



Entrant Handbook

Transform Stream

Version 2.1, 4 December 2023



Delivered collaboratively by:



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Introduction

About this handbook

Welcome to the Entrant Handbook for the Transform Stream of the fourth round of the Water Breakthrough Challenge (**Breakthrough 4**). This document, alongside the [terms and conditions](#), will provide you with all the information you need to enter the Transform Stream of Breakthrough 4. Information about the Catalyst Stream can be found in the [Catalyst Stream Entrant Handbook](#). This handbook includes the following information:

- background to the Ofwat Innovation Fund ('the Fund'), including Breakthrough 4;
- information about the Transform Stream, who can enter and how;
- what is required to take part in the Transform Stream; and
- what support is on offer for entrants to the Transform Stream.

All entrants should read this handbook along with the full terms and conditions, which are the rules entrants are required to agree to before entering the Transform Stream.

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

To aid entrants who have entered previous rounds of Breakthrough, we have highlighted in green any material changes to this entrant handbook since the previous round (excluding dates).

Ofwat Innovation Fund overview

Ofwat has established a £200 million Innovation Fund to help the England and Wales water sector to grow its capacity to innovate and enable it to better meet the evolving needs of customers, society, and the environment. In the two and a half years since its launch, the Fund has awarded over £104 million to 77 initiatives, tackling some of the biggest challenges facing the sector. In July 2023, Ofwat published their first annual report, reflecting on the progress of the Fund to date and their ambitions for the future. You can download this report from the [Fund's website](#).

The Water Breakthrough Challenge is an integral part of the Fund. Through this competition, we aim to support ambitious water company¹ initiatives that demonstrate bold new approaches to innovation, going beyond the sector's business-as-usual innovation practices, and that can create significant value for customers, society, and the environment.

¹ 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.

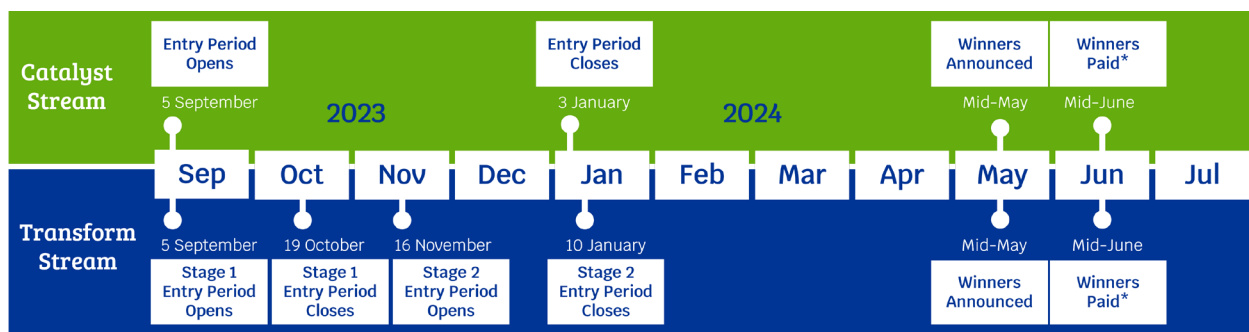
The Water Breakthrough Challenge (Breakthrough 4) comprises two streams: Catalyst and Transform. Approximately £40 million in funding is available across the two streams.

The **Catalyst Stream** aims to encourage new ways of working that go beyond business-as-usual innovation practices in the water sector, in particular, increasing and improving collaboration and building partnerships from within and outside the water sector. Individual entries to the Catalyst Stream can bid for funding from £150,000 to £2 million.

The **Transform Stream** aims to spark ambitious innovation and enable new approaches and ways of working, equipping the water sector to address the big challenges facing the sector, driving far-reaching and long-lasting benefits to customers, society and the environment across England and Wales now and into the future. In this round, individual entries to the Transform Stream can bid for funding between £2 million and £10 million².

If you are a water company or are working in partnership with a water company, the amount of funding you seek should determine which stream of Breakthrough 4 you enter.

An outline of the timeline for Breakthrough 4 is shown below:



* Subject to water company payment timelines

For more information on the Fund, please visit [our website](#).

² Subject to certain conditions, Ofwat is open to accepting entries bidding for greater than £10 million. Please see [Entry Requirements](#) section for more details.

Breakthrough 4 delivery partners

The Fund is being delivered collaboratively by Ofwat together with Challenge Works, supported by Arup and Isle.



Ofwat is the Water Services Regulation Authority for England and Wales. [Read more about Ofwat's duties on their website.](#)



[Challenge Works](#) has established itself as a global leader in designing and delivering high-impact challenge prizes that incentivise cutting-edge innovation for social good.

We are a social enterprise founded by Nesta, the UK's innovation agency for social good. For more than a decade, we have run over 80 prizes, distributed £132 million in funding and engaged with 13,000 innovators.



Dedicated to sustainable development, [Arup](#) is a collective of designers, consultants and experts working globally. Founded to be humane and excellent, we collaborate with our clients and partners using imagination, technology, and rigour to shape a better world.

Together we help our clients solve their most complex challenges – turning exciting ideas into tangible reality as we strive to find a better way and shape a better world. With a community of over 1700 water professionals, Arup is leading global thinking across key areas like innovation, resilience, net zero carbon and sustainable water management.



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

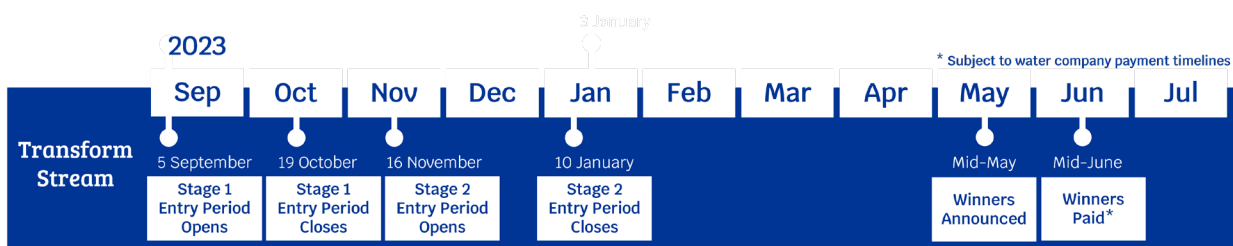
Our passion and expertise in technology and innovation enables us to connect expertise, investment and inspired ideas across the globe. At the core of all our activities is our ambition to make the world a better place.

About the Transform Stream

The **Transform Stream** aims to spark ambitious innovation and enable new approaches and ways of working, equipping the water sector to address the big challenges facing the sector, driving far-reaching and long-lasting benefits to customers, society and the environment across England and Wales now and into the future.

Timeline & key dates

The Transform Stream of Breakthrough 4 uses a two-stage entry process, illustrated in the figure below.



Stage 1 of the Transform Stream opens on **5 September 2023 at 12 noon (BST)** and will close on **19 October 2023 at 12 noon (BST)**.

Following the closing date on 19 October 2023, stage 1 entries will be checked for eligibility and undergo a screening assessment.

A diverse portfolio of entries that best meet the relevant assessment criteria (detailed in [Entry questions, assessment criteria, weighting, and guidance](#) below) will then be invited to submit a stage 2 entry from **16 November 2023 at 12 noon (GMT)***. The stage 2 entry period will open for just under eight weeks, closing on **10 January 2024 at 12 noon (GMT)**.

Following the closing date, stage 2 entries will be assessed.

* Due to the rearranged 'Future of the Fund' workshop on **16 November 2023**, the assessment result of Transform Stream, stage 1 and the opening of stage 2 have been moved from **noon to 3.30 pm on 16 November 2023**.

In this round, there will be a single, unified judging panel reviewing entries to the Catalyst and Transform Streams. The aim is to increase visibility across the streams and to ensure a streamlined approach to portfolio recommendations based on gaps in the market and various levels of innovation risk.

The judging panel will convene in March 2024. Shortlisted entries will be invited a live Q&A session with the judges during the judging days. Please note entrants will not be requested to pitch to the judges in this round.

A diverse portfolio of shortlisted entries that best meet the relevant assessment criteria (detailed in [Entry questions, assessment criteria, weighting, and guidance](#) below) will then be shortlisted and shared with the judging panel for review.

The judging panel will recommend to Ofwat a diverse portfolio of entries for funding that they consider best meets the relevant assessment criteria and have the potential to deliver tangible positive benefits for customers, society, and the environment. Ofwat will then make the final decision on whether to award funding.

Further details on the selection process can be found in the [Entry process](#) section below. If you are successful in winning funding, you can expect to be notified by mid-April 2024.

What you can win

In this round, there is approximately £30 million funding available for successful entries. Individual entries to the Transform Stream can bid for funding between £2 million and £10 million³.

As such, we expect to receive entries into the competition with a total financial cost of approximately £2.22 million to £11.11 million, including the 10% mandatory financial contribution (see [Entry requirements](#) below for more detail).

Intellectual property rights (IPR)

To receive funding from Breakthrough 4, you must agree to the IPR conditions within the terms and conditions.

The terms and conditions set out the default position on IPR and also provide an opportunity for entrants to propose alternative IPR arrangements. In respect of either of the options, you will be required to answer questions on your IPR proposals.

Default IPR Position

For the purpose of the default position on IPR, the terms and conditions differentiate between general background IPR and specific background IPR.

Specific background IPR is background IPR which has been specifically identified in the entry and is such background IPR that may be licenced on terms including a royalty and/or other appropriate forms of remuneration.

We recognise that specific background IPR may require adjustment during the delivery of your entry, and therefore, the terms and conditions allow for the possibility of later designation at Ofwat's discretion.

³ Subject to certain conditions, Ofwat is open to accepting entries bidding for greater than £10 million. Please see [Entry Requirements](#) section for more details.

General background IPR is any and all background IPR that is not specific background IPR. In your entry, you will be asked to set out how this arrangement will not result in restricted benefits to customers of water companies and to confirm that, ultimately, any additional costs to customers in respect of charges for the use of background IPR will represent value for money for customers.

In all instances, you must set out how and why you consider that the proposal or the process by which you may charge future users is fair, reasonable, and non-discriminatory. We recognise that it may be more difficult to provide this information for initiatives that are at an early stage of development. Where this is the case, you should clearly state what information you can and cannot provide at the point of submitting your entry and why.

More details are set out in section D of the [Unassessed entry questions](#) below.

Alternative IPR Proposals

In setting out alternative IPR arrangements, you must be able to meet the following conditions:

1. The entry will not result in restricted benefits to all customers of water companies; and
2. Demonstrably, the alternative arrangements will not result in additional costs to customers.

Ofwat will consider on a case-by-case basis whether these conditions have been met.

Regarding all options available, you will be required to answer questions on your IPR proposals. We may seek further clarification on these proposals following the submission of your entry.

Sharing knowledge and foreground IP

In this round, we are asking entrants to provide additional information about the knowledge and intellectual property they expect to develop through their project, and how they will share this with the wider water sector.

Although this has always been a requirement of the Water Breakthrough Challenge, we would like to see winning projects go further. We encourage entrants to consider how they will capture and share critical knowledge and ensure benefits/learnings can be widely and rapidly accessed and digested by other innovators and practitioners.

Entry requirements

There are four eligibility criteria in the Transform Stream of Breakthrough 4, detailed below:

- Lead entrant
- Funding requested
- Financial requirements; and
- Terms and conditions

Lead entrant

The lead entrant to Breakthrough 4 must be one of the [licensed regional water only and water and wastewater companies or new entrant water and wastewater companies \(NAVs\)](#) in England and Wales. We strongly encourage lead entrants to enter Breakthrough 4 in partnership or consortia.

Funding requested

The minimum amount of funding that can be requested from the Transform Stream is £2 million, and the maximum that can be requested is £10 million.

In exceptional circumstances, where an entry will deliver impact across the water sector in England and Wales, we are open to accepting entries requesting more than £10 million. We ask that this impact be demonstrated by having at least ten water companies in England and Wales as entry partners.

Submitting an entry requesting greater than £10 million is subject to the prior approval of Ofwat. For more information and to request approval to bid for above £10 million, you must email waterinnovation@challengeworks.org no later than **Wednesday 4 October 2023 at 5 pm (BST)**.

If Ofwat approves your entry for more than £10 million, this does not in any way guarantee that your entry will be successful in winning funding. All entries (regardless of how much funding is requested) are subject to the same entry process and terms and conditions once their entry has been accepted.

Financial requirements

A maximum of 90% of each entry's financial costs will be provided by funding from Breakthrough 4. Entry partners must provide the remaining 10% of the entry's total financial costs as a mandatory 10% financial contribution.

We do not consider that customers should bear all the risk of initiatives funded through the competition and believe this encourages strong project management. Entry partners can decide how the remaining 10% is funded, as long as it is not funded by charges to water

customers in England and Wales. There is no requirement for this contribution to be shared equally between partners. Entry partners may also consider how they could bring funding from other sources.

Entrants need to specify the source of funds for their contributions in the entry form. We welcome any additional financial and/or non-financial contributions beyond the minimum 10% and have seen many entries do this in previous rounds. Non-financial contributions should be excluded from the total financial cost of the entry.

We are open to initiatives that have secured additional external public or private funding. Entrants must confirm that there is no duplicative or double funding and that they are not restricted by their current funding source when applying for additional and alternative funding through this Fund.

Terms and conditions

All entry partners must agree to abide by the [terms and conditions](#).

What we are looking for

Areas for innovation

We are looking for your ideas that address the big challenges facing the water sector – guided by our four strategic innovation themes detailed below. We aim to fund a wide range of entries that will showcase a diverse mix of innovative ways of working and solutions.

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.

These themes have been updated since the second round of the Water Breakthrough Challenge. We no longer explicitly reference open data or vulnerability in the themes. However, both would be implicit in theme 4 (and others), and both would easily be a means to fulfil this theme.

We have published more detailed policy statements on Ofwat's position around [Open Data](#) and [customer vulnerability](#) since the start of the Ofwat Innovation Fund. We believe that the breadth of the broader theme allows for greater freedom in proposing improved ways of working and could deliver greater benefits.

While no longer explicitly referenced in the themes, enabling activities are very important to drive innovation in the sector and have a key role to play in helping the Fund achieve its

outcomes. We invite entries in this important area as they will support the Fund’s ambition to embed innovation practices and knowledge within water companies (and the sector) for the long term.

We have identified a number of innovation enablers that will be particularly critical to growing and sustaining the water sector’s capacity to innovate. The Fund will consider supporting initiatives that demonstrate and further strengthen these enablers, including but not limited to:

- **Collaboration:** building and strengthening collaboration and partnerships across companies, the supply chain and outside the water sector.
- **Openness:** to sharing data, insights, and ideas within the water sector and with other sectors. All projects supported by the Fund should use an “open by default” approach to data and learning.
- **Adaptability:** flexibility and openness to trying out new ways of working.
- **Innovation risk management:** delivering value from all innovation projects, particularly more experimental projects, even if they fail.
- **Scalability & deployability:** improving the ease of scaling up and rolling out of proven innovations within the sector.
- **Long-term view:** taking both a longer-term and broader perspective to better meet the evolving needs of customers, society, and the environment.

Characteristics of entries

Entry delivery timelines

We are open to a wide range of project delivery timelines, from less than a year to multi-year periods that continue beyond 2025. There is no requirement for project delivery to be completed within the current asset management plan (AMP) period.

We expect entries to the Transform Stream that are awarded funding to start within six months of being notified of the award. However, we recognise that particularly complex entries may require a longer mobilisation period.

Based on past winners' experience and feedback, we strongly encourage entrants to consider the following points in advance of the project start to avoid delays if the entry is successful:

- Ensuring you've agreed how the project will be governed, and the role of each partner.
- Ensuring you have started discussing contractual arrangements with partners, including developing collaboration agreements and allowing sufficient time in the project plan for these to be completed (if they aren't already in place).
- Considering your procurement needs, and possible supply chain delays
- Considering any regulatory requirements: you may wish to reach out to [StreamLine](#), the regulatory advice service for innovators in England and Wales, run jointly by Ofwat, the Drinking Water Inspectorate and The Environment Agency.
- Considering resourcing requirements for each stage of the project, with mitigations in place for any changes.

Approach to risk

We are seeking truly innovative entries and encourage water companies to adopt an open risk appetite within their Fund entries, supported by strong risk management with a clear plan to share data and learning, regardless of the outcome. We recognise that some projects may not deliver the expected direct benefits, but by taking risks and sharing learning across the water sector, customers will stand to benefit.

Entrants should be able to recognise and respond appropriately to issues and opportunities as they arise. This may include:

- Taking decisions about how to adjust delivery if the initial benefits can no longer be realised.
- Adopting an approach of 'early failure'.
- Thinking widely about possible benefits from their initiative.
- Considering how learning and insights from the delivery of their initiative can best provide value across the sector.

Monitoring and risk management

Entrants will be asked to provide information on their approach to risk in their entry. Entrants will be responsible for:

- Managing delivery and reviewing progress against milestones.
- Adapting delivery to realise the intended impact most efficiently and effectively.
- Sharing significant changes to delivery with Ofwat and its delivery partners.

Ofwat and its delivery partners will monitor the progress of successful entries, including seeking updates at delivery milestones. The monitoring and involvement of Ofwat and its delivery partners will be proportionate to the size and risk of initiatives. In all cases, winning entrants will be responsible for reviewing progress and deciding the best course of action for their entry to deliver its intended impact.

In exceptional circumstances, Ofwat and its delivery partners may intervene if we have concerns that a project is moving materially away from delivering on its intended impact or if there are any concerns about misuse of funds.

Entry value and delivery costs

Entrants to the Transform Stream can bid for between £2 million and £10 million⁴.

We expect entries to demonstrate cost efficiency and good use of customer money, with a clear case for any costs included in the budget.

Reasonable costs are eligible to be funded, including dedicated staff time and fair associated overheads.

The budget, set out in the entry form, should include inflation allowances and applicable taxes, which are not recoverable, reflecting the actual costs of the initiative. Where taxes are fully recoverable, such as VAT, costs should be shown net of the recoverable amount. Taxes that are not recoverable should be included, for example, customs duties payable on goods imported into the UK.

Partnerships and collaboration

We particularly encourage entries that involve partnerships and collaboration between water companies, including NAVs, as well as with organisations in the water sector supply chain and beyond.

- **If you are a water company, including NAVs:** you are strongly encouraged to explore opportunities for new partnerships and consortia, including by signalling opportunities for partnerships on your website and social media channels. You can partner with any organisation you wish, domestic or international, including other water companies, supply chain partners, new start-ups, SMEs, academia, local authorities, water companies outside of England and Wales, and water supply and/or sewerage retailers. You may also wish to review the supplier pitch videos hosted on

⁴ Subject to certain conditions, Ofwat is open to accepting entries bidding for greater than £10 million. Please see [Entry Requirements](#) section for more details.

our [Water Innovation Directory](#). Please note that it is your responsibility to carry out any checks and due diligence on partners.

- **If you are not a water company:** Breakthrough 4 is an opportunity to reach out to one or more water companies to explore the possibility of working together. If you are new to the water sector, you may wish to contact [Spring, the water sector's centre of excellence for innovation](#). In particular, we recommend you read [the water sector's innovation strategy](#) before contacting water companies to understand their innovation priorities. A complete list of England and Wales water companies that can be contacted to explore new partnership opportunities can be found on [our website](#).

Collaboration agreement template

Where relevant, entries that are successful will need to develop collaboration agreements with partners. The Fund strongly encourages entrants to develop collaboration agreements in advance of the project start to avoid delays if the entry is successful. You are welcome to use the [template collaboration agreement available on our website](#).

Note: The example collaboration agreement linked above is a cross-water company effort between the legal and innovation teams of water companies including Anglian Water, Thames Water, United Utilities, Severn Trent, Affinity Water, Welsh Water, Northumbrian Water and Southern Water. This agreement is flexible and therefore it is a basis for early discussion between water companies and other project partners. It may be adapted over time. The Ofwat Innovation Fund and any of the above organisations cannot provide any legal support or advice, nor be legally liable, in the event of any issues relating to a project's collaboration agreement.

Entering the Transform Stream

This section will outline everything you need to enter into the Transform Stream of Breakthrough 4, including:

- The entry process
- Reasonable adjustments and accommodations
- Entry questions, assessment criteria, weighting, and guidance:
 - Eligibility criteria
 - Unassessed questions
 - Assessed questions.

For a timeline of the Transform Stream, please refer to the [Timeline & key dates](#) section above.

The entry process

Winning entries will be selected following the assessment process outlined below. The two-stage entry process aims to ensure that entrants can develop proposals that have the greatest chance of being awarded funding.

We have worked to ensure the entry process is as efficient and practical as possible, allowing for easy access for all water companies, particularly smaller ones.

Information you provide in your entry at stage 1 and stage 2 may be shared with our partners (including the judges and any due diligence providers) to administer Breakthrough 4. For more information on how we use your data, please see the [privacy policy](#) and the [terms and conditions](#).

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

- A. Stage 1 – Screening entry period
- B. Eligibility screen
- C. Stage 1 assessment
- D. Stage 1 Feedback
- E. Stage 2 – Full entry period
- F. Stage 2 Assessment
- G. Judging
- H. Ofwat Decision
- I. Award
- J. Stage 2 Feedback

A. Stage 1 – Screening entry period

Stage 1 opens for entries on 5 September 2023 at 12 noon (BST) and closes on 19 October 2023 at 12 noon (BST).

We set out the questions that should be answered, along with guidance on completing stage 1 of the entry process in [Entry questions, assessment criteria, weighting, and guidance](#) below. In stage 1, we are looking for a high-level narrative summary in response to these questions.

We will ask you to [register for a recording slot](#) (Zoom call) where the entry team will record a five-minute pitch. This will aid the understanding of our assessors and judges when reviewing your entry. You must register for a recording slot no later than **Friday 29 September 2023 at 5 pm (BST)**.

All entries must be submitted by **19 October 2023 at 12 noon (BST)** using the stage 1 online entry form available [via the website](#). The lead entrant will need to submit this form.

The entry form for both stages is available as [a Word document on our website](#) to help you develop and collaborate on your answers before completing the online form. If entrants wish to work on more than one draft on the online entry platform during the entry period, please contact waterinnovation@challengeworks.org for assistance.

Before submitting your entry, please ensure that:

- You and your partners 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](#).
- You have followed good procurement principles, performed your due diligence on your partners and accepted any risk and liability from going ahead with them.
- You and your entry partners have set out in your entry how a 10% minimum financial contribution will be provided for (at least 10% of total entry financial costs will be funded from sources other than the Fund).

B. Eligibility screen

Entrants must meet the eligibility criteria set out in the [Entry requirements](#) section above.

When entries close, an eligibility screen will be conducted to ensure entries meet all the eligibility criteria.

C. Stage 1 assessment

During stage 1, all eligible entries will be assessed by assessors against each of the following three assessment criteria categories:

1. Positive impact for water customers, society, and the environment.
2. Innovation enablers and innovative solutions.
3. Capacity, capability, and commitment to deliver.

Scoring will be between 1 and 5 (5 being the highest). These scores are then weighted. The assessed entry questions, assessment criteria and weighting are set out in the [Entry questions, assessment criteria, weighting, and guidance](#) section below.

A moderation meeting will be held to discuss and recommend entries for stage 2. This moderation meeting will ensure that all assessors' opinions have been captured and that a consistent view on the merits of each entry is provided.

Whilst scoring will form part of this process, in making its decision on whether to put forward an entry to stage 2, Ofwat will also consider the opinions of the assessors and will seek to ensure a diverse portfolio of entries in terms of entry themes, types, entrants and geographic location. Entrants should note that there is no guarantee of funding even if the entry reaches stage 2.

D. Stage 1 feedback

Feedback will be provided to the lead entrant for all entries. For those invited to stage 2, entries will receive high-level feedback (up to three bullet points) from assessors to support them in developing their stage 2 entry.

For those entries not invited to stage 2, we will provide high-level information about why the entry was unsuccessful. We aim to deliver this to entrants no later than mid-December 2023.

In exceptional circumstances, unsuccessful entrants may wish to consider entering the Catalyst Stream of Breakthrough 4. For more information, please refer to [Appendix 2](#) of this handbook.

Please note, this does not represent a recommendation from us to unsuccessful entrants in stage 1 of the Transform Stream to enter the Catalyst Stream. Entering the Catalyst Stream will not in any way guarantee that your entry will be successful in winning funding. All entries to the Catalyst Stream are subject to the same entry process, terms and conditions, and assessment.

E. Stage 2 – Full entry period

We will open stage 2 to invited entries on **16 November 2023 at 12 noon (GMT)*** and close for entries on **10 January 2024 at 12 noon (GMT)**.

* Due to the rearranged 'Future of the Fund' workshop on **16 November 2023**, the assessment result of Transform Stream, stage 1 and the opening of stage 2 have been moved from **noon to 3.30 pm on 16 November 2023**.

We set out in [Entry questions, assessment criteria, weighting, and guidance](#) below the questions that should be answered, together with guidance on how to complete the questions.

The entry must be submitted via the online entry form. At stage 2, we will be looking for a fuller, evidenced and referenced narrative, as well as the completion of our [entry template](#). Entrants can update their stage 1 entry form and re-record their pitch if they wish. The entry form for both stages is available as [a Word document](#) to help you develop and collaborate on your answers before completing the online form.

F. Stage 2 Assessment

The stage 2 process will consist of a more detailed assessment of entries against each of the three assessment criteria categories:

1. Positive impact for water customers, society, and the environment.
2. Innovation enablers and innovative solutions.
3. Capacity, capability, and commitment to deliver.

Assessors will review and score answers to all assessed stage 1 and stage 2 entry questions against set assessment criteria. Scoring will be between 1 and 5 (5 being the highest). These scores are then weighted. The stage 2 assessed entry questions, assessment criteria and weighting are set out in the [Assessed questions](#) and [Assessment criteria weighting](#) sections below.

A moderation meeting will be held to ensure that all opinions from the assessors are captured and a consistent view on the merits of each entry is provided. Whilst scoring will form part of this process, Ofwat will consider the assessors' opinions and will also seek to ensure that a diverse portfolio of shortlisted entries, in terms of entry themes, types, entrants and geographic location, is put forward to the judges.

G. Judging

An independent panel of judges will review the shortlisted entries put forward through the stage 2 assessment. The judging panel will review the entries individually, scoring the entries using the same criteria as the stage 2 assessors. The judging panel will then convene to discuss entries and recommend to Ofwat which entries they agree best meet the assessment criteria and offer a diverse portfolio for funding.

Following feedback from the trial in the previous round, Breakthrough 4 will offer the opportunity of a **live Q&A session** for the entrants to respond to judges' questions as part of the entry process. Please note entrants will not be requested to pitch to the judges in this round.

Judges will ask questions relating to shortlisted entries during the judging days **between 9 am and 5.30 pm (BST) on 26 or 27 March 2024**. Q&A slots will be allocated to shortlisted entries no later than 19 March 2024, but where possible, we will endeavour to provide as much notice as possible.

If teams are not able to attend the live Q&A, they should notify the delivery partners at waterinnovation@challengeworks.org as soon as possible, for a chance to answer the judges' questions in writing. No other opportunities for questions and answers will be provided, with the exception of clarifying conflicting entry answers.

H. Ofwat Decision

Ofwat will make the final decision on which entries should receive funding. In making its decision, Ofwat will consider the views of assessors and judges on which entries best meet the assessment criteria and offer a diverse portfolio for funding.

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

I. Award

Entries should expect to be notified if they have been awarded funding by mid-April 2024.

Winner's Agreement

When notified, successful entries will receive a copy of their draft winner's agreement. This winner's agreement will be based on the [template available on our website](#). Please note that this template is only provided for information purposes and may be subject to changes.

Winning teams must sign these agreements no later than **5 pm (BST) on 17 May 2024** to be paid by mid-June 2024.

J. Stage 2 feedback

After winners have been announced, feedback will be provided to the lead entrants who did not win funding at stage 2, outlining why their entry was unsuccessful.

Feedback will be given against each of the three assessment criteria and, where relevant, provide guidance on areas of improvement against each of them. The feedback will not include scores provided by the assessors and the judging panel. As mentioned above, scoring forms only a part of the overall assessment process.

Feedback will not be provided to winning entries.

Reasonable adjustments and accommodations

If there are any reasonable adjustments that would support you entering, catering for any additional needs you may have, please contact waterinnovation@challengeworks.org.

Entry questions, assessment criteria, weighting, and guidance

There are three types of entry questions in the entry form:

- **Eligibility criteria** – These are questions that will be used to determine eligibility.
- **Unassessed questions** – These questions will be used to manage your entry, support portfolio decision-making, enable monitoring and evaluation of the Challenge and create publications and announcement materials if your entry is successful.
- **Assessed questions**
 - **General information** – This section provides general information about the entry. Assessors and judges will review the answers to these questions but not score them against the assessment criteria.
 - **Assessment criteria questions** – Assessors and judges will assess answers to this section against the assessment criteria.

Eligibility criteria

Question	Question Guidance
Is the lead entrant a water company (including NAVs) in England or Wales?	Yes/No
Are all entry partners abiding to the terms and conditions of Breakthrough 4?	Yes/No
Do the entry partners commit to making a minimum 10% total financial contribution to this entry if it is awarded funding?	Yes/No
Is the amount of funding requested between £2,000,000 and £10,000,000? If you wish to bid for less than £2,000,000, please enter the Catalyst Stream .	Yes/No
[Conditional – If No, to previous question] Have you received approval to bid for an alternative amount (i.e., above £10,000,000)?	Yes/No

Unassessed questions

The following unassessed questions are included in the entry form to manage your entry.

Question Category	#	Question	Question Guidance	Word Count	
A	Main Contact Details	i	Name of main contact	You must designate one person as the main contact. This person will be the primary point of contact with the Water Breakthrough Challenge team. This is the person who we will contact for all matters relating to your entry. Please ensure that the information provided below relates to the same person.	N/A
		ii	Main contact job title		N/A
		iii	Main contact organisation	This should be the lead entrant water company.	N/A
		iv	Main contact's work email address(es)		N/A
		v	Main contact's work telephone number		N/A
		vi	Details of communications lead	Please provide the name, email address and telephone number of the person that will be responsible for coordinating any external communications activities should this entry be successful.	N/A
		vii	Winner's Agreement	Please confirm you have reviewed the template Winner's Agreement and the lead organisation will sign this if your entry is successful in receiving funding.	N/A
B	Entrant Details	i	Name(s) of Partner Organisation(s)	Please provide a list of the legal name(s) of all partner organisations involved in this entry, excluding the lead entrant. Please also provide the name and email address of the lead contact at each partner organisation.	N/A
		ii	Please provide the mailing address of the lead water company.	This may be used for correspondence if the entry is successful.	N/A
C	Funding	i	What is the amount you are requesting from the Fund?	Please provide the value of funds requested from the Water Breakthrough Challenge in £ GBP in nominal (today's) prices, excluding any financial contributions.	

		ii	What is the value of financial contributions from water companies in England & Wales?	<p>Please provide the value of the financial contribution water companies in England & Wales have committed to contribute to the entry, if it is successful in being awarded funding, in £ GBP in nominal (today's) prices.</p> <p>The contribution must be no less than 10% of the total financial cost of the entry.</p> <p>We welcome any additional financial and/or non-financial contributions beyond the minimum 10%. Please exclude any in-kind contributions (these should be covered in C iv).</p>	N/A
		iii	What is the value of financial contributions from all other partners?	<p>Please provide the value of the financial contribution all other partners have committed to contribute to the entry, if it is successful in being awarded funding, in £ GBP in nominal (today's) prices.</p> <p>Please exclude any in-kind contributions (these should be covered in C iv)</p>	N/A
		iv	What is the value of any in-kind contributions?	<p>Please provide the value of any in-kind contributions (if quantifiable) from any source in £ GBP in nominal (today's) prices.</p>	N/A
		v	What is the total cost of your project?	<p>Please provide the total cost of the project in £GBP - including workstreams and funds not covered by the Water Breakthrough Challenge and any financial and in-kind contributions which are financially quantifiable.</p> <p>Please provide this in nominal (today's) prices.</p> <p>These figures should be inclusive of inflation allowances and applicable taxes, which are not recoverable, reflecting the actual costs of the entry. Where taxes are fully recoverable, such as VAT, costs should be shown net of the recoverable amount. Taxes that are not recoverable should be included, for example, customs duties payable on goods imported into the UK.</p>	N/A
D	Intellectual Property Rights	i	Does your entry align with the default position on intellectual property rights (IPR) as set out in section 4 of the terms and conditions?	<p>Single Option: Yes/No</p>	N/A
		ii	Default IPR	<p>Appears only if answer to Di is Yes.</p> <p>Please explain how you will comply with the default position at section 4 of the terms and conditions, including detail of:</p>	N/A

			<ul style="list-style-type: none"> • Whether the funded entry (i.e., that part funded by the Fund) is part of a wider project; Foreground IPR to be generated by the funded entry; • Background IPR that is necessary to use the Foreground IPR for the funded entry, clearly distinguishing between General Background IPR and Specific Background IPR; • Any other background IPR relating to the delivery of the project, as a whole (i.e., not the funded entry); • What Background IPR and what Foreground IPR will be available. In answering this part, please include details of Foreground IPR, Background IPR that is necessary to use the Foreground IPR and (if appropriate) any wider background IPR that is related to the delivery of the project, as a whole (i.e., not just the funded entry). • Please set out how your proposals will not result in restricted benefits to customers of water companies, and ultimately there will not be additional costs to customers. <p>For the purpose of Default IPR option, the terms and conditions differentiate between 'General Background IPR' and 'Specific Background IPR'.</p> <p>Specific Background IPR is Background IPR which has been specifically identified in the entry and is such Background IPR that may be licenced on terms including a royalty and/or other appropriate forms of remuneration. However, we recognise that Specific Background IPR may require adjustment during the project and therefore the terms and conditions allow for the possibility of later designation, at Ofwat's discretion.</p> <p>General Background IPR is any and all Background IPR that is not Specific Background IPR.</p> <p>Where you are seeking to designate Background IPR as Specific Background IPR, we expect you to include as much detail as possible in your application relating to potential levels of royalties and/or other appropriate forms of remuneration that you or your partners intend to impose on the Water Companies (where these are known or can be proposed at this stage of the project), or the principles and, where possible, the mechanisms you, or your partners, may use to calculate these in future. In all instances you must set out how and why you consider that the proposals or the approaches</p>	
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			<p>outlined are fair, reasonable and non-discriminatory. We recognise that it may be more difficult to provide this information for projects that are at an early stage of development. Where this is the case, you should clearly state what information you can and cannot provide at the point of submitting your entry and why.</p> <p>In order to assess whether the proposed terms are fair, reasonable and non-discriminatory we expect you to provide information in your entry that demonstrates how the proposed royalties, remuneration and/or principles are:</p> <ul style="list-style-type: none"> • Reasonable in light of market-standard royalties or other remuneration; • No less favourable than the terms that you may offer to third parties; • In all cases, proportional to the funding contributed by Ofwat to the development of the relevant Foreground IPR; and • Generally, in line with the principle that the Foreground IPR (and therefore the Background IPR required to use the Foreground IPR) must be used for the benefit of the customers of all water companies and present value for money for those customers. 	
		<p>iii Alternative IPR</p>	<p>Appears only if answer to D i. is No.</p> <p>Please set out your alternative IPR proposals and how they meet the following conditions:</p> <ol style="list-style-type: none"> 1. The entry will not result in restricted benefits to customers of water companies in England and Wales; 2. The alternative arrangements will not result in additional costs to customers. <p>In setting out how your proposals meet the criteria, answers must include the following:</p> <ul style="list-style-type: none"> • whether the funded entry (i.e., that part funded by the Fund) is part of a wider project; • details of Foreground IPR to be generated by the funded entry, details of Background IPR that is necessary to use the Foreground IPR for the funded entry and details of wider background IPR relating to the delivery of the project as a whole (i.e., not just the funded entry); • What IPR will be available for the funded entry under the proposed alternative IPR provisions, and the customer benefits of that availability alone. 	<p>N/A</p>

				<ul style="list-style-type: none"> If the wider project Background IPR will be available what would the terms be? <p>Please include an assessment, including where appropriate a cost benefit analysis, as to how these terms are proportionate given the wider benefits to customers.</p> <p>Where your proposal does not align with the default position on IPR, Ofwat has the discretion to consider alternative IPR arrangements.</p>	
E	Confidentiality	i	Confidentiality of your entry	<p>Please list the question numbers in this entry form where you consider your responses contain confidential information.</p> <p>Where possible, we ask that you avoid including confidential information in your response to questions B i, B ii, O.1 and O.2. If you do include confidential information in response to these questions, please clearly identify it.</p>	N/A
		ii	Details of confidentiality of your entry	<p>Please briefly explain why you consider your answers to be confidential in line with your response to E i.</p>	N/A
F	Monitoring & Evaluation	i	Anticipated start date	<p>Please state the date you anticipate your project will start.</p> <p>We expect entries awarded funding in Breakthrough 4 to start within 6 months of being notified of the award. However, we recognise that some entries may require a longer mobilisation period.</p>	N/A
		ii	Start date dependencies	<p>Please briefly outline any key dependencies which may affect your anticipated start date, such as procurement, arrangement of other funding, etc.</p>	N/A
		iii	Anticipated end date	<p>Assuming you start on your anticipated start date, please state the date you anticipate your entry delivery being complete. Please note this should include any dissemination activities as set out in your project plan.</p>	N/A
		iv	Project stage at start of delivery	<p>Dropdown project stages as set out in Entrant Handbook Appendix 1 – Project Stages.</p> <p>Please select the most relevant project stage that your entry will be at when it starts using Breakthrough 4 funding.</p>	N/A
		v	Project stage anticipated at completion	<p>Dropdown project stages as set out in Entrant Handbook Appendix 1 – Project Stages.</p> <p>Please select the most relevant stage that your project will be at when it is complete.</p>	N/A
		vi	Have the entry partners worked together with the lead entrant before?	<p>Single Option: Yes, it's an existing partnership</p>	N/A

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			Yes, but we're partnering in a different capacity for the entry No, it's a new partnership	
		vii	Budget by partner Please share an estimated breakdown of how the budget will be split between partners and any other third parties. Where there are more than four partners, please list the partners in order of % costs, with details of the four largest partners and then group all other partners into "Other Partners".	N/A
		viii	Have you submitted this entry into a previous round of the Water Breakthrough Challenge?	Yes/No N/A
		ix	If you are resubmitting this entry following a previous competition round, please explain how your entry has changed?	Only appears if answer to the previous question is Yes N/A
		x	[Transform Stage 2] Changes to entry since stage 1	Beyond any additional detail you may have provided for this entry, is there anything else that has changed in your entry since you originally submitted your stage 1 entry? If so, please summarise the key changes (e.g., new entry partners, change in programme, change in intended approach). 200

Assessed questions

General information

These questions do not relate to specific assessment criteria but will aid the understanding of our judges and assessors when assessing your entry.

Assessment Criteria	#	Question	Question Guidance	Word Count
All	0.1	Entry title	Please include a short, unique and descriptive name to reference your entry.	N/A
	0.2	Entry description	Please provide a concise summary of your entry in jargon-free, plain English. This may be used in public-facing communications if the entry is successful, and should help a customer-facing audience understand what you propose to do and the benefits you hope to deliver	50
	0.3	Pitch recording	<p>Please sign up to record a 5-minute pitch for the technical assessors and judges.</p> <p>The purpose of the pitch recording is to provide a video format explainer to help assessors and judges quickly understand your entry. Within this pitch, you should outline:</p> <ul style="list-style-type: none"> • The problem it aims to address and what benefits it will have for customers, society and/or the environment if successful. As a guide, we suggest this should be around a quarter of your pitch. • What is innovative about your entry? As a guide, we suggest this should be around a quarter of your pitch. • What you intend to do within your entry, focusing on the activities you will undertake. As a guide, we suggest this should be around half of your pitch. <p>You are welcome to use slides or other visual aids within your recording. You may also upload any presentation/visuals you used in the pitch recording in 0.5 below.</p>	N/A
	0.4	Entry references	Please feel free to include a reference list of any sources of information you have used to support your entry.	N/A

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	0.5	Entry visual and diagrams	Option to attach up to 5 images and/or diagrams relevant to your entry. Please clearly reference these in your answers to questions. Please keep text to the minimum - no narrative text within these visuals or diagrams will be reviewed by assessors or judges.	N/A
	0.6	Promoting Equity, Diversity and Inclusion within the team	To the extent that you are permitted to do so, please share with us any information on how Equity, Diversity and Inclusion (EDI) is promoted and/or will be measured across your team and throughout the life of the initiative. Please do not provide any personal or confidential data in your response to this question, but we would welcome anonymous, aggregated data.	500
	0.7	Ensuring all customers benefit from innovation	Where relevant, please explain and demonstrate how you will include EDI considerations with regard to your customers. For example, how have you included a diverse range of voices and needs in the design of your entry, your business model and through the life of your project?	250

Assessment criteria questions

The following questions are included in the entry form, relating to the assessment criteria below.

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

Under this assessment category, we are looking to understand the benefits entries seek to deliver for customers, society, and the environment. Strong entries to Breakthrough 4 will address a well-evidenced, important need or opportunity in the water sector in England and Wales for water customers, society and/or the environment that aligns with one or more of Ofwat’s four strategic innovation themes.

#	Assessment Criteria	Assessment Guidance	#	Question	Question Guidance	Transform Stage 1	Transform Stage 2
1.1	Address a significant need or opportunity for customers, society and/or the environment	<p>Strong entries will be able to articulate which significant need or opportunity the entry aims to address.</p> <p>Entrants should demonstrate a deep understanding of this need or opportunity; how it may develop in the future; the wider context in which it exists; and how widely it is shared. Entrants should also showcase an understanding of the wider sector and demonstrate that their initiative addresses an unmet need.</p>	1.1.1	What is the need that the proposed entry is seeking to address for the water sector?	Please provide a summary of the customer, society and/or environmental need this entry aims to address and why it is significant to the water sector.	250	250
			1.1.2	What, if anything, has already been done to understand and address this need, either by the entry partners or others?	Please provide a summary of any work to date undertaken to address this need by you or others, detailing the key aspects of the problem that have not yet been addressed.	250	250

			1.1.3	What evidence is there to show that this is a problem for the water sector and to evidence the problem's scale?	Please provide a summary of the evidence on the scale of the problem, who shares the problem, and how it may change in the future.	No	300
1.2	Will, or could, be effective in addressing these problems or opportunities	<p>Strong entries will be able to demonstrate the extent to which and how they will address the need or opportunity identified for the sector as a whole.</p> <p>Entrants will set out how the entry delivers impact and benefits to customers, society, and/or the environment in the short and long term, including what benefits and knowledge may be generated even if the project is technically unsuccessful.</p>	1.2.1	How will your entry address the need(s) you have identified?	Please explain how the entry will address the need identified in response to criteria 1.1 and how it could benefit water company customers, society and/or the environment across England and Wales.	150	150
			1.2.2	What are the entry's intended outcomes, including any knowledge or intellectual property which you intend to generate, and how will they benefit the wider sector?	<p>Please provide a bullet point list of the intended outcomes (what the entry hopes to achieve/accomplish at project completion) in the long and short term of the entry, with particular reference to positive outcomes for water and wastewater customers, society and the environment in England and Wales.</p> <p>For example, an outcome may be that, by entry completion, a new approach will be accepted and brought into operations by all entry partner organisations using a new acceptance process developed within the entry; or the sector may better understand where or how an approach could be applied.</p>	250	250

			1.2.3	Provide an explanation of how this initiative will achieve the intended outcomes by setting out SMART objectives.	Please provide an explanation of how this entry will achieve the outcomes set out above (in 1.2.2) by providing SMART objectives. These objectives must be specific, measurable, achievable, relevant, and time-bound and set out what the entry aims to achieve/accomplish within the entry delivery period (ideally in bullet point format).	No	500
			1.2.4	What longer-term impacts and benefits will the entry provide for the water sector in England and Wales once the project has been completed?	<p>Please provide a narrative detailing the entry's wider direct and indirect benefits. This should include how it advances innovation in the water sector in England and Wales and why this should be invested in the water sector in England and Wales.</p> <p>Please quantify benefits where possible and provide a description of the approach used. Where possible, set out any potential cost efficiencies, if any, that you expect this project to achieve that would benefit water customers and when you anticipate these to materialise.</p>	No	200

1.3	Align with one (or more) of Ofwat's four strategic innovation themes	Strong entries will be able to demonstrate how the outcomes and benefits have a direct or indirect impact on one (or more) of the four Ofwat strategic innovation themes. Entries must be clear on how these benefits will be achieved with a focus on the strength of alignment with the themes (rather than indirect or less tangible impacts on numerous themes).	1.3.1	Select which theme(s) your entry is impacting:	Please select the Ofwat theme(s) which are directly impacted through this entry. Please select from the list of themes 1 to 4 or Not Applicable. (Theme most impacted Theme 2nd most impacted Theme 3rd most impacted Theme 4th most impacted.)	N/A Dropdown	N/A Dropdown
			1.3.2	How will this entry directly deliver better short and long-term outcomes against one (or more) of Ofwat's four strategic innovation themes?	Please specify how the outcomes, benefits and impacts the entry proposes directly impact and align with the Ofwat themes. We are interested in the strength of alignment rather than the number of addressed Ofwat themes.	250	250
1.4	Set out a realistic reflection of external risks and how the potential benefits to customers, society and the environment outweigh these risks	<p>To be truly innovative, we recognise that entries may have to take on external risks. We are open to entries that take these risks, provided that these entries are impactful with the potential for significant benefits.</p> <p>A strong entry will provide an honest and realistic reflection of the risks and opportunities for customers, society and/or the environment. It will set out clearly how the benefits of these entries balance the possible outcomes and inherent risks involved.</p> <p>It will provide articulation of how much is understood about its feasibility, uncertainties and known unknowns, and the range of possible scenarios or outcomes</p>	1.4.1	Please set out the most significant external risks and how these have been considered and addressed in the development of the entry. Please state why this entry should be funded by demonstrating how the expected benefits justify the acceptance of these external risks.	<p>Please provide a short narrative of the wider risks and uncertainties associated with the entry. This should not include direct delivery risks. We are looking for clarity on what is known and what is unknown/uncertain about achieving your outcomes; a clear understanding of key external risks (quantified where possible).</p> <p>We want to understand the most significant external risks to your entry and how they have been considered and addressed. Please provide a summary of why this entry is worth funding, which sets out the benefits and balance against these potential risks (quantified where possible).</p> <p>Examples of external risks may include, for example, the risk that the</p>	500	700

		<p>that may be achieved through the work. It will also set out what the entry can achieve in the event that these risks materialise, such as information sharing, to work towards achieving the ultimate outcomes.</p> <p>It will also set out what the entry can achieve in the event that these risks materialise, such as information sharing, to work towards achieving the ultimate outcomes.</p>			<p>solution is not taken up by the sector, long-term viability, changes in longer-term regulatory policy (where known/forecastable), and failure to get public acceptance. This should include the nature of any interaction with outcome delivery incentives (ODI).</p>		
			1.4.2	<p>What benefits could the entry generate if it doesn't achieve its intended outcomes?</p>	<p>Please set out a plan for benefit delivery/realisation in the event that the entry cannot meet its intended outcomes.</p> <p>This plan should work towards achieving these outcomes and could, for example, include sharing information on the barriers to delivery.</p>	No	200

2. Innovation enablers and innovative solutions

Under this assessment category, we want to understand what is novel about the proposed approach and solution and how it could deliver a positive sector-wide innovation legacy.

Strong entries will demonstrate how the proposed entry goes beyond the entrant’s business-as-usual approach to innovation and how it may draw inspiration and/or talent from other sectors. This is both in terms of what the entrant proposes to deliver (innovative solutions) and how they propose to deliver it (innovation enablers). Innovation enablers are the innovative approaches the entry is proposing, which may include how entrants are working internally and externally with collaborators within and outside of the water sector for the benefit of water customers in England and Wales. Entries could include testing new ideas, adapting ideas or practices that have established themselves in other sectors, or adopting proven approaches that haven’t been tried at scale.

#	Assessment Criteria	Assessment Guidance	#	Question	Question Guidance	Transform Stage 1	Transform Stage 2
2.1	Use innovative approaches and/or solutions which would not reasonably be expected to be funded as part of business-as-usual and develops innovative enablers which accelerate practice beyond business-as-usual	<p>Strong entries will clearly set out how the approach or solution is innovative in terms of how distinct it is from business-as-usual. This can include experimenting with new ideas, adapting ideas and practices from other sectors or adopting approaches at scale. Solutions may include better management of people and resources, systems or processes or technologies.</p> <p>Strong entries will also articulate how the initiative is innovative in its approach. This may include how entrants are working and sharing ideas with collaborators within and outside the water sector, new business practices and internal</p>	2.1.1	What are the solutions, technologies and/or practices you intend to use?	Please provide a summary of the solutions, technologies, and methodologies proposed within this entry.	350	350
			2.1.2	<p>What is innovative about your entry? How are the solutions, technologies, practices, insights, approaches and ways of working better than what has been developed and/or deployed in the past?</p> <p>Why would the entry not reasonably be expected to be funded or developed as part of business as usual?</p>	<p>Please set out how innovative you consider your entry’s approach is, including how much research, trialling or similar has been undertaken on it so far.</p> <p>Please provide a summary of how this approach is an improvement on what has been developed and/or deployed previously in the water sector.</p> <p>Please explain why the approach would or could not be developed as part of a water company’s business-as-usual.</p>	700	1000

	business operations, dissemination and use of the knowledge gained across the sector, partnerships, effective joint working and how entrants intend to embed innovation capabilities and skills developed through this initiative into entrants' business-as-usual.	2.1.3	How do you propose to deliver the project in an innovative way? What approaches, ways of working and other enablers of innovation do you intend to use when delivering the project?	Please provide a summary of the approaches, ways of working and other enablers which are proposed in delivering this entry. These include collaboration, openness, adaptability, innovation risk management, scalability and deployability (for more detail on innovation enablers, please refer to section: What we are looking for – Areas for innovation of the Entrant Handbook).	350	350
		2.1.4	Please provide detail on how this entry builds innovation capability or capacity for the water sector.	<p>Based on the approaches, ways of working and other enablers of innovation set out in 2.1.1-2.1.3, please provide detail on how this entry can build the innovation capability or capacity for the water sector.</p> <p>This should include a clear plan for the implementation and further dissemination, e.g. sharing ideas within and outside the sector, joint working, new business practices, and embedding innovation capabilities and skills developed through this initiative within entrant organisations.</p> <p>This plan should include SMART objectives (i.e., be specific, measurable, achievable, relevant, and time-bound).</p>	No	500

2.2	Set out the potential for adoption at scale across the water sector	Strong entries will either demonstrate how their solutions and/or approaches can be applied at scale or has the potential to be applied at scale in the future to provide benefits across the water sector in England and Wales. Entrants with clear plans and pathways will detail how they have considered opportunities and challenges for roll out across the sector and/or how they are addressing barriers to future adoption at an early design stage.	2.2.1	<p>Following the successful delivery of this entry, how could it be further implemented at scale across the water sector in England and Wales, and what steps will you take to enable this?</p> <p>What challenges and/or barriers to further implementation have you identified?</p> <p>[Transform Stage 2] How are you planning to address these through design and implementation of your entry?</p>	<p>Please provide a summary of how the entry can provide benefits, address water sector-wide needs, and/or be used to improve operations across numerous geographies, businesses, and scenarios.</p> <p>Please include a summary of potential challenges or barriers to applying or implementing the intended outcomes at scale.</p> <p>[Transform Stage 2: Please demonstrate how, as part of your work, you have considered and addressed these challenges and barriers through potential outcomes during delivery].</p>	250	500
			2.2.2	<p>How will outputs be scaled up and/or rolled out within the scope of the entry?</p> <p>What is your plan for implementation, including identifying and addressing key barriers?</p>	<p>Please provide a clear plan of how the entry intends to provide benefits, address water sector-wide needs, or be used to improve operations across numerous geographies, businesses, and scenarios.</p>	No	500

3. Capacity, capability, and commitment to deliver

Under this assessment category, we are looking for a clear narrative, demonstrating strong evidence that the proposed entry is feasible and that appropriate resources and governance will be in place for its delivery.

[Download a copy of the editable Entry Template](#). Please note: entrants to the Transform Stream are only required to submit the Entry Template in stage 2.

#	Assessment Criteria	Assessment Guidance	#	Question	Question Guidance	Transform Stage 1	Transform Stage 2
3.1	Show commitment to the entry	Strong entries will be able to provide evidence of commitment, especially at a senior level. This will include the extent to which partners have committed to supporting the entry as well as any additional resources or funding partners are providing.	3.1.1	Who are the senior sponsors and leaders involved in the entry, from the lead water company and partner organisations, and how are they engaged and invested in it?	<p>Please provide a broad narrative around the engagement and investment of senior staff. In doing so, please reflect executive commitment to continuing the entry if delivery personnel were to change, as well as how senior leadership envisions it will impact and benefit their organisations' ambitions beyond technical improvements, e.g. through internal cultural change.</p> <p>[Transform] In stage 2, please complete the Team and Resourcing template, tab E of the entry template. Please only include key team members within this template. As a guide, we would expect this to be 3-8 people/roles.</p>	100	100 + Tab E
			3.1.2	What is the source of the mandatory 10% minimum financial contribution?	Please provide an overview of each partner's contributions to the mandatory 10% minimum financial contribution.	100	100

			3.1.3	Are any additional contributions above the mandatory 10% minimum contribution committed to the entry from entry partners (including financial and non-financial)?	<p>Please provide an overview of each partner’s contributions to the entry beyond the mandatory 10% minimum financial contribution. Non-financial contributions could include access to existing data, use of facilities, wider resources, etc.</p> <p>Please reflect any contributions that can be financially quantified in tab A of the Entry Template in addition to this narrative.</p>	No	250 + Tab A
3.2	Will be delivered by a team with the relevant skills and experience	Strong entries will be able to describe the roles and responsibilities assigned to the entry participants. They will also be able to demonstrate that the team includes individuals with relevant skills/capabilities and experience to deliver the entry.	3.2.1	Please describe the entry delivery team. Include team structure, roles, responsibilities, skills and experience.	<p>Please describe the key team members involved in the entry, including from partner organisations, as well as their relevant skills and experience. Please include a short description of the roles and responsibilities assigned to each of the entry partners and how this will support the successful delivery. Please also indicate which partner organisation the team member belongs to. Where roles will be filled post-award, please describe the pre-requisite skills to fulfil the role and when the role is planned to be filled.</p>	500	500 + Tab E

			3.2.2	How will the delivery of the entry be governed and managed?	Please describe how the entry will be governed, how decisions will be made, and how disputes will be managed. Please upload an organogram depicting the structure and governance of the entry delivery team (JPEG, PNG or PDF).	No	250 + Organogram
3.3	Set out a realistic and achievable programme	Strong entries detail the timeline of activities the entry is proposing and demonstrate that the entry has a realistic and achievable delivery plan and programme, with appropriately timed milestones and a proportionate monitoring plan for entry progress, which includes a plan for monitoring the benefits set out within category 1 'Positive impact for water customers, society and the environment', and for capturing and disseminating knowledge and IP generated through the project.	3.3.1	Please set out the major milestones and activities for the entry.	Please detail the phases of delivery of your entry, with details of the activities that will happen within each phase, including dissemination. Set out proposed milestones at the end of each phase and how you will determine if the entry has successfully met these milestones. These milestones should be proportional to the scale and risk of your entry.	250	250
			3.3.2	What is the detailed programme for entry delivery?	Please complete the Entry delivery programme template, tab B in the entry template. Please provide a description of your phases and key tasks. Please provide clear milestones for each phase of the delivery in line with 3.3.1. These milestones should be proportional to the scale and risk of your entry. Please link these to the major project stages and phases within your programme. As a minimum, provide a milestone for each delivery phase.	No	Tab B

			3.3.3	Explain your project programme.	Please set out a short description of the main work packages/ phases in your entry. This should include your approach to different phases in your programme, deliverables associated with each phase, the milestones and clearly link to the project programme set out in question 3.3.2.	No	400
			3.3.4	What project controls will be implemented?	Please provide a narrative describing what project controls will be implemented and how. This may include, for example, stage gates, go/no go decision process, reference to steering and technical groups.	No	350
			3.3.5	What is the monitoring plan for the delivery of the entry and its outcomes?	Please set out the proposal for monitoring project delivery progress, outputs, and outcomes. How will you ensure the project benefits are managed?	No	350
			3.3.6	What is your plan for disseminating the knowledge and foreground intellectual property you generate in your project?	Please set out how you intend to capture and share knowledge and foreground intellectual property generated by your project and make it available to the wider sector. What steps will you be taking to deliver the outputs identified in 2.2.2?	No	350

3.4	Demonstrate a realistic and considered costing which provides efficient use of customer funds	<p>Strong entries will be able to demonstrate an efficient and realistic cost estimate and breakdown, a profile of this spend across the entry's life cycle, and what resources will be required to maintain the actions after delivery close-out.</p> <p>Entrants may also identify if other sources of funding or in-kind contributions are required to support this entry, detailing how and when this will be secured, as well as how different sources of funding will link together.</p>	3.4.1	<p>What is the breakdown of the entry costs, including the assumptions made? Please attach the completed budget template for your entry.</p>	<p>Please complete the Budget detail template, tab C of the entry template.</p>	No	Tab C
			3.4.2	<p>Other than what is provided by the entry partners, what other sources of funding or in-kind contributions will be needed to support this entry?</p>	<p>If applicable, please set out any additional financial or non-financial resources required to complete the entry (i.e., outside the 10% minimum contribution, the funding from the Ofwat Innovation Fund and additional contributions provided by the partners).</p> <p>Please also explain if the funding has been confirmed or when it would be confirmed.</p>	No	250
			3.4.3	<p>Please provide a commentary on the justification and accuracy of the entry's costs.</p>	<p>Entrants can describe how the budget has been developed, including the source of the costs (e.g. competitive bidding) and any efficiencies gained from, for example, procurement processes.</p> <p>Please also highlight any areas of cost uncertainty and how this has been mitigated in how the budget has been developed.</p> <p>Please explain the basis for the level of contingency included in the cost estimate.</p>	No	350

<p>3.5</p>	<p>Demonstrate a clear and proportionate approach to addressing risk</p>	<p>Strong entries will be able to demonstrate how they will continue to identify and how they will quantify the addressable risks. Entrants will set credible plans for appropriately managing or mitigating these risks and opportunities.</p> <p>For example, entries should demonstrate an understanding of the circumstances in which the entry may need to adapt, pivot, or even stop if new evidence suggests alternative approaches might be more beneficial.</p>	<p>3.5.1</p>	<p>What risks and opportunities have been identified for the entry, and how will they be managed or mitigated?</p>	<p>Please complete the 'Risk register' template (Tab D in the entry template), e.g. any dependencies on partnership arrangements and procurement activities.</p>	<p>No</p>	<p>Tab D</p>
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Assessment criteria weighting

1. Positive impact for water customers, society, and the environment	Stage 1 Weighting	Stage 2 Weighting
1.1 Address a significant need or opportunity for customers, society and/or the environment	10%	6.66%
1.2 Align with one (or more) of Ofwat's four strategic innovation themes	10%	6.66%
1.3 Will, or could, be effective in addressing needs or opportunities for customers, society and/or the environment	10%	6.66%
1.4 Set out a realistic reflection of external risks and how the potential benefits to customers, society and/or the environment outweigh these risks.	10%	13.33%
Total	40%	33.3%

2. Innovation enablers and innovative solutions	Stage 1 Weighting	Stage 2 Weighting
2.1 Use innovative approaches and/or solutions which would not be funded as part of business-as-usual and develops innovation enablers which accelerate practice beyond business-as-usual	26.66%	22.2%
2.2 Set out plans for adoption at scale across the water sector	13.33%	11.1%
Total	40%	33.3%

3. Capacity, capability, and commitment to deliver	Stage 1 Weighting	Stage 2 Weighting
3.1 Show commitment to the entry	10%	6.66%
3.2 Will be delivered by a team with the relevant skills and experience	7.5%	6.66%
3.3 Set out a realistic and achievable programme	2.5%	6.66%
3.4 Demonstrate a realistic and considered costing which makes effective use of customer funds	N/A	6.66%
3.5 Demonstrate a clear and proportionate approach to addressable risk	N/A	6.66%
Total	20%	33.3%

Requirements for successful entries

All participants in the Transform Stream of Breakthrough 4 will be required to adhere to the full [terms and conditions](#) of participation. Please ensure you and your partners read and understood these before submitting your entry.

If your entry is selected to win, you must sign a winner's agreement outlining arrangements for monitoring and reporting based on your specific winning entry.

In particular, the key requirements of winners will include:

- **Use of funding:** Any funds awarded through Breakthrough 4 must only be used to fund the initiative described in your entry, which must promote the objectives of Breakthrough 4 as set out within this handbook.
- **Open data by default:** Data, information and learning generated by the winning projects will be open by default (i.e., freely available for everyone to access, use and share). The exception to this would be sensitive data, which in this context would include personal data or data with security implications.
- **10% contribution:** All entries must include a minimum of 10% financial contribution to ensure customers do not bear all the risk of initiatives funded through Breakthrough 4 and to encourage good project management.
- **Monitoring and reporting:** We will need to monitor your progress - this may be through meetings, surveys, written reporting, or other reasonable requests for information. We will endeavour to keep this reporting proportionate to your entry's relative size and risk.
- **Regulatory reporting:** Water companies will need to report spending against funding allowed in Ofwat's [Regulatory Accounting Guidelines tables – Table 9A](#). For regulatory reporting purposes, companies will need to report costs in 2017-18 CPIH deflated prices.
- **Intellectual property rights (IPR):** You should retain all rights in and to your background IPR, including where a bid involves more than one participant. However, an appropriate form of licence should be granted to all participants in any entry, which is the subject of an entry, for the sole purpose of the entry to enable it to go ahead. Appropriate licences for background IPR and foreground IPR should be provided to all current and future water companies in England and Wales.
- **Publicity:** We may use the names of the organisations and summaries of their proposals in publicity materials for Breakthrough 4. We also ask that you acknowledge our support in any public statements about the entry.
- **Conflicts of interest:** You (and any partners you work with) must take reasonable steps to manage any conflicts of interest with Ofwat, Challenge Works, Nesta or any of our delivery partners and judges. You must immediately inform Nesta if you become aware of any potential or actual conflict of interest and provide Challenge Works (part of Nesta) and Ofwat with all information reasonably requested in respect of such conflict.
- **Settlement arrangement:** Payment of funds awarded through Breakthrough 4 will be settled through an agreed mechanism.

More information and support for your entry

Please review the [frequently asked questions \(FAQs\)](#) if you have any questions. If you still have questions after doing so, please email us at waterinnovation@challengeworks.org.

On **Wednesday 6 September 2023, at 11 am (BST)**, we will host a live online session for potential entrants and partners to clarify their understanding of Breakthrough 4. The session will cover the key information for prospective entrants:

- An overview of the Fund's aims and ambitions, including Ofwat's expectations regarding the scale-up and roll-out of innovations, and sharing of knowledge
- The Breakthrough 4 entry process, including changes from previous rounds
- Eligibility, assessment and requirements for winning entries, with a spotlight on lessons from past winners.
- Examples of successful scale-up of innovation around the world
- Q&A with the audience

You can register for the session [here](#). Once the live session has happened, a recording and transcript will be hosted on [our Events page](#).

We will be running **one-to-one surgery sessions** for those who need support completing their entry, for example, if you require any clarification on the entry process or the terms and conditions. The surgery sessions will be run by the Breakthrough 4 delivery partners. Entrants can [book a slot via Calendly](#).

Recordings of the entry writing workshops we ran in previous rounds are available to all entrants [on our website](#). These are intended to help you develop entry-writing skills, ensure your answers are clear, and answer the questions in line with the assessment guidance.

Equity, Diversity and Inclusion (EDI)

We need to collect relevant data and evidence to monitor the impact of and promote equity, diversity and inclusion (EDI). For the Water Breakthrough 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 Breakthrough 4, the Ofwat Innovation Fund or any of the winners of previous rounds, please feel free to contact us directly at waterinnovation@challengeworks.org or [submit your feedback or concerns anonymously](#). 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. Ofwat also has a range of materials available relating to [whistleblowing](#) and [making a complaint](#).



**Water
Breakthrough
Challenge**

waterinnovation.challenges.org

Appendices

Appendix 1 Project stages

Level	Description	Typical activities to be supported in this phase of maturity	Approximate Technology Readiness Level equivalent
1 Initial research	Understanding the problem and exploring possible solutions	Initial industry & market research, Problem investigation and analysis, gathering stakeholder requirements to create the value proposition, Early optioneering of solutions, technology concept/application formulation, risk/opportunity analysis and research	TRL 1-2
2 Concept and feasibility	Developing or testing a concept, designing the solution, and testing the feasibility of solutions	Innovation concept selection and early design, Testing/proving a concept, developing the initial prototype, Defining the approach to enable further detailed testing, and assessing the fundamental feasibility of solution(s) within controlled environments.	TRL 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	On or off-site trials of the solution in a near-real or real-world environment, Design risk analysis, including Failure Modes Effects Analysis (FMEA) for future operation, approach to departures (how can we deploy the solution), Testing against operational requirements	TRL 3-6
4 Validation and optimisation	Scaling up the solution for roll-out or commercialisation	Identifying practical routes to market, development of training or education requirements, Large scale or late-stage testing (pilots), Fine-tuning to proven operational concepts, Benefits evaluation, review for approval and deployment, standards, or specification development for the innovation.	TRL 6-8
5 Deployment and post-launch	Implementing or rolling out the solution and assessing its impact	Roll-out and implementation, Standard/specification finalisation and publication, User training or education, Benefits testing and evaluation, Continuous improvement & lessons learnt for future development.	TRL 8-9

Appendix 2 Entering the Catalyst Stream if unsuccessful in Transform stage 1

In this round, we are trialling the option that, in exceptional circumstances*, some unsuccessful entrants to stage 1 of the Transform Stream might consider entering the Catalyst Stream (which closes on 3 January 2024) with a revised entry. This appendix outlines the process for any entrants who may consider this option.

Please note this does not represent a recommendation from us to unsuccessful entrants in stage 1 of the Transform Stream to enter the Catalyst Stream. Entering the Catalyst Stream will not in any way guarantee that your entry will be successful in winning funding. All entries to the Catalyst Stream are subject to the same entry process, terms and conditions, and assessment.

On 16 November 2023, all entrants will be notified via email of the stage 1 assessment results for the Transform Stream. Among other relevant information, all emails to unsuccessful entrants will include a mention of the remaining window for entering the Catalyst Stream. Unsuccessful entrants to stage 1 of the Transform Stream will be required to confirm in writing if they plan to enter the Catalyst Stream **by 12 pm (GMT) on Friday 24 November 2023**.

If the entrant confirms that they intend to enter the Catalyst Stream, the Breakthrough 4 delivery partners will:

- Prioritise feedback to entrants intending to enter the Catalyst Stream, providing this to them by 6 December 2023. Note: the accelerated timeline will only be feasible for a reduced number of entries (as opposed to all unsuccessful entries to stage 1 of the Transform Stream).
- Re-share access to the entrant's Transform Stream, stage 1 entry on Submittable. This should enable entrants to paste answers for editing into the entry form for the Catalyst Stream. However, we would expect that any entry to the Catalyst Stream following this route would be substantially revised to reflect the funding brackets, aims of the Catalyst Stream, and any feedback given.

Owat and its delivery partners cannot provide bespoke support or guidance to any entrants selecting this option. However, unsuccessful entrants to stage 1 of the Transform Stream will have access to the same entrant support available to all entrants to the Catalyst Stream under the competitive nature of the Fund.

Similarly, entering the Catalyst Stream after an unsuccessful outcome in stage 1 of the Transform Stream will not change how entries into Catalyst are assessed.

Information about the Catalyst Stream can be found in the [Catalyst Stream Entrant Handbook](#).

*E.g., where the initial stages of a project plan submitted as part of a Transform entry could form a viable smaller-scale project that could meet the aims of the Catalyst Stream. Please refer to [Appendix 1](#) of this handbook for more information about project stages.

The differences between entry forms in the Catalyst Stream and the stage 1 Transform Stream comprise:

Description of difference	Detail
Pitch recording duration	3 mins (Catalyst) versus 5 mins (Transform)
10 additional questions in the Catalyst Stream entry form (asked at stage 2 in the Transform Stream), for a total of approx. 1,525 extra words.	1.2.3, 1.2.4, 3.1.3, 3.3.4, 3.3.5, 3.3.6, 3.4.1, 3.4.2, 3.5.1.
Reduced word count in the Catalyst Stream compared to stage 1 of the Transform Stream for questions	2.1.1 (250 vs 350) 2.1.3 (200 vs 350) 2.2.1 (200 vs 250)
Increased word count in the Catalyst Stream compared to stage 1 of the Transform Stream for question	3.1.1 (250 vs 100)
No possibility of uploading references as part of the Catalyst Stream entry form.	N/A

Appendix 3 Entrant handbook version control

Version	Changes
Round 4 Version 2.1, published 4 December 2023	<p>Updated Version for Round 4</p> <p>Updated timeline visuals on pages 4 and 6 to display correct information about the winners' announcement, in line with what outlined in the Timeline and key dates section.</p>
Round 4 Version 2, published 9 November 2023	<p>Updated Version for Round 4</p> <p>Changing time of stage 2 entry launch from noon to 3pm 16 November 2023. Change made in:</p> <ul style="list-style-type: none"> • Timeline & Key Dates • Entering the Transform Stream, E. Stage 2 – Full entry period
Round 4 Version 1, published 5 September 2023	<p>Original Version for Round 4.</p> <p>Material changes from Breakthrough 3 are highlighted in green (excluding dates) throughout this version and include:</p> <ul style="list-style-type: none"> • Updates to judging process, including live Q&A • Updates on sharing knowledge and foreground IP • Information about the eligibility of Water Discovery Challenge Finalists (Catalyst version only) • Advice on early planning to avoid delay to project start (if entry successful) • Collaboration agreement template • Appendix 2 Entering the Catalyst Stream if unsuccessful in Transform stage 1
Round 3 Version 1, published 3 October 2022	<p>Original Version for Round 3.</p> <p>Material changes from Breakthrough 2 are highlighted in green (excluding dates) throughout this version and include:</p> <ul style="list-style-type: none"> • Updates to IPR policy • Updates to eligibility and funding amounts • Updates to include live pitches in the entry process
Version 1.1, published 12 October 2021	<p>Text changed to update funding amount to approximately £34 million for the Transform Stream.</p>

<p>Version 1, published 11 October 2021</p>	<p>Original Version.</p> <p>Main changes from Breakthrough 1 Handbook:</p> <ul style="list-style-type: none">• Updates to key dates• Introduction of streams; focus on Transform Stream.• Updates to highlight the screening role of the Stage 1 entry period in the Transform Stream.• Updates to highlight the change to include Pitch Recordings in Stage 1 and Stage 2 of the entry period for the Transform Stream.• Updates to questions and criteria for clarity and efficiency.
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