

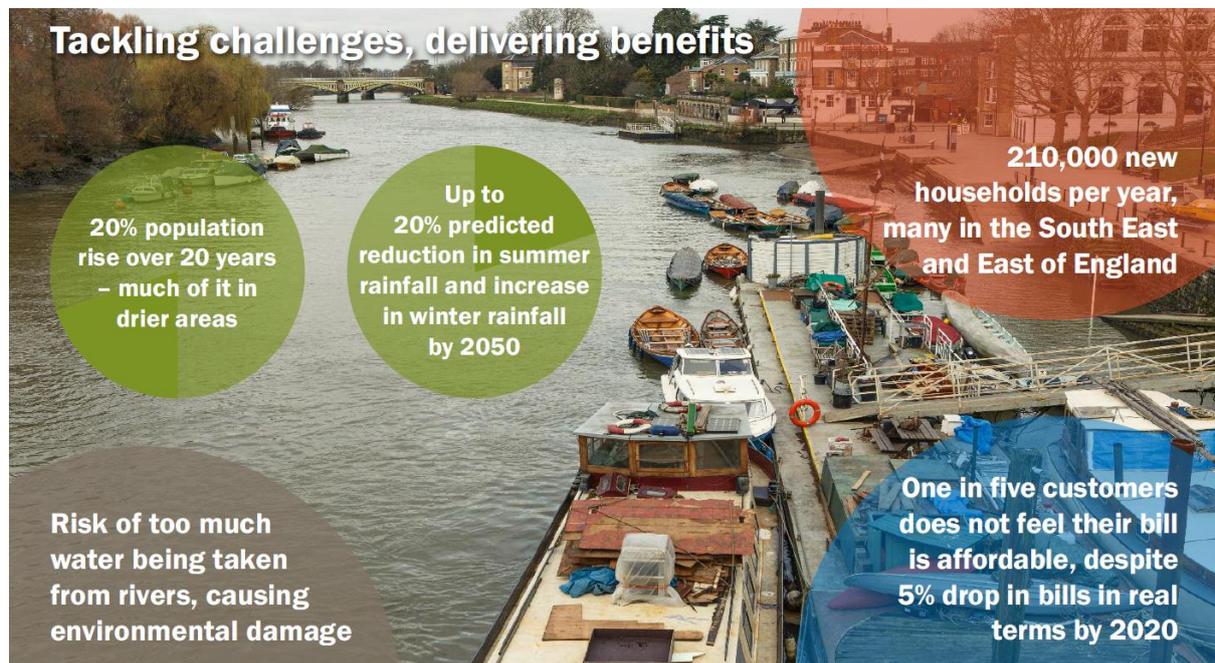
# Driving innovation in water



## Driving innovation in water

### Innovation is not a ‘nice-to-have’ – and change-as-usual won’t be enough

The water sector is facing a series of challenges, now, and in the coming years. Because water is an environmental service, population growth and climate change impact heavily on the sector. Population changes can also hamper affordability, because of the high incremental cost to increase capacity.



If the sector does not address these issues adequately, it could:

- hamper the long-term resilience of water and wastewater services;
- increase costs; and
- impact on the quality of services that customers receive.

To meet these challenges, companies need to have innovation at their core. This is why we have put innovation at the centre of our next regulatory review, PR19. For PR19 we are focusing on four themes:

- resilience;
- customer service;
- affordability and vulnerability; and
- innovation.

Innovation is a critical enabler to the other themes. It is a vital means of delivering long-term resilience in the round and great customer service, at a price people can afford, whilst protecting customers who are in circumstances that make them vulnerable.

When we talk about innovation, this does include technology, but there is a lot more to innovation than new kit. What we are really talking about is companies developing a culture of innovation, where every process is geared towards innovation, and customers are engaged as active participants, and companies collaborate within and outside of their sector.

Innovation is not a 'nice-to-have'. Without innovating, companies will not and cannot:

- deliver enough of what matters to customers and the environment, or
- play a leading part in helping the sector (and the country) face a range of significant challenges

The water sector has started to make some positive changes. For example, in our resilience in the round publication, we highlighted some good progress on green infrastructure, catchment management and system operation. However, the scale, depth and pace of innovation has been modest so far – and typically incremental, compared to the transformational change we have seen in other sectors.

Without change there is not innovation, creativity or incentive for improvement. Those who initiate change will have a better opportunity to manage the change that is inevitable.

William Pollard

## **When the water sector is truly innovative, we will all benefit**

### **Culture: systems, processes and people**

Innovation is about creating a culture and environment that allows changes to take hold and work in practice. It can also apply to the application of existing methods or technologies, in new ways or to new fields.

Innovative companies build the right culture into their ways of working to enable innovation to succeed. For example, some companies use digital tools to facilitate bottom up innovation can empower staff to develop ideas easily and get them

recognised. For example, Google's well-known innovation policy, '20% time', allowed its engineers to a fifth of their time on personal projects. Google '20% time' resulted in some of the company's most successful products, such as Gmail, AdSense and Google Talk.

If you're not failing, you're probably not trying as hard as you could be.

George Church

In PR19, we will be looking for companies to demonstrate that they have the right culture to deliver through systems, processes and people. Innovation should also extend to the relationships that water companies build with their customers, supply chain, other companies; and partners in related sectors. For example, this could include taking a systems perspective with agriculture, industry and landowners, to meet environmental obligations and wider shared goals. Whatever the goal, evaluating the success of new ideas, processes and technology, is a crucial part of innovation.

## **Collaboration**

Innovation does not develop in a vacuum. Collaboration is critically important for inspiring new ideas and applications, allowing for insight which seeds innovation. As well as collaborating with their external stakeholders, companies can collaborate within their own organisation, with other companies, with their supply chain, and outside of the sector. We want the sector to really develop its culture to be innovative as a whole, to support and incentivise innovation from research to rollout.

Through collaboration and transparency, sector participants can share and seed ideas, as well as sharing the risk of developing innovative new approaches, and the rewards of the value added. Working together, the sector can share risks, costs and benefits of innovation, and avoid making the same mistakes in isolation.

In the transport sector, Transport for London's innovative open data policy is a good example of what openness, transparency and collaboration can deliver. TfL has brought together its road traffic, real-time rail and tube updates, and cycle hire availability information, and shared it with the public. By making this data open and transparent, TfL has enabled app developers to use live timetables, joined-up transport mapping and news of delays and improvement works. They have used this rich source of data to develop a vast range of software to help people navigate the city more effectively.

We are also starting to see evidence of collaboration in the water sector. The Environment Agency's bathing water data is now live-linked across the web for any customer to use as a part of their own webpage, analysis or reporting interests. It has also established a catchment data user group to share a range of open data, and promote 'Linked Data' which water companies could be part of.

Collaborating with customers and other stakeholders to co-create and co-deliver services has huge potential to transform the customers' experience, now, and in the long term. We want customers to be active participants, not just passive recipients of water and wastewater services.

## **Technology**

Technology is often a powerful enabler of innovation, when paired with the right culture, processes and people. For example, metering, smart technology and water-efficient appliances can give customers more control over their water usage. Equally, water trading could remove barriers that stop companies offering innovative solutions across sectors. This could unlock huge potential for customers by helping to address the challenges of population growth, environmental sustainability and resource scarcity; particularly in south east England.

Technology also enables companies to better understand their systems and networks. This understanding helps them to prevent interruptions to service. It also helps companies to respond to, and recover from, service delivery challenges. We have seen progress in leak detection, closer monitoring and water efficiency audits. As well as reducing customers' bills today, it helps to manage overall water demand, and reduce the need for future system reinforcement.

## **Our strategy is to inform, enable, and incentivise innovation**

Through the regulatory framework, we clearly and unambiguously encourage innovation. Within the framework, we have developed tools and mechanisms to challenge companies to improve innovation for the benefit of customers, the environment and wider society. Our strategy is to inform, enable and incentivise innovation.



## Informing

Through our thought leadership we are encouraging the sector to think creatively about the opportunities for innovation. In 2016 and 2017, we ran a series of events and publications, including Tapped In which focused on customer participation, unlocking the value in customer data, debt management, and resilience in the round. An important part of this series of events has been looking, both within and outside of the water sector, to shine a light on good practice. By doing this we want to raise the bar for 'normal' in the sector, as well as driving transformational innovation.

## Enabling

Our approach to markets and regulation will enable innovation. Markets and competition are growing drivers of innovation in the water sector. Markets can reveal information on costs and value. Competition drives firms to better understand what their customers want and deliver for their customers.

Within the regulatory framework set by the English and Welsh governments, we are driving innovation by opening up markets, and exposing market participants to competitive pressures. In the new business retail market, we are starting to see some of the service innovations that save companies time and money. Demand-side service innovations are already starting companies to manage their water usage, to

improve resilience and defer system reinforcement requirements as well as reduce bills.

Where appropriate, in PR19, we will promote markets to encourage innovation through:

- water trading;
- the bioresources market;
- greater third party involvement in large projects, through direct procurement; and
- Markets for ecoservices – using market platforms to reveal better solutions to catchment challenges.

In doing this, we want to enable current and future industry participants to find new ways of delivering better outcomes for customers, the environment and wider society. Innovation could also help to develop markets, and new approaches to catchment management.

The outcomes and total expenditure approach provide companies with flexibility to design and deliver the best solutions for customers, without artificial constraints in the regulatory framework. We are already seeing exciting evidence of companies taking advantage of these opportunities to experiment and innovate in the current price review period and look forward to companies going further and faster in 2020-25.

## **Incentivising**

Through our regulatory framework, we have set a clear incentive framework to drive innovation in water companies. For example, innovation is one of the key aspects we are incentivising in PR19:

- Our initial assessment of business plans will incentivise companies to put forward plans which are high-quality, ambitious and innovative;
- We will promote innovation through enhanced rewards for frontier-shifting performance on the common performance commitments;
- We also expect companies to propose innovative, bespoke performance commitments that reflect customer preferences;
- Our cost outperformance incentives will push companies to deliver services more efficiently; and
- Outcome delivery incentives will provide outperformance payments to companies that deliver frontier-shifting service improvements, and underperformance penalties for companies who do not keep up.

There is a way to do it better. Find it.

Thomas Edison

As companies develop their business plans for the PR19 review, it is an important moment to reflect on the challenge and opportunity from innovation. Whether it is PR19 business plans, developing new products and services in the business retail market, or the range of everyday challenges that companies face, innovation can help to drive a step-change in efficiency, customer service and resilience. Innovation is a critical enabler for water companies to be ambitious in PR19. Through innovation companies can deliver more for customers, the environment, and wider society.

Ofwat (The Water Services Regulation Authority) is a non-ministerial government department. We regulate the water sector in England and Wales. Our vision is to be a trusted and respected regulator, working at the leading edge, challenging ourselves and others to build trust and confidence in water.

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