

FWA: Yorkshire Water Liaison

March '24



Yorkshire Water

Overview and who's who at Yorkshire Water



YorkshireWater



YorkshireWater



1 billion

litres a day collected,
treated and returned

5 million

customers

140,000

businesses

4000+

colleagues

£1 billion

revenue in yearly water bills

£1 million

invested per day to maintain and
enhance network

658

treatment
works

85,000

km of pipes
and sewers

72,000 acres

of reservoirs and countryside



CEO
Nicola Shaw
nicola..l.shaw@yorkshirewater.co.uk



Director of Wastewater
Ben Roche
ben..roche@yorkshirewater.co.uk



Director of Water
Dave Kaye
dave.kaye@yorkshirewater.co.uk



CFO
Paul Inman
paul.inman@yorkshirewater.co.uk



Director of Asset Delivery
Richard Stuart
richard.stuart@yorkshirewater.co.uk



Director of IT
Richard Heighington
richard.heighington@yorkshirewater.co.uk



Director of HSE
Peter Jacques
peter.jacques@yorkshirewater.co.uk



Director of Regulation
John Thomas
john.thomas@yorkshirewater.co.uk



Director of Customer Exp
Imran Patel
imran.patel@yorkshirewater.co.uk



Head of Bioresources
Daniel Oldfield
daniel.oldfield@yorkshirewater.co.uk



Head of Process & Pumping
Tom Reeves
tom.reeves@yorkshirewater.co.uk



Head of Waste Network
James Harrison
james.w.s.harrison@yorkshirewater.co.uk



Head of River Health
Kevin Reardon
kevin.reardon@yorkshirewater.co.uk



Head of Water Network
Joe Hands
joe.hands@yorkshirewater.co.uk



**Head of Water Asset Management
and Water Quality**
Martyn Hattersley
martyn.hattersley@yorkshirewater.co.uk



Head of Water Production
Andy Shaw
andy.shaw@yorkshirewater.co.uk



Head of Capital Delivery
Rachael Fox
rachael.fox@yorkshirewater.co.uk



Head of Storm Overflow Delivery
Jon Stokes
jonathan.stokes@yorkshirewater.co.uk



Head of Commercial
Andy Clark
andy.clark@yorkshirewater.co.uk

Yorkshire Water

CHALLENGES IN THE FINAL PERIOD OF AMP7



Yorkshire Water

Improving Asset Health

- Continuing to hit the AMP7 Leakage target, getting to 15% by 2025 is stretching
- Continuing to improve WQ customer contacts at last year's rate, reduced by 1 per 10000
- Improving supply interruptions which has plateaued in the last 3 years at c.9mins, influenced by large single events and trunk mains
- Reducing WQ compliance risks at WTWs and service reservoirs

Creating an engaged, high performing team

- A smaller, resilient and technically competent reactive team
- A larger proactive team fully focussed on asset and network maintenance to break the reactive cycle
- A dedicated Customer facing team to deliver sector leading service
- Consolidation of tasks by complexity to enable better delivery and a systems led approach to workforce management.
- A partnership approach to Metering and Leakage to enable flexibility and drive efficiency
- Natural progression through network roles, with functional expertise balanced with the flexibility required to ensure resilience and deal with variation in demand

Taking a joined-up approach

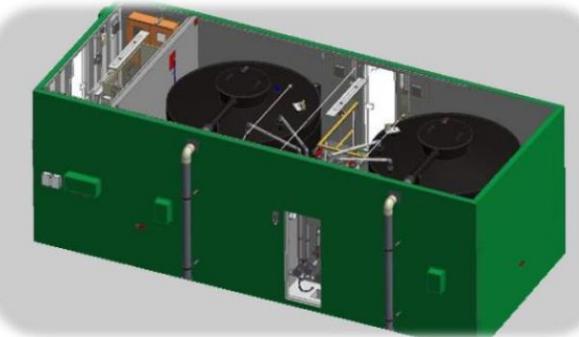
- Getting our business processes ready (systems & outcomes) for 1.5m Smart Meters in AMP8 to maximise service, consumption and leakage benefits
- Delivering regulatory compliance dates for DWI WQ schemes and EA reservoir safety schemes



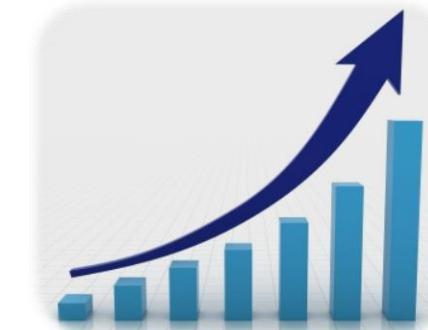
Wastewater



Back ended programme



Supply chain issues



Significant ramp up in our chem consumption



Affordability

Programme affordability



Environment Agency

Greater regulatory scrutiny



AMP8 Readiness

Yorkshire Water

PLANS AND DELIVERY CHALLENGES FOR AMP8



Yorkshire Water

What we need to deliver

£7bn Programme

- c.40% step up from AMP7

Significant investments into

- Smart Metering
- WINEP
- Storm Overflows
- River Water Quality
- DWI Programme
- WRMP

Our first DPC programme

- 2 WTWs – Elvington and Chellow
- Discreet batch of the largest Storm overflow storage solutions

£1.3bn Storm Overflow Programme

Net Zero Carbon Target

Industry Leading Safety Performance

£1.5bn Non-Infrastructure quality programme across clean and waste assets

Focus on Asset Health

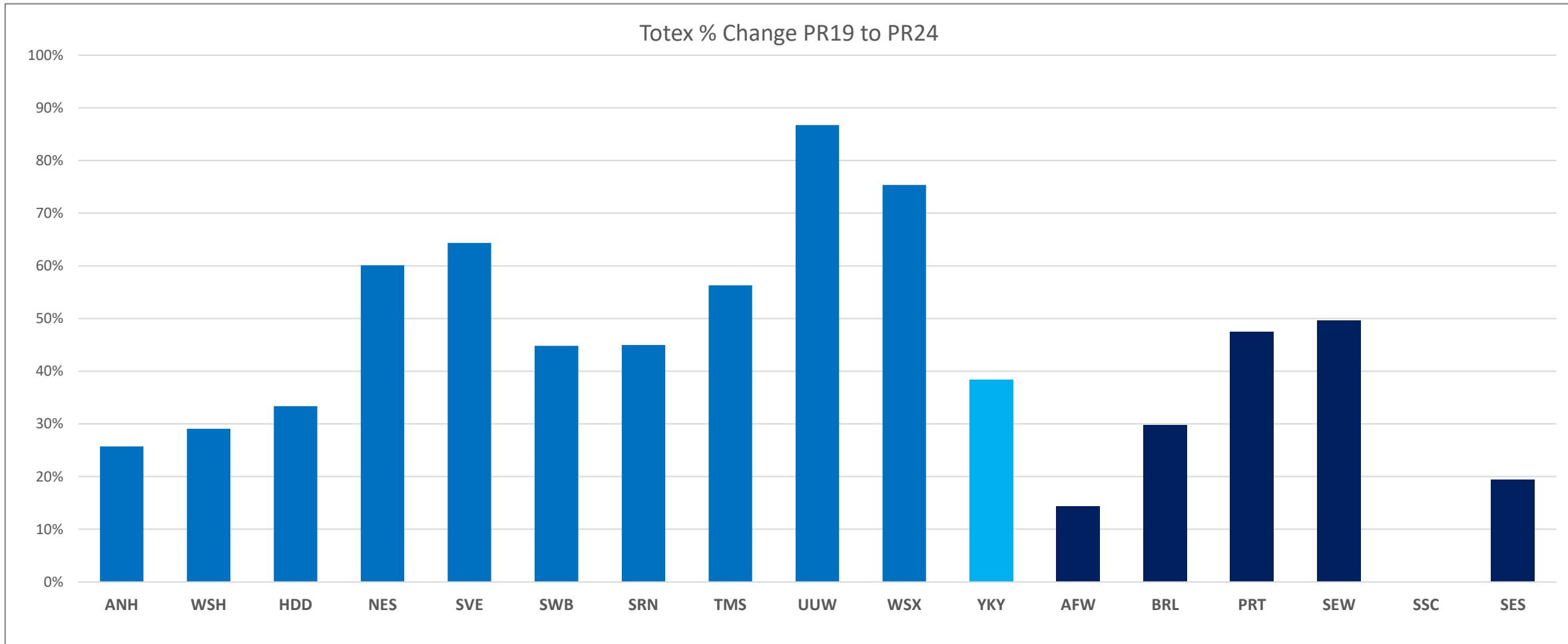
Growing a **diverse and skilled** workforce

Delivering via a **Collaborative Supply Chain**

Increased Infrastructure Programme

Delivering **blue/green** infrastructure solutions

PR24 proposed Totex increase



This graph indicates the % Totex difference between companies' final submitted plans at PR19 and the PR24 submissions. Excludes DPC costs.

Note: Numbers should be considered indicative.

Delivery Goals and challenges

What we need to achieve

- To deliver quality outputs, safely, within the planned cost and time allowances
- To achieve the regulatory commitments and price control deliverables
- To achieve the planned savings/efficiencies
- To define and deliver sustainable solutions which are optimised for carbon, totex and achieve YW's nature first commitments
- To deliver predictable volumes of spend on an annual basis

Challenges we are facing

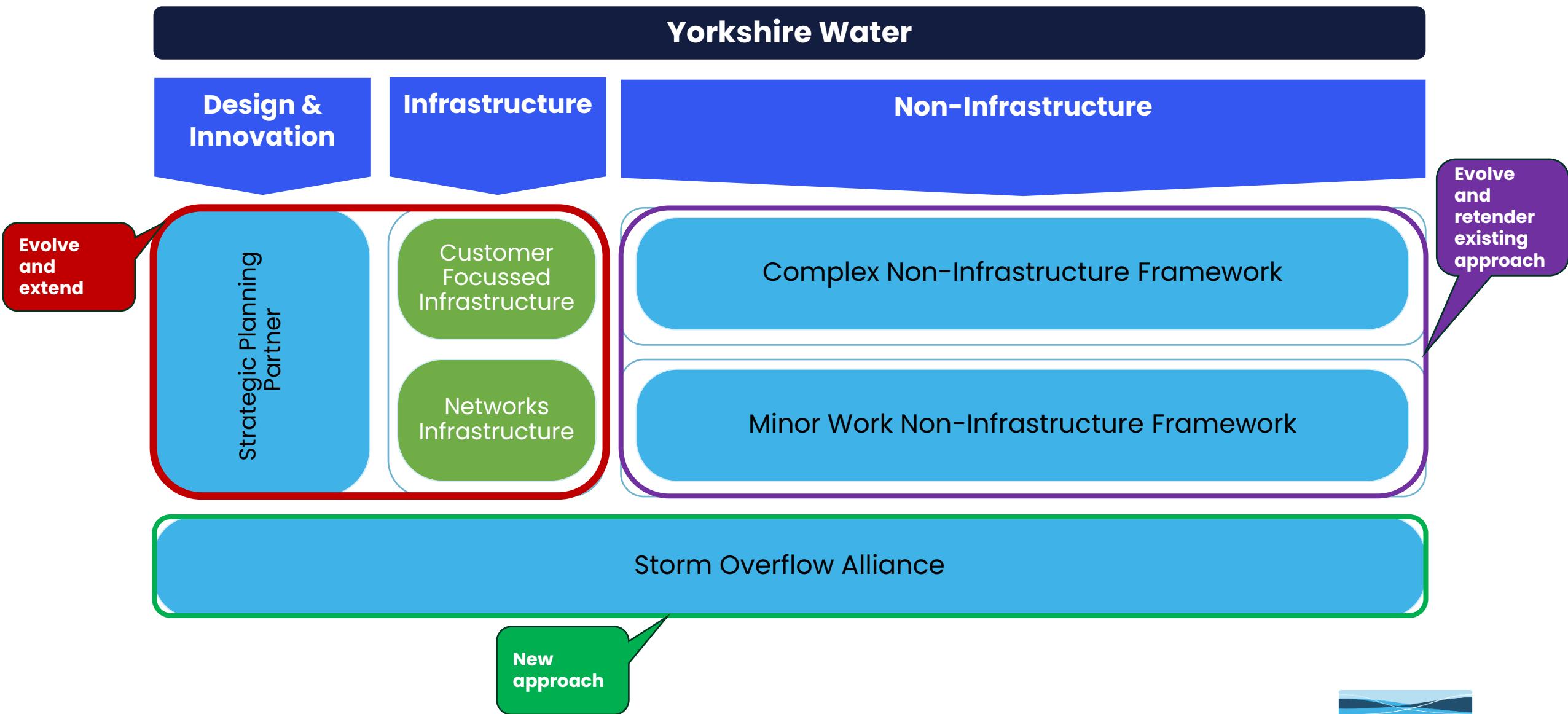
- Uncertainty of PR24 outcome
- Continued media focus and political uncertainty
- Risk of resource availability due to industry wide ramp-up in workload
- Readiness to deliver from day 1 of AMP 8
- The time and dependency on others required to make nature-first a success
- The need to make savings and deliver at pace concurrently

Commercial considerations

- The right commercial model for the right area of the programme
 - Understood solutions, low complexity, high volume
 - Partially understood solutions, moderate complexity, low volume
 - Solutions unclear, high complexity, low volume
- Ensure arrangements match commercial complexity with risk, supplier type and contract method
- Evolve past arrangements, not rip it up every 5 years
- Desire to follow best practice and deploy an Alliance, but where it fits best
 - Known programme with low volatility
 - Clear outcomes and strategic aims
 - Where there are a range of solutions possible and not client defined



AMP8 Framework Overview



Yorkshire Water

AMP8 PROGRAMME AND CAPACITY CHALLENGES



Yorkshire Water

Delivery Goals and challenges

Critical Part of the Programme

- Significant Storm Overflow programme
- Continued WINEP Programme
- YW's nature first commitments

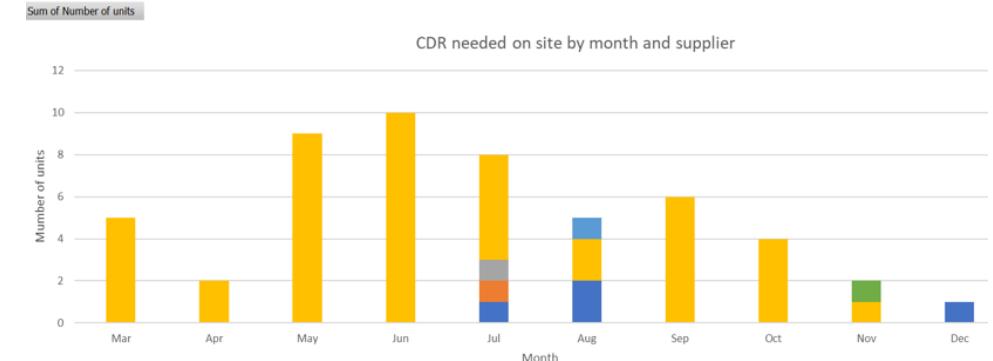
Capacity challenges we are facing

- Delivering the largest capital programme the industry has ever seen
- Risk of resource availability due to industry wide ramp-up
- Ability to retain the supply chain through AMP7 Year 5 in order to hit the ground running in AMP8
- The time and dependency on others required to make nature-first a success
- Increasing lead times
- MCC, Systems Integration
- WINEP P Removal – Chemical dosing, TSR
- Continuing to influence customers on sewer misuse



Delivery Goals and challenges

Focus on driving improved demand forecasting down to supplier level



Supporting Capacity Concerns

- Client resource ramp up
- Improved focus on effective demand forecasting
- Standardised designs
- Infrastructure roll over & programme allocation
- Strategic Planning Partner programme optimisation
- Increased focus on partnerships
- Improved early engagement with key supply chain during value engineering

Yorkshire Water

INNOVATION, CURRENT AND FUTURE PROJECTS



YorkshireWater

Water Industry Innovation Needs....

"Global Water Intelligence estimates that meeting the UN Sustainable Development Goals for water and sanitation between 2018 and 2030 will cost \$1,785 billion for rehabilitation and \$4,056 billion for new infrastructure. Activity on this scale will require significant innovation and forward thinking."



YorkshireWater

Water Industry Innovation Needs.....

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."

"Collaborative innovation will support the water sector in meeting ambitions for customers; improving social and environmental value in the long term."

Water Innovation Ecosystem

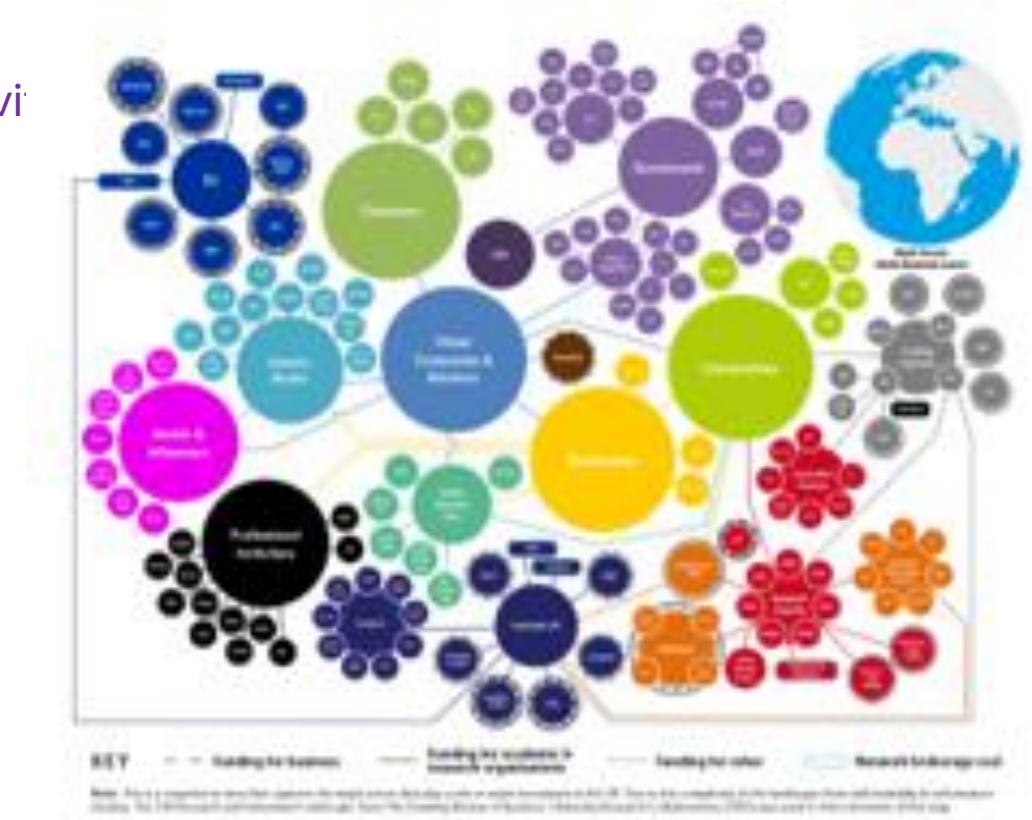
Innovation is a complex, non-linear process, so the water innovation ecosystem is similarly complex.

Map of the key actors that play a role in water innovation activities:

- Identifying the gaps
- Establishing relationships between different actors,
- Developing collective understanding over time
- Making collaboration with, and innovation within, the water sector easier.

Cross-sector collaboration is central to addressing some of society's biggest challenges:

- Carrying out research
- Developing innovative technologies
- Driving behavioural change
- Implementing policy frameworks

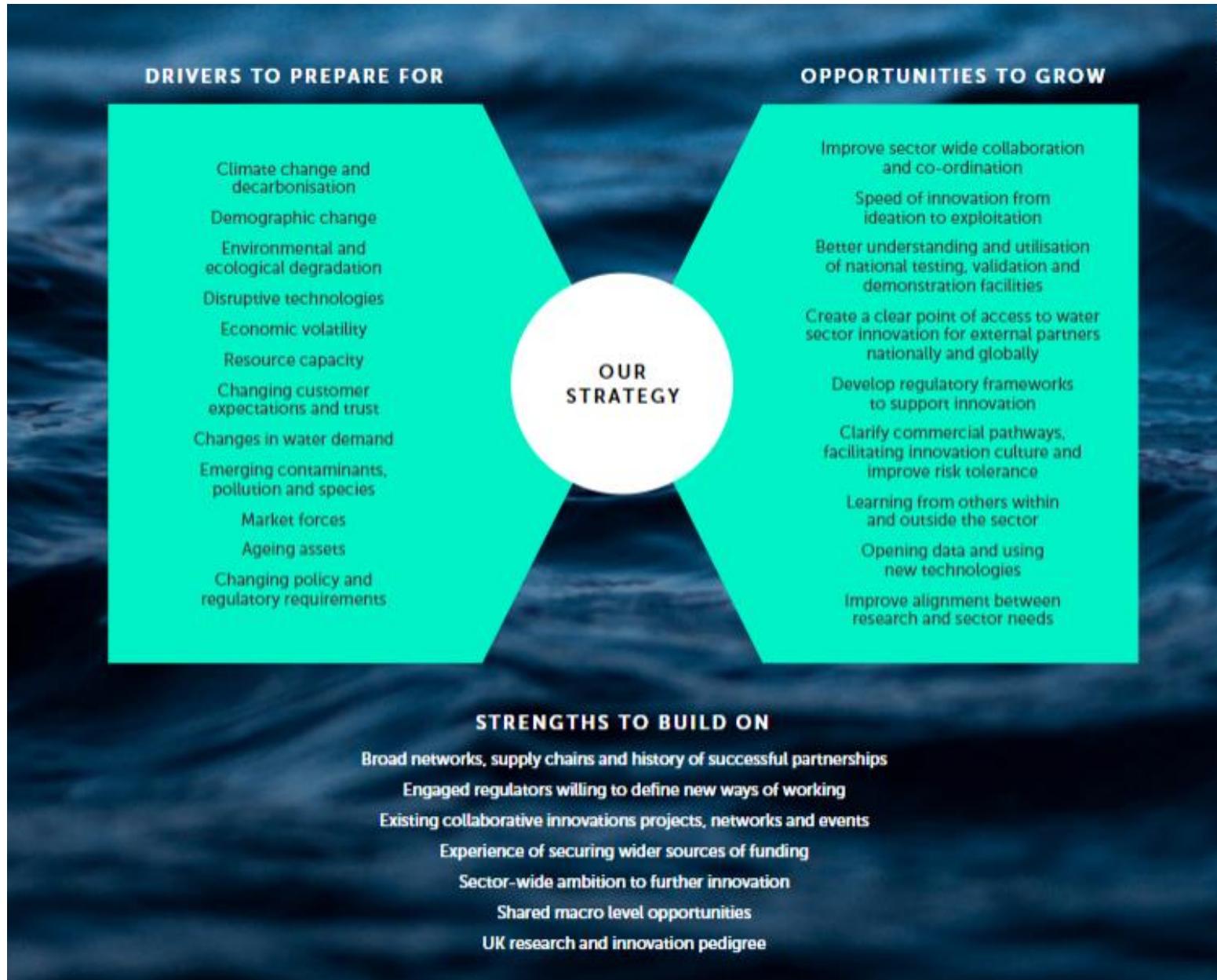


Yorkshire Water

"Working together ensures there is the right engagement and support to create a successful ecosystem that is more than the sum of its constituent parts."

Drivers and Opportunities

- Climate change and decarbonisation
- Demographic change
- Environmental and ecological degradation
- Disruptive technologies
- Economic volatility
- Resource capacity
- Changing customer expectations and trust
- Changes in water demand
- Emerging contaminants, pollution and species
- Market forces
- Ageing assets
- Changing policy and regulatory requirements



Themes at a glance



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

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

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

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

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

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

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

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

Short- 2025),
 Medium- (2035)
 Long-term (2050) aims

[SUMMARY](#) / [INTRODUCTION](#) / [STRATEGY](#) / [PRINCIPLES](#) / [THEMES](#) / [IMPLEMENTATION](#) / [EVOLUTION](#) / [APPENDIX](#)

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.

WE NEED TO INNOVATE TO BUILD CUSTOMERS' TRUST AND DELIVER TRANSFORMATIONAL CUSTOMER SERVICE.

KEY ENABLERS TO DELIVERING THIS THEME

We need new enablers and ways of working to address these key themes and challenges:

- Creating an open two way dialogue with customers
- More joined up and collaboration across the water sector
- Developing an understanding of the true value of water and its role in society
- Creating national benchmarks for data sharing and collaboration
- Enabling data to be more open and have inter-operability and use appropriate third party and third sector data
- Sharing broader environmental data with customers
- Engaging customer engagement processes
- Developing digital platforms
- Working collaboratively with the non-household market
- Using data to better understand and mitigate the true extent of water poverty across customers

PETA JAKARTA - CREATING CROWD-SOURCED FLOOD MAPPING

Piloting an innovative approach to citizen engagement in Indonesia, the Peta Jakarta project in 2014/15 used real-time social media to map flooding in Jakarta during a period of monsoon flooding. (Holderness and Turpin, 2015) Based on success in Jakarta, the project has been expanded, called Peta Peta to the greater Jakarta region.

INNOVATIVE USE OF SOCIAL MEDIA FOR DISASTER RESPONSE AND PLANNING

The project encourages Jakarta's citizens to report the locations of flood events using the social media network Twitter. This has been driven down data collection supported by accurate and publicly accessible real-time mapping of flood conditions.

CROSS-VALIDATION OF FLOOD RISK DATA REPORTS

Creation of formal flood risk data sources with live data and information for flood assessment, targeted response, and planning.

THE PETA JAKARTA PROJECT

The project demonstrated the value and utility of social media as an urban method for crowd sourcing information to support decision making and planning in the face of extreme weather conditions. (Holderness and Turpin, 2015)

RELEVANCE TO UK WATER SECTOR

This project has the potential to crowd source data and to bring the community to centre of projects. This is a step change from a more traditional approach of having customers and communities as a one-way target rather than a two-way dialogue and process of co-creation.

[SUMMARY](#) / [INTRODUCTION](#) / [STRATEGY](#) / [PRINCIPLES](#) / [THEMES](#) / [IMPLEMENTATION](#) / [EVOLUTION](#) / [APPENDIX](#)

PROVIDING THE SERVICES SOCIETY NEEDS, EXPECTS AND VALUES

AMBITIONS FOR 2050

Customers have trust and confidence in the service that the water sector provides

SHORTH-TERM AIM

Our communications reflect the needs of our customers and are efficient and effective, especially in an emergency. For example:

- through new communication platforms like How to service of online video, video calling, automated messaging
- through ethnographic and universal research approaches to help understand the cultural and social needs of our customers
- through cultures such as checklists

MEDIUM-TERM AIM

All our customers have an excellent customer experience. We have a consistent approach on top of delivering our regulatory service requirements and changing circumstances

LONG-TERM AIM

Customers are part of the journey, co-creating with us to build customer trust and confidence across the sector to build customer trust and confidence in our commitment to achieving common goals

AMBITIONS FOR 2050

Water services are accessible, affordable for all, protect vulnerable customers and lead to zero customers in water poverty by 2030.

SHORTH-TERM AIM

Customer service is flexible and reflects the needs of all customers inclusively. For example:

- by using new data and engagement approaches
- throughself-service and pay-up-front
- cross customer billing
- improved use and modelling of customer data allows us to better predict customer, debt and service issues
- the use of data to better understand and mitigate the true extent of water poverty
- the use of data to better understand and mitigate the true extent of water poverty

MEDIUM-TERM AIM

Customer service is flexible and reflects the needs of all customers inclusively. For example:

- by using new data and engagement approaches
- throughself-service and pay-up-front
- cross customer billing
- improved use and modelling of customer data allows us to better predict customer, debt and service issues
- the use of data to better understand and mitigate the true extent of water poverty
- the use of data to better understand and mitigate the true extent of water poverty

LONG-TERM AIM

Customer service is flexible and reflects the needs of all customers inclusively. For example:

- by using new data and engagement approaches
- throughself-service and pay-up-front
- cross customer billing
- improved use and modelling of customer data allows us to better predict customer, debt and service issues
- the use of data to better understand and mitigate the true extent of water poverty
- the use of data to better understand and mitigate the true extent of water poverty

SHORTH-TERM AIM

Decision making processes are transparent so that our customers can better understand how we make decisions which provide the best social value, regarding things such as network investments, emergency response, engagement spreads to all water users, not just firms to improve the validity of the sector, enabling greater customer engagement

MEDIUM-TERM AIM

The amount and type of data we openly share with our customers is increased to support greater transparency in areas that customers identify as important. We share our progress and data openly, and in a way that is meaningful to our customers

LONG-TERM AIM

Customers are part of the journey, co-creating with us to build customer trust and confidence across the sector to build customer trust and confidence in our commitment to achieving common goals

AMBITIONS FOR 2050

Customers are part of the journey, co-creating with us to build customer trust and confidence across the sector to build customer trust and confidence in our commitment to achieving common goals

SHORTH-TERM AIM

We share our progress and data openly, and in a way that is meaningful to our customers

MEDIUM-TERM AIM

Customer engagement is transparent and underpins collaborative decision making

LONG-TERM AIM

Customer engagement is transparent and underpins collaborative decision making

Ofwat Innovation Fund

£200 million Innovation Fund – funded by Water Company Customers

“to grow the water sector’s capacity to innovate, enabling it to better meet the evolving needs of customers, society and the environment.”

Split into 2 competitions:

- **Water Discovery Challenge (for Suppliers): c.£4 million** “competition for bold and ingenious innovation up to **£500,000**.
 - WDC1 winners announced in Feb.2024
- **Water Breakthrough Challenge:**
 - **Catalyst Stream: c.£10 million** fund for projects between **£150,000 – £2 million**.
 - **Transform Stream: c.£30 million** for initiatives between **£2 million – £10 million+**.
 - Judging of WBC4 entries is ongoing – Winners to be announced in May 2024

About the Fund: [Ofwat Innovation Fund \(challenges.org\)](https://challenges.org)

Email: waterinnovation@challengeworks.org

Consultation on **significant!** Increase in the Innovation Fund in AMP8



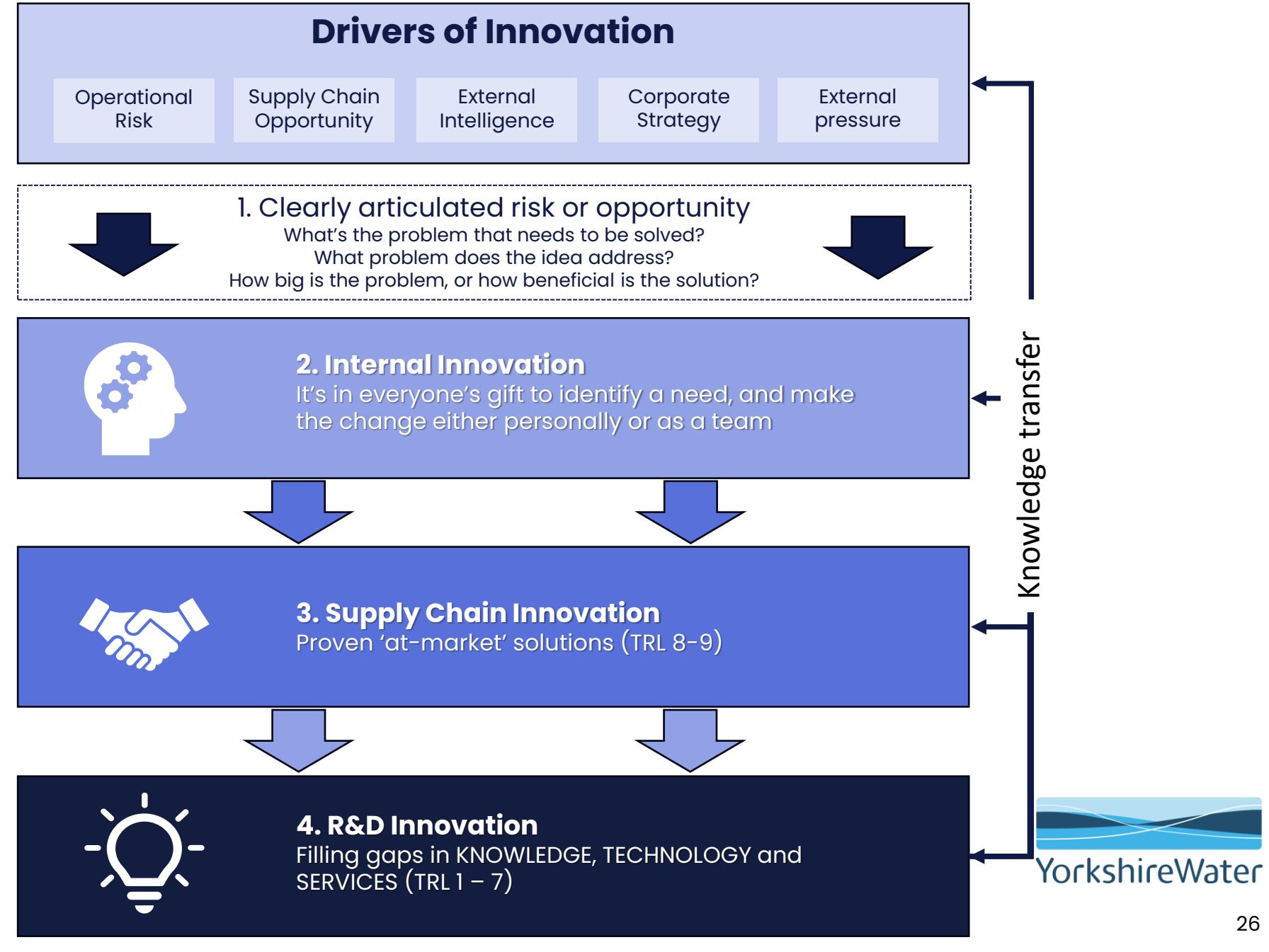
Innovation in Yorkshire Water

R&D innovation Team's role is to accelerate and de-risk the adoption of new solutions that:

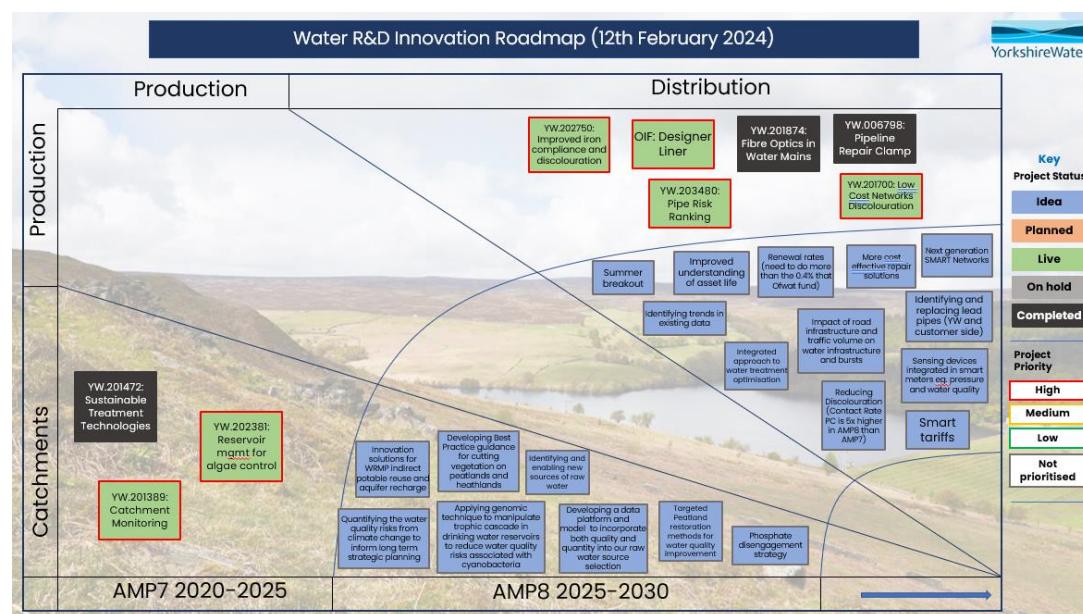
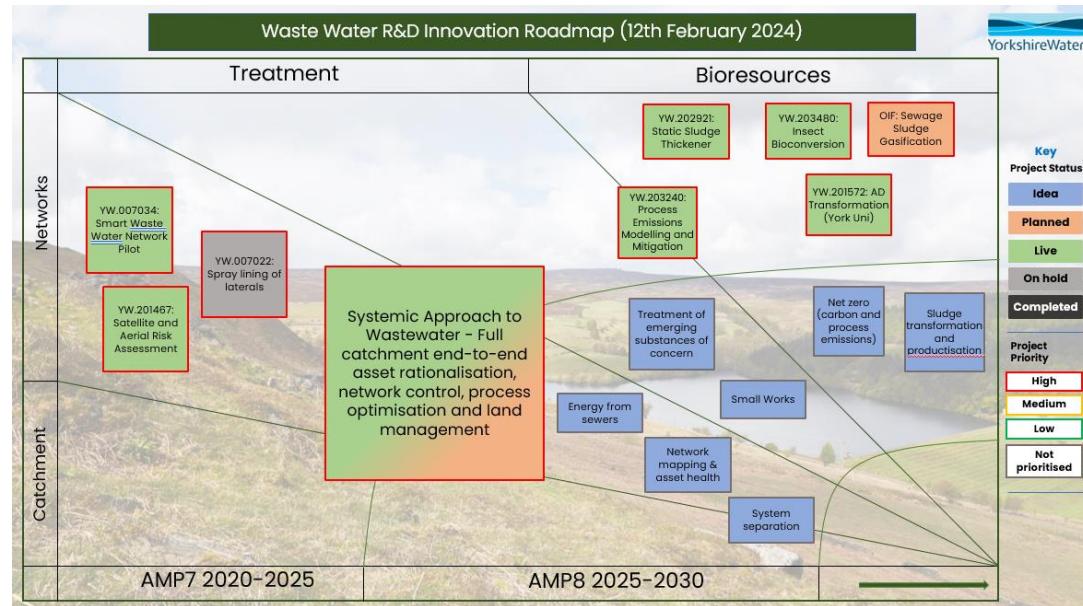
- Improve **service** performance,
- Mitigate emerging risks and improve **resilience**,
- Realise operational **efficiency**
- Enable business **growth**

“The deliver a Transformational and Incremental Innovation programme, in order to **fill gaps in KNOWLEDGE, TECHNOLOGY and SERVICES**” (e.g. TRL 1-7)

How we do 'Innovation' at YW



R&D Innovation Programme

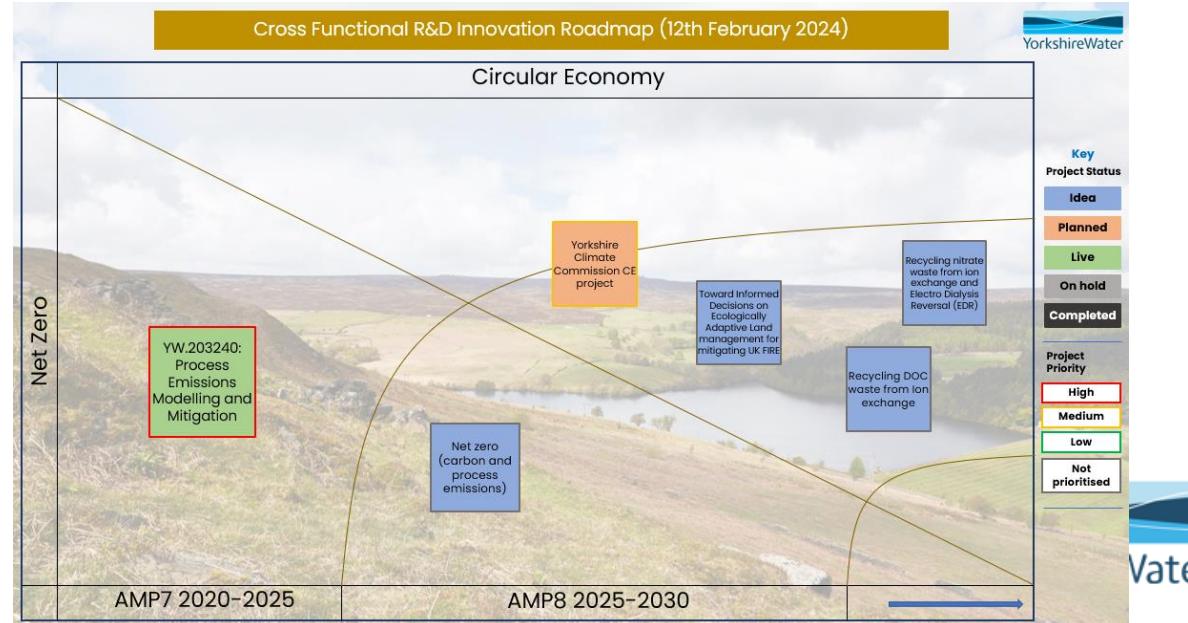


Innovation Programme

- AMP7: £11m + third party leverage (>£20m to date)
- AMP8 Plan: £18m + >£18m third party leverage

3 Roadmaps

- Water
- Wastewater
- Cross-Functional
- To be made available on the YW Innovation website*



R&D Innovation – ‘Key areas of focus’ in AMP8

Water Catchments and Production

- Drinking Water Quality
- Water Resources
- Raw Water Catchment Management

Wastewater Networks

- Storm Overflows / Pollution
- Internal and External Sewer Flooding

Water Distribution

- Asset Health and Resilience
- Leakage, Demand Management, Bursts

Wastewater Treatment and Bioresources

- Wastewater Treatment Works Compliance
- Sludge treatment and disposal

Cross Functional

- “Smart” technology
- Resource recovery and reuse
 - Net Zero
- Capex and Opex Efficiency

Yorkshire Water

WORKING WITH THE SUPPLY CHAIN



Yorkshire Water

At Yorkshire Water, there are a number of different ways we engage with suppliers and stakeholders when approaching a tender process to ensure the best outcome for all

Our focus has been about speeding up the tender process and making sure we provide quality and insightful feedback to suppliers along with a transparent process.



The next phase will be increasing speed and reducing effort to tender, e.g. through single-day commercial rounds, eAuctions and more flexible choice of procedures



Yorkshire Water has a Commercial Business Partner model with key contacts leading to connect suppliers to internal colleagues



Directs
James Carr
james.carr@yorkshirewater.co.uk



Networks
Daniel McDonough
daniel.mcdonough@yorkshirewater.co.uk



Capital Delivery – Main Frameworks
Mark Doherty
mark.m.doherty@yorkshirewater.co.uk



Capital Delivery – Enabling Frameworks
Angela Danby
angela.danby@yorkshirewater.co.uk



Indirects
Dale Priestley
dale.priestley@yorkshirewater.co.uk



Sustainability focus on a page

