

Water Breakthrough Challenge (round one)

Editable entry form for drafting

Version 1, published 6 May 2021.

Please note this file is for drafting purposes only. Please ensure you enter all the final details on the online form available [via the website.](https://waterinnovation.challenges.org/breakthrough/)

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## Entry questions, assessment criteria and guidance

There are 2 types of entry questions over the 2 stages:

* **General entry information** – these questions are not scored but will be used to manage your entry, determine eligibility, create publications and announcement materials if your entry is successful.
* **Assessed questions** – this section is scored against the assessment criteria.

Stage 2 will include more assessed questions than stage 1, and you will be able to edit your entries to stage 1 if invited to this stage.

###  General entry information questions

The following non-assessed questions will be included in Stage 1 entry form.

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| # | Question or Field | Guidance |
| A | Entry Title | Please include a short name to reference your entry. |
| B | Lead Entrant | Dropdown ListPlease select the name of the lead entrant organisation.The lead entrant must be one of the 17 licensed regional water only and water and wastewater companies or new entrant water and wastewater companies (NAVs) in England and Wales. |
| C | Name(s) of Partner(s)  | Please provide a list of the legal name(s) of all partner organisations involved in this entry excluding the lead entrant, together with an email address for each organisation.  |
| D | Total cost of the entry:1. total budget of the entry [in £] (including workstreams and funds not covered by the Challenge entry
2. total funds requested from the Challenge [in £] (excluding mandatory financial contributions by partners
3. total mandatory financial contributions to the entry [in £] (per partner)
 | Please share details of the total cost of the entry.For i., ii., and iii, please provide this in nominal (today’s) prices (including inflation assumptions). If possible, please also provide details in 2017-18 FYA CPIH1F[[1]](#footnote-2) deflated prices. These figures should include tax.  |
| E | 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 4 partners, please list the partners in order of % budget, with details of the 4 largest partners and then group all other partners into “Other Partners”. |
| F | Do the entry partners commit to making a minimum 10% financial contribution to this entry if it is awarded funding? | Single Choice: Yes/NoIf entering as part of a group or consortium, it is up to entry partners how they wish *to* divide this 10% contribution. |
| G | Source of contribution(s) | Please specify the source(s) of the entry’s mandatory contribution, and any additional financial and/or non-financial contributions. |
| H | Total additional contribution(s) from other sources. | Please detail any financial and non-financial contributions from partners above the mandatory 10% from sources other than the entry partners. Please provide cost in GBP, and as a percentage of the total budget and details of any intangible non-financial contributions. Please specify the source(s) of any additional contributions.Do not include details of contributions from entry partners; this is an assessed question set out in 3.1.2. |
| I | Anticipated start date | Please state the date you anticipate your entry to begin assuming you are successfully awarded funding.We expect entries to the Breakthrough Challenge that are awarded funding to start within 6 months of being notified of the award, but we recognise that especially complex entries may require a longer mobilisation period. |
| J | Start date dependencies | Please briefly outline any key dependencies which may affect your anticipated start date such as procurement and arrangement of other funding. |
| K | Anticipated end date | Please state the date you anticipate your entry to complete delivery assuming you are successfully awarded funding and you start at your anticipated start date. |
| L | Entry project stage at start of funding | Dropdown project stages as set out in 8.1 Appendix 1 Project StagesPlease select the most relevant project stage that your entry be when it begins delivery using Breakthrough Challenge funding.  |
| M | Entry project stage anticipated after funding | Dropdown project stages as set out in 8.1 Appendix 1 Project StagesPlease select the most relevant project stage that your entry be when it completes delivery using Breakthrough Challenge funding. |
| N | Entry description  | Please provide a brief, jargon-free description of your entry. This may be used in public facing communications if the entry is successful.Provide up to 250 words. |
| O | What will the entry achieve (tick box)?  | (tick box):- Development of a novel approach or technology (currently unproven in England or Wales) - Novel application of existing approaches or technology - Development of novel systems and/or processes- Use of experimental approaches- Organisational change - Influencing customer behaviour - Community engagement - OtherPlease select all that apply |
| P | i. Have the entry partners worked together before? | Single Option: Yes, it’s an existing partnershipYes, but we’re partnering in a different capacity for the entryNo, it’s a new partnership  |
| P | ii. Please briefly explain how the capacity of the partnership has changed. | Appears if answer to Pi. Is “Yes, but we’re partnering in a different capacity for the entry”Please provide a short explanation of how you are partnering in a different capacity. |
| Q | i. Does your proposal align with the default position on intellectual property rights (IPR) as set out at section 4 of the terms and conditions? | Single Option: Yes/No |
| Q | ii. Details of alignment with default IPR position | Appears only if answer to Qi. Is Yes. Please explain how you will comply with the default position at section 4 of the terms and conditions, including detail of:* whether the funded entry is part of a wider project;
* the extent to which Foreground IPR will be created; and
* 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 wider background IPR relating to the delivery of the project as a whole (i.e. not just that part funded by the Innovation Fund).
 |
| Q  | iii. Alternative IPR Proposal | Only appears if answer to Qi. Is No.  Please set out your alternative IPR proposals and how they meet the following conditions:1. The entry will not result in restricted benefits to customers of water companies;
2. The alternative arrangements will not result in additional costs to customers.

In setting out how your proposals meet the criteria; answers must include the following:* Whether the funded entry (i.e. that part funded by the Innovation Fund) is part of a wider project;
* Details of Foreground IPR applicable to 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.
* If the wider project Background IPR will be available what would the terms be?

Please include an assessment, including where appropriate a cost benefit analysis, as to how these terms are proportionate given the wider benefits to customers.Where your proposal does not align with the default position on IPR, Ofwat has discretion to consider alternative IPR arrangements. Any alternative arrangements must clearly show how the entry can benefit all customers of water companies and demonstrate that any alternative arrangements do not result in additional costs to customers (above the funding requested). |
| R | i. Confidentiality of your entry | Please list the questions numbers in this entry form where you consider your responses to contain confidential information. We may ask for further details regarding your assessment of confidentiality at a later date. Where possible, we ask that you avoid including confidential information in your response to Questions A, B, C, D and N. If you do include confidential information in response to these questions, please clearly identify it.  |
| R | ii. Details of confidentiality of your entry | Please briefly explain why you consider your answers to be confidential in line with your response to Ri.  |
| S | Areas of entry implementation  | Please list all the water supply and/or sewerage service areas where water customers will directly benefit from the successful delivery of this entry. Where possible, please use the areas in England and Wales as set out in 8.2 Appendix 2 Water Supply and Sewerage Services Areas. For areas outside of England and Wales, please include the area and country. |

### Stage 1 assessed questions and assessment criteria

The following questions will be included in Stage 1 entry form, relating to assessment criteria as set out below.

1. Positive impact for water customers, society, and the environment Stage 1 Weighting – 40%

In this assessment category, we will be looking to understand the benefits entries seek to deliver to customers, society, and the environment.

Strong entries to the Breakthrough Challenge will be seeking to 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 five strategic innovation themes.

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| **Assessment****Criteria** | **Stage 1Weighting** | **Assessors****Guidance** | **#** | **Assessment****Questions** | **Question****Guidance** |
| 1.1 Address a significant need or opportunity for customers, society and/or the environment | 10% | Strong entries will be able to articulate which significant need or opportunity for the water sector in England and Wales that the entry aims to address. Entrants should demonstrate a deep understanding of this need or opportunity in terms of its detail; how it may develop in the future; the wider context in which it exists; and, how widely it is shared. Entrants should describe how this need or opportunity affects:* customers across England and Wales, society, and the environment, as opposed to single water companies;
* internal systems/processes/approaches;
* and/or the wider water sector.
 | 1.1.1 | What is the problem that the proposed entry is seeking to address for the water sector?  | Please provide a short narrative summary of the customer, society and/or environmental need this entry aims to address and why it is significant to the water sector. Provide up to 150 words. |
| 1.1.2 | What, if anything, has already been done to address this problem, either by the entry partners or others? | Please provide a summary of any work to date undertaken to address this problem by you or others.Provide up to 100 words. |
| 1.2 Align with one (or more) of Ofwat’s five strategic innovation themes | 10% | Strong entries will be able to demonstrate how the outcomes, benefits and impacts have a direct or indirect impact on one (or more) of the five Ofwat strategic innovation themes. Entries must be clear on how these will be achieved with a focus on the strength of alignment with the themes (rather than indirect or less tangible impacts on numerous themes). | 1.2.1 | How will this entry directly deliver better short and long-term outcomes against one (or more) of Ofwat’s 5 strategic innovation themes? | With particular reference to water and wastewater customers in England and Wales please provide a short narrative to set out how the outcomes, benefits and impacts of the entry proposes to directly impact and align with the Ofwat themes. We are interested in the strength of alignment rather than the number of Ofwat themes that are addressed.Provide up to 250 words. |
| 1.2.2 | Select which theme(s) you are directly impacting | Please select the Ofwat theme(s) which are directly benefited through this entry.For example: A solution using open banking data to enable customers to share when they are having financial challenges directly impacts theme 5 as it explores new opportunities using open data, but also indirectly impacts theme 5 as it provides customers different ways to pay. |
| 1.2.3 | Select which theme(s) you are indirectly impacting | Please select the Ofwat theme(s) which are indirectly benefited through this entry. For example: A solution using open banking data to enable customers to share when they are having financial challenges directly impacts theme 5, but also indirectly impacts theme 4 as it provides customers different ways to pay. |
| 1.3 Will, or could, be effective in addressing these problems or opportunities outcomes are realised | 10% | Strong entries will be able to demonstrate the extent to which and how the entry will address the need or opportunity identified. Entrants will set out how the entry delivers impact and benefits to customers, society, and / or the environment in the short and long term. This should also include how other solutions to this need or opportunity have been considered and discounted in preference for the entry submitted. | 1.3.1 | What is your hypothesis on how your entry will address the problem you have identified? | Please provide a short narrative detailing 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.Provide up to 150 words. |
| 1.3.2 | What are the objectives of the entry? (SMART) | Please provide a list of objectives in bullet point format. These must be set out as SMART objectives (be **S**pecific, **M**easurable, **A**chievable, **R**elevant, and **T**ime-bound)Provide up to 150 words. |
| 1.4 Set out the range of possible outcomes for the entry, and the most significant inherent risks and uncertainties that may influence which outcomes are realised | 10% | To be truly innovative we recognise that entries may have to take on inherent risks. We are open to entries that take these risks provided that these entries are impactful with significant benefits. Strong entries will provide an honest and realistic reflection of the risks and opportunities for customers, and society or the environment associated with the entry. It will provide articulation of how much is understood about its feasibility, uncertainties and known unknowns, and the range of possible scenarios or outcomes 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 for the entry. | 1.4.1 | What are the most significant inherent uncertainties, risks, and opportunities of your innovative approach/solution? | Please provide a short high-level narrative which sets out the wider risks and uncertainties associated with the entry, as opposed to direct entry delivery risks. We are looking for clarity on what is known and what is unknown/uncertain about achieving your objectives; a clear understanding of key inherent risks; and the identification of opportunities of delivering this entry. This should include the nature of any interaction with ODIs2F[[2]](#footnote-3).Provide up to 500 words. |

1. Innovation enablers and innovative solutions Stage 1 Weighting – 40%

In this category, we will be looking 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. This is both in terms of what the entrant proposes to deliver and how they propose to deliver it.

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.

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| **Assessment****Criteria** | **Stage 1Weighting** | **Assessors****Guidance** | **#** | **Assessment****Questions** | **Question****Guidance** |
| 2.1 Use innovative approaches and/or solutions which would not be funded as part of business as usual  | 13.3% | Strong entries will clearly set out how the approach or solution within the entry 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. | 2.1.1 | What solutions, technologies, methodologies, and insights are you intending to use? | Please provide a high-level summary of the solutions, technologies, methodologies, and insights proposed for this entry.Provide up to 100 words. |
| 2.1.2 | Briefly explain how these solutions, technologies, methodologies, and insights are innovative? | Please set out how innovative these solutions, technologies, methodologies, and insights are, including how proven they are.Provide up to 150 words. |
| 2.1.3 | How are these solutions, technologies, methodologies, and insights better than others that have been developed and/or deployed in the past? | Please provide a summary of how these solutions, technologies, methodologies, and insights are an improvement on others that have been developed and/or deployed previously.Provide up to 100 words. |
| 2.2 Develop innovative enablers which accelerates practice beyond business as usual. | 13.3% | Strong entries will 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 business operations, dissemination and use of the knowledge gained across the sector, partnerships, and effective joint working.  | 2.2.1 | What approaches, ways of working and other enablers of innovation are you intending to use? | 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.Please provide a high-level summary of the approaches, ways of working and other enablers which are proposed for this entry. Provide up to 150 words |
| 2.2.2 | Briefly explain how these approaches, ways of working and other enablers of innovation are innovative for you and the wider water sector? | 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.Provide up to 100 words. |
| 2.2.3 | How are these approaches, ways of working and other enabler of innovation better than others that have been developed and/or deployed in the past in the water sector? | Please provide a summary of how this approach is an improvement on others that have been developed and/or deployed previously in the water sector.Provide up to 100 words. |
| 2.3 Set out plans for adoption at scale across the water sector | 13.3% | Strong entries will demonstrate how their solutions and/or approaches can be applied at scale to provide benefits across the water sector. Entrants will detail how they have considered challenges for roll out across the sector and/or how they are addressing barriers to future adoption at an early design stage.  | 2.3.1 | Following the successful delivery of this entry, how can it be implemented at scale across the water sector?  | Please provide a summary of how the entry can provide benefits, address water sector wide needs, or be used to improve operations across numerous geographies, businesses, and scenarios.Provide up to 150 words. |
| 2.3.2 | What challenges and/or barriers to further implementation have you identified? | Please provide a summary of potential challenges or barriers to applying or implementing the outcomes of the entry at scale. Provide up to 100 words. |

1. Capacity, capability, and commitment to deliver Stage 1 Weighting – 20%

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

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| **Assessment****Criteria** | **Stage 1Weighting** | **Assessors****Guidance** | **#** | **Assessment****Questions** | **Question****Guidance** |
| 3.1 Show commitment to the entry  | 10% | Strong entries will be able to provide evidence of commitment to the entry, 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 to the entry.  | 3.1.1 | Who are the senior sponsors and leaders involved in the entry, from the applying water company and partner organisations, and how are they engaged and invested in it?  | 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 entry personnel were to change, as well as how senior leadership envisions the entry to impact and benefit their organisation’s ambitions beyond technical improvements, for example through internal cultural change.Provide up to 100 words. |
| 3.1.2 | What contributions (financial and non-financial) will entry partners be committing to the entry? | Please provide an overview of the contributions each partner will be committing to the entry. Non-financial contributions could include access to data, use of facilities, wider resources etc.Provide up to 100 words. |
| 3.2 Will be delivered by a team with the relevant skills and experience  | 7.5% | Strong entries will be able to demonstrate that the team includes individuals with relevant skills/capabilities and experience to deliver the entry. Entrants may also identify external skills or resources that they will need to support the development and delivery of the entry, and/or how they plan to develop capacity. Entrants will be able to describe the roles and responsibilities assigned to the entry participants, how decisions will be made, and disputes managed through appropriate governance structures. This will include plans for entry delivery continuity and contingency plans.  | 3.2.1 | What are the roles and responsibilities assigned to entry partners? | Please provide a short description of the roles and responsibilities assigned to each of the entry partners.Please identify the external skills or resources the entry will need to support development and delivery, and/or how the entry plans to develop capacity through its partners.Provide up to 200 words. |
| 3.2.2 | Please provide details of the team’s skills and experience? | Please provide a short description of the key team members involved in the entry, as well as their relevant skills and experience.Provide up to 300 words. |
| 3.3 Set out a realistic and achievable programme  | 2.5% | Strong entries will be able to 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’. | 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. 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. Please link these to the major entry delivery stages and phases for your entry.Provide up to 250 words. |

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### Stage 2 assessed questions and assessment criteria

The following questions will be included in stage 2 entry form, relating to assessment criteria as set out below.

1. Positive impact for water customers, society, and the environment Stage 2 Weighting – 33%

As in stage 1, in this assessment category we will be looking to understand the benefits entries seek to deliver to customers, society, and/or the environment.

Strong entries to the Breakthrough Challenge will be seeking to 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 five strategic innovation themes.

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| **Assessment****Criteria** | **Stage 2Weighting** | **Assessors****Guidance** | **#** | **Assessment****Questions** | **Question****Guidance** |
| 1.1 Address a significant need or opportunity for customers, society and/or the environment  | 6.6% | Strong entries will be able to articulate which significant need or opportunity the entry aims to address. Entrants should demonstrate a deep understanding of this need or opportunity in terms of its detail; how it may develop in the future; the wider context in which it exists; and, how widely it is shared. Entrants should describe how this need or opportunity affects customers across England and Wales, society, and the environment, as opposed to single water companies, internal systems/processes/approaches, or the wider water sector. | 1.1.11.1.2 | In stage 1 entry form.  | As detailed in stage 1. |
| 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 with clear references to studies, industry strategies and other evidence.Provide up to 300 words. |
| 1.1.4 | What have you done to understand what progress has already been made against this problem? | Please provide a referenced summary of the work that has been done to date, either by the entrants, or others, to address this problem and the outcomes of this work. Provide up to 200 words. |
| 1.2 Align with one (or more) of Ofwat’s five strategic innovation themes | 6.6% | Strong entries will be able to demonstrate how the outcomes, benefits and impacts have a direct or indirect impact on one (or more) of the five Ofwat strategic innovation themes. Entries must be clear on how these will be achieved with a focus on the strength of alignment with the themes (rather than indirect or less tangible impacts on numerous themes). | 1.2.11.2.21.2.3 | In stage 1 entry form.  | As detailed in stage 1. |
| 1.3 Will, or could, be effective in addressing these problems or opportunities outcomes are realised | 6.6% | Strong entries will be able to demonstrate to what extent/how the entry will address the need or opportunity identified. Entrants will set out how the entry delivers impact and benefits to customers, society, and the environment in the short and long term. This should also include how other solutions to this need or opportunity have been considered and discounted in preference for the entry entered. | 1.3.11.3.2 | In stage 1 entry form.  | As detailed in stage 1. |
| 1.3.3 | What are the entry’s intended outcomes? | With particular reference to positive outcomes for water and wastewater customers in England and Wales. Please provide a bullet point list of the intended outcomes in the long and short term of the entry.Provide up to 200 words. |
| 1.3.4 | Provide a logical explanation of how this entry will achieve these outcomes.  | Please provide a description of how the entry will achieve these outcomes. This should include supporting activities, assumptions, contextual factors, and external influences. Provide up to 300 words. |
| 1.3.5 | What longer-term impacts and benefits will the entry provide for the water sector in England and Wales? | Please provide a narrative detailing the entry’s wider benefits, both direct and indirect. 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. Please quantify benefits where possible and provide a description of the approach used.Provide up to 200 words. |
| 1.3.6 | What are the benefits of the solution set out in this entry solution over other options you have discounted? | Please provide a summary of the best available evidence to demonstrate the benefit of the chosen approach or solution over other options, including any background or evidence on the benefits of different options considered.Provide up to 300 words.  |
| 1.4 Set out the range of possible outcomes for the entry, and the most significant inherent risks and uncertainties that may influence which outcomes are realised | 6.6% | To be truly innovative we recognise that entries may have to take on inherent risks. We are open to entries that take these risks provided that these entries are impactful with potential for significant benefits. A strong entry will provide an honest and realistic reflection of the risks and opportunities for customers, society and/or the environment associated with the entry. It will provide articulation of how much is understood about its feasibility, uncertainties and known unknowns, and the range of possible scenarios or outcomes 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 for the entry. | 1.4.1 | In stage 1 entry form.  | As detailed in stage 1. |
| 1.4.2 | How is the entry proposing to manage uncertainties and risk and enable seizing opportunities?  | Please provide narrative detailing proposals to identify, monitor, and manage (where possible) the risks, uncertainties and opportunities set out in your Stage 1 response.Provide up to 300 words. |
| 1.4.3 | What benefits could the entry derive, even if it doesn’t achieve its intended outcomes? | Please set out a plan for benefit delivery in the event risk materialises and the entry cannot meet its intended outcomes. This plan should work towards achieving these outcomes and could, for example, include sharing entry information or the barriers to entry delivery. Provide up to 200 words. |
| 1.5 Balance the potential benefits against the most significant inherent risks | 6.6% | Strong entries will clearly articulate how the benefits of this entry (set out in criteria 1c) balance the possible outcomes and inherent risks (set out in criteria 1d).  | 1.5.1 | Please describe how you think the benefits justify acceptance of the inherent risks and, if possible, how you propose to mitigate these inherent risks.  | Please provide a summary of the benefits (quantified where possible) and balance against the potential risks (quantified where possible). We recognise that to be innovative, entries may need to take on risk, therefore we are looking for evidence that these risks are balanced by significant benefits. Provide up to 500 words. |

2. Innovation enablers and innovative solutions Stage 2 Weighting – 33%

As in stage 1 in this category, we will be looking 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. This is both in terms of what the entrant proposes to deliver and how they propose to deliver it.

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| **Assessment****Criteria** | **Stage 2Weighting** | **Assessors****Guidance** | **#** | **Assessment****Questions** | **Question****Guidance** |
| 2.1 Use innovative approaches and/or solutions which would not be funded as part of business as usual  | 11.1% | Strong entries will clearly set out how the approach or solution within the entry 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. | 2.1.12.1.22.1.3 | In stage 1 entry form.  | As detailed in stage 1. |
| 2.1.4 | Explain in detail how these solutions, technologies and methodologies are innovative. | Please provide detail and evidence on how these solutions, technologies, and/or methodologies are innovative, in particular with respect to any mid to long-term developments in the applying water company(s) business as usual. Please including a narrative on the robustness and/or any uncertainties surrounding this evidence, referencing any feasibility studies, if undertaken.Provide up to 750 words. |
| 2.2 Develop innovative enablers which accelerates practice beyond business as usual.  | 11.1% | Strong entries will articulate how the entry is innovative in the way they are proposing to approach the entry. This may include how entrants are working and sharing ideas with collaborators within and outside the water sector, new business practices and internal business operations, dissemination and use of the knowledge gained across the sector, partnerships, and effective joint working.  | 2.2.12.2.22.2.3 | In stage 1 entry form.  | As detailed in stage 1. |
| 2.2.4 | How does the entry develop enablers of innovation? | Please provide a clear plan for the implementation and further dissemination of these enablers e.g. sharing ideas within and outside the sector and dissemination, joint working, new business practices and further detail around dissemination. This plan should include SMART objectives (i.e. be specific, measurable, achievable, relevant, and time-bound)Provide up to 750 words. |
| 2.3 Set out plans for adoption at scale across the water sector | 11.1% | Strong entries will demonstrate how their solutions and/or approaches can be applicable at scale to, provide benefits, address water sector wide needs or be used to improve operations across numerous geographies, businesses, and scenarios. Entrants will detail how they have considered challenges for roll out across the sector and/or how they are addressing barriers to future adoption at an early design stage.  | 2.3.12.3.2 | In stage 1 entry form.  | As detailed in stage 1. |
| 2.3.3 | How will outputs be scaled up and rolled out? Do you have a plan for implementation including identifying and addressing key barriers? | Please provide a clear plan of how the entry is intending to provide benefits, address water sector wide needs, or be used to improve operations across numerous geographies, businesses, and scenarios.Provide up to 500 words. |
| 2.3.4 | How have you considered challenges and barriers in your plans for rolling your solution out at scale? | Please demonstrate how, as part of your plan, you have considered previously identified challenges or barriers to applying or implementing the outcomes of the entry at scale.Provide up to 250 words. |

3. Capacity, capability, and commitment to deliver Stage 2 weighting – 33%

As in stage 1 in this category, we will be looking for strong evidence that the proposed entry is feasible for the entrants and that appropriate resources and governance will be in place for its delivery.

The template referenced in these questions is [available here.](http://waterinnovation.challenges.org/wp-content/uploads/sites/72/2021/05/Breakthrough-Stage-2-Template-v1.xlsx)

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| **Assessment****Criteria** | **Stage 2Weighting** | **Assessors****Guidance** | **#** | **Assessment****Questions** | **Question****Guidance** |
| 3.1 Show commitment to the entry  | 6.6% | Strong entries will be able to provide evidence of commitment to the entry, 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 to the entry.  | 3.1.13.1.2 | In stage 1 entry form.  | As detailed in stage 1. |
| 3.1.3 | What percentage of resources have been committed to the entry by each entry partner? (including time and the 10% funding) | Please complete the budget by partner template, Tab B of the entry template. If any further description is required, please provide a brief narrative. Provide up to 250 words. |
| 3.1.4 | Have there been any additional resources, above the 10% contribution,provided to the entry from entry partners? (including time and funding)?  | Please complete the budget by partner template, Tab B of the entry template. If any further description is required, please provide a brief narrative. Provide up to 250 words. |
| 3.2 Will be delivered by a team with the relevant skills and experience  | 6.6% | Strong entries will be able to demonstrate that the team includes individuals with relevant skills/capabilities and experience to deliver the entry. Entrants may also identify external skills or resources that they will need to support the development and delivery of the entry, and/or how they plan to develop capacity. Entrants will be able to describe the roles and responsibilities assigned to the entry participants, how decisions will be made, and disputes managed through appropriate governance structures. This will include plans for entry continuity and contingency plans.  | 3.2.13.2.2 | In stage 1 entry form.  | As detailed in stage 1. |
| 3.2.3 | What does the entry delivery team look like? Include an entry delivery team structure, roles, responsibilities, and skills. | Please complete the Team and Resourcing template, tab F 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. |
| 3.2.4 | How will the entry delivery be governed? Include how decisions will be made, disputes managed and any contingency plans. | Please provide an entry delivery organogram, governance plan and contingency plan, as well as a narrative describing how decisions will be made and disputes managed. Provide up to 2 pages which can be attached to the entry form as a word document, plain text file or PDF.  |
| 3.3 Set out a realistic and achievable programme  | 6.6% | Strong entries will be able to 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’. | 3.3.1 | In stage 1 entry form.  | As detailed in stage 1. |
| 3.3.2 | What is the detailed programme for entry delivery? | Please complete the Entry delivery programme template, tab A in the entry template. Please be sure to provide a description of your phases and key tasks. Please also be sure to 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. At minimum please provide a milestone for each delivery phase.  |
| 3.3.3 | What entry controls will be implemented? For example, stage gates, steering groups etc. | Please provide a narrative describing what entry controls will be implemented and how.Provide up to 350 words. |
| 3.3.4 | What is the monitoring plan for the delivery of the entry and its outcomes? | Please set out the proposal for monitoring entry delivery progress, outputs, and outcomes. Provide up to 350 words. |
| 3.4 Demonstrate a realistic and considered costing which provides good use of customer funds  | 6.6% | Strong entries will be able to demonstrate a realistic cost estimate and breakdown, and 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. 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. | 3.4.1 | What is the breakdown of the entry costs, including the assumptions made? | Please complete the Entry budget by phase template, Tab C of the entry template. Guidance is given in the on the categories of eligible costs, in tab D, Budget Category Detail within the entry template. Please provide any further detail in this tab for additional budget fields.  |
| 3.4.2 | Please provide a commentary on the justification and accuracy of the entry’s estimated costs. | In order to provide evidence of cost effectiveness, entrants could for example describe their procurement processes or how competitive prices were obtained.Provide up to 250 words. |
| 3.4.3 | What other sources of funding or in-kind contributions will be needed to support this entry? (other than that, provided by entry partners).  | If applicable, please set out the amount of any other funding required to complete the entry (outside the 10% contribution, the funding from the Breakthrough Challenge or additional funding provided by the partners). Please set out the source of this funding as in question G and H with details of how and when it will be provided and any conditions of this support.Provide up to 250 words.  |
| 3.5 Demonstrate a clear and proportionate approach to addressable risk | 6.6% | Strong entries will be able to demonstrate that they have identified, how they will continue to identify, and will quantify the addressable risks with the delivery of the entry. Entrants will set credible plans for how these risks and opportunities are to be appropriately managed or mitigated for successful entry delivery. 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 suggest alternative approaches might be more beneficial.  | 3.5.1 | What are the risks and opportunities that have been identified for the entry and how will they be managed or mitigated? | Please complete the Risk register template, Tab E in the entry template. This may include any dependencies on partnership arrangements and procurement activities for example.  |

# Appendices

## Appendix 1 Project Stages

|  |  |  |  |
| --- | --- | --- | --- |
| Level ​ | Description ​ | Typical activities to be supported in this phase of maturity ​ | ApproximateTechnologyReadinessLevel 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 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, 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 Water Supply and Sewerage Service Areas

|  |  |  |
| --- | --- | --- |
| Company | Water Supply and/or Sewerage Service Area | Area Type |
| Affinity Water | Fairfield Park & Lower Wilbury Farm, Arlesey, Bedfordshire | inset |
| Folkestone (Dour) | Part of water supply area |
| Tendring Hundred (Brett) | Part of water supply area |
| Three Valleys | Part of water supply area |
| Albion Eco Ltd | Shotton | inset |
| Albion Water Limited | Castle Hill, Ebbsfleet | inset |
| Five Oaks Lane, Chigwell | inset |
| Knowle Water Meadows, Fareham | inset |
| Rissington, Gloucestershire | inset |
| Anglian Water | Anglian | Part of water supply area |
| Anglian Water | Whole sewerage services area |
| Buxted Chicken Farm, Flixton, Surrey | inset |
| Finningley | inset |
| Hartlepool | Part of water supply area |
| Northstowe Phase One | inset |
| Woods Meadow, Oulton | inset |
| Bristol Water | Bristol | Whole water supply area |
| County Water Ltd | Heyford Park | inset |
| Dŵr Cymru | Dŵr Cymru | Whole sewerage and water supply services area |
| Hafren Dyfrdwy | Hafren Dyfrdwy | Whole sewerage and water supply services area |
| Icosa Water Services Ltd | Amberstone Road | inset |
| Barnhorn Green | inset |
| Barty Farm | inset |
| Bedford Road, Lower Stondon, Bedfordshire | inset |
| Benhall Mill Road | inset |
| Berry Acres, Paignton | inset |
| Bicknor Wood | inset |
| Bishop's Lane, Ringmere | inset |
| Boughton Monchelsea | inset |
| Broadland Gate | Inset |
| Brockworth Phase 3 | inset |
| Chapel Gate, Launceston | inset |
| Cheriton Road | inset |
| Coldharbour Road | inset |
| Common Road, Sissinghurst | inset |
| Conningbrook | inset |
| Cuckoo Meadows, Phase 3 | inset |
| Dovers Corner, Rainham | inset |
| Erin Court | inset |
| Fontwell, Eastergate | inset |
| Forstal Lane, Coxheath | inset |
| Grantham Road, Waddington | inset |
| Greenhill Way | inset |
| Harbour Place, Havant | inset |
| Havenswood | inset |
| Hinxhill Park | inset |
| Hogwood Farm | inset |
| Icosa Water ServicesLtd (Ctd.) | Lady Dane Farm | inset |
| Land at Perrybrook | inset |
| Land East of Billingshurst | inset |
| Land North of Headcorn Road | inset |
| Land off Mansfield Road | inset |
| Lindfield | inset |
| London Road, Hassocks | inset |
| Lower Hoddern Farm, Peacehaven | inset |
| Maidstone Road, Charing | inset |
| Marden Road, Staplehurst | inset |
| Marringdean Road | inset |
| Mill Lane, Wingerworth, Chesterfield | inset |
| Norwich Road, Thetford | inset |
| Old Stowmarket Road, Woolpit | inset |
| Ospringe Parcel A | inset |
| Ospringe Parcel B | inset |
| Otterham Quay Lane | inset |
| Paula Rosa, Robell Way | inset |
| Pembers Hill, Eastleigh | inset |
| Perry Court Farm | inset |
| Plover Road, Isle of Sheppey | inset |
| Riverside College, Runcorn | inset |
| Rochester Riverside | inset |
| Rosemead Farm, Horam | inset |
| Rownhams | inset |
| Rush Lane | inset |
| Sodbury Road, Wickwar | inset |
| Springhead Park | inset |
| Surrey Street | inset |
| Sutton Road, Maidstone | inset |
| Thanington, Canterbury | inset |
| The Hill, Littlebourne | inset |
| Toddington Lane 910, Littlehampton | inset |
| Toddington Lane, Littlehampton | inset |
| Ulcombe Road, Headcorn | inset |
| Union Corner | inset |
| West Durrington | inset |
| West End Lane, Henfield | inset |
| West Raynham | inset |
| Westridge Village | inset |
| Wetherden Road | inset |
| Whittle Gardens, Innsworth | inset |
| Independent Water Networks Ltd | Archers Court Road (South) | inset |
| Ashby Road, Daventry | inset |
| Ashby Road, Tamworth | inset |
| Berryfields, Aylesbury | inset |
| Bidwell West | inset |
| Bidwell West plus variation | inset |
| Bishops Stortford | inset |
| Blythe Valley Park | inset |
| Breary Lane | inset |
| Castle Hill, Ebbsfleet | inset |
| Chester Road, Pennywell, Sunderland | inset |
| Chilmington Green | inset |
| Chilton Woods, Sudbury, Suffolk | inset |
| Church Lane, Cayton, Scarborough | inset |
| Clipstone Park | inset |
| Cockering Road | inset |
| Independent Water Network Ltd (Ctd.) | Colney Lane | inset |
| Cowdray Centre | inset |
| Deer Park, Southampton | inset |
| Eastern Quarry, Ebbsfleet | inset |
| Europa Way | inset |
| Factory Lane | inset |
| Forgewood, Crawley | inset |
| Former Nestle Factory, Nestle's Avenue, Hayes | inset |
| Great Billing Way, Northampton | inset |
| Greenwich Millennium Village | inset |
| Greetwell Fields | inset |
| Harbour Place, Havant | inset |
| Henley Road | inset |
| Ings Lane | inset |
| King's Cross Central | inset |
| Lambton Park | inset |
| Limebrook Way | inset |
| Lincolnshire Lakes, Scunthorpe | inset |
| Long Croft Road, Stannion, Corby | inset |
| Malyons Lane | inset |
| Manor Road, Norwich, Norfolk | inset |
| Manse Farm | inset |
| Market Place, South Cave | inset |
| Martello Lakes | inset |
| Minster Way, Beverley | inset |
| Monk Bridge, Whitehall Road, Leeds | Inset |
| Newmarket Road | inset |
| Nightingale Quarter, Derby | inset |
| North Whiteley | inset |
| Norwich Road, Acle | inset |
| Oakham Phase 1 and 2 | inset |
| Oakwood Park | inset |
| Otterham Quay Lane | inset |
| Palfrey Bungalow | inset |
| Parklands | inset |
| Pitty Close Farm | inset |
| Prebend Lane | inset |
| Priors Hall, Corby | inset |
| Rowtree Park, Collingtree, Northampton | inset |
| Salhouse Road | inset |
| Salhouse Road 3, Norwich | inset |
| Shopwhykes Lakes | inset |
| St Giles Park | inset |
| Stoneham Lane, Eastleigh | inset |
| Stumpcross Lane, Pontefract | inset |
| Sutton Road, Maidstone | inset |
| The Bridge, Dartford | inset |
| Throckley North | inset |
| Turners Hill Road, West Sussex | inset |
| Windmill Views, Barnham | inset |
| Leep Networks (Water) Limited | Chatham Waters, Gillingham | inset |
| Liverpool International Business Park | inset |
| No.1 Old Trafford | inset |
| Media City, Salford Quays | inset |
| Abbotswood, Romsey | inset |
| Barking Riverside Phase 1 | inset |
| Barking Riverside Phase 2,3,4 | inset |
| Brewery Square, Dorchester South | inset |
| Leep Networks (Water) Limited (Ctd.) | Bromley Common | inset |
| Chestnut Avenue, Eastleigh | inset |
| Embassy Gardens Phase 1, Nine Elms, London | inset |
| Embassy Gardens Phase 2, Nine Elms, London | inset |
| Emersons Green, South Gloucestershire | inset |
| Emersons Green Gateway, South Gloucestershire | inset |
| Farndon Road, Market Harborough | inset |
| Graylingwell Park, Chichester | inset |
| Great Western Park, Didcot | inset |
| Hale Village,Tottenham | inset |
| Heart Of East Greenwich | inset |
| Hills Farm Lane, Horsham | inset |
| Kennet Island Phase 5 and 6 | inset |
| Kennet Island Phase 5 and 6, Reading | inset |
| Kennet Island Phase 7, Reading | inset |
| Kingsbrook | inset |
| Kingsmere | inset |
| Marine Wharf, Deptford | inset |
| Millharbour, Millwall | inset |
| New South Quarter, Croydon | inset |
| Newlands, Waterlooville | inset |
| Norwich Common, Wymondham | inset |
| Parc Llanilid | inset |
| Park Views, Epsom | inset |
| Prince of Wales Drive, Battersea | inset |
| RAM Quarter, Wandsworth | inset |
| Riverlight, Battersea | inset |
| The Portway and Castle Way, Old Sarum, Wiltshire | inset |
| White City | inset |
| Northumbrian Water | Essex | Part of water supply area |
| Northumbria | Part of water supply area |
| Northumbrian Water | Whole sewerage services area |
| Suffolk | Part of water supply area |
| Portsmouth Water | Portsmouth | Whole water supply area |
| SES Water | Sutton & East Surrey | Whole water supply area |
| Severn Trent Services (Water and Sewerage) Ltd | Aurum Green | inset |
| Wellesley, Aldershot | inset |
| Severn Trent Water | Chester | Part of water supply area |
| Severn Trent | Part of water supply area |
| Severn Trent Water | Whole sewerage services area |
| South East Water | Kent & Sussex | Part of water supply area |
| Southern | Part of water supply area |
| South Staffordshire Water | Cadley Hill, Walsall | inset |
| Cambridge | Part of water supply area |
| South Staffordshire | Part of water supply area |
| Tamworth West Centurion Way | inset |
| South West Water | Bournemouth | Part of water supply area |
| Fawley | Part of water supply area |
| Isles of Scilly | Part of water supply area |
| South West | Part of water supply area |
| South West Water | Part of water supply area |
| Southern Water | Hampshire | Part of water supply area |
| Hastings | Part of water supply area |
| Southern Water (ctd.) | Isle of Wight | Part of water supply area |
| Medway | Part of water supply area |
| Southern Water | Whole sewerage services area |
| Sussex | Part of water supply area |
| Thanet | Part of water supply area |
| Thames Water | Guildford | Part of water supply area |
| London | Part of water supply area |
| SWOX plus | Part of water supply area |
| Thames Water | Whole sewerage services area |
| United Utilities | United Utilities | Whole sewerage and water supply services area |
| Veolia Water Projects Ltd | Veolia | inset |
| Veolia Water Services | inset |
| Wessex Water | Pork Farms (Bowyers), Trowbridge, Wiltshire | inset |
| Wessex | Whole water supply area |
| Wessex Water | Whole sewerage services area |
| Yorkshire Water | Yorkshire | Whole water supply area |
| Yorkshire Water | Whole sewerage services area |

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1. Financial Year Average Consumer Prices Index including owner occupiers’ housing costs. [↑](#footnote-ref-2)
2. Outcome delivery incentives set by Ofwat in price reviews. [↑](#footnote-ref-3)