

UK 2050

**WATER INNOVATION STRATEGY
EXECUTIVE SUMMARY**

PUBLISHED SEPTEMBER 2020

THE WATER SECTOR'S VISION

TO CREATE OPEN COLLABORATION OPPORTUNITIES ACROSS THE WATER SECTOR TO DRIVE TRANSFORMATIONAL CHANGE THROUGH INNOVATION THAT DELIVERS GREATER VALUE FOR CUSTOMERS AND THE ENVIRONMENT.

The world is changing faster than ever before. We face a climate crisis, an ecological emergency and now, COVID-19.

None of us are alone in the water sector in experiencing the impacts of these global challenges. We have an ageing asset base and an urgent need to decarbonise our sector so we must make some big decisions in the next few years that will shape the future of water in the UK.

Transformational change through innovation is fundamental to support us to deal with these challenges and ever greater uncertainty and increasingly complex and interdependent systems.

We have come together as water companies from across the UK, facilitated by UKWIR, to develop this strategy on behalf of the water sector to drive transformational change in our sector through collaborative innovation. We know that we cannot deliver this change alone. This strategy is a call to action for you to join us on this journey.

Historically, there are some great examples of the water sector embracing new ways of working, from catchment management to the integration of new data analytics techniques. We believe it is time to build on this work and collaborate to transform the sector.

This strategy is therefore a call to action for our partners across the supply chain, our regulators, our customers and more to work with us to transform the water sector. Working together, we will achieve more; reducing duplication, delivering at scale more quickly through sharing resources and skills.

HOW WE WILL DELIVER INNOVATION: OUR PRINCIPLES

In the strategy, we set out how we will start to deliver transformative innovation through our four key principles which define how we will work together and guide our innovation activity.

OUR PRINCIPLES

1. OPENING ACCESS TO COLLABORATION

To create a joined up transparent approach for collaboration and make access to collaboration with the water sector more easily accessible.

2. LEVERAGING DATA AND NEW WAYS OF WORKING

To open and share data, use new knowledge and technology to address barriers to innovation.

3. MAKING SPACE FOR INNOVATION CULTURE

To provide resources to support the development of a shared water sector culture of innovation.

4. BEING LED BY ENVIRONMENTAL, SOCIAL AND ECONOMIC PURPOSE

To ensure the innovation provides the best public value.

WHAT INNOVATION WILL DELIVER: OUR THEMES

Our strategy also defines the ends; seven key themes, which describe our environmental, social and economic ambitions, and which we know are important to our customers.

For each theme, we have set ambitions that the sector will aspire to, and work towards, in the short, medium and long term, to 2050.

These are our ambitions, rather than targets, and will guide us collectively in delivering challenge-led innovation. However, recognising that innovation is complex and non-linear, we will also make space for open innovation.

WHAT IS NEEDED TO SUPPORT INNOVATION: A 'CENTRE OF EXCELLENCE'

We recognise that some enabling infrastructure will be required to deliver against our principles.

We have framed some of what is needed as a 'Centre of Excellence'. This will support the delivery and implementation of innovation, access to skills, facilitate collaboration and provide a focal point for water innovation.

We continue to develop the Centre of Excellence and aim to commence operations in spring 2021.

CALL TO ACTION

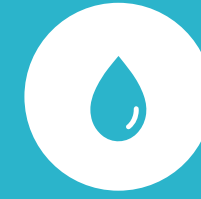
This is an opportune moment to shape the future of water in the UK but we can only achieve this through collective action and we all have a role to play.

This strategy is a call to action for you to work with us to collaborate to co-create transformative innovation in the UK water sector.

Current and future partners will be central to shaping, and collaborating to deliver, transformative innovation in the sector. There is also a pressing need to work with government and other decision makers to support innovation for growth and for good, directing innovation to society's most important problems, and shaping the application of new ideas and technologies in a way that benefits as many people as possible. While by itself, this strategy cannot achieve these things, we hope it will be the catalyst for change and provide the framework within which we can each take responsibility and work together to transform.



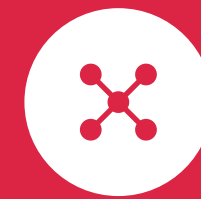
PROVIDING THE SERVICES SOCIETY NEEDS, EXPECTS AND VALUES



PROVIDING CLEAN WATER FOR ALL



PROTECTING AND ENHANCING NATURAL SYSTEMS



DELIVERING RESILIENT INFRASTRUCTURE SYSTEMS



ACHIEVING NET ZERO CARBON



TAKING A WHOLE LIFE APPROACH TO RESPONSIBLE CONSUMPTION AND PRODUCTION



ENABLING DIVERSE FUTURE-READY PEOPLE AND PARTNERSHIP WORKING



THEMES AT A GLANCE



PROVIDING THE SERVICES SOCIETY NEEDS, EXPECTS AND VALUES

AMBITIONS FOR 2050

Customers have trust and confidence in the service that the water sector provides
Water services are accessible, affordable for all, protect vulnerable customers and lead to zero customers in water poverty by 2030
Service provision is transparent, and customers and communities work with water companies to improve service and decision making



PROVIDING CLEAN WATER FOR ALL

AMBITIONS FOR 2050

Drinking water supply is low impact and sustainable
UK water supply is reliable with zero interruptions
We provide enough water for all across the UK



PROTECTING AND ENHANCING NATURAL SYSTEMS

AMBITIONS FOR 2050

Wastewater services are environmentally sustainable
We work with customers to halve freshwater abstractions, leaving more water in the environment
Water companies work in collaboration with customers and communities to have zero uncontrolled discharges from sewers
Emerging contaminants and lead are dealt with effectively causing zero harm for people and the environment
We have developed, protected and enhanced our natural environment
We have used natural solutions to improve our resilience to current and future challenges



DELIVERING RESILIENT INFRASTRUCTURE SYSTEMS

AMBITIONS FOR 2050

We work with customers to develop resilient human, physical and digital systems which can adapt to known and unknown future challenges
Our assets are maintained for the long term providing economic, social and environmental value



ACHIEVING NET ZERO CARBON

AMBITIONS FOR 2050

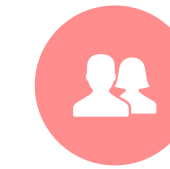
We have achieved operational and value chain carbon negativity
We have implemented carbon sequestration across the water sector
Customers, communities, water companies and the supply chain work together to achieve carbon neutrality across the value chain



TAKING A WHOLE LIFE APPROACH TO RESPONSIBLE CONSUMPTION AND PRODUCTION

AMBITIONS FOR 2050

We have maximised the recovery and reuse of resources to support sufficient resource availability for nature and society and achieved zero waste
We have sustainably achieved zero leakage



ENABLING DIVERSE FUTURE-READY PEOPLE AND PARTNERSHIP WORKING

AMBITIONS FOR 2050

We have a shared innovation culture which improves customer experience
Collaboration pathways are paved between water companies, regulators, supply chains, SMEs, start-ups, academia, customers and other innovators to allow innovation to work
The whole sector's workforce has the skills and diversity of thought to take an active approach to prepare for and address emerging challenges
The UK regulatory framework has evolved to incentivise innovation to benefit customers and the environment