaging run-off from agriculture and roads. We need to work with nature to employ solutions that positively impact the environment.

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<sup>4</sup> Source: Environment Agency

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/291637/scho1209brof-e-e.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/291637/scho1209brof-e-e.pdf)



- How might the sector **sustainably eliminate leakage** across water company networks and customers' pipes?
- How might the sector **monitor its assets** to respond quickly and correctly to changing environments and unpredicted events?

Maintenance is a huge challenge in an infrastructure network as large and complex as the water system, which includes clean drinking water supply, wastewater and sewage networks. In England and Wales, we lose an average of 3,031 million litres (the equivalent of 1,212 Olympic swimming pools) of water per day through leakage<sup>5</sup> despite teams working continuously to repair leaks and replace and renew ageing infrastructure. Many of these leaks are tiny, and although new technology can often spot them, the sector needs a new generation of prevention and management technologies, as well as smart solutions to repair damaged infrastructure.



- How might the sector **engage with customers to better manage demand** and increase the perceived value of water?
- How might the sector **improve the affordability of water** for all, particularly for customers with any vulnerability?

At a time when people are facing difficult choices about the cost of living, the water sector needs to use data wisely and collaborate with other utility providers to support customers in financial stress. The water sector aims to provide customers with value for money with continual improvement to products and services. Water companies also seek to support customers in reducing water consumption through smart solutions for homes and communities. Reducing water consumption can help protect ecosystems, reduce energy consumption and reduce costs for customers.

More detailed information on each of these areas where innovative ideas are particularly welcomed is provided in

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<sup>5</sup> Source: Discover Water <https://www.discoverwater.co.uk/index.php?p=leaking-pipes>



## Appendix 1 – High Demand Innovation Areas

Please note that the Challenge remains open to any and all entries under the four innovation themes and that all entries will be assessed against the assessment criteria in the same way.

### 2. Innovation enablers and innovative solutions

Under this assessment category, we will be looking to understand what is novel about the proposed innovation and how this differs from the ‘business as usual’ approach currently adopted by the water sector. Entrants are asked to explain what is innovative about their initiative, both in terms of the innovation itself, but also any new or different ways of working (‘innovation enablers’).

We will be looking to understand the following:

- Is the innovation new for the water sector in England and Wales?
- Is the innovation better than current alternatives?

Entries should be able to explain how the initiative is new and innovative within the water sector. This could include experimentation with new solutions or approaches, adapting innovations and practices from other sectors or applying proven approaches that haven’t been tried at scale. Proposed solutions may draw inspiration and/or talent from other sectors.

To help you understand if your initiative fits into what we’re looking for, we specifically would like to welcome entries at the more mature part of level 2, and less mature part of level 3 on the **Innovation Maturity Framework** set out below. This is loosely equivalent to Technology Readiness Level (TRL) 3-6 if your solution is technological, but all types of innovation are welcomed.

A key objective of Discovery is to support innovators to progress through this maturity framework, as well as preparing Finalists and Winners to further scale their solutions beyond the Challenge, for example, by providing a pathway to working directly with water companies or entering future rounds of the Fund’s Water Breakthrough Challenge through new partnerships.

## Innovation Maturity Framework

Level	Description	Common activities	Approx. TRL
1. Initial research	Understanding the problem and exploring possible solutions	<ul style="list-style-type: none"> <li>• Initial industry &amp; market research,</li> <li>• Problem investigation and analysis, gathering stakeholder requirements to create the value proposition,</li> <li>• Early optioneering of solutions, technology concept/application formulation,</li> <li>• Risk/opportunity analysis and research</li> </ul>	1-2
2. Concept and feasibility	Developing or testing a concept, designing the solution, and testing the feasibility of solutions	<ul style="list-style-type: none"> <li>• Innovation concept selection and early design,</li> <li>• Testing/proving a concept, developing the initial prototype,</li> <li>• Defining the approach to enable further detailed testing,</li> <li>• Assessing the fundamental feasibility of solution(s) within controlled environments.</li> </ul>	2-4
3. Development and verification	Developing the preferred solution, verifying the design through prototype demonstration in a real-world (or near-real-world) environment	<ul style="list-style-type: none"> <li>• On or off-site trials of the solution in a near-real or real-world environment,</li> <li>• Design risk analysis, including Failure Modes Effects Analysis (FMEA) for future operation, approach to departures (how can we deploy the solution),</li> <li>• Testing against operational requirements</li> </ul>	3-6
4. Validation and optimisation	Scaling up the solution for roll-out or commercialisation	<ul style="list-style-type: none"> <li>• Identifying practical routes to market, development of training or education requirements,</li> <li>• Large-scale or late-stage testing (pilots),</li> <li>• Fine-tuning to proven operational concepts,</li> <li>• Benefits evaluation, review for approval and deployment, standards, or specification development for the innovation.</li> </ul>	6-8
5. Deployment and post-launch	Implementing or rolling out the solution and assessing its impact	<ul style="list-style-type: none"> <li>• Roll-out and implementation,</li> <li>• Standard/specification finalisation and publication,</li> <li>• User training or education,</li> <li>• Benefits testing and evaluation, Continuous improvement &amp; lessons learnt for future development.</li> </ul>	8-9

### 3. Capacity, capability and commitment to deliver

Under this assessment category, we will be looking to understand if the entry team is likely to be able to deliver what they outline in the entry. We ask entrants to describe their commitment and outline the team's roles and responsibilities, and clearly set out why their experience and expertise will support the successful delivery of the entry.

We will be looking to understand the following:

- The delivery team's experience, skills and capabilities.
- The timeline and delivery plan envisioned by the team
- How the team will spend the funds awarded should they be successful

Entries should describe the roles and responsibilities of their team members and clearly set out why they believe that their experience and expertise will support the successful delivery of the entry. Entries should be able to describe how the £50,000 will be used and what activities the funding will support, proposing a high-level timeline along with the spend.

### 4. Ability to succeed, to be sustainable and/or gain wide adoption across the water sector

Discovery is seeking out bold innovations – and in particular, Discovery is designed to support innovators from outside the water sector that have earlier-stage innovations that show promise for adoption and impact within the sector in England and Wales. The support provided to Finalists will be focused on enabling and supporting early-stage idea development and will encourage direct engagement between the entrant and the water sector.

We recognise that many entrants might not have in-depth knowledge of the water sector at the point of entry. A series of webinars is available during the Entry Period to support potential entrants to familiarise themselves with the sector, its innovation needs and challenges.

Under this assessment category, we will be looking to understand the innovation's feasibility and viability within the water sector of England and Wales, as well as the risks and challenges to the entry that are foreseen by the team. We ask entrants to describe their vision of how their innovation could be applied at scale across the water sector in the future.

We will be looking to understand the following:

- Is the innovation likely to be feasible and viable in the water sector?

- Is the innovation technically possible, and does it have the potential to be financially sustainable?
- Does the innovation have the potential to be widely adopted across the water sector in England and Wales?

Entries should demonstrate that they have considered potential opportunities and challenges along with any anticipated risks, outlining mitigation measures while also identifying areas of support required aligned with their scale-up ambitions and associated risks.

## What you can win

In the Water Discovery Challenge, you can win up to £500,000, split between the Finalist Award (up to £50,000) and the Winner's Award (up to £450,000).

**Up to 20 Finalists with the most promising entries will be awarded up to £50,000 to develop their innovation, with a range of expert support and access to mentoring from water companies.**

Entrants can choose how much funding they wish to request for the Finalist Award up to £50,000.

The purpose of this award is to develop the innovation in the entry, and any funds requested must be committed by the start of the Winners Stage (June to January 2024) and will be paid in advance as a single lump sum payment in Pounds Sterling (GBP).

This award can be used to fund any reasonable costs related to developing the innovation and organisation, including labour costs and working through suppliers. Entrants are responsible for all applicable taxes and other charges. Finalists are required to keep adequate financial records to demonstrate how the Finalist Award has been spent, which must be shared with Challenge Works and Ofwat at Ofwat's discretion. Please note that funds awarded through the Challenge are not subject to VAT upon receipt.

**Up to 10 Winners will be awarded up to £450,000 to further grow their innovation, receiving further support to further accelerate their progress.**

Finalists can choose how much funding they wish to request for the Winners Award up to £450,000.

This funding will be required to be spent on defined activities as set out in a Development Plan, but there are no specific time restrictions relating to when the funding needs to be spent. Entrants are responsible for all applicable taxes and other charges and should include inflation and contingency allowances where relevant. Payment will be in advance over two or more payments in Pounds Sterling (GBP), depending on the Development Plan of each Winner. Further detail will be provided to Finalists during the Finalist Stage.

At the end of the Challenge, successful entrants will have worked directly with the water companies for around 12 months, accelerating the development of their innovation and increasing the potential for adoption.

## Water Sector Mentoring

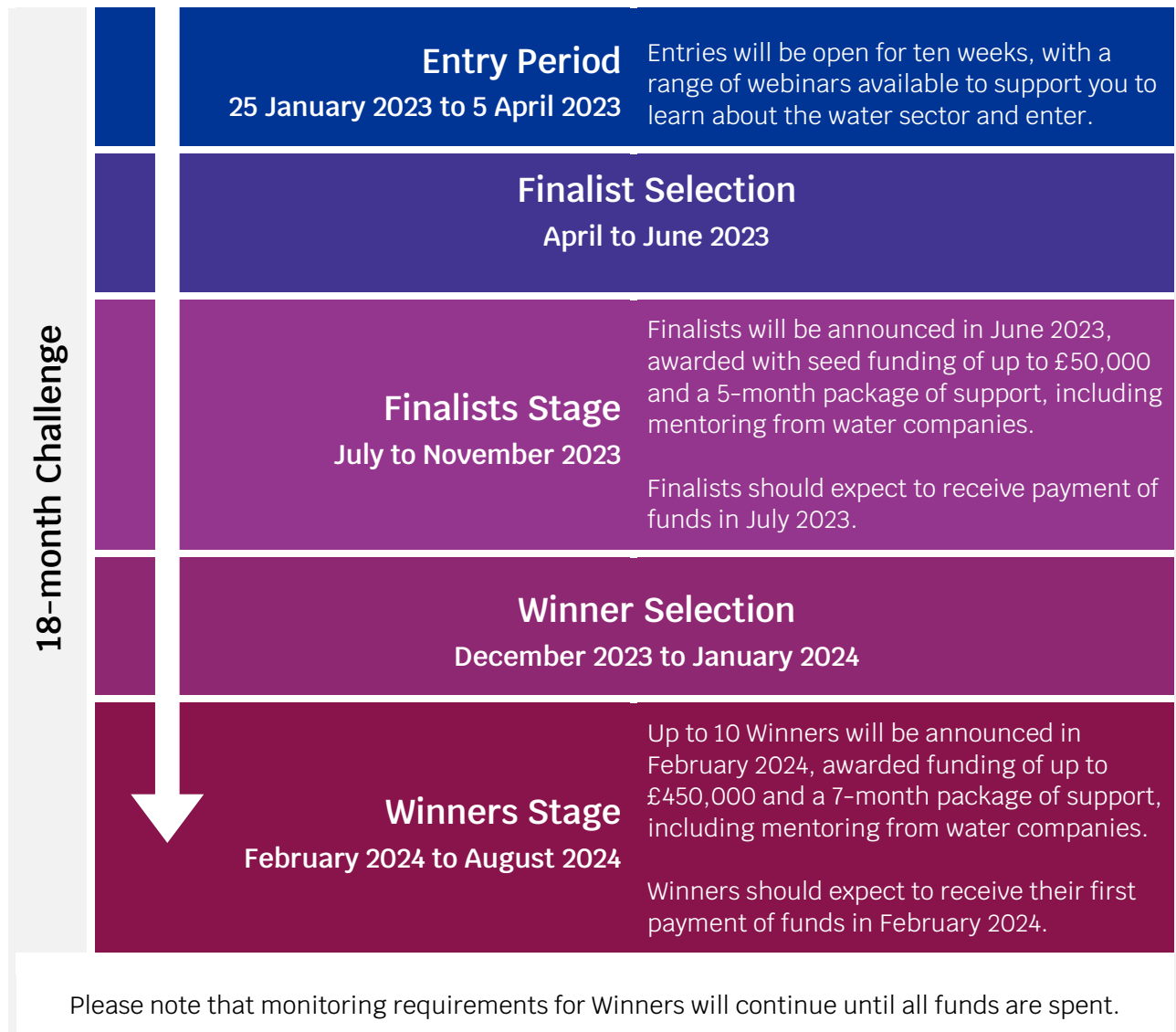
Successful Finalists and Winners will receive support to strengthen and accelerate the development of their innovation. A key part of this will be the water sector-led mentoring programme and the allocation of a mentor from a [regional water or wastewater company](#) in England and Wales.

Mentors will work directly with Finalist and Winning teams, providing bespoke support and guidance, insights into the water sector, as well as feedback on Finalist's innovation and its demand within the wider sector while also signposting to other stakeholders or useful resources.

Please note that in the Finalists stage, mentors will be allocated randomly, but at the Winners Stage, mentors will be matched to teams.

## Timeline & key dates

Discovery is an 18-month Challenge with two stages of selection and support:



The Entry Period opened on **25 January 2023 at 12 noon (GMT)** and will close on **5 April 2023 at 12 noon (BST)**.

Up to 20 Finalists will be announced by the end of June 2023. These entries will enter the **Finalist Stage**, which runs from July to November 2023, with an award of up to £50,000 and a 5-month package of support, including support to produce a Development Plan for submission to the following stage.

Finalists will be required to submit a Development Plan in November 2023. Further details, including the exact submission date, will be provided to Finalists.

Up to 10 Winners will be announced by February 2024. These ten entries will enter the **Winners Stage**, which runs from February to August 2024, with an award of up to £450,000 and a 7-month package of support.

Finalists and Winners will need to meet reasonable monitoring and impact reporting requirements from the Challenge. These will be simple and proportionate to the level of funding awarded.



## Support to enter

Discovery aims to accelerate the discovery, development and adoption of promising innovations by the water sector. It aims to achieve this by directly supporting organisations with innovative propositions and facilitating their engagement with water companies.



In particular, Discovery is looking for bold early-stage innovations from innovators yet to be connected to the water sector or from innovators outside the water sector, including but not limited to those working in industries such as energy, cities & transport, construction, agriculture & farming, and digital data & the internet of things. Drawing on the knowledge and ingenuity from other sectors will help transform the water system and help meet and overcome the challenges it faces.

**Prospective entrants are welcomed to a series of webinars to discover the water sector and the opportunity it holds.**

To ensure all potential entrants have access to a foundational understanding of the water sector and the opportunities it holds for innovation, we are hosting a range of webinars designed to support organisations of all types and backgrounds to discover the water sector and its challenges whilst developing a strong entry into the Challenge.

Prospective entrants are free to select which webinars they would find valuable, choosing from a stimulating range of topics from how the water system works for its customers to the impact of the climate crisis and opportunities for innovation.

Each event is designed as a stand-alone session and will include space for a Q&A. You can see the series below or on the [Fund website](#) and sign up for the sessions that are most relevant to you.

Webinar Title	Time & Date	Registration Link
<b>The Water Discovery Challenge: Launch Webinar</b>	Thursday 26 January, 12.30 – 1.30 pm (GMT)	<a href="#">Go </a>
This webinar will be a way for you to get an introduction to the Innovation Fund and learn more about Water Discovery Challenge, including the end-to-end innovator journey and opportunities beyond the Challenge.		
<b>Discover the water sector</b>	Tuesday 31 January, 12-1 pm (GMT)	<a href="#">Go </a>
This webinar will provide an introduction to the structure of the water sector in the UK with a focus on England and Wales. It will also explore the key players and wider innovation		

ecosystem landscape and will provide and will also touch on innovation challenges and opportunities.

**Discover innovation opportunities**

Thursday 2 February,  
12-1 pm (GMT)



In this webinar, we will discuss some of the biggest opportunities for innovation within the sector. This includes an introduction to many of the challenges the industry is facing, a look at the kind of solutions we would love to see developed, and real-world examples from elsewhere that the sector could learn from.

**Discover where our water comes from and how we treat it.**

Tuesday 7 February,  
12-1 pm (GMT)



You will learn where our water is sourced from and how it is treated to ensure it meets drinking water standards. You will also gain insight into the challenges faced by the water sector and some of the ways the sector is working to overcome them.

**Discover how we distribute water and what challenges we face**

Thursday 9 February,  
12-1 pm (GMT)



You will learn how water is distributed from a treatment plant to an end user and gain insight into the challenges faced, together with some of the ways the water sector is working to overcome them

**Discover how we transport and treat sewage and what challenges we face**

Tuesday 21 February,  
12-1 pm (GMT)



You will learn how sewage is transported from the customer to the wastewater treatment works and gain insight into the challenges faced, together with some of the ways the water sector is working to overcome them

**Discover how we maximise recovery and reuse of resources**

Thursday 23 February,  
12-1 pm (GMT)



You will learn how water companies currently recover and reuse resources and gain insight into the challenges faced, together with some of the ways the water sector is working to overcome them.

**Discover how customers impact the water cycle**

Tuesday 28 February,  
12-1 pm (GMT)

Go 

You will learn customers interact with water, how they can impact its availability and quality and gain insight into the challenges faced by water companies, together with some of the ways the water sector is working to overcome them.

**Discover Climate Change – it’s here! How do we build in operational resilience**

Thursday 2 March,  
12-1 pm (GMT)

Go 

You will learn what is meant by the term ‘operational resilience’ and how it can be achieved. You will gain insight into the challenges faced, together with some of the ways the water sector is working to overcome them

**Discover how we can combine our efforts - a partnership approach**

Tuesday 7 March,  
12-1 pm (GMT)

Go 

This webinar will provide an introduction to the importance of partnerships in the delivery of innovation initiatives and explores some of the key stakeholders across multi-partner delivery. It will also provide examples of a range of partnerships to deliver successful outcomes.

**Discover how to successfully scale innovation in the water sector**

Thursday 9 March,  
12-1 pm (GMT)

Go 

In this webinar, we will share insight into how innovators can maximise the chances of successfully scaling their solutions within the sector. This will include a review of the key barriers to widespread adoption and guidance as to how to best navigate them.

**Entry clinic**

Thursday 16 March,  
12-1 pm (GMT)

Go 

This Entry Clinic webinar will offer support to entrants who need steering in the entry process. We will cover the key aspects of the application process, support and innovator journey and support. Join us for the entry clinic to get all your questions answered directly by the Challenge delivery team.

Shortly after webinars are delivered, a recording and transcript will be hosted on [our events page](#).

## **Reasonable adjustments and accommodations**

If there are any reasonable adjustments that would support you to enter, catering for any additional needs you may have, please contact us at [waterinnovation@challengeworks.org](mailto:waterinnovation@challengeworks.org). Our entry form platform supports a wide range of screen readers and accessibility software.

## **More information and support for your entry**

If you have any questions, please review the [frequently asked questions](#). If you still have questions, please email us at [waterinnovation@challengeworks.org](mailto:waterinnovation@challengeworks.org).

## How to enter

Once you are ready to enter, simply head directly over to the

[Online Entry Form](#) 

to submit your entry before **5 April 2023 at 12 noon (BST)**.

This section will set out the process your entry will go through once submitted, including how we will select the finalists and winners, along with the assessment criteria used.

## The Entry Process

Finalists and winners will be selected following the selection process outlined below. Ofwat will make final selection decisions. We have worked to ensure the entry process is as efficient and practical as possible, allowing for ease of access for all innovator organisations.

The steps of the entry process, detailed below, are:

### Finalist Selection

- A. Open Entry Period
- B. Eligibility Screening
- C. Assessment
- D. Sector Review
- E. Ofwat Decision
- F. Finalists' Announcement and Award
- G. Feedback

### Winner Selection

- H. Development Plan Submission
- I. Eligibility Screen, Assessment and Sector Review
- J. Judging
- K. Ofwat Decision
- L. Winners' Announcement and Award
- M. Feedback

## Finalist Selection

### A. Open Entry Period

The Water Discovery Challenge opened for entries on **25 January 2023 at 12 noon (GMT)** and will close on **5 April 2023 at 12 noon (BST)**. The online entry form is [available here](#).

The entry form is made up of four types of questions:

- **Eligibility criteria** - these are questions that will be used to determine eligibility.
- **Unassessed questions** - these questions are unassessed and will be used to manage your entry, support portfolio decision-making, enable monitoring and evaluation of the Challenges and create publications and announcement materials if your entry is successful.

- Assessed questions
  - **General information** – these questions provide general information about your entry, providing context for assessors, sector reviewers and judges without being directly scored against assessment criteria.
  - **Assessment Criteria specific questions** – questions are assessed against the assessment criteria by the judges and assessors.

Entry form questions are available for [information purposes only as a PDF](#). Entries must be submitted via the online entry form.

Before submitting your entry, please ensure that:

- Your organisation is a UK incorporated entity and holds a UK business bank account.
- You have read and understood the Challenge [terms and conditions](#) and [privacy policy](#), including the Ofwat [privacy policy](#).
- Your entry is aligned with one or more of [the four Ofwat strategic innovation themes](#) and is at Innovation Maturity Level 2-3.

Information you provide in your entry may be shared with our partners (including the judges and any due diligence providers) for the purpose of administering The Water Discovery Challenge. For more information on how we use your data, please see the [privacy policy](#) and the [terms and conditions](#).

## B. Eligibility Screening

Entrants are required to meet the eligibility criteria as set out in the terms and conditions. When entries close, an eligibility screen will be conducted to ensure entries all meet the eligibility criteria.

To be eligible, organisations entering must:

- Be a UK incorporated entity<sup>6</sup>
- Hold a UK business bank account upon entry
- Comply with the [terms and conditions](#)
- Not be [a regional water or wastewater company](#) in England and Wales.

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<sup>6</sup> “UK Incorporated Entity” includes any private limited company, limited liability partnership, incorporated charity and Community Interest Company which is incorporated in part of the United Kingdom. Sole traders and unincorporated partnerships are excluded. Potential entrants are encouraged to ask if in doubt. Subsidiaries of international organisations are welcome.

## C. Assessment

All eligible entries will be reviewed by assessors against each of the four assessment criteria weighted as follows:

Assessment Criteria	Weighting
1. Positive impact for water customers, society and the environment	40%
2. Innovation enablers and innovative solutions	20%
3. Capacity, capability, and commitment to deliver	20%
4. Ability to succeed, to be sustainable and/or gain wide adoption across the water sector	20%
<b>Total</b>	<b>100%</b>

In the case where greater than 150 eligible entries are received into the Challenge, entries that are assessed to perform poorly against the first assessment criteria may not be assessed against the remaining criteria.

Assessments will be moderated, and a shortlist of entries determined to best meet the assessment criteria will progress to Sector Review. Ofwat will make the final decision.

## D. Sector Review and Due Diligence Screening

Following the assessment, a shortlist of entries will be reviewed by sector reviewers, made up of representatives from regional water companies in England and Wales.

Based on the entry, reviewers will seek to answer three questions for each entry:

1. Does the entry show the potential to deliver positive impact across the water sector in England and Wales?
2. Is the entry innovative within the water sector in England and Wales?
3. Does the entry show potential to be viable within the water sector in England and Wales?

In answering these questions, they will respond either with “Yes”, “No”, or “I’m not sure”, alongside a written rationale.

Entries with a strong negative response from Sector Reviewers may be discounted at this stage at the discretion of Ofwat.

Alongside the sector review, a due diligence screen will take place. **Please note that during this phase, we may request further information from you to facilitate due diligence checks.**

## **E. Ofwat Decision**

After the sector review and due diligence screen is complete, the Finalists will be selected. A diverse portfolio of entries assessed to best meet the assessment criteria will be selected as Finalists, discounting any entries that receive a strong negative response in the sector review at Ofwat's discretion and any entries that fail to meet due diligence requirements.

Whilst scoring will form part of the Finalist Selection process, in making its decision on whether to put forward an entry as a Finalist, Ofwat will also consider the opinions of the sector reviewers and will seek to ensure that a diverse portfolio of entries, in terms of entry themes, types, entrants and geographic location.

Ofwat intends to publish this decision and its reasons for awarding funding. Ofwat will take account of entrants' preferences in relation to the confidentiality of their entries in this publication.

## **F. Finalists' Announcement and Award**

Entries should expect to be notified if they have been successful in being awarded funding by the end of June 2023. Successful entrants will receive a Finalist Award Agreement which will need to be signed before they progress in the Challenge.

## **G. Feedback**

After finalists have been announced, standardised feedback will be provided to unsuccessful entrants, outlining why their entry has not been successful and letting entrants know if they reached the Sector Review stage.

## **Winner Selection**

### **H. Development Plan Submission**

During the Finalist Stage, support will be provided to Finalists to create a Development Plan following a template. The Development Plan is how Finalists will outline the proposed development of their innovation for the Winner's Selection process. The Development Plan will enable Finalists to:

- Make a proposal relating to how Finalists will develop their innovation, providing a more detailed and developed outline than was originally submitted in the entry form.
- Evidence of the development of the innovation during the Finalist Stage
- Set out the proposed use of the Winner's Award (up to £450,000) and Winner's Support.



Finalists will be required to submit their Development Plan in November 2023. Further detail, including the exact submission deadline, will be provided to Finalists during onboarding.

## I. Eligibility Screen, Assessment and Sector Review

All Finalists will once again go through an Eligibility Screen, ensuring that Finalists still meet the eligibility criteria.

Development plans will then go through Assessment and Sector Review concurrently.

Assessors will review Development Plans against the assessment criteria with the following weighting:

Assessment Criteria	Weighting
1. Positive impact for water customers, society and the environment	30%
2. Innovation enablers and innovative solutions	20%
3. Capacity, capability, and commitment to deliver	20%
4. Ability to succeed, to be sustainable and/or gain wide adoption across the water sector	30%
<b>Total</b>	<b>100%</b>

Assessments will be moderated where necessary.

Development plans will also be reviewed by sector reviewers, made up of representatives from regional water companies in England and Wales.

Based on the initial entry and Development Plans, reviewers will seek to answer three questions for each entry:

1. Does the entry show the potential to deliver positive impact across the water sector in England and Wales?
2. Is the entry innovative within the water sector in England and Wales?
3. Does the entry show potential to be viable within the water sector in England and Wales?

In answering these questions, they will respond either with “Yes”, “No”, or “I’m not sure”, alongside a written rationale.

A summary of both stages of Assessment and Sector Review will be produced to support Judges in making recommendations on which Finalists should be selected as Winners.

## **J. Judging**

An independent panel of judges will review Finalist Development Plans alongside initial entries and summaries from assessors and sector reviewers. The judging panel will review the entries individually, reviewing the entries using the same criteria and weighting as the assessors during this stage.

The judging panel will then convene to discuss entries and recommend to Ofwat a diverse portfolio of entries that best meet the assessment criteria.

## **K. Ofwat Decision**

Ofwat will make the final decision on which entries will be selected as Winners. In making its decision, Ofwat will consider the views of assessors, sector reviewers and judges.

Ofwat intends to publish this decision and its reasons for awarding funding. Ofwat will take account of entrants' preferences in relation to the confidentiality of their entries in this publication.

## **L. Winners' Announcement and Award**

Winners should expect to be notified if they have been successful by the end of January 2024. Successful Finalists will receive a Winner's Award Agreement which needs to be signed before they progress in the Challenge.

## **M. Feedback**

After winners have been announced, feedback will be provided to Finalists that were unsuccessful, outlining why their entry has not been successful.

Feedback will be given against each of the four assessment criteria and, where relevant, provide guidance on areas of improvement against each of them. Scores provided by the assessors and the judging panel will not be included in the feedback.

## Equality, Diversity and Inclusion (EDI)

To monitor the impact of and promote equality, diversity and inclusion (EDI), we need to collect relevant data and evidence. For the Water Discovery Challenge, this means:

- Entrants are asked to complete questions within their entry forms on how they will promote EDI within their teams.
- Where relevant, entrants are asked to demonstrate how they plan to include EDI considerations relating to their customers.
- Entrants are asked to participate in a post-entry survey.

EDI considerations are highly encouraged where appropriate in the proposal. Entries will continue to be assessed on their merit against the assessment criteria.

## Feedback and Learning

If you have any feedback or concerns relating to Water Discovery Challenge, the Ofwat Innovation Fund or any of the winners of previous rounds, please feel free to reach out to us directly at [waterinnovation@challengeworks.org](mailto:waterinnovation@challengeworks.org) or submit your feedback or concerns anonymously [here](#).

We welcome and support feedback from entrants via email and via entrant surveys sent out after entering one of our competitions.

If you would prefer to contact Ofwat directly, you may do so by emailing [innovation@ofwat.gov.uk](mailto:innovation@ofwat.gov.uk). Ofwat also has a range of materials available relating to [whistleblowing](#) and [making a complaint](#).



# Water Discovery Challenge

## About the Fund Delivery Partners



Ofwat is the Water Services Regulation Authority for England and Wales. [Read more about Ofwat's duties on their website.](#) The Fund is being delivered collaboratively by Ofwat together with Challenge Works, supported by Arup and Isle.



[Challenge Works](#) (the new name for Nesta Challenges) exists to design and run challenge prizes that help solve pressing problems that lack solutions. We shine a spotlight where it matters and incentivise people to solve these issues. We are independent supporters of change to help communities thrive and inspire the best-placed, most diverse groups of people around the world to take action. We support the boldest and bravest ideas to become real and seed long-term change to advance society and build a better future for everyone. We are part of the innovation foundation, [Nesta](#).



[Isle](#) is a global team of independent scientists, engineers, and business & regulatory experts with a common drive to make a positive environmental, social and economic impact through the advancement of innovative technologies, solutions and practices.



[Arup](#) is global collective of designers, engineering and sustainability consultants, advisors and experts dedicated to sustainable development, and to using imagination, technology and rigour to shape a better world.

## Appendix 1 – High Demand Innovation Areas

As outlined earlier in the handbook, we recognise that providing more specificity on areas where innovative ideas are welcomed would be helpful to innovators who wish to understand if their product or service is something the sector is currently looking for.

As such, Ofwat and water company representatives have worked together to provide guidance on areas where innovative ideas are particularly welcomed. This is not intended to provide insight into the relevant importance of these areas, but demonstrates those areas where water companies (as a collective) and Ofwat are particularly seeking innovative solutions.

Broad challenge area	Specific challenge area where innovations are particularly welcomed by Ofwat and the water sector
<p>How might the sector decarbonise energy use and transportation through avoidance, efficiency and alternatives to fossil fuels?</p>	<ul style="list-style-type: none"> <li>• What are the opportunities around low-energy aeration technologies?</li> <li>• How might the sector maximise energy generation from sewage sludge?</li> <li>• What are the opportunities around hydroelectricity at sewage treatment works?</li> <li>• What are the opportunities around heat recovery at sewage treatment works?</li> <li>• What are the opportunities around alternative heat sources for sludge treatment processes (BQ outcome: Energy &amp; transport)</li> <li>• What are the opportunities around hydrogen production from bio-resources?</li> <li>• How might the sector utilise new remote monitoring techniques and technologies to reduce visit frequencies</li> <li>• How might the sector reduce transport emissions through collaborative working?</li> </ul>
<p>How might the sector sustainably eliminate leakage across water company networks and customers' pipes?</p>	<ul style="list-style-type: none"> <li>• How might the sector quickly and cost-effectively locate all existing and developing leaks, especially low-level 'background' leakage?</li> <li>• How might the sector change how it operates and maintains its existing network to minimise new leaks?</li> <li>• How might the sector change how we design and install pipes to ensure all new pipe is leak-free?</li> <li>• How might the sector more accurately measure water quantity, from abstraction to consumption, to enable us to quantify leakage confidently and demonstrate when it is zero?</li> <li>• How might the sector make pipe repairs quickly, economically and with minimum disruption?</li> </ul>
<p>How might the sector monitor its assets to respond quickly and correctly to changing environments and unpredicted events?</p>	<ul style="list-style-type: none"> <li>• What are the opportunities around a smart water network system?</li> <li>• How might the sector best deploy the right resource to the right site at the right time (alarm rationalisation)?</li> <li>• What are the opportunities around low-cost sewer monitors?</li> <li>• How can lifecycle regimes on assets best balance performance, cost and risk?</li> </ul>

<p>How might the sector become net positive through opportunities in natural capital, net zero carbon and minimal waste?</p>	<ul style="list-style-type: none"> <li>• How can the sector look to optimise the use of land (natural capital, biodiversity, carbon neutrality)?</li> <li>• How can the sector best protect water quality at source through integrated catchment management solutions?</li> <li>• How can the sector optimise natural capital solutions to benefit both society and the environment?</li> <li>• How can the sector take the opportunities the Environment Bill provides to work with others to optimise supply/demand balance and natural capital?</li> <li>• How can the sector make the use of nature-based solutions the norm?</li> </ul>
<p>How might the sector minimise adverse impacts from wastewater and improve environmental quality?</p>	<ul style="list-style-type: none"> <li>• How can the sector ensure the structural condition of sewers is known and maintained?</li> <li>• How can the sector ensure no deterioration in water bodies and zero pollution incidents?</li> <li>• How can the sector ensure sewers have the capacity to cope with new developments, infiltration and weather extremes?</li> <li>• How can the sector best monitor its sewers to enable proactive intervention and have sufficient resources to respond to incidents?</li> <li>• How can the sector better control sewer content at source, including addressing misconnections cost-effectively?</li> <li>• How can the sector minimise losses from water treatment and supply systems to make the water supplies more drought resilient?</li> <li>• How can the sector use weather forecasts to raise awareness of risks to the availability of water supplies?</li> </ul>
<p>How might the sector engage with customers to better manage demand and increase the perceived value of water?</p>	<ul style="list-style-type: none"> <li>• How might the sector better engage its customers to feel truly part of the water cycle and to ensure customers understand their role in reducing demand and are actively supported to do so?</li> <li>• How might the sector develop and roll out low-cost metering to deliver insight on usage for domestic customers while protecting customers' interests and privacy?</li> <li>• How might the sector facilitate learning and engagement around the true value of water among customers?</li> <li>• How might water companies be more strategic in their approach to promoting water efficiency to customers – speaking with one voice all year round, not just in times of drought?</li> </ul>
<p>How might the sector improve the affordability of water for all, particularly for customers with any vulnerability?</p>	<ul style="list-style-type: none"> <li>• How can the sector adapt to the heightened affordability challenges across the economy as a whole to deliver better affordability for all and for those struggling to pay?</li> <li>• How can the sector ensure that, during times of acute service failure, customers feel well supported and no one is left behind?</li> <li>• How can the sector understand and respond to the full diversity of customer needs?</li> <li>• How can the sector develop a better understanding of the experiences and service outcomes of customers in vulnerable circumstances relative to the average customer?</li> <li>• How can the sector transform service delivery with inclusive design and accessible practice to support customers on a dynamic basis?</li> </ul>

## Appendix 2 – Innovator Handbook Version Control

Version	Changes
Version 2, published on 20 March 2023	<ul style="list-style-type: none"><li>• Ofwat Innovation Fund delivery partner boilerplate.</li></ul>