

# BUSINESS PLAN 2025 TO 2030

## PRT10 INNOVATION TO ENHANCE OUR SERVICE DELIVERY



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# 1. AT A GLANCE

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## Innovation for the future

It will be a challenge to deliver our Vision and Long-Term Delivery Strategy as well as our ambitious performance commitments which we have detailed in this Business Plan. Operating our business as usual will not deliver the delivery performance or cost performance that will represent the best value for our customers. Therefore, we will need to continue to embrace innovation. Some of the elements of innovation necessary are already emerging, coming from the work we have done with the Ofwat Innovation fund bids and supply chain engagement already. Other elements remain unknown, and we will have to act proactively to find them.

This is the continuation of a journey for us. For many years we have recognised the need to embrace innovation and have supported our delivery through our community partnerships and technology. We will continue with our proven delivery approach to achieve the joint outcomes and objectives we lay out in our business plan for our community and for us.

Within our business plan, emerging innovation plays a key part of delivering for the following outcomes:

- Continuing our customer satisfaction achievements.
- Managing our network and making us more efficient.
- Reducing the demand for water from household and non-household sectors.
- Continuing to improve our environment and biodiversity.
- Managing customer affordability.
- Achieving our net zero commitments.

It will also continue to drive increased social outcomes for our community, such as:

- Reducing our need to draw on the local energy grid with our use of emerging local renewable energy usage coupled with stronger battery storage opportunities.
- Adapting our network to supply a large local community heat and energy project.

As a small company we have traditionally adopted a 'fast (or close) follower' approach. Our size and scale can make it difficult to provide as much resource (both in terms of people and finances) as larger companies in the industry. Despite this, we are still leading and involving our teams in multiple Ofwat Innovation projects as well as embedding innovation in our own teams through working directly with the supply chain and in innovative community partnerships.

We will continue to engage and involve our future leaders of the business by providing support and training to our teams. We will be adapting our existing "Young Innovators Board" to become the 'Future Innovator Team (FIT)' who will take a key lead in delivering our 'FIT for the Future' programme, designed to enable and support the management of our innovation programme.

We are a relatively small business in the UK water Industry that is outperforming our larger industry peers in many areas. To deliver this performance, we have had to innovate and be nimble as technologies and regulations have changed.

But as climate change, environmental considerations and population pressures combine to make our operating environment tougher, customer and Regulator expectations naturally rise. We recognise we need to get better and more focused in how we approach and target our innovation efforts in order to enhance our performance, build on our current relationship with customers and exert the maximum benefit from each opportunity presented by initiatives such as the Ofwat Innovation fund and the forthcoming Water Efficiency fund.

To help us get an unbiased external perspective to inform our thinking, we commissioned Conway Strategic Water Consulting to carry out a full review of our current approach and culture around innovation and to make recommendations on a proposed future innovation framework, fit for tackling these future pressures.

Following that comprehensive review across the business the report made 7 interlinked recommendations which were considered and accepted by the Executive team. Some we are able to initiate immediately, and some will be initiated at the commencement of AMP8

As a result of this work we have clarified the role of Innovation in delivering our Vision and Business priorities to be to:

*“Discover and develop innovative ideas and approaches, big or small across all functional areas, and implement selected opportunities to deliver real benefits which enhance Portsmouth Water service and performance.”*

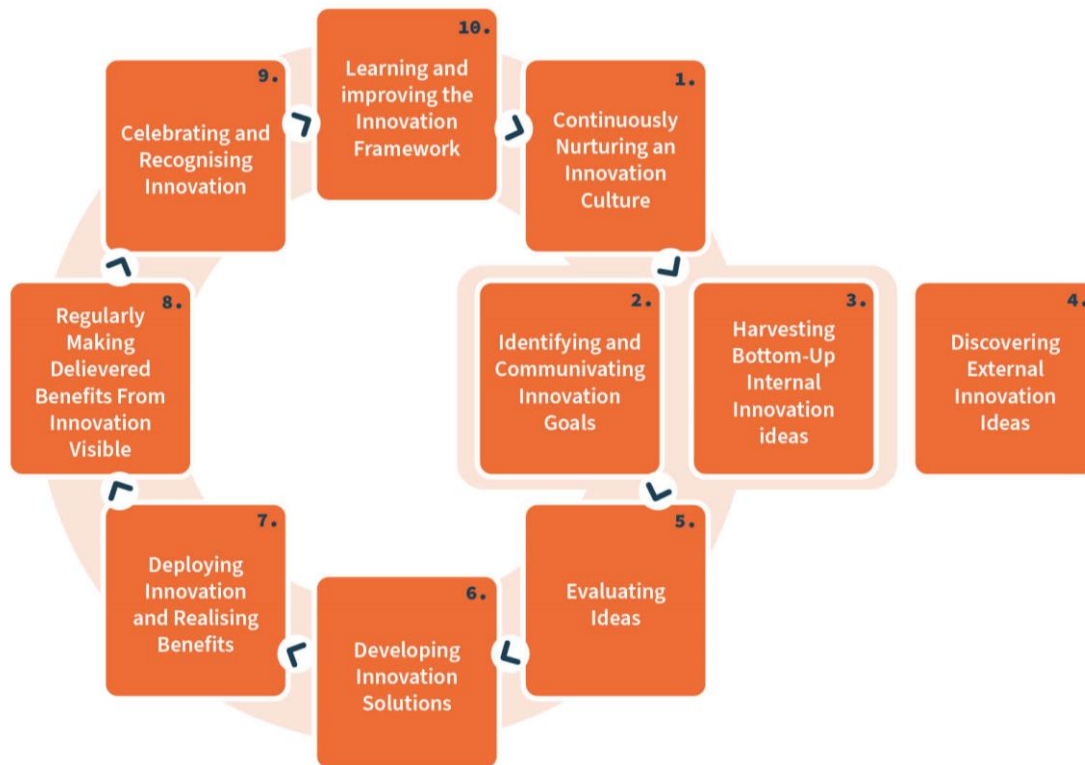
We are also working towards the adoption of a framework which establishes enhanced process and governance around innovation.

This framework will allow us to focus innovation to minimise our overhead and maximise targeted investment (time and money) into areas that give the best outcome for customers because they either prevent a large increase in cost or enable an improvement in performance.

The framework will ensure we can monitor our progress to this goal and focus on realising the benefits we need to deliver our company vision.

The diagram below, coming from the Conway work, summarises the Innovation framework we are putting in place.

**Figure 1: Core innovation framework, Conway Strategic Water Consulting**

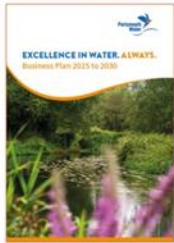


We have not completed the delivery of the framework but have established some key elements that have been used to support the production of this business plan and our Innovation roadmap in particular.

In summary, whilst Portsmouth Water has been innovative in a number of key areas, with our outperforming of our larger industry peers as testament to that, strategic direction and tactical delivery of innovation programmes has been somewhat sporadic and inconsistent. Given the size of our business and diverse expectations placed on staff, this is not unexpected. We are now looking to devise and deliver a framework that embeds innovation into our culture and drives ideas with a clear process through functions right across the business.

# 2. DOCUMENT MAP

## Business Plan to 2030



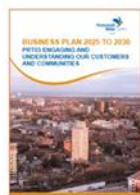
PRT01  
**EXCELLENCE IN WATER. ALWAYS.**  
 Business Plan 2025 to 2030

For the full navigation plan and documents visit  
[portsmouthwater.co.uk/business-plan-2025-2030](https://portsmouthwater.co.uk/business-plan-2025-2030)

## Supporting Documents



PRT02  
 Delivering Havant Thicket Reservoir for Our Customers and the Region



PRT03  
 Engaging and Understanding Our Customers and Communities



PRT04  
 Delivering for Our Customers and Communities



PRT05  
 Delivering Outcomes for Our Customers



PRT06  
 Managing Our Resilience in the Long Term



PRT07  
 Our Investment Plan



PRT08  
 Delivering Our Investment Plan



PRT09  
 Securing Value for Money



PRT10  
 Innovation to Enhance Our Service Delivery



PRT11  
 Addressing Affordability and Vulnerability



PRT12  
 Accounting for Past Performance



PRT13  
 Aligning Risk and Return



PRT14  
 Our People



PRT15  
 Board Assurance

## Vision and Our Long-Term Plans



PRT16  
 Our 25-Year Vision (consultation version)



PRT17  
 Water Resource Management Plan (revised)



PRT18  
 Long-Term Delivery Strategy 2025-2050

## 3. INNOVATION TO ENHANCE OUR SERVICE DELIVERY

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### A. Our innovation journey.

As a company Portsmouth Water and the wider water industry are facing challenges which are mostly known, but several which are still emerging. These challenges are broadly grouped into four categories:

- **Climate change** - We are experiencing changing weather patterns and more extreme weather events, and this is placing pressure on the resilience of the natural environment, the source of our water and on our existing infrastructure.
- **Population and housing growth** – In our strategic planning we have considered a range of plausible increases in the number of people living in our area over the next 50 years – ranging from +6.8 per cent to more than a third (+33.6 per cent). We'll adapt our plans as the figures become clearer over the years. As a result we are expecting between 54,000 and 146,000 new homes to be built<sup>1</sup>. New housing is likely to be higher than the population growth, so there's likely to be less people living in each home in the future.
- **Net zero delivery** – To continue our journey to become net zero in our emissions we require a step change in our approach as a water company and in our supply chain, including all the products that we use around our network and sites.
- **Protecting our raw water quality** - We continue to deal with the unintended consequences arising from the practices of landowners over the last century. Going forward, we need new ways of working and encourage more natural and sustainable solutions that deliver improving outcomes for nature and wildlife - as well as for ourselves and landowners.

Innovation is essential for us to meet our current and future challenges and deliver our company vision and long-term delivery strategy.

We believe as an organisation that we can collaborate with other organisations, such as universities and research institutes, other water companies and cross sectors, to develop new technologies and methods of working to drive the green economy which is so important to us and customers.

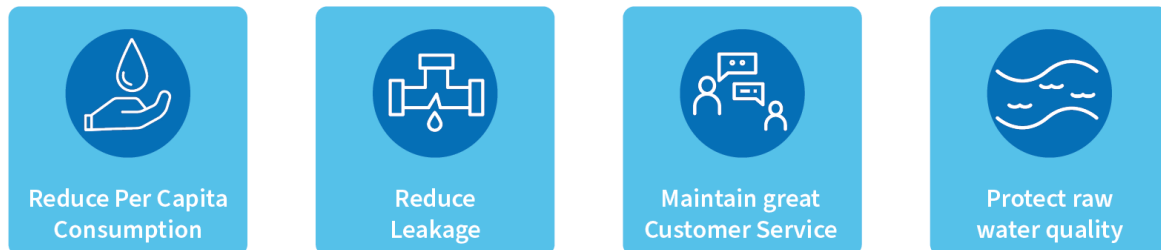
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<sup>1</sup> Revised draft Water Resource Management Plan 2024.

## AMP7 approach

Our journey became more focused during our PR19 process, into AMP 7, where we identified a clear set of outcomes that drove our innovation needs:

**Figure 2: Outcomes used to target innovation in AMP 7**



This focus drove some key innovation initiatives, including:

- **Kraken partnership and CRM platform** – This initiative is the first implementation in the water sector of a proven energy CRM and billing system. The platform enables flexible engagement and communication with customers across multiple channels and is fully ‘smart enabled’. It is coupled with an exciting innovative ‘Water Lab’ that is a hothousing environment where innovative customer proof of concepts can be developed and tested at pace.
- **CPES** - Channel Payments for Ecosystem Services (CPES) was a cooperation project managed within the Interreg VA France (Channel) England programme. It had a €4 million budget, co-financed by the European Regional Development Fund (€2.8 million). Fourteen partners worked towards a common goal: to improve water quality by implementing sustainable payments for ecosystem services (PES) schemes in six pilot catchments across Southern England and Northern France.

The developing landscape of the Ofwat Innovation Fund throughout AMP7 has facilitated improved access to the innovator community as well as an ability to participate in group projects across a broad range of levels.

We are actively involved with several Ofwat funded innovation projects, summarised in the table below (with our AMP7 outcome driver in brackets). Each project is described in more detail in appendix A.



**Table 1: Current Ofwat funded Innovation projects we are engaged with.**

Level of involvement	Project
<b>Project Lead</b>	Diffusing the nitrate bomb (Protecting raw water quality)
<b>Financially contribution</b>	Safe Smart Systems (reducing Leakage)
<b>Supporting</b>	<ol style="list-style-type: none"> <li>1. Water Net Gain (protecting raw water quality)</li> <li>2. Managing Background Leakage (reducing leakage)</li> <li>3. National Leakage Research Centre (reducing leakage)</li> <li>4. Hydro Powered concentric water Meter (reducing PCC)</li> <li>5. Spring (Access to wide view of innovation opportunities)</li> <li>6. Water Literacy (maintaining great customer service)</li> <li>7. Water4All (maintaining great customer service)</li> </ol>

We chose to put our resources and support into these schemes based on the outcomes identified for AMP7 as well as our horizon scanning of the performance and cost challenges that we were likely to face in delivering our company vision.

## Our future strategy

As a smaller water company we realise the criticality of embedding our innovation strategy into everything that we do to ensure we maximise the opportunities and potential for utilising innovation. To help us understand the weaknesses of our historic approach and to help us design a sustainable process to take forward we partnered with an independent innovation expert, Conway Strategic Water Consulting.

This work has helped us to design and begin to implement a strategy that we believe works for our company vision, values and recognises our scale and cost pressures.

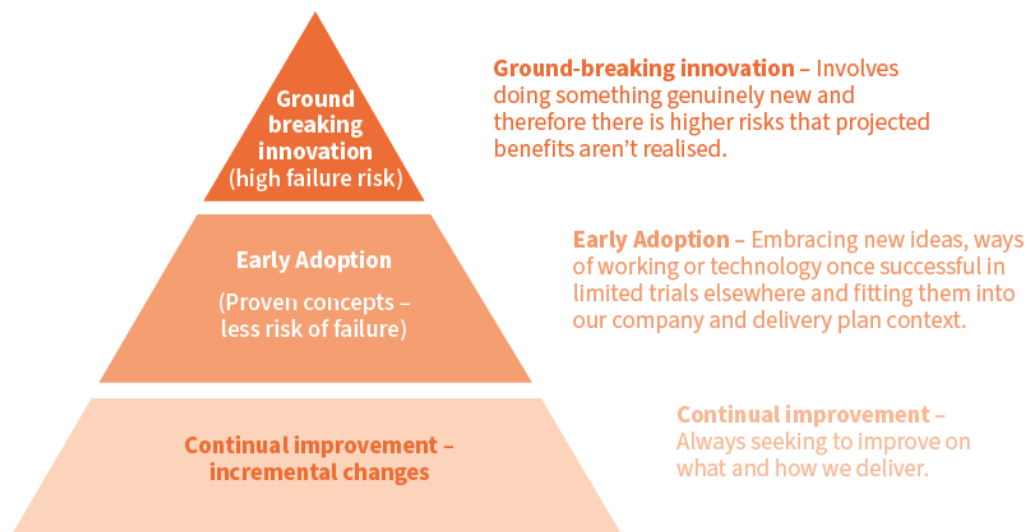
Before describing the process we went through with Conway's, it is important to recognise what we consider to be innovation. We believe innovation to be:

*Ideas and approaches, big or small across all functional areas, which provide selected opportunities to deliver real benefits which enhance Portsmouth Water's service and performance.*

Innovative ideas do not have to be big or far reaching but can just be the enhancement of a process or initiative at team level, but which can revolutionise the quality of that team's work. We could label this innovation as 'continual improvement'.

Figure 2 below illustrates the three classifications we recognise in our business. The triangular shape of the diagram is illustrating the relative scale of resource we feel we can deploy in any category. Because of the risk it carries and the resource it takes to support, we recognise we will only be able to participate in a few, highly targeted, ground-breaking innovation projects. Where concepts have been proven elsewhere in the industry, we will be able to put more resource into early adoption. This will be innovation for our business, but with less risk and resource tied in with it. Finally, the framework and culture we will go on to describe in this document will encourage all our colleagues to think about the small innovations continual improvement will bring. We will not discuss this level of innovation much further in this document, but we know there are efficiencies and benefits to be made for our customers in always striving for innovation at that scale.

**Figure 2 – Our view on the hierarchy of Innovation**



### Gaining an external perspective.

Conway Strategic Water Consulting partnered with us to deliver a specialist external assessment to the effectiveness of our approach to innovation in AMP7 and to recommend a framework for AMP8 and beyond that would lead us to better embrace and use innovation in the future.

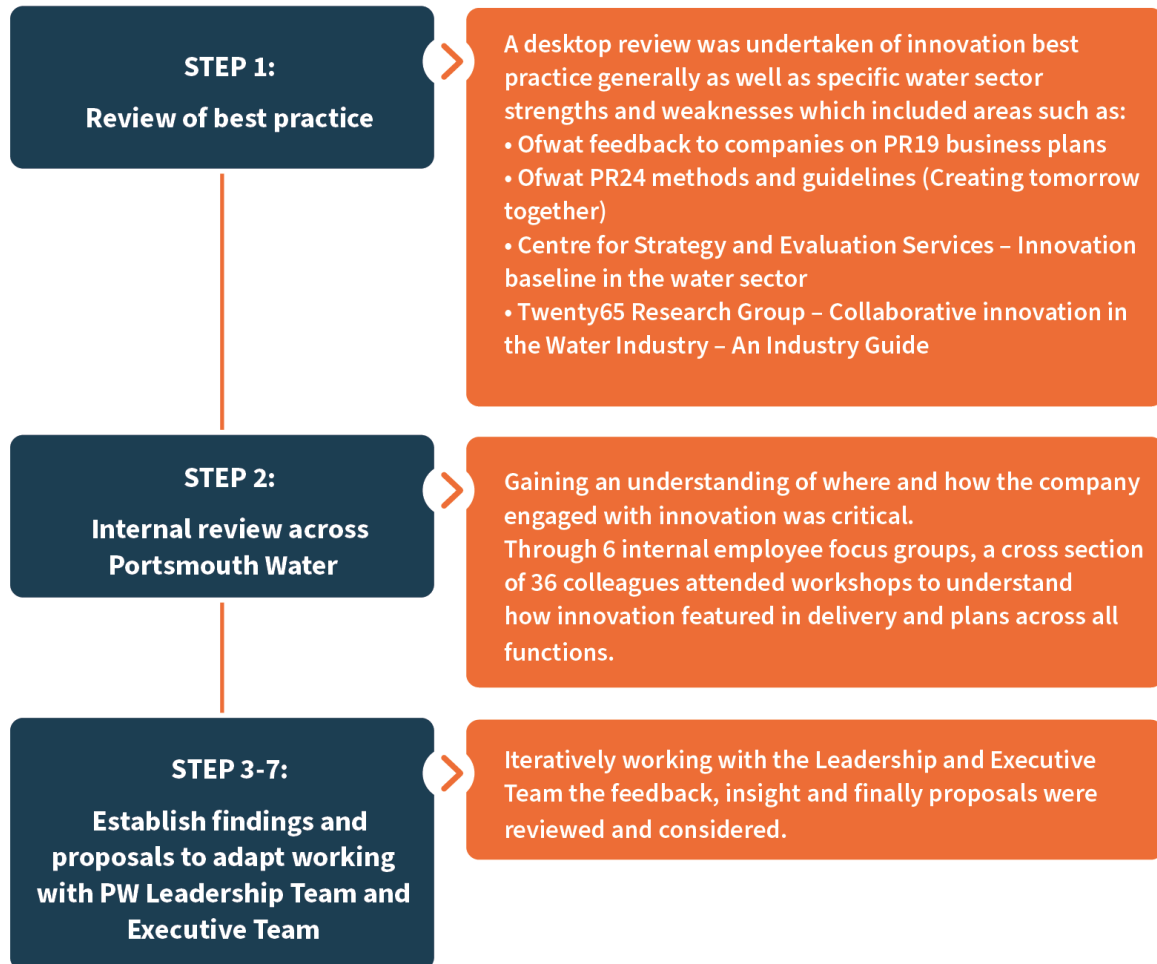
This assessment considered our initial approach in AMP7 and our culture around innovation, with a focus on ensuring that we are a 'FIT for the Future' operation, able to deliver and meet the future operational and environmental pressures.

The sections below describe at a high level the work undertaken by Conway's. The report chronicling the full process can be found appended to this report and referenced PRT10.02.

## Delivering the review.

Figure 3 below lays out the steps the Conway review took:

### Figure 3 – The Conway review process steps.



This independent review identified weaknesses in our approach and made practical recommendations to address these:

**Figure 4 – Summary of findings from the Conway review.**

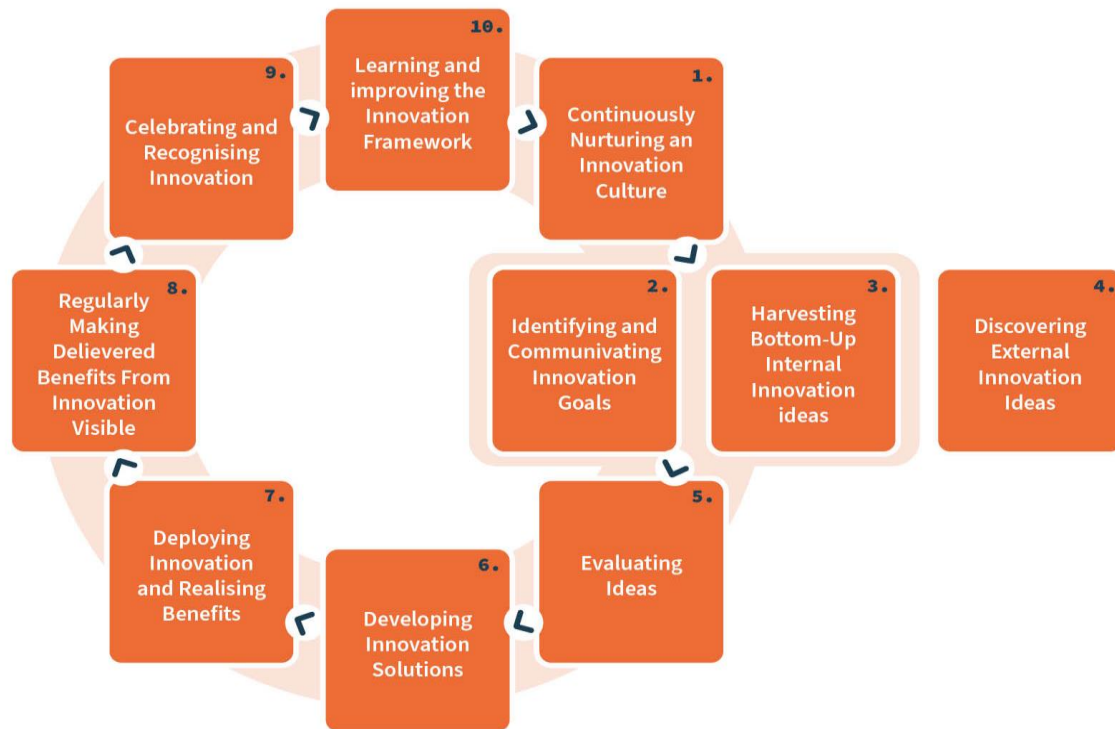
Weakness in previous approach to Innovation	➔	Recommendations
Innovation is ad-hoc and isolated: It was happening in pockets but not visible to the organisation as a whole.	➔	Be clear on the role of innovation.
Not organised or structured: There was no clear pathway for formally sharing and assessing ideas.	➔	Put a formal innovation framework in place and talk about it.
Could be better targeted: Innovation was considered reactive with the perception it was focused on short-term.	➔	Put in place a process and follow it.
Not enough time committed: Not enough capacity or resource deployed to ensure benefits were realised from innovation initiatives.	➔	Establish formal governance and infrastructure, including visually reporting progress.
Ideas process was not effective: no formal process including feedback, which frustrates teams. Not felt there was a strong innovation culture.	➔	Continue to develop the innovation culture and mindset by establishing and publicising the process conclusions.
Innovation success was not celebrated.	➔	Develop an external innovation ecosystem.

**Implementing the recommendations.**

Over the remainder of AMP7 we will be implementing a framework that embeds innovation into our culture and drives suggestions and ideas through a clear process involving functions, departments as well as the Executive level of our business.

We have based our process to deliver the following framework identified by Conway:

**Figure 5 – Core innovation framework, Conway Strategic Water Consulting.**



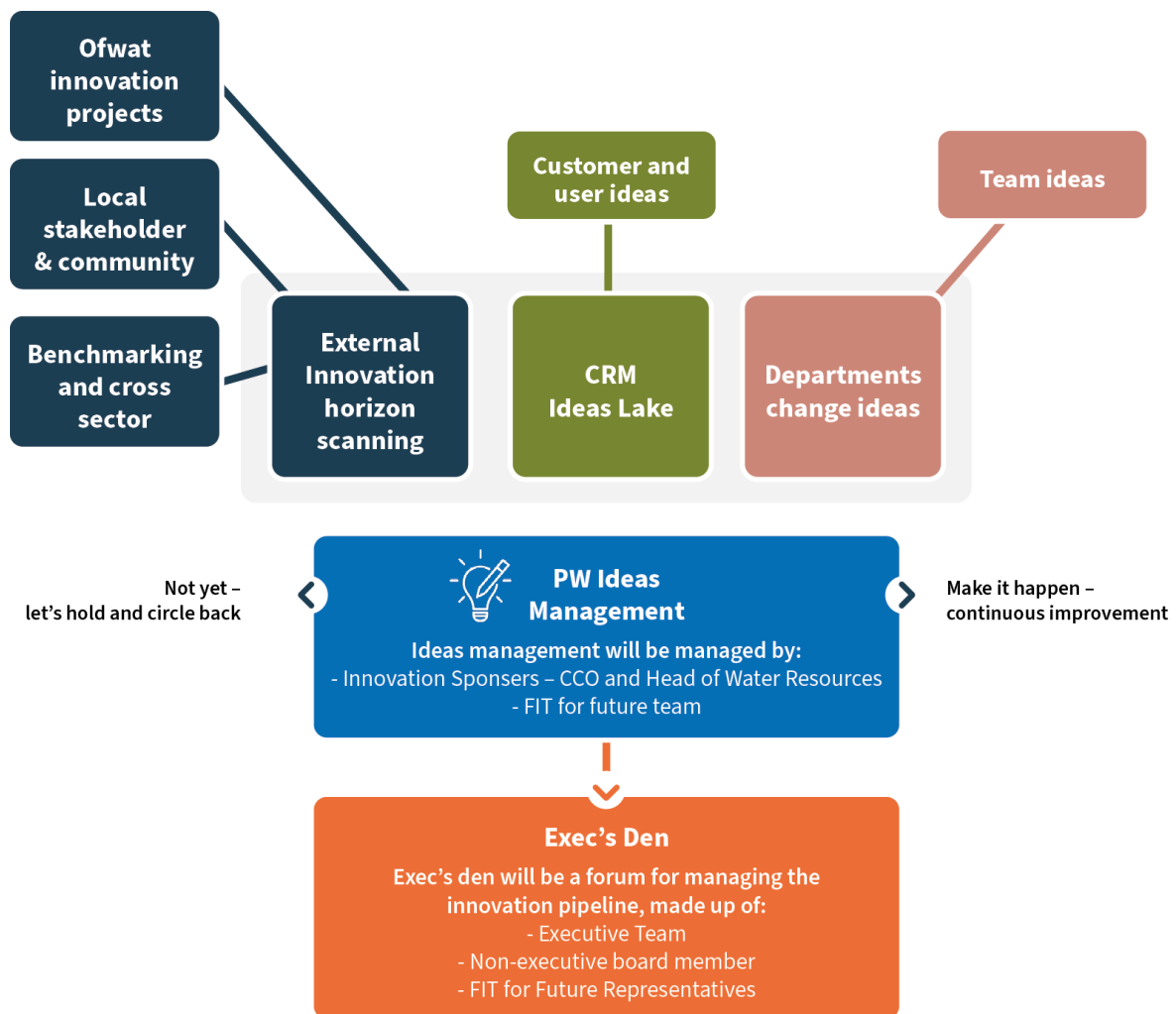
This new process will ensure that we continuously nurture an innovation culture and we have already or will be in AMP7 implementing a whole new range of toolkits and processes that embed within our culture.

We will be looking to Our People plan (described in document reference PRT14) to reinforce a culture that thinks creatively about solutions, has embedded horizon scanning and benchmarking to ensure that we do not miss any opportunities in our chosen position as a fast follower of innovation opportunities.

Identifying and communicating Innovation goals (Framework step 2) – PR24 provides us with the perfect opportunity to rebase our messaging to the business about to inspire suggestions for innovative approaches that we will need to deliver our ambitious goals.

Harvesting and Managing ideas (Framework step 3 to 6) will be managed through an internal process shown in figure 5 below:

**Figure 6 – Process for generating and assessing innovation opportunities.**



This approach will focus on several key stages in the process.

Harvesting innovation ideas – We recognise the importance of gathering innovation ideas from a broad range of sources and our approach will focus on 3 high level inputs:

### External innovation horizon scanning

This area focuses on a continual view of the external environment to establish innovation opportunities through partnerships and benchmarking. We will continue to enhance our approach in this area through working with:

- Innovation collectives – We will continue to partner with national and international collectives that act as accelerators for innovation in the water industry. We will maintain our relationships with SPRING and ISLE2 in particular, to understand the depth and breadth of innovation efforts happening elsewhere.

We will also learn from existing work done by these collectives, such as the UK 2050 Water

<sup>2</sup> Detail on our relationship with Spring and ISLE can be found in Appendix A below

Innovation Strategy (appended to this document as PRT10.03)

- **University partnerships** – We currently have an MOU with Portsmouth University and are sponsoring a PhD research study exploring water efficiency messaging with them. We will continue to work closely with Portsmouth and other academic establishments across our region and the UK to understand the breadth of academic research currently being undertaken and the practical application of that work.
- **Benchmarking and Cross Sector** – We have similar challenges to other cross sector utilities (particularly with energy sector Distribution Network Operators) and we aim to create stronger relationships to share learnings and opportunities. We have a strong relationship with energy retailers in our area such as Octopus Energy, through the recent purchase of the Kraken Customer Relationship Management system, which will become a key relationship in aligning water and energy efficiency together.
- **Local stakeholder and community partners** – We will use our strong partnership approach in our existing work in our community (particularly areas of customer services, vulnerability, affordability and environment) to identify their thoughts on innovative approaches, ideas and opportunities to the issues we face.
- **Water company innovation** – As an intentional early-adopter of industry innovation we will continue to develop and work with our industry colleagues, who are often better placed to fund and trial innovation due to company scale. We are a strong supporter of Innovation, which can be seen by the number of Innovation projects supported by the Ofwat innovation funding which we are a part of.

## Our customer and user ideas

We see strong ideas and opportunities being driven from our customers and our colleagues. Our new Customer Relationship Management (CRM) system, being implemented in AMP7, gives us a system that enables users and our customers to be able to suggest ideas around improvements to systems, processes and policies making it extremely easy to raise opportunities. This will be predominantly focused on external facing (customer improvements) with Team ideas below focused on internal suggestions aimed at achieving our big challenges.

## Team ideas

Specific challenges will often be most evident at a department level. Department responsibility for delivery can therefore often drive broader blue sky thinking for solutions to do things differently. Departments, Managers, and individuals will be encouraged to think innovatively and submit these ideas into the new process.

We will also use this innovation process and framework to help develop our future leaders and innovators by involving them in the collation and development of the ideas from initial curation through to implementation. Our framework will provide a robust approach for us to manage innovation moving forward

## Evaluating the ideas

As we have already said, we are constrained in the resource we can devote to innovation due to our size and risk profile and therefore it is critical we focus the resource that is available where it will deliver the best outcome for customers. Each idea being fed into the process will therefore require evaluation. This process will start with the collation of a single library or database of ideas (the 'company ideas lake') enabling a strong control of all ideas and tracking of the innovation pipeline.

We will use our Future Innovators Team (FIT) to manage the evaluation process, moving forward under the banner of the 'FIT for the future' programme. This is a team of developing colleagues who have been identified as leaders of the future. Through including them in this process we can achieve strong development outcomes for them, as well as benefitting the whole business through:

- Understanding the business beyond the FIT members own department.
- Active engagement with Exec team about innovation support and funding.
- Involvement with constructing and refining business cases (not just financial but social value and outcomes focused delivery).
- Involvement with the feedback process.

We will gamify the process to encourage participation and to encourage innovation ideas to be put forward. We will benchmark ourselves against other company innovation frameworks to develop the best way to balance participation verses quality of ideas and be imaginative in how we manage that process (recognising that not everyone is motivated in the same way).

Our evaluation process will be enabled through a framework decision process 'The Execs Den' made up of; Innovation Sponsors, Executive members and FIT representation. We will develop a panel approach which allows the idea owner (the person, group or team that raised it) the opportunity to pitch their idea and business case to the wider business.

This approach provides a clear link to our approval processes (through inclusion of the Executive Team) but also the additional opportunity for giving colleagues at all levels the exposure to work with senior managers in their own departments on the business case alongside access to other support services across the company.

Where appropriate we will then adopt a 2-stage implementation programme, granting the shortlisted would-be innovators some seed funding to model or prototype their ideas to better prove the concept as well as encourage further collaborative teamwork. The second stage will see an adoption plan for the wider business as appropriate, funding any improvements or investments on a 'spend to save' basis that will be delivered within the existing TOTEX envelope.

Finally, a close out and feedback loop will ensure that innovations are fully implemented. A benefits realisation plan will be tracked to the FIT and reported to the Exec team to ensure benefits are properly realised. This also ensures that full credit is both recognised and celebrated by those who have promoted or delivered the innovations.



## B. Our innovation roadmap.

### Targeting Innovation for the future

Delivering our vision requires transformation and in developing our business plan we have considered the challenges and risks as well as the ambitions that we have for the service we offer for our customers and communities.

We have identified the key areas in our long-term delivery strategy and our performance commitment ambition that requires innovation to deliver, which are laid out in figure 7.

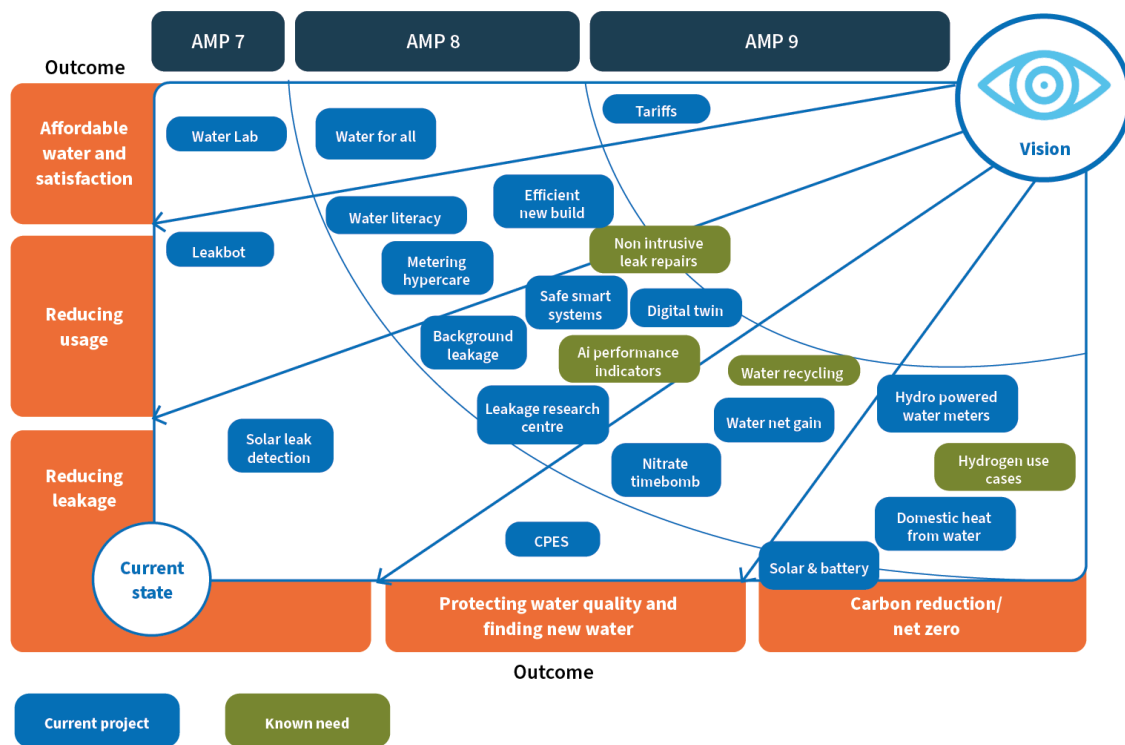
**Figure 7 – Outcomes linked to our vision identified as needing innovation to deliver**



This mapping exercise has changed the emphasis slightly from the criteria we were using in AMP7, described previously and for AMP8 we have taken the mapping a stage further. Using the AMP8 vision themes and knowing our commitment to these in the context of the Long Term Delivery Strategy (LTDS) we have produced a first view of our Innovation roadmap for the next 10 years. Illustrated in figure 8, the roadmap maps our current innovation projects on a 15-year timeline, starting with AMP7. These projects are mapped against the outcomes from our vision. Added to the roadmap are the areas we know today where we will have to proactively target innovation in AMP8 and AMP9. This map is not fixed and will need to be reviewed and updated by the FIT based on emerging understanding of innovation opportunities, the success of current projects and our evolving business needs. However, it will serve as an accessible guide to the whole business in order to keep our efforts focused.

We will use Innovation collectives, such as SPRING and ISLE to identify current work being undertaken and progress being made in the known target areas, highlighted in green on the roadmap. This will efficiently connect us with the supply chain and partners who can help us deliver our outcomes.

**Figure 8: Our Innovation Roadmap**



## Our current innovation.

Our understanding of the expectations and aspirations of our customers and communities is explored through our engagement strategy which continuously captures and reviews insight across our strategic themes. Through this work, we have now introduced a new framework to help consider our delivery of social and environmental value – Greener, Fairer and Safer.

Our key innovation projects, already underway, support our ambitions and performance improvement expectations today, and as the new innovation roadmap has confirmed, also support delivering the outcomes for AMP8. In addition, the support Public, Social and Environmental Value as expressed by our Greener, Fairer, Safer programme.



Table 2 below lists the projects we are currently involved in, both through the Ofwat Innovation process and also directly with the supply chain. The table gives a brief outline of the project, our involvement, and the outcome we are targeting through participation. There are case studies, describing the projects in more detail in Appendix A

**Table 2: Our current Innovation commitments and associated outcomes**

Project Name	Project Description	Our Role	Outcome
Water Lab	A hothousing environment where innovative customer engagement proof of concepts can be developed and tested at pace.	Partner with supply chain	Affordable Water Reducing Usage
CPES	To improve water quality by implementing sustainable payments for ecosystem services (PES) schemes in six pilot catchments across Southern England and Northern France.	Partner with supply chain	Protecting raw water quality
Wellborne Heat from Water Project	Delivering a community heating initiative using the latent heat in our supply network to heat up to 6,000 homes.	Partner with supply chain	Net zero
Diffusing the nitrate bomb	Developing modelling software that can predict concentrations throughout the Chalk so that land use options can be tested to select those that deliver efficient nitrate reduction.	Leader	Protecting raw water quality

Project Name	Project Description	Our Role	Outcome
Safe Smart Systems	Safe Smart Systems focuses on the first steps to achieve autonomous control in water systems across the UK.	Sponsor	Reducing Leakage
Water Net Gain (protecting raw water quality)	Water Net Gain is a catchment-scale approach whereby farmers are paid to store water on their land	Supporter	Protecting water quality and finding new water
Managing Background Leakage	This project aims to redefine the detectable limit of leakage to help pinpoint and repair hidden leaks and other factors contributing to background leakage.	Supporter	Reducing Leakage
National Leakage Research Centre	The National Leakage Research and Test Centre will be a 5km buried water pipe network specifically for developing and testing inventions without disrupting customers' supplies or affecting water quality.	Supporter	Reducing Leakage
Hydro Powered concentric water Meter	Developing self-powering smart meters.	Supporter	Net Zero Reducing usage
Spring			Innovation Collective
Water Literacy	The Water Literacy Programme is an accredited learning experience delivered across all aspects of the community. It provides citizens with greater awareness and understanding of the systems involved and techniques to empower positive behaviour changes at home, in the workplace or in their community as well as signposting to further learning around water and climate change.	Supporter	Reducing Usage
Water4All	A consortium of leading multi-sector experts will use their knowledge and data to seek and serve those who need help most.	Supporter	Affordable water

Isle trial reservoir	The Reservoir initiatives present technology companies with a pool of funding available for pilot trials, presenting a risk-free opportunity to enhance the future of its sector whilst spearheading the journey to carbon neutrality.	Partner	Innovation collective
Sponsoring PhD Study in water efficiency	provide us with recommendations to enable us to design an effective, proven water efficiency campaign especially focusing on the younger demographics.	Partner with academia	Reducing Usage



## Our latest innovations

To support our business plan, we have focused on delivery of some additional areas of innovation each being unique in the industry, and which will deliver significant value in the future for ourselves, our communities, as well as the wider sector.


### Partnership – Open Utilities

**Open Utilities**

**A collaboration between founding partners**

With founding supporters



We have recently implemented the Kraken Technologies CRM system which will form the customer data management system for us in our SMART metering initiative.

The system is widely used in the energy industry and has a proven track record with Smart technology. It is the platform developed and used by Octopus Energy – recognised for its quality of customer service and the only energy provider recommended by Which in 2023 with an assessment score of 82% and a customer score of 14/17<sup>3</sup>. This will be the first adoption of the system in the water sector, and we believe it is the tool we need for us to continue our industry leading customer service as we enter our own Smart journey.

As an integral part of this new relationship, we have developed the concept of the 'WATER LAB'. The Water Lab is a partnership designed to hothouse innovative and new ideas and concepts in a development environment. The partnership is between ourselves and Octopus Energy Group, and has the support of CCW.

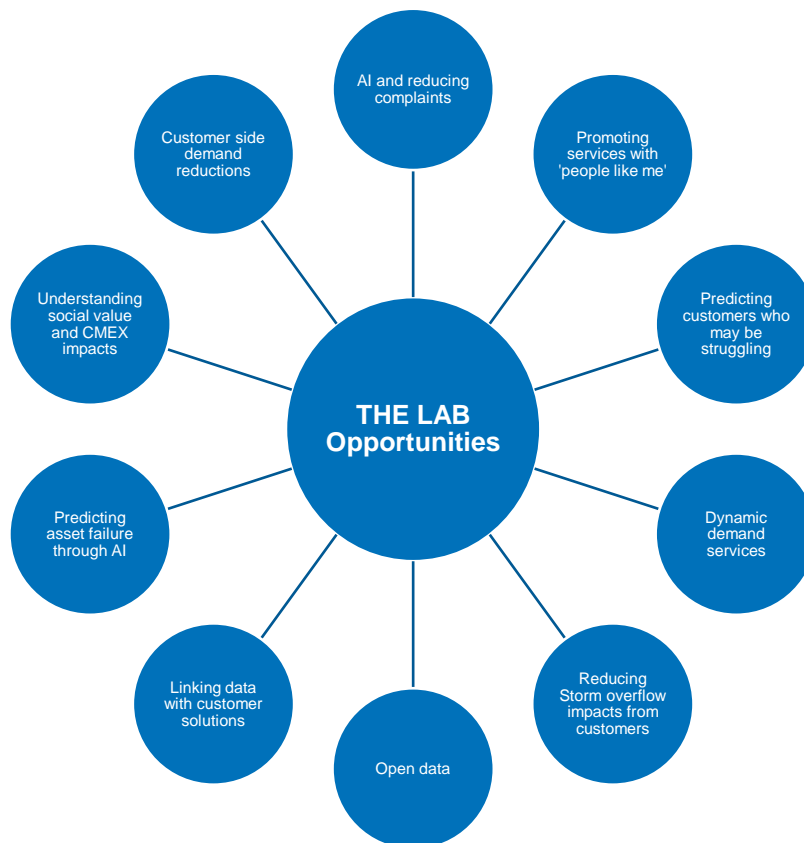
The plan for the Lab is to use it to explore synergies in water efficiency and energy efficiency for those customers in our supply area we share with Octopus – particularly areas that open up with our new adoption of the Kraken CRM system. In the Lab we can accurately measure proof of concepts across both sectors using consistent and accurate data.

The WATER LAB is not just for the partners and we imagine it will have the ability to fast track any new ideas through development and testing and swiftly to implementation. We intend to open the Lab and the insight gained from this work to involvement from all interested stakeholders (water companies, energy companies and 3<sup>rd</sup> sector).

<sup>3</sup> [Octopus Energy Review - Which?](#)

Figure 10 shows the key areas that have already been highlighted as opportunities that the WATER LAB and the relationship will leverage.

### Figure 9 – Areas identified as opportunities for the WATER LAB



**Exploring some of these opportunities in more detail:**

#### **Customer side demand Reductions:**

##### **Reducing demand for water and energy for our customers**

For customers we share in our supply area, will look to deliver combined messaging both from us and Octopus Energy, using exact customer data from our respective SMART meters that we are installing in AMP8. This will genuinely link water and energy usage inextricably together for customers in this industry-first initiative. Additionally, using the same platform enables robust trial measures and improved effective analysis cross sector.

##### **Efficiency messaging for our unmetered customers**

We will test how we can use energy data and AI (coupled with our SMART data alongside energy SMART data) to be able to understand linkage between water use and energy data. These findings can then be converted into specific assumptions about our unmetered shared customers, inferring values from smart energy data. This will provide relevant and real water efficiency messaging to customers who are unmetered and to whom we can currently struggle to evidence the benefits of behavioural change. This will support us in helping to reduce PCC for those customers who will not be metered in our SMART programme for several years and who also do not currently have an analogue meter fitted.

### **Complimentary efficiency energy and water tariffs**

Enabling us to test whether joint or linked incentivisation could be a game changer for both water and energy efficiency, that we believe it may be.

Predicting customers who may be struggling.

### **Tackling the cost-of-living impacts.**

The energy and water sectors have longstanding issues with data sharing to understand affordability. We will test how we can work with energy retailers and Distribution Network Operators to unlock data sharing relating to customer affordability and how data sharing can be utilised to deliver this through our messaging and CRM platforms.

### **Dynamic segmentation and Open Data**

We will be using Octopus Energy's highly successful approach to managing demand (Dynamic Flexible Services) which has utilised their own SMART meters to move away from traditional approaches of set time tariffs to a dynamic 'real-time' messaging and participation, coupled with incentivisation of customers. There are synergies in this approach which could be used for water. For example for targeting geographic regions – when coupled with the opportunity to link messaging and combine innovative tariff savings we could potentially influence usage upstream of an area with a potential supply capacity issue during periods of peak demand, for example.

We will unlock the constraints linked to incomplete data that is preventing us from doing this now, by:

- Being more intelligent about how we collect customer data – this will include using occupancy data.
- Use external data, both free and 'paid for,' to enrich our customer journeys, for example ONS data through to Credit Reference Agency data.

Recognising that customer segments are different dependent upon the whole range of customer journeys which take place with our service, we will explore 'dynamic segmentation'.

Dynamic segmentation is a powerful marketing tool that allows the creation of customer cohorts based on any number of datasets. This will allow us to tailor our messaging styles in order to make them more appealing to specific cohorts – making them more efficient and less likely to alienate customers.

This segmentation has huge potential in several areas including:

- Affordability and vulnerability – those struggling to pay or needing additional support.
- Water efficiency messaging and targeting.
- Reducing complaints.
- Understanding lifestyle values and how they can be used to drive behavioural change.

### **Gamifying relationships**

A key part to ensure the effectiveness of all our engagement with customers is to provide them with interesting and engaging information and content.

For some cohorts of customers, gamification provides a strong route to landing behavioural change, particularly in the context of innovative tariffs and we will focus on delivering opportunities across the key themes of:

- Water efficiency and usage.
- Supporting customers through top up tariffs and paying forward.
- Leak identification

## Safe Smart Systems

Safe Smart Systems is a project developed as part of the Ofwat Water Breakthrough Challenge. The Safe Smart Systems project was the largest project at the time of award (£8.7m) aiming to develop and evidence a scalable and adoptable safe smart system across the city of Ely, Cambridgeshire and surrounding areas as part of Anglian Water's innovation incubator, "Shop Window" and which could be adopted and rolled out across the whole of the UK water industry.

We are a contributing member to the project and believe it will identify the water supply asset operating model of the future.

The project came about because despite significant inroads, the UK was still leaks 3 billion litres of water a day (nearly 1,200 Olympic size swimming pools). This, added with complex external challenges such as climate change, population growth and cyber threats meant that we face a serious risk that parts of the country will run out of water within 20 years.

As a sector, we often seem to be reactive and constantly firefighting with limited visibility of the bigger picture. We have historically been reliant on new assets to adapt to external factors. Due to the legacy nature of our asset base there is a risk that we are ill-equipped with inconsistent data frameworks and poor data quality resulting in minimal system level integration. As well as this, as is common for a number of themes within the UK innovation strategy, we are doing smart things, but they are happening in silos.

It was accepted that as a sector, we broadly know what needs to happen, but can struggle at the end-to-end implementation and subsequent measurement. If we were to continue to operate this way, we could limit our long-term operational resilience and jeopardise the service we provide our customers.

Our concept of a safe, smart system faces this challenge through embedding resilience from source to tap by optimising and automatically re-configuring itself based on predicted or detected faults and real-time risk profiles. It is secure by design and can respond to emerging needs as well as those of today.

Through collaboration with UK and worldwide water utilities, globally recognised innovators in digital transformation and leading academics we are utilising smart technologies and new emerging digital capabilities, such as artificial intelligence, to demonstrate the possibilities offered in the future through a fully autonomous water supply system. Our shared vision is to have built and be operating an automated, connected system that delivers a clean, sustainable supply of water for future generations.

In line with the aims of the Ofwat fund, success of Safe Smart Systems will not be solely defined by what is demonstrated within the Anglian Water region. Success of the project will be determined by how adoptable and scalable the learning and intellectual capital developed through the process of that demonstration is across the UK Water sector.

Safe Smart Systems was conceptually structured at four levels;

- Building an AI Decision Engine,
- Developing the next generation of infrastructure,
- Setting out new standard and frameworks through delivery forming an industry playbook,
- Exploring new ways of working, both within water companies themselves in how they operate systems in the future and how they can work together.

This innovative and collaborative approach is not just about technology, the project aims to develop the capabilities and culture required to operate in this way, producing the industry playbook on developing both the safe smart system and the organisational capabilities required for success. The value in this approach is already being realised with learning being shared and utilised across other water companies. Although focused in a discrete demonstration area, the project will inform the road map for the long-term digital transformation of our own business.



Developing these capabilities will be enable system thinking for optimal complex decision making whilst being scalable across wider areas, embedding resilience in operations, providing benefits to our customers, society and the environment over an increasing area and for the long term.

Below are the benefits, impacts and outcomes stated in the bid document when submitted to the competition.

**Objectives:**

- Reduce total number of customer service-related issues by 30% within one year of AI Decision Engine go-live and within the live incubator region.
- Reduce our carbon footprint by 10% using the predictions and autonomous control provided by the AI Decision Engine within one year of AI Decision Engine go-live and within region of the live incubator.
- Develop and publicly release accessible artefact components of the Water Information Management Landscape (IML) on a regular basis through the BIM4Water engagement forum.
- Embed resilience by implementing automated dynamic control of prioritised areas in the water system of the live incubator region by project close.
- Reduce health and safety risk exposure to operational colleagues by increasing the proportion of proactive work from 30% to 70% of all jobs in the live incubator region (Ely water system) by project close.
- Enhance system resilience to cyber threats through a secure-by-design approach in design and delivery.

**Intended Outcomes:**

Immediate short-term outcomes that will result from the project include:

- Reduction in number of customer disruptions and leakage in the live incubator (Ely) that can be extrapolated to full-scale systems.
- Water savings evidence that can accommodate future customer growth or reduce water extractions for future planning.
- Improvement in water quality for customers by understanding baseline KPIs before and after the AI Decision Engine is implemented.
- Transformation from reactive to proactive maintenance within the live incubator and identification of cost efficiencies and how to apply these savings.
- Development of a Technology Roadmap for a full-scale implementation for the AWS Water system and other UK water providers.

There will be several Triple Bottom Line (environmental, societal, financial) long-term outcomes that can be obtained through the wide adoption of the AI Design Engine after completion of the project. These include:

- Contribution to reducing stress on UK water resources and associated societal outcomes.
- Informing water resources planning to accommodate sustainable planned housing and economic growth.
- Aiding the improvement of public health protection for the UK customers through improved water quality.
- Contribution to reducing climate change impacts through energy optimisation and reduced greenhouse gases.

### **Longer term impacts and benefits:**

This project is a unique opportunity for the UK Water Sector to be at the forefront of disruptive innovation and provide self-diagnosing and autonomously correcting system for others to replicate. It will advance the water industry to the next level of excellence and improve overall Performance Commitments.

### **Wider benefits of the entry include:**

- Advancing the Government's NDT Programme and acceleration of the National IMF through the demonstration of a Water Information Management Landscape (IML) and its value. Proposed artefacts for the industry including information management and data policies, standards and guidance directly related to our sector's asset base.
- Removing barriers for collaboration and innovation in the future through data interoperability and standardisation in conjunction with the Water IML.
- Enabling digital adoption, opposed to inhibiting it, through the delivery of an accessible and transferable cyber security framework building on current global best practices and aligned to the National IMF.
- Establishing systems-based thinking as a model to develop future solutions and improve overall service to our customers in other areas like wastewater or wider, across regions shared by water companies.
- Fast-tracking and informing smart development across the water sector, influencing utilities when implementing their smart strategies.

### **Progress to date:**

Safe Smart Systems is currently in Phase 2 of delivery, Concept & Feasibility. This phase will complete in February 2024. Against the conceptual components of SSS in phase 1, Initial Research, the following items were delivered:

#### **AI Decision Engine**

- Created a high level conceptual design.
- Identified and prioritised solution epics (requirements that deliver value) for development.
- Completed the initial data and design sprints.

#### **Next Generation of Infrastructure**

- Captured critical pilot area asset and OT data through site survey (i.e. pump configuration, remote control actuation currently on site)
- Identified initial next-gen infrastructure needs (i.e. IP enabled PLCs, remote actuated valves)

#### **Industry Playbook**

- Created first iteration of the Industry Playbook and tested for value with water company partners.
- Developed foundational data model and identified critical data for development in Phase 2
- Completed initial data cleansing.
- Defined a set of cyber and IT/OT architectures for a Safe Smart System
- Created a Water IML Development Plan in collaboration with industry and water company partners (i.e. BIM4Water, SWAN).
- Developed an information management maturity matrix that has been used to identify data quality gaps in pilot area. Template shared with industry as part of Playbook.
- Baselined pilot area performance.

### **New Ways of Working**

- Conducted interviews and site visits to understand impacts to people, process, technology & asset, and data in the pilot area.
- Identified dependencies and leveraged data & solution alignment opportunities through business capability mapping across the Smart Programme, Shop Window, Data Core and SPA Integration

**By the end of Phase 2 the following items be delivered:**

### **AI Decision Engine**

- Developed the first of the AI Decision Engine design modules.
- Data and design sprints to build the 'engine.'

### **Next Generation of Infrastructure**

- Sensor and control infrastructure methodology and roll-out plan.
- Initial sensor and control infrastructure implemented

### **Industry Playbook**

- Additions to the Industry Playbook, including development of Water IML artefacts.
- Refinement of the Playbook through testing with water company partners.
- Water IML developed as per the plan identified in Phase 1.
- Collaborative peer review with industry partners (i.e. BIM4Water, SWAN) and dissemination of Water IML documents and learnings.
- Monitoring framework of the performance of the pilot area against the baseline.
- Reviewed pilot area sites to ensure compliance with cyber standards through design.
- Improvements to the foundational data model and using it to ingest and structure data for the decision engine.
- Further improvements to Data Quality

### **New Ways of Working**

- Collaborated with operational teams to test and review recommendations and decisions as part of agile design, building trust in the data and system.
- Identified and executed enabling activities (i.e. training, process modifications) for the use of the AI decision engine.

## 4. SUMMARY

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It will be a challenge to deliver our Vision and Long-Term Delivery Strategy as well as our ambitious performance commitments which we have detailed in this Business Plan. Operating our business as usual will not deliver the delivery performance or cost performance that will represent the best value for our customers.

Therefore, we will need to continue to embrace innovation. Some of the elements of innovation necessary are already emerging, coming from the work we have done with the Ofwat Innovation fund bids and supply chain engagement already. Other elements remain unknown, and we will have to act proactively to find them.

This document describes how we will continue to encourage an innovation culture in our business, involving future leaders and the grass roots across the company, as well as look outside to stakeholders, customers and the rest of the industry for ideas. We will support this initiative by further developing the process and governance around innovation, acknowledging the resource we can put into innovation is limited and valuable and we need to make sure it is invested where it will do the most benefit for customers.

Our innovation across AMP7 has been driven by our business needs and we have used both the opportunities presented by the Ofwat funds and our own engagement with the supply chain to target our participation to date. We have taken this start point and identified the short- and medium-term known innovation needs and developed an innovation roadmap. This has reassured us our efforts to date have been in the right areas and have given us some targeted areas to focus our efforts for the future.

We are particularly proud of our emerging partnership with Octopus Energy and the use of the Kraken CRM platform. As well as opening the door to enhancing our relationship with customers through next generation communication channels and levels of self service, the opportunity of developing the WaterLab to integrate, test and bring to implementation the best ideas from both industries to support vulnerable customers, make savings for customers and influence water use habits is very exciting.

Of the Innovation needs for AMP8 and beyond, we have identified non-intrusive leak repairs, hydrogen use cases and embracing AI data analysis techniques as important areas for development. We know as we continue to work through the challenges we face, other needs will present themselves. Our engagement and participation in Innovation collectives such as Spring and ISLE and our ongoing relationship with academia such as our MOU with Portsmouth University, will be crucial in ensuring we recognise opportunities for future collaboration and adoption of innovative solutions and ensuring the best value outcomes for our customers.

We are excited for the future and know our business of tomorrow be very different from our business yesterday.

## 5. GOVERNANCE AND ASSURANCE

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Production of this supporting document has been undertaken in accordance with internal governance and assurance procedures and processes.

This comprised initial drafting by an internal Lead Author, supported by external consultants (if used state company name otherwise delete) as appropriate, under the direction of an Executive Owner who retains Executive responsibility for the document content including robustness and accuracy.

The document has undergone three stages of internal review before being signed off by the Board:

- i. Executive Owner,
- ii. Nominated Executive,
- iii. Internal Executive Review Team including the CEO and CFO.

The Board has been engaged in the development of the business plan and its content through subject specific discussions at monthly PR24 Steering Committee meetings that have taken place since late 2021. Minutes of relevant meetings are included in PRT15 Board Assurance, Appendix PRT15.01.

# PRT10 APPENDIX SUMMARY OF INNOVATION INITIATIVES CURRENTLY IN FLIGHT



# PRT10 APPENDIX

## (i) PRT10.01. Current Innovation Projects



### CASE STUDY

#### Water Lab

This initiative is the first implementation of a proven energy CRM and billing system in the water sector.

The Water Lab is a partnership designed to hothouse innovative and new ideas and concepts in a development environment. The partnership is between us, Octopus Energy Group and with the support of CCW.

The plan for the Lab is to use it to explore synergies in water efficiency and energy efficiency for those customers in our supply area we share with Octopus – particularly areas that open-up with our new adoption of the Kraken CRM system. In the Lab we can accurately measure proof of concepts across both sectors using consistent and accurate data.

The WATER LAB is not just for the partners, and we imagine it will have the ability to fast track any new ideas through development and testing and swiftly to implementation. We intend to open the Lab and the insight gained from this work to involvement from all interested stakeholders (water companies, energy companies and 3<sup>rd</sup> sector).

#### A collaboration between founding partners



With founding supporters





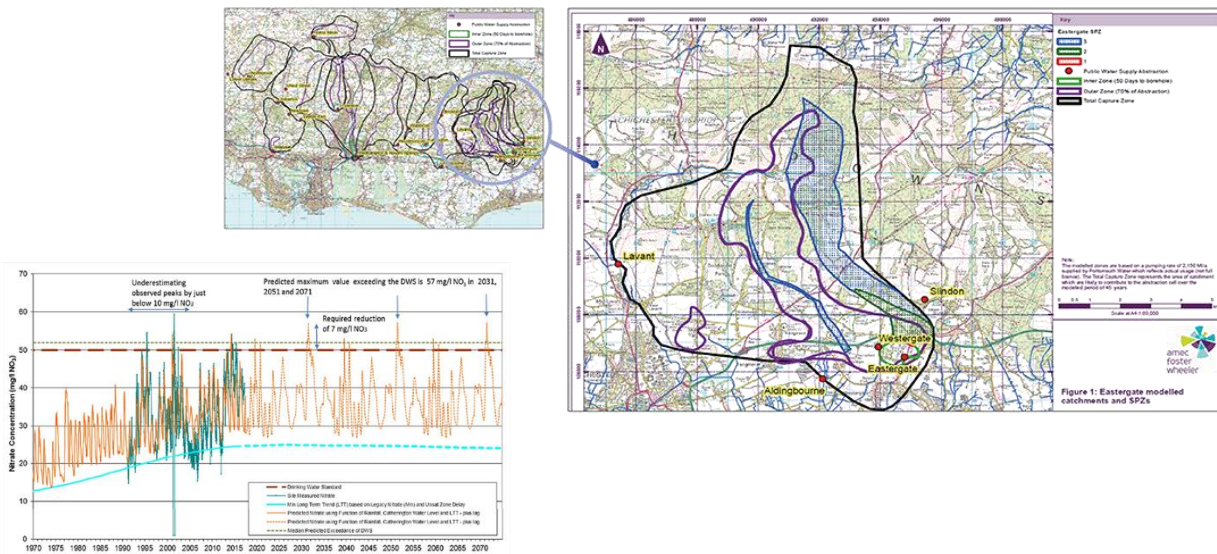
# CASE STUDY

## Channel Payments for ecosystems services

Channel Payments for Ecosystem Services (CPES) is a cooperation project managed within the Interreg VA France (Channel) England programme. It has a €4 million budget, co-financed by the European Regional Development Fund (€2.8 million), and runs for a 45 month period (2017-2020). Fourteen partners are working towards a common goal: to improve water quality by implementing sustainable payments for ecosystem services (PES) schemes in six pilot catchments in Southern England and Northern France.

This project is now complete and the lessons being applied to our Catchment Management approach for AMP8

[CPES Interreg - Channel Payments for Ecosystem Services - South Downs chalk grassland groundwater \(cpes-interreg.eu\)](#)







## CASE STUDY

### Wellborne heat from water

Welborne Garden Village is a new community of 6,000 homes outside Fareham in Hampshire. It is the biggest private housing development of its kind in the UK and is being built sustainably with a very clear future focus.

We're developing a new concept of using stored potable water from a nearby service reservoir (supplied mostly by groundwater) to provide low carbon heating and hot water solutions via a heat exchanger and an ambient loop network which will supply the whole village including commercial properties.

This will heat houses and business with considerably less energy than traditional heating methods and be very low carbon. Our modelling shows that in an average year, 97 per cent of the heating and hot water needs of the 6,000 homes will be met via the system, which represents 19GWh of energy supplied from the water.

It's the first scheme of its kind in the country and will provide the blueprint for other such opportunities across our supply area as well as other water company areas.





## CASE STUDY

### PhD in water efficiency

Research on the student body which represents a hard-to-reach demographic for water companies in determining water literacy levels, and in targeting water efficiency campaigns because students who are in all-inclusive halls of residents have no direct relationship. Research on the student body which represents a hard-to-reach demographic for water companies in determining water literacy levels and in targeting water efficiency campaigns because students who are in all-inclusive halls of residents have no direct relationship. Utilities are often included in the University accommodation costs, therefore, any financial incentives, associated with reducing usage are limited. This study seeks to explore the relative impact of co-designed targeted marketing strategies to effect behaviour change around water use and lower per capita consumption across the student halls.

Using the four university managed halls of residents:

Baseline survey to understand attitudes to environment, water literacy, current water behaviours contextual and individual factors.

Meter data will also be collected to determine pre-intervention baselining.

Baseline survey to understand attitudes to environment, water literacy, current water behaviours contextual and individual factors

Meter data will also be collected to determine pre-intervention baselining

Upgrading one hall with additional water saving devices and analysis of water use during intervention period upgrading one hall with additional water saving devices and analysis of water use during intervention period.

The outcome is to provide us with recommendations based on this research which will feed into our communication strategy for the smart metering programme. This information will enable us to design an effective, proven water efficiency campaign especially when focusing on the younger demographics.



UNIVERSITY OF  
PORTSMOUTH



## CASE STUDY

### Safe Smart Systems

Research on the student body which represents a hard-to-reach demographic for water. The Safe Smart Systems project is a £7.5 million project using artificial intelligence and mathematical optimisation to improve long-term operational resilience in the face of climate change and rapid population growth. It will identify, predict, and manage vulnerabilities to reduce leakage, interruptions, and pressure issues across the whole water cycle.

We are supporting this Ofwat Breakthrough Innovation project both financially and with resources.

Objective - Safe Smart Systems focuses on the first steps to achieve autonomous control in water systems across the UK

## Safe Smart Systems





## CASE STUDY

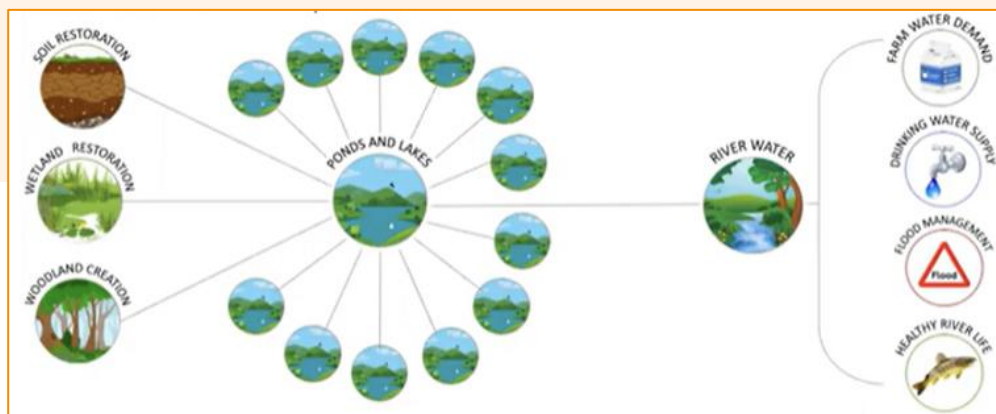
### Water Net Gain

Research on the student body which represents a hard-to-reach demographic for water. We are supporting this Ofwat Catalyst Fund project providing resource where we are able.

Objective – Farmers are paid to store water on their land.

Water Net Gain is a catchment-scale approach whereby farmers are paid to store water on their land. Restoring natural sponges, like healthy soils, woodlands and wetlands, can passively contribute water to summer base flows, but the creation of additional smart ponds and lakes, can be used for farm demand management or active releasing flows during droughts.

The impact of this distributive ecologically connected water bank, released to the river during droughts, dilutes residual pollution not managed through current agricultural water quality incentivisation schemes. Alongside water purification, water retention solutions are designed to provide additional flood protection and aquatic biodiversity benefits.





## CASE STUDY

### Managing Background Leakage

We are supporting this Ofwat Transformation Fund project with resources.

Objective - This project aims to redefine the detectable limit of leakage to help pinpoint and repair hidden leaks and other factors contributing to background leakage.

Customers and regulators seek a downward trend in leakage which is seen as wasted water. The problem is c.50% of leakage is due to Background Leakage; defined as the sum of small leaks below a detectable threshold; generally accepted that it can't be reduced.

This project starts with the premise that some background leakage comes from old long-running leaks, not detected by current methods.

This project benefits customers by creating more sustainable ways of reducing leakage, avoiding increased environmental water abstractions if future leakage targets which can't be met by current solutions and approaches.





## CASE STUDY

### National Leakage research and test centre

We are supporting this Ofwat Transformation Fund project providing resource where we are able.

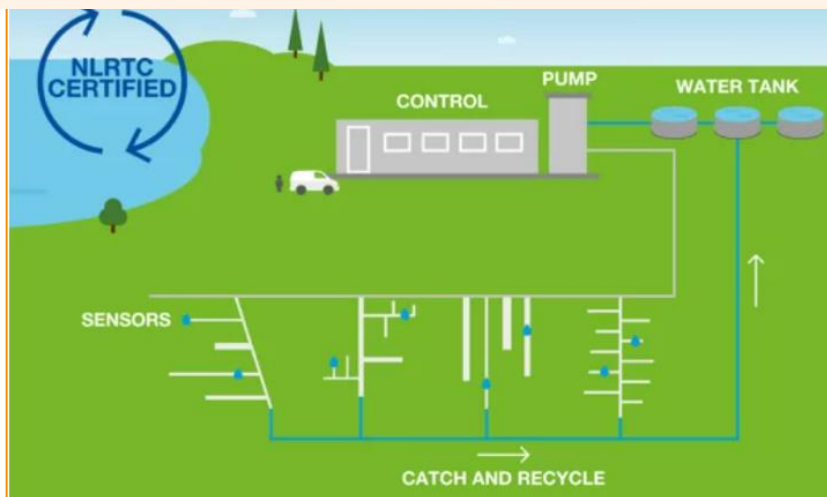
Objective - The National Leakage Research and Test Centre will be a 5km buried water pipe network specifically for developing and testing inventions.

Water leakage is a serious environmental problem - it must be drastically reduced to protect water security. There are plenty of ideas to tackle leakage, but development of solutions needs to be accelerated.

The National Leakage Research and Test Centre will be a 5km buried water pipe network enabling developing and testing inventions without disrupting customers' supplies or affecting water quality. It allows things like repair robots and sealants to be inserted into the water supply to see how they perform.

The network will include new and old pipes in a variety of materials and diameters just like a live water network, but it will allow researchers to insert and move deliberately leaky section of pipes. It will collect and recycle leaked water and will even simulate customers drawing water whilst tests are taking place.

There is also scope for the centre to be used for training and other research.





## CASE STUDY

### Hydro powered concentric smart meters.

We are supporting this Ofwat Catalyst Fund project providing resource where we are able.

Objective – A project seeks to overcome this by using the flow of water to provide limitless power to the meter.

Climate change is driving the need to conserve water as a key resource.

Current concentric water meters can only provide very basic and occasional information as they are constrained by the limits of battery power. This project seeks to overcome this by using the flow of water to provide limitless power to the meter. This enables live, rich, data to be provided to the consumer and to utilities, enabling action to reduce consumption and prevent leaks.

In addition to saving water, further sustainability benefits will arise from longer meter lifespans, reduced maintenance, and the elimination of environmentally harmful batteries.





## CASE STUDY

### SPRING

Spring, the UK water innovation centre of excellence, has been created to accelerate the water sector's transformation through innovation and collaboration. The initiative will connect, integrate, and augment existing excellence within and outside the water sector, making it easier for innovators, academia, and the supply chain to navigate the industry. Actively involving other organisations and continuously injecting innovation into the sector through learnings and best practices will propel the industry forward. This will allow the water sector to continue to meet stakeholders' needs and bridge barriers to innovation.

Spring, the water sector innovation centre of excellence, is providing to the sector. We have worked closely with the Spring team in the design and development of their service offerings, to further enable collaborative working, and further accelerate the value our innovation plans are targeting. We have contributed to the development of the Water Innovation Strategy 2050 (appended to this document as PRT10.03) and remain committed to increasing collaboration to deliver against the ambitions outlined in the strategy, as well as to share our knowledge to accelerate the learning of others in the sector.

Specifically, our intention is to at a minimum, support and utilise the Spring:

- *Accelerator*, to efficiently and effectively fast-track priority collaborative trials of innovations that solve sector wide Water Innovation Strategy ambitions.
- *Knowledge Transfer Service*, to accelerate our learning of innovations in the sector (including those funded through the Ofwat innovation and water efficiency funds) and to also share our knowledge and insights from performance enhancing innovation; and
- Brokerage tools and services, to join collaborative trials to solve sector wide Water Innovation Strategy ambitions.

Spring has been designed to bring efficiencies and other value to water companies and suppliers, with benefits being passed on to customers. As the organisation matures, we see an opportunity for increased engagement on sector wide innovations and we will be working with Spring through the next AMP to share our ambitions to further develop and scale the service offering to support us and the sector as a whole.







## CASE STUDY

### Water 4 All

We are supporting this Ofwat Catalyst Fund project providing resource where we are able.

**Objective – Specific initiatives aimed at supporting customers.**

Water companies have specific initiatives aimed at supporting customers, but they urgently need help to better identify and support low-income and vulnerable households. “Water4All”, led by Southern Water, puts financially vulnerable customers at the heart of the solution.

A consortium of leading multi-sector experts will use their knowledge and data to seek and serve those who need help most. Billing, affordability, fraud and benefits data will be used by Sagacity to identify affordability and vulnerability using advanced ‘machine learning’ and statistical modelling techniques, with priority households confirmed by Equifax and Synectics Solutions. UK Water companies will be enabled to engage vulnerable households assisted by Advizzo, Auriga, AgilityEco and Waterwise to maximise customers’ income, reduce their bills lower their carbon footprint.





## CASE STUDY

### Water Literacy

We are supporting this Ofwat Catalyst Fund project providing resource where we are able.

Objective – Delivering an accredited learning experience delivered across all aspects of the community, providing citizens with a greater awareness and understanding.

Water is significantly undervalued and arguably should be considered as valuable as oil or carbon. This limited public understanding of the systems involved in bringing water from source to use can result in inefficient use and pressures on water supplies. We quickly need to raise the awareness of the value of water and connect society's water use to the environment and its role in reducing the impacts of climate change. The Water Literacy Programme is an accredited learning experience delivered across all aspects of the community. It provides citizens with greater awareness and understanding of the systems involved and techniques to empower positive behaviour changes at home, in the workplace or in their community as well as signposting to further learning around water and climate change.





## CASE STUDY

### Diffusing the Nitrate timebomb

We are supporting this Ofwat Catalyst Fund project providing resource where we are we are supporting this Ofwat Catalyst Fund project as water company project lead.

**Objective - This project will develop modelling software that can predict concentrations of Nitrate throughout the chalk to ensure efficient targeting of interventions.**

Nitrate pollution is a threat to Chalk drinking water and dependent environments in Southern England. To reduce nitrate in drinking water requires expensive treatment or changes in farming practice.

Water companies work with farmers to reduce nitrate inputs but lack detailed knowledge of where to focus efforts for efficient, rapid results.

Through the prediction of the concentrations of Nitrate throughout the chalk we can target interventions in order to deliver efficient nitrate reduction. This will reduce treatment costs and energy consumption and help to protect habitats and biodiversity.





## CASE STUDY

### Isle Trial Reservoir



Isle has launched four new initiatives with the aim of accelerating the adoption of technology within multiple industries. The Reservoir initiatives present technology companies with a pool of funding available for pilot trials, presenting a risk-free opportunity to enhance the future of its sector whilst spearheading the journey to carbon neutrality.



- (ii) [Link to PRT10.02 PW Innovation Framework Draft V11](#)
- (iii) [Link to PRT10.03 UK-2050-Water-Innovation-Strategy](#)



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