



# Capital markets day 2 March 2020

United Utilities Group PLC

Capital Markets Day

# Steve Mogford

Chief Executive



# A purpose led company

Our strategic themes, in place since 2011, drive how we work towards delivering our purpose



The best  
service to  
customers

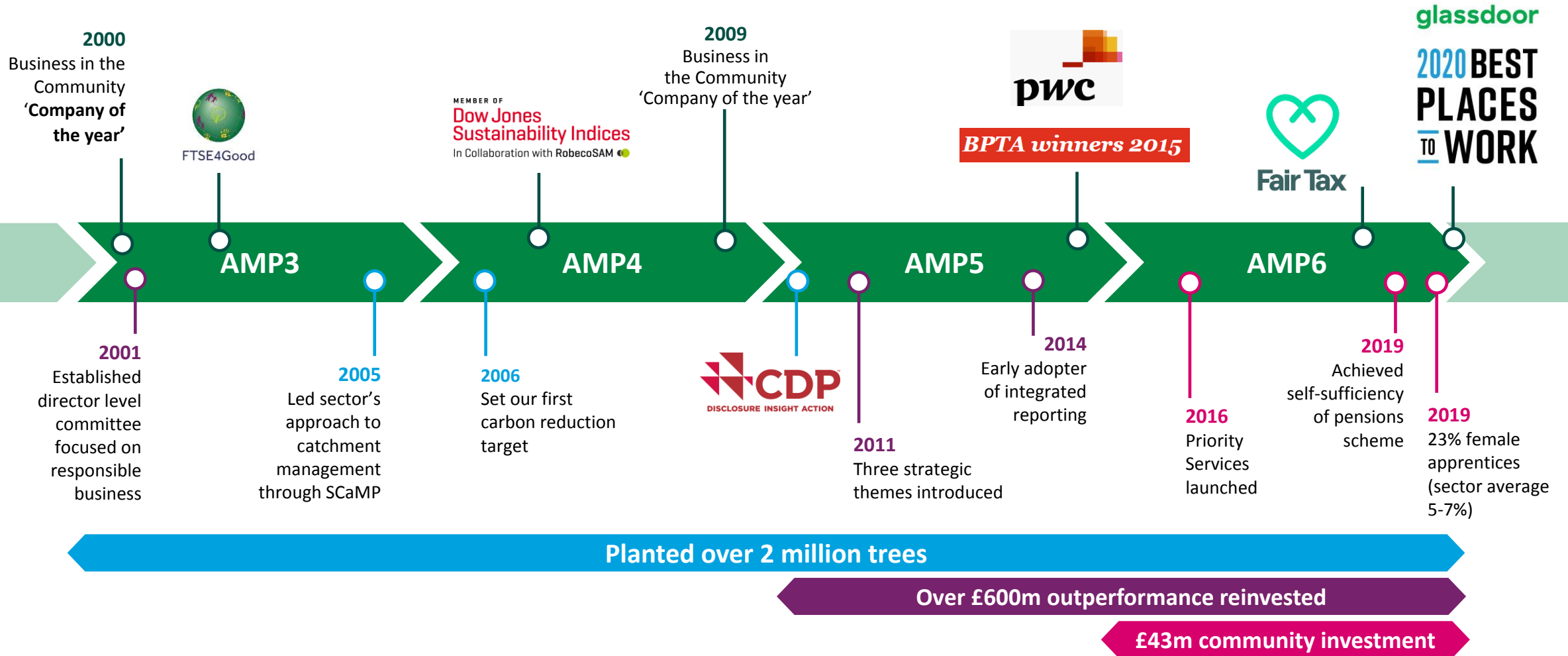
At the  
lowest  
sustainable  
cost

In a  
responsible  
manner

Continuity and stability of approach has provided the platform for transformation in performance for the benefit of all stakeholders

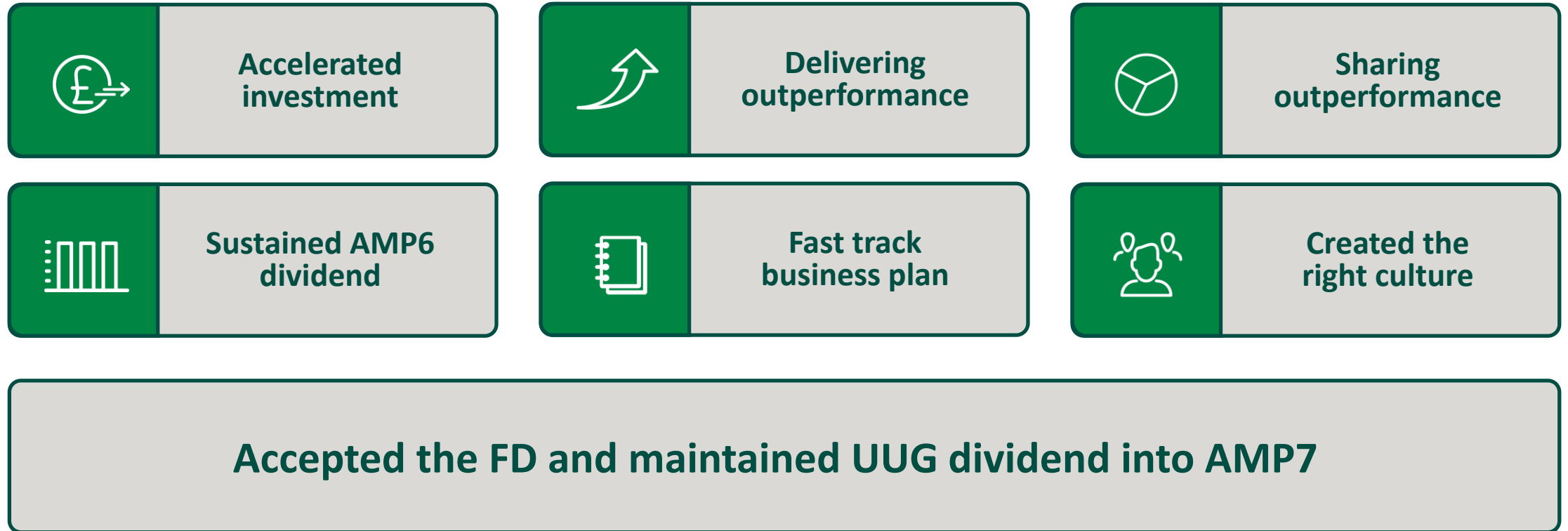
# A strong track record of leading on ESG

Significant achievements against environment, social and governance



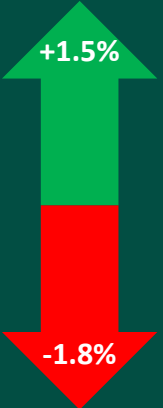




# Our approach from AMP6 to AMP7

Our strategy has played out and delivered



# Summary of U UW's final determination

A balanced settlement overall

 <p>Opportunities represented by ODIs</p>	 <p><b>13.8%</b> real reduction in average bills</p>	 <p>Delivering for the environment</p>	<p>Increasing resilience through Haweswater Aqueduct Resilience Programme (HARP)</p>  <p>110km long</p>
<p>£</p>	<p><b>£5.8bn</b> totex allowance</p>	<p>Targeting</p> <p>20% reduction in pollution</p> <p>15% reduction in leakage</p>	 <p>UUG dividend maintained with CPIH growth</p>

A purpose led company, recognising the needs of all of our stakeholders

# Agenda

## Morning (10.30 – 12.00)



**Steve Mogford**  
Chief Executive  
**Totex**



**James Bullock**  
Strategy and Regulation Director  
**Haweswater Aqueduct  
Resilience Programme**



**Russ Houlden**  
Chief Financial Officer  
**Finance**

**Lunch (12.00 – 12.30)**

## Afternoon 1 (12.30– 14.30)



**Jo Harrison**  
Environment and Asset  
Strategy Director  
**Performance commitments**



**Simon Chadwick**  
Digital Services and Central  
Operations Director  
**Innovation and Systems Thinking**

**Coffee break (14.30 – 15.00)**

## Afternoon 2 (15.00-16.30)



**Louise Beardmore**  
Customer Services and  
People Director  
**Customer and people**

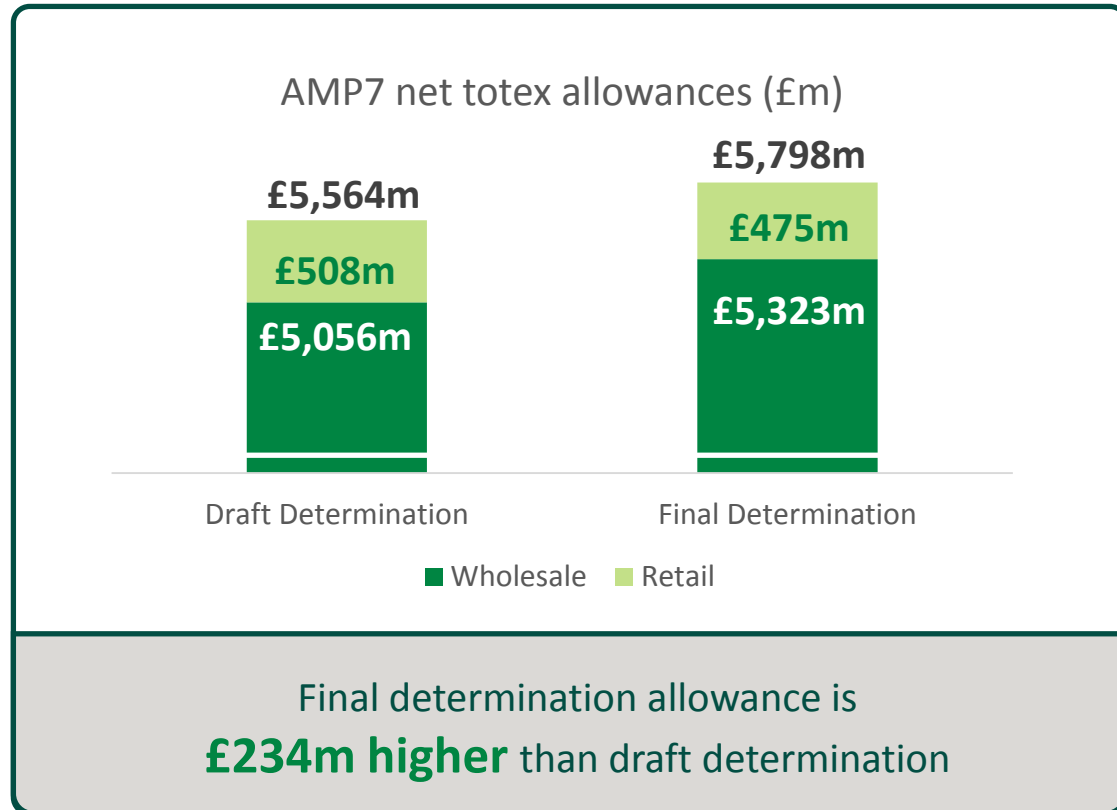






**Steve Mogford**  
Chief Executive  
**Closing remarks**

**Close (16.30)**

# Totex allowance increased from draft determination

£5.8bn AMP7 totex allowance

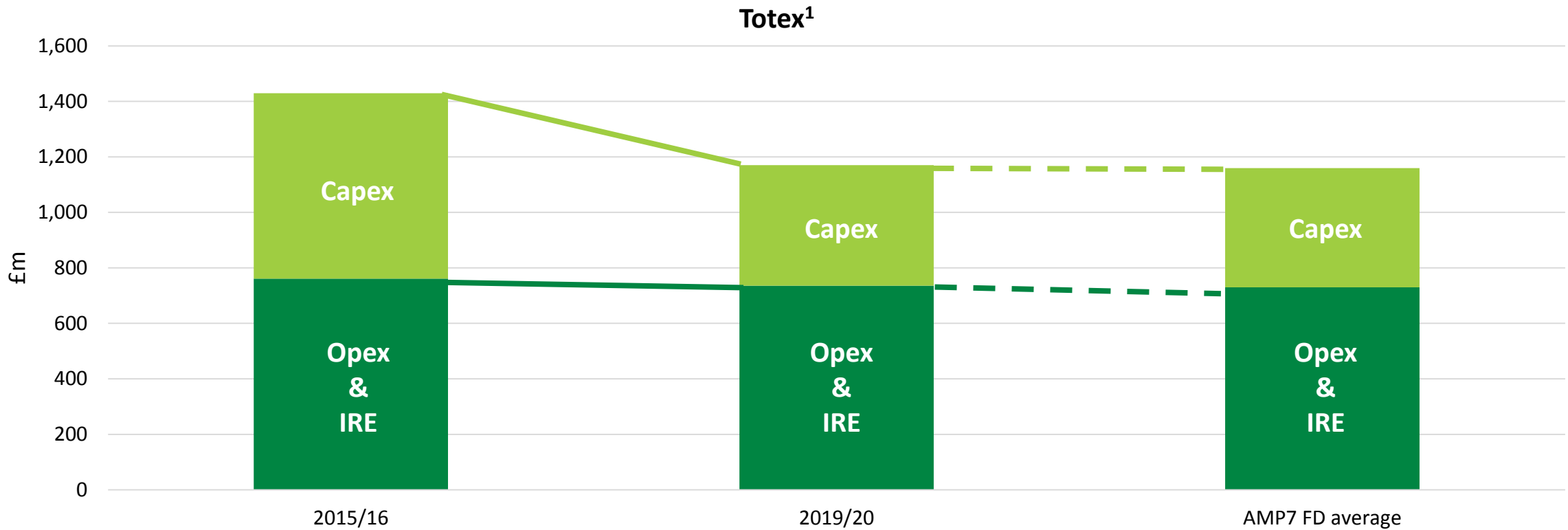


-  **50:50** customer sharing ratio
-  Weighted average **PAYG** of **59.6%**  
- aligned to the natural rate
-  **£57m** HARP allowance and **£44m** for strategic water resource development
-  **Exiting AMP6** at the **required totex run rate**



# Totex run rate on target

AMP6 investment delivering efficiencies to be sustained into AMP7



Source: Company PR19 business plan submission, September 2018 and Final Determination

<sup>1</sup> 2017/18 prices, including £250m AMP6 additional investment but not the further £100m announced in May 2019.

# Already delivering efficiencies

AMP6 focus on innovation, market testing and cost challenge delivering efficiencies required for AMP7



## Innovation

Identified as having the **most embedded culture of innovation**

### Systems Thinking

delivering efficiencies and better service for customers

**Innovation Lab 2** is a source of global ideas to keep us at the **frontier** of new ideas



## Market testing

### Market Engagement

**Methodology** to procure as efficiently as possible

### Appointed two capital

**delivery partners** as preferred bidders for **over £300m** of AMP7 capital programme achieving **£40m of savings** versus the traditional delivery route



## Cost challenge

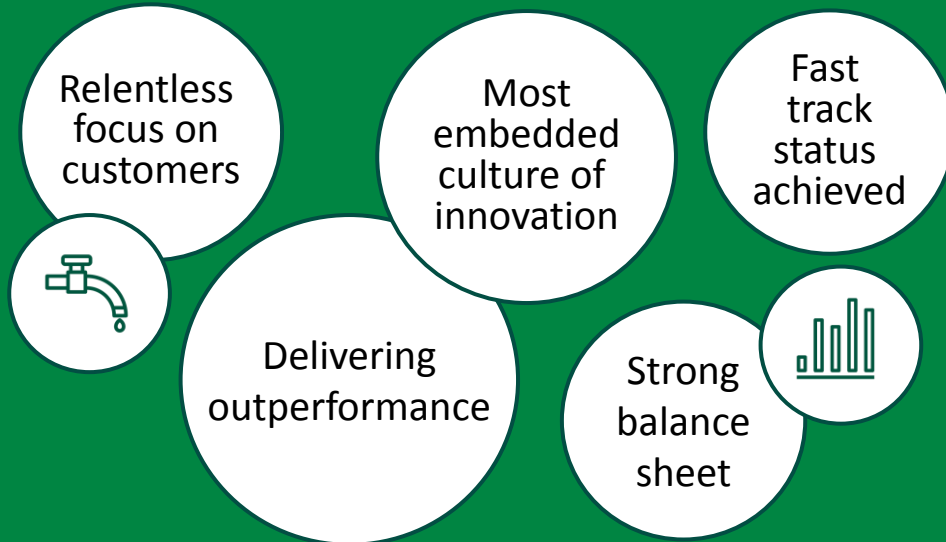
**Risk and value** assessment across all major projects expected to deliver **£100m** savings in our plan

**£110m reduction** in scope of wastewater environment programme through **working proactively** with the Environment Agency

# Summary

AMP6 strategy has delivered and gives confidence for AMP7

## AMP6 strategy has delivered



## Already implementing plans for AMP7



**Acting responsibly and in the interests of all of our stakeholders**

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# James Bullock

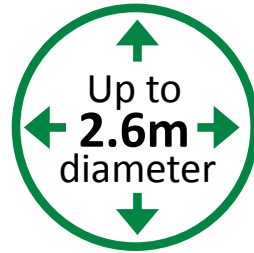
Strategy and Regulation Director



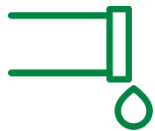
# The Haweswater Aqueduct



Our **largest** potable water delivery system



Delivery of up to **570 million litres per day** to **2.5 million people**



Through **18** separate off takes

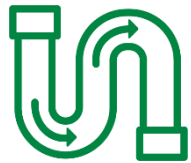


As well as supplying **Manchester**





# The Haweswater Aqueduct



It takes **36 hours** for water to travel from top to the bottom



**16 tonnes of water**, carried by gravity every minute

It fills **1 Olympic swimming pool every 6 minutes**



# Haweswater Aqueduct

Video

# Securing long-term regional resilience

## Timeline



**1919 - 1955**  
Construction of HA



**1958 - 1974**  
Additional resilience:  
siphons, link to Windermere  
/ Ullswater and Watchgate



**1996**  
Pipe bridge repairs



**2005 - 2010**  
Aqueduct Maintenance  
Programme



**2010 - 2012**  
Enabling works (WTWs) and  
West-East Link Main (WELM)

## The Haweswater Aqueduct (HA)

- Construction of the HA took place between 1919 – 1955, during a period of material and skill shortages as a result of WW2
- West East Link Main completed in 2012 – allowed isolation of HA for inspection and repair
- Outages limited to a period of 4 weeks during lower periods of demand and require 42 treatment works to run at full capacity
- Internal inspections in 2013 and 2016

## Outage findings

The outage identified two principle risks



The risk to  
**water quality**



The risk of an  
interruption to  
the **supply of  
safe and clean  
drinking water**

# Securing long-term regional resilience



## We prioritised the highest risk

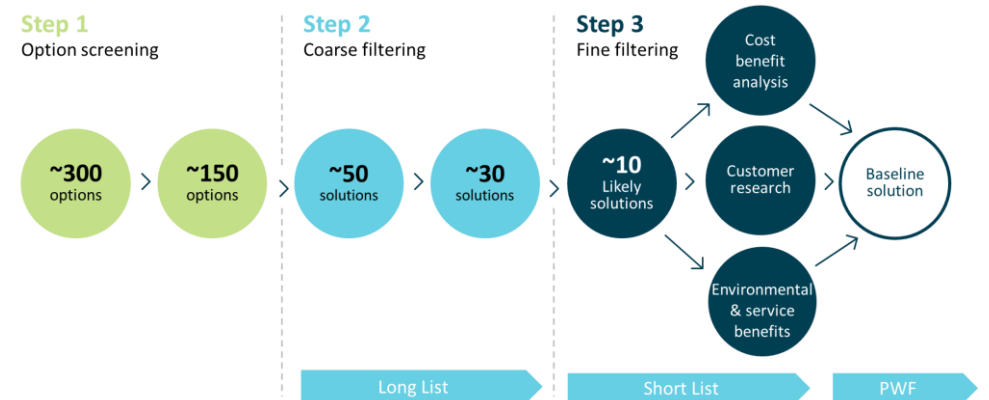
Hallbank section of the aqueduct identified as most immediate risk



Work started in 2019 and on track to complete in 2020

## We assessed the options to secure resilience

- Over 300 options considered
- We engaged with over 2,300 household and non-household customers to understand their views
- Tested potential options further with 59 companies through market engagement
- Replacement tunnels now identified as most suitable option



# Haweswater Aqueduct Resilience Programme

## Direct Procurement for Customers Pathfinder

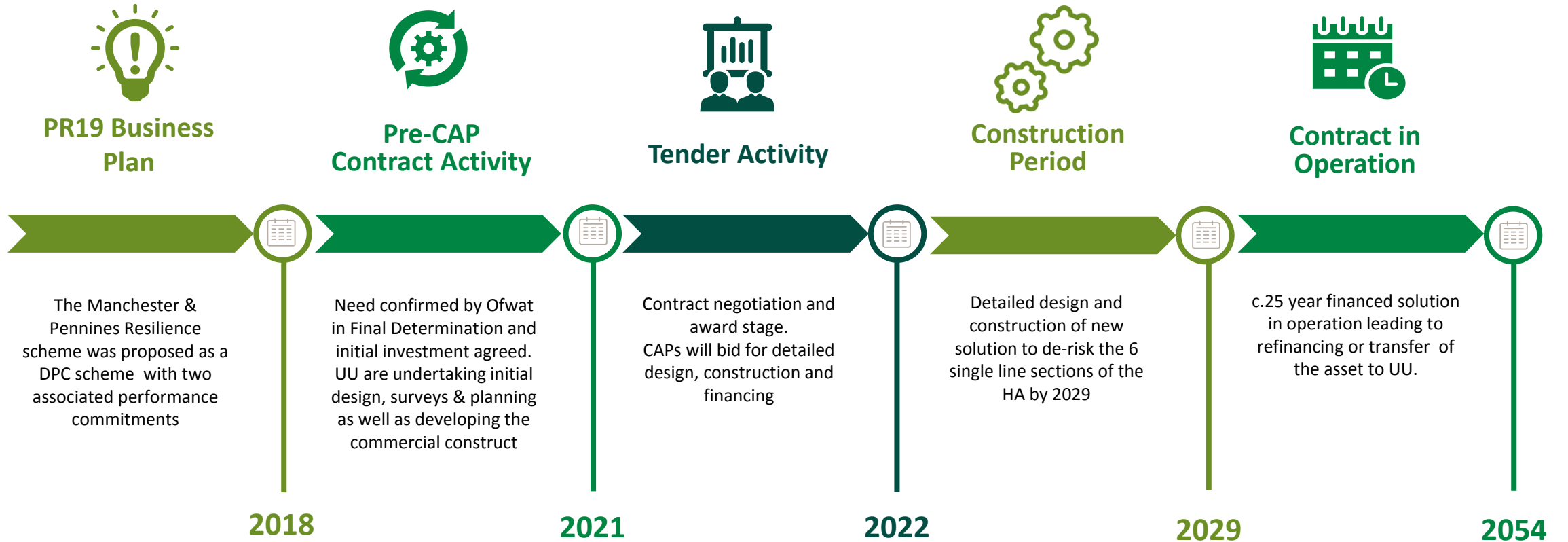
- First major project to be subject to Direct Procurement for Customers approach
- Pathfinder project for Ofwat
- Secures resilience for UU customers
- c£57m initial allowance to enable procurement and planning activity
- Construction and financing subject to competitive tender process
- Estimated contract value of £750m per submitted business plan





# Direct Procurement for Customers

## Progressing the scheme



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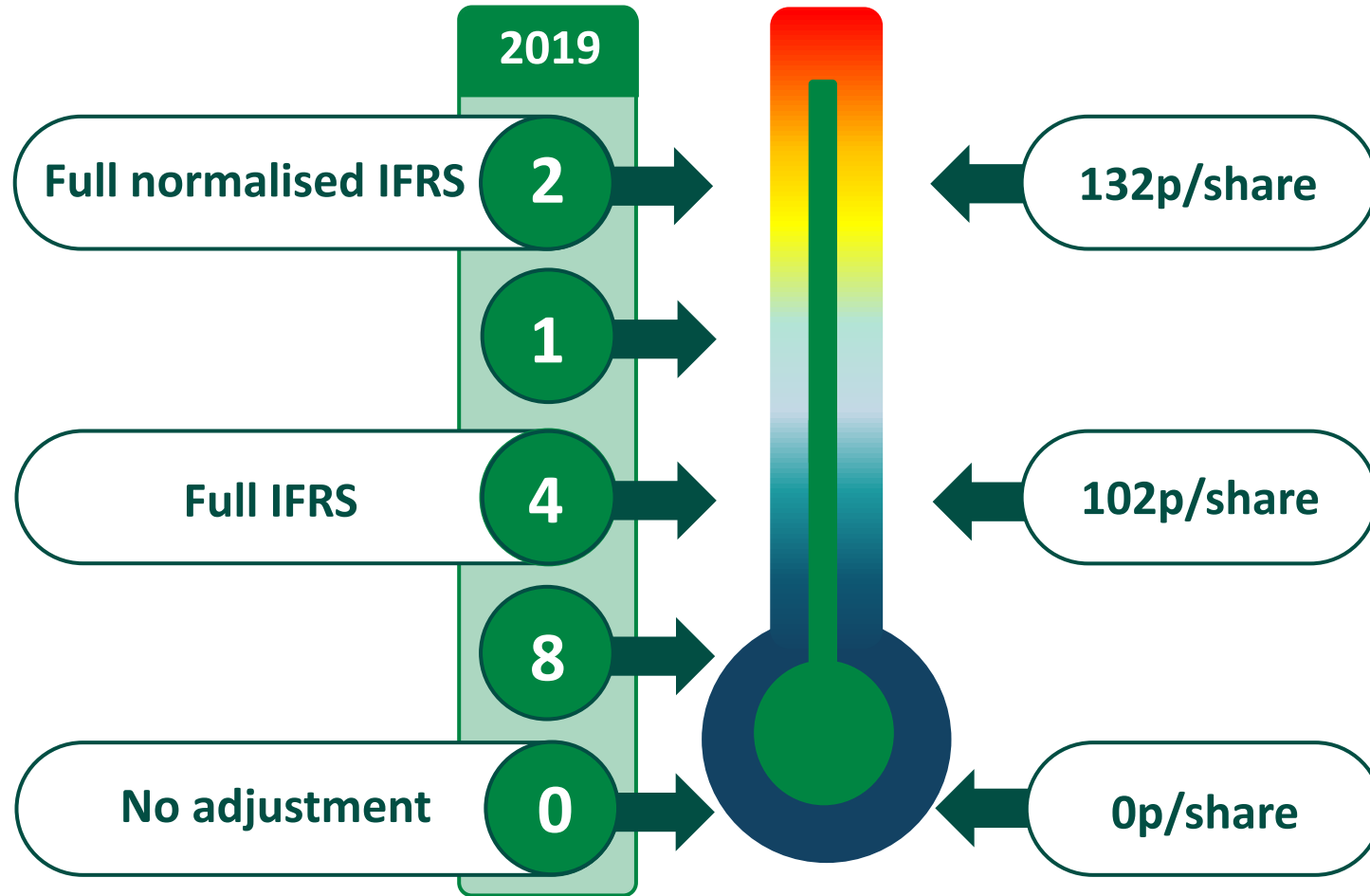
# Russ Houlden

Chief Financial Officer



# Best in class pensions position

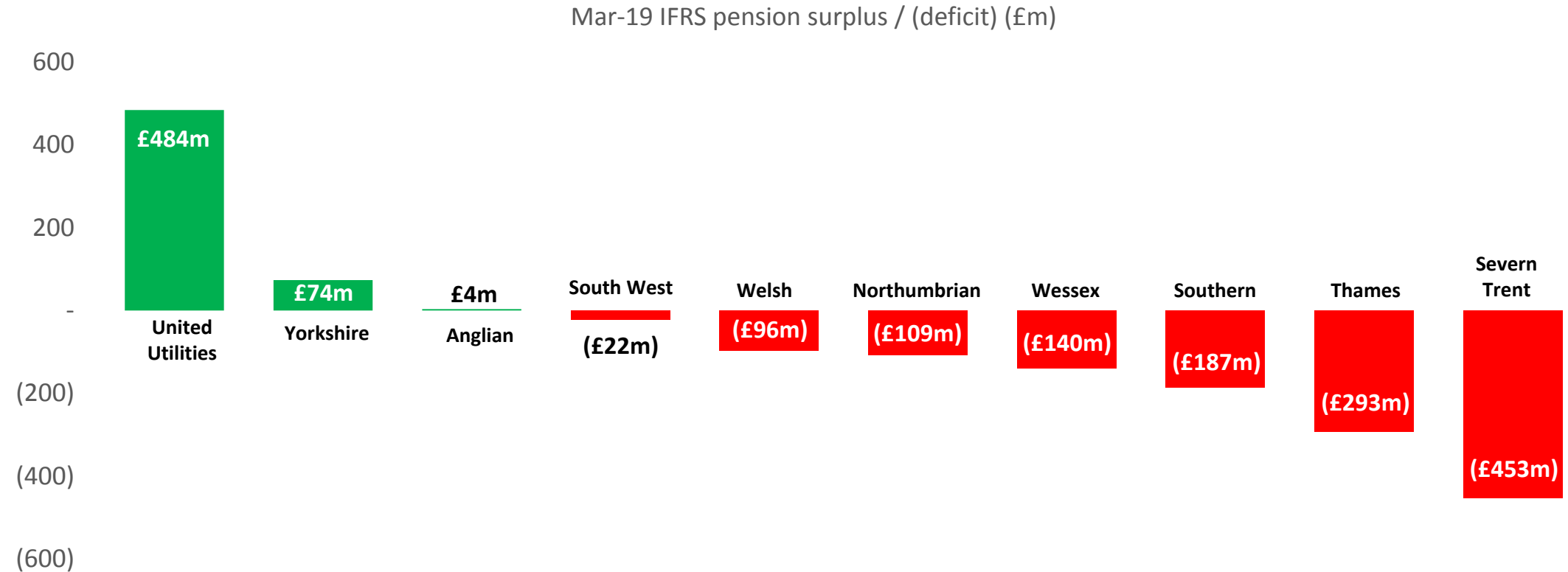
Relative valuations should reflect pensions positions



Based on analysis presented in our 2019/20 half year results

# Best in class pensions position

Relative valuations should reflect pensions positions



<https://www.thepensionsregulator.gov.uk/en/media-hub/speeches-and-speakers/david-fairs-speech-at-lcp-annual-pensions-conference>  
<https://www.professionalpensions.com/interview/1014657/changing-pensions>  
<https://www.professionalpensions.com/news/4006083/tpr-delays-db-funding-code-consultation-%E2%80%98-settled-%E2%80%99>

# Best in class pensions position

## The importance of self-sufficiency

Basis of surplus / deficit	Objective	Typical discount rate applied to liabilities	United Utilities (Mar-19)
IFRS	Intercompany comparison (full disclosure of assumptions)	Gilts +70/+110	£484m surplus
Funding	Stepping stone to self-sufficiency	?	£nil
Self-sufficiency (aka LTFT)	Minimal reliance on company	Gilts +0/+50	£nil

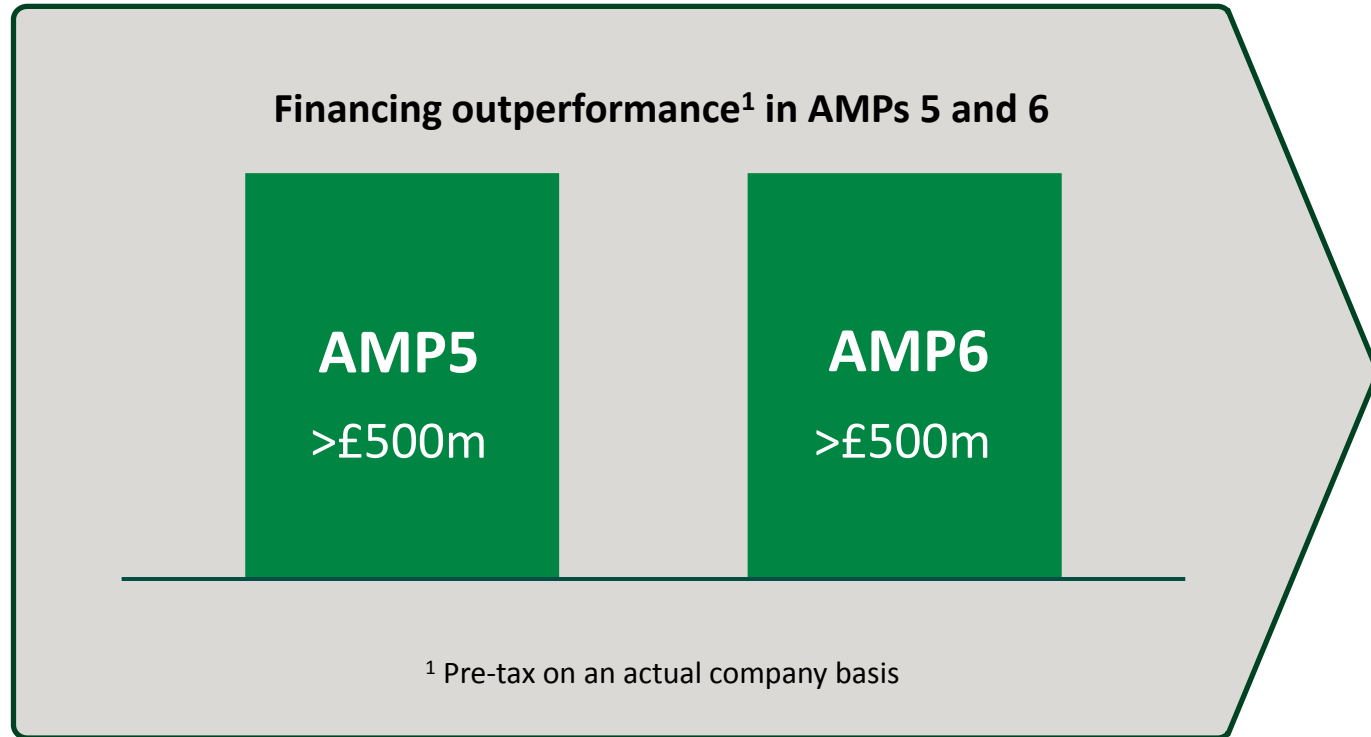
**Responsible stewardship mitigating risk for all stakeholders**

References: <https://www.thepensionsregulator.gov.uk/-/media/thepensionsregulator/files/import/pdf/understanding-db- scheme-funding.ashx>  
<https://www.thepensionsregulator.gov.uk/-/media/thepensionsregulator/files/import/pdf/db-annual-funding-statement-2019.ashx>



# Best in class treasury management

Track record of delivering significant financing outperformance



## AMP7

**Confident** of delivering **further outperformance**

Quantum subject to **outturn inflation**

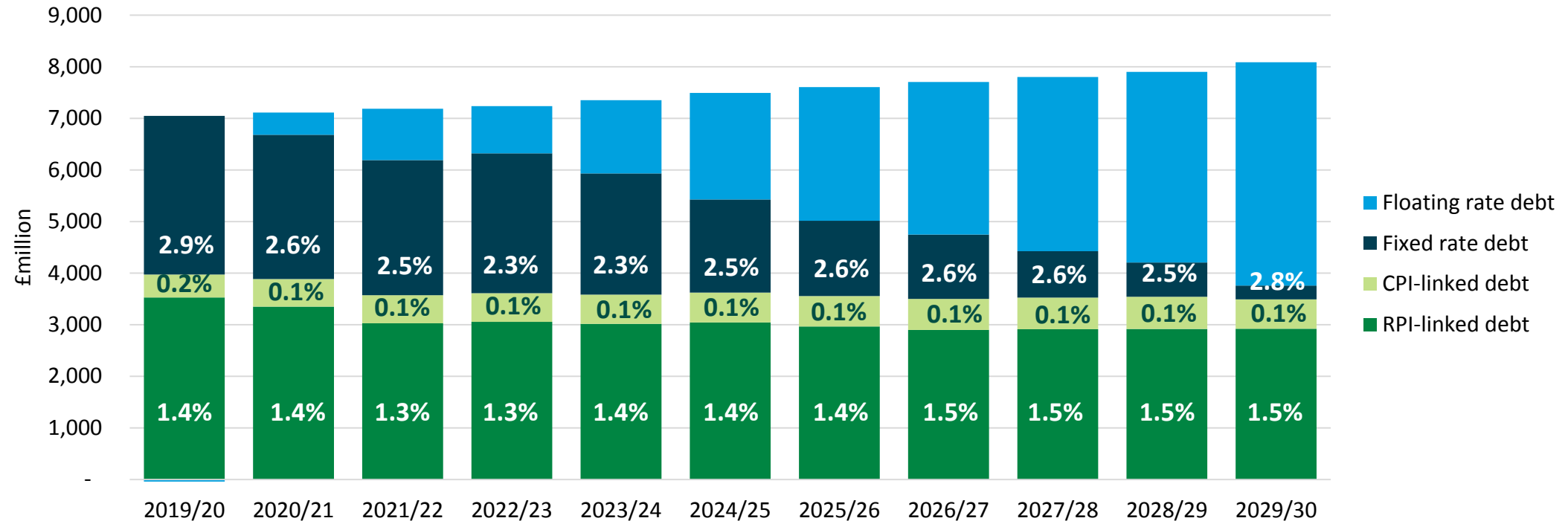
Further **guidance to follow** at future presentations

- Flexibility to **reinvest** over **£600m** across AMPs 5 and 6
- Financial resilience** to withstand credit crises
- Enabling the decision to **maintain the UUG dividend**

# £2.2bn financing to raise in AMP7

Existing debt locked in at rates favourable to the AMP7 allowed cost of embedded debt

Projected debt portfolio

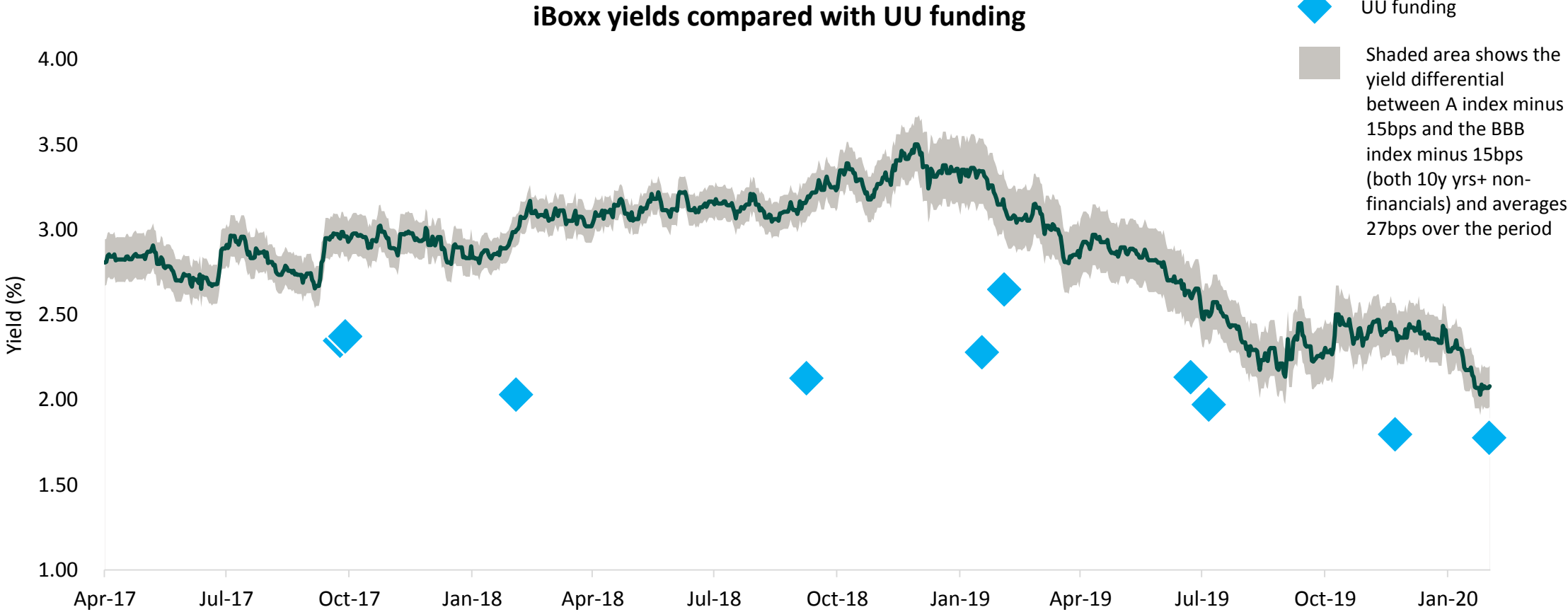


The above chart shows the projected debt balance including assumptions in refinancing and incremental debt. The rates shown for each category of debt are those already locked in and are real rates for the index-linked debt and nominal rates for the fixed rate debt.

# The benefit of our treasury policies and treasury excellence

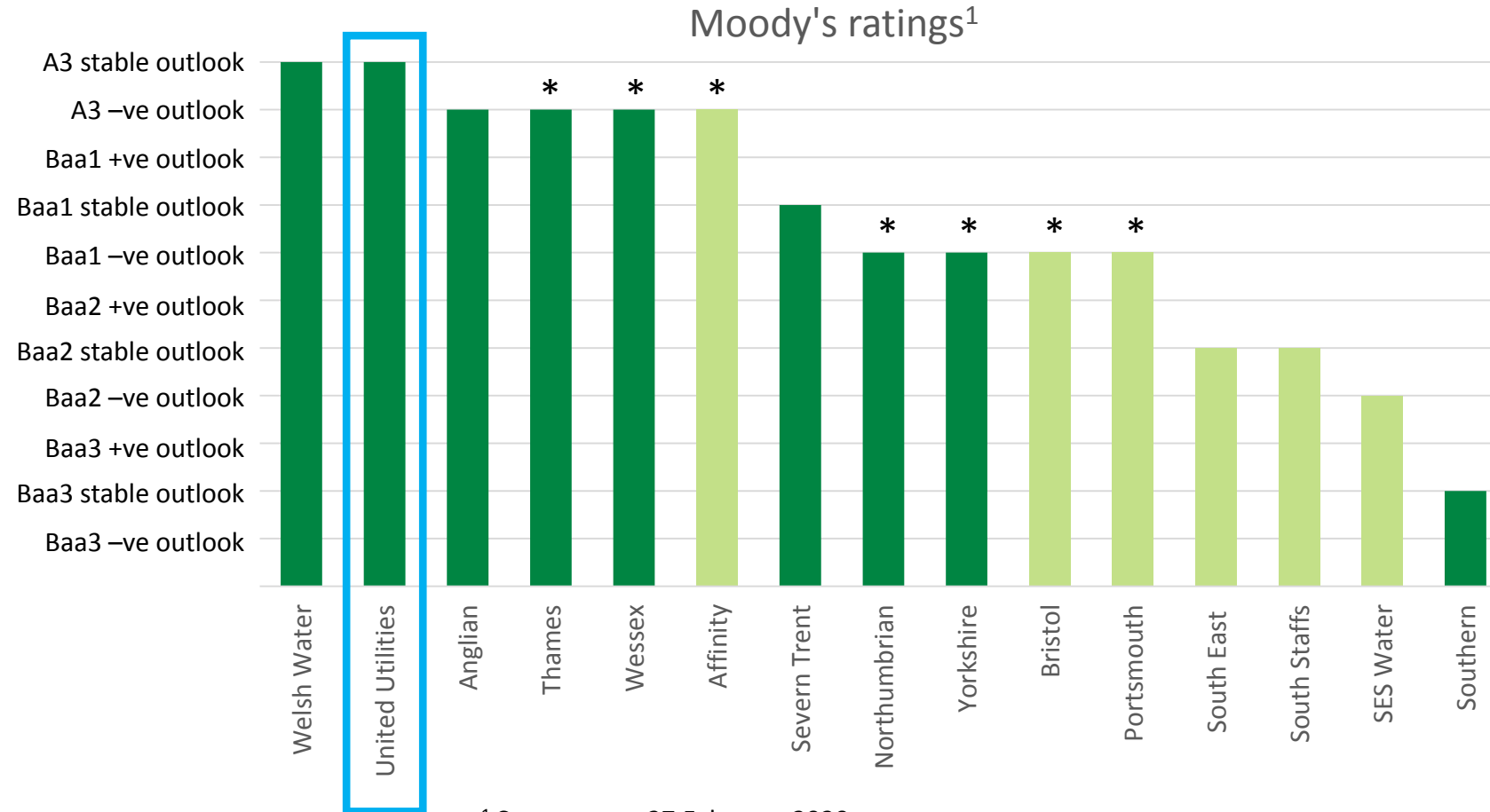
We typically outperform the index for new debt by 50-100bps

- The iBoxx A/BBB 10 yrs+ non-financials index minus 15bps
- ◆ UU funding
- Shaded area shows the yield differential between A index minus 15bps and the BBB index minus 15bps (both 10y yrs+ non-financials) and averages 27bps over the period



# Strong balance sheet underpins financial performance

Robust capital base giving high degree of resilience and financial flexibility



\* Under review for downgrade

- Water and wastewater company
- Water only company

UUG has  
**A3 stable**  
credit rating with  
Moody's

UUG RCV gearing  
consistently within  
**55%-65%**  
target range

# Private placements

Targets set c20bps within public bond prices



Monitor multiple currencies and forms for **best relative value**



Rapid evaluation of emerging opportunities through CFO **delegated authorities**



**Levels posted** for a range of maturities, currencies and form



Targets set **c20bps within** public bond market prices



**Take advantage** of specific investor needs and market conditions



**Benefits include** investor diversification and spread of refinancing

## Case study 1

GBP 32,000,000  
notional amount

0.359% coupon  
CPI-linked form



**Issue date**  
Oct 2017



**Term**  
31 years



# Public bond issues

EMTN programme allows quick mobilisation when opportunities present



Monitor GBP and EUR markets for **best relative value**



Rapid evaluation of emerging opportunities through CFO **delegated authorities**



GBP public market conditions **favourable** due to low supply



**Longer dated** transaction targeted due to market conditions and investor demand



**First mover advantage** following announcement to accept the final determination



Bond issued at levels **marginally tighter** than secondaries

## Case study 2

GBP 250,000,000  
notional amount

1.75% coupon  
fixed rate form



**Issue date**  
Feb 2020



**Term**  
18 years

# Summary

Strong track record, well positioned for the future



## Pensions

a significant driver  
of relative value



Treasury  
policies lead to  
**best credit  
ratings**



## Track record


of delivering financing  
outperformance



Treasury  
excellence gives  
**future cost  
savings**







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# Q&A



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# Jo Harrison

Environment and Asset Strategy Director



# AMP7 performance commitments

## Headlines...



Developed bespoke commitments through extensive customer and stakeholder research. Incentivising the things that are important to them



Robust plans for measures that assess our relative performance with the rest of the industry



AMP7 – bigger financial opportunities to innovate and outperform than AMP6



Balanced incentives providing customer protection should we not get it right



Innovative incentive mechanisms to improve the resilience of our services



**Because the North West matters**





# AMP7: Customer commitments: Outcome Delivery Incentives (ODIs)

**46 commitments**  
across our full end to end service delivering the **outcomes** that are important to customers with rewards available in all areas



# AMP7: Customer commitments: Outcome Delivery Incentives (ODIs)

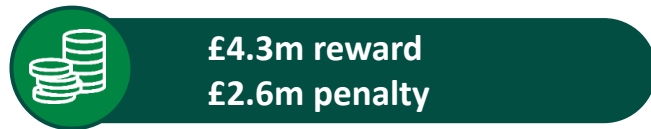
<p><b>46 commitments</b> across our full end to end service delivering the <b>outcomes</b> that are important to customers with rewards available in all areas</p>	<p><b>7 Comparative</b> -£252m to +£128m</p> <p>Measuring against the sector with <b>comparative targets</b></p>
	<p><b>5 Common</b> -£69m to +£31m</p> <p>Measuring against the sector with rewards based on <b>company specific targets</b></p>
	<p><b>27 Bespoke ODI</b> -£214m to +£249m</p> <p>Unique to us offering <b>outperformance opportunities</b> where we truly deliver <b>what matters to our customers</b></p>
	<p><b>7 Reputational</b> No financial incentive</p>

All figures are reflective of Ofwat's view of our P10 and P90 positions in United Utilities Final Determination: December 2019.

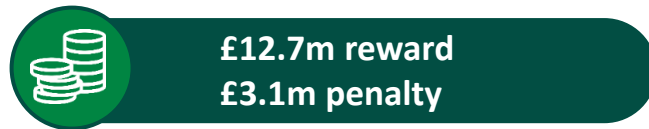
# Ambition and innovation across our performance commitments (PCs)

We have co-developed with our customers some really innovative PCs that are important to them, they are industry leading and with incentives that provide good opportunities for outperformance

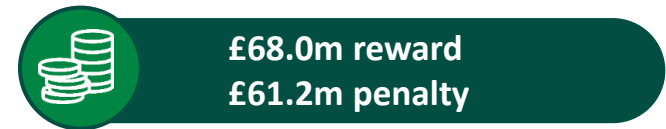
**First in the industry** to commit to tackling the issues of **air quality** by incentivising a reduction of emissions from our energy generation activities through an ODI.



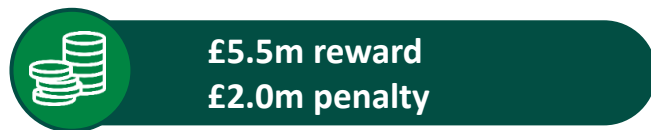
Reducing the number of properties with **water quality risk from lead**. The **most stretching target** of any other company, with equally leading outperformance opportunities.



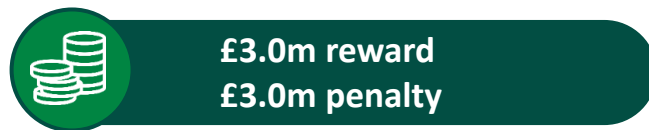
Reducing the **hydraulic risk of flooding** using innovative advanced modelling techniques for risk and investment planning. Exploring more scenarios in minutes than you could do manually in months.



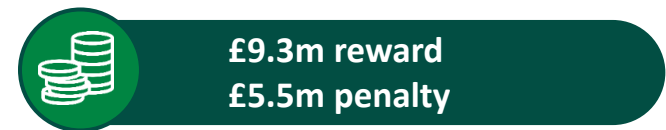
Delivering additional **natural capital** value. **First in the industry** to unlock opportunities for outperformance by generating value for communities across the North West from ecosystems services.



Engaging with customers to change their behaviour. Using an innovative methodology to **raise customer awareness to reduce the risk of flooding**.



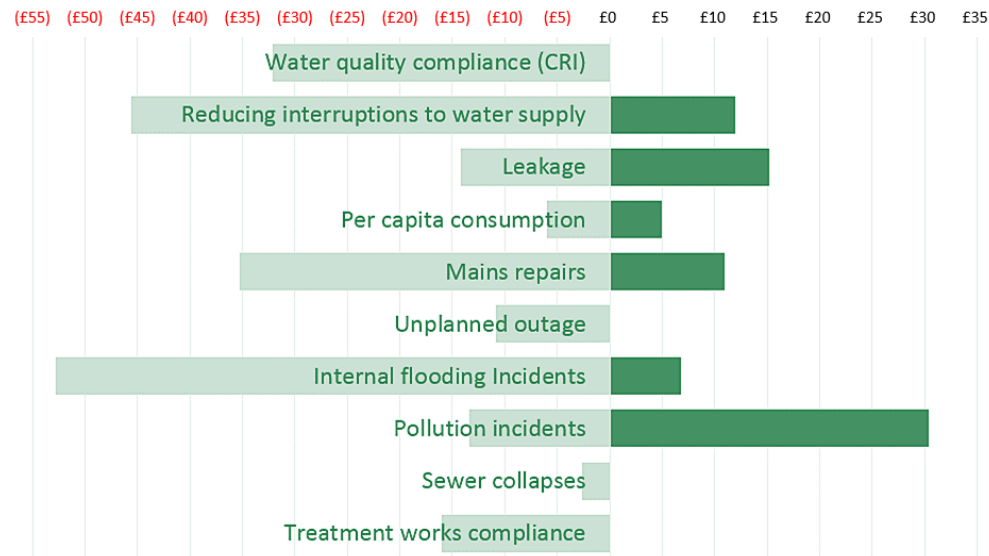
New contingency plans increase the **resilience in our water service**. The **first forward looking measure in the industry** to incentivise long term resilience.



All figures are reflective of Ofwat's view of our P10 and P90 positions in United Utilities Final Determination: December 2019, with the exception of Water Service Resilience which has been adjusted to reflect the variability in this measure

# Robust plans across our industry comparative and common commitments .....

## .... and we have already started



Projected P10 underperformance payments and P90 outperformance payments for United Utilities common and comparative performance commitments over 2020-25 (£ million) excluding C-MeX, D-MeX. Data extracted from: OfWAT Final Determination. December 2019.

**Accelerated investment with a flying start**

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**Systems Thinking & Innovation**

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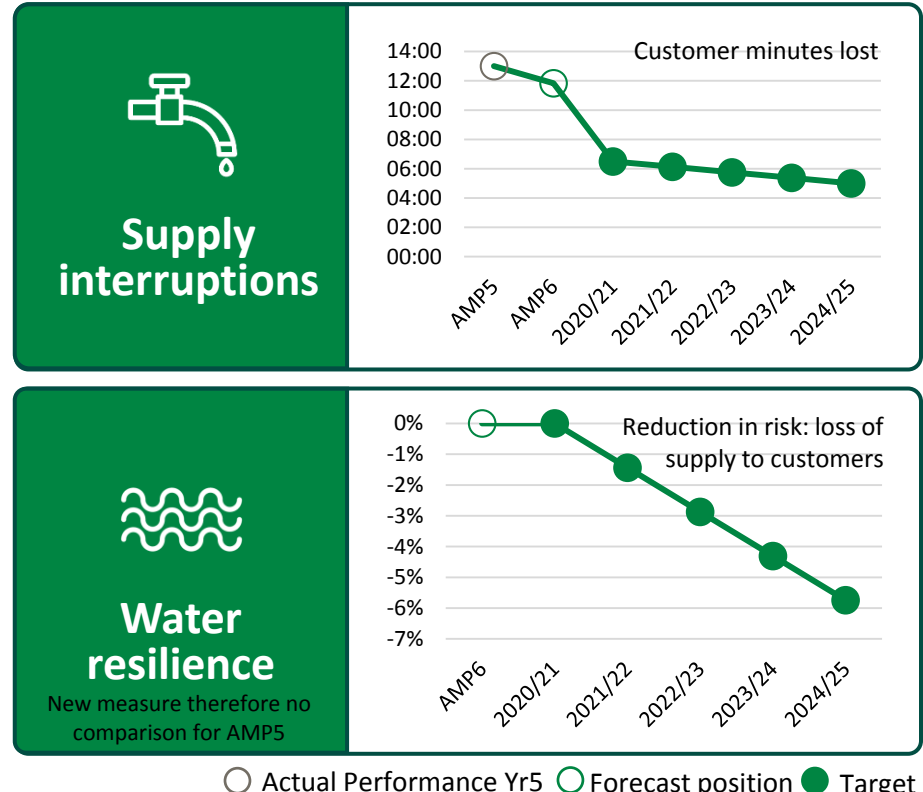
**Leading Capability in our people and ways of working**

- Smarter networks, increased visualisation and predictability
- Central planning and decision making capability
- Embedded innovative technologies with AMP7 trials already underway
- Integration, optimisation and collaboration across all our asset plans.



# Ensuring our customers have a reliable supply of water

Performance improvements across our core services now...  
...and with extra resilience for the future



**Investing in a Flying Start**

Installing smart valves in strategic/rural locations to allow quicker response times

Reducing mains failures in target areas by 20%

**Predictive analytics & A.I.**

Pioneering step into event recognition. Proactive intervention preventing events and responding quicker when they occur.

Restoring supplies to 10,000 customers 42% faster

**Real time data integration**

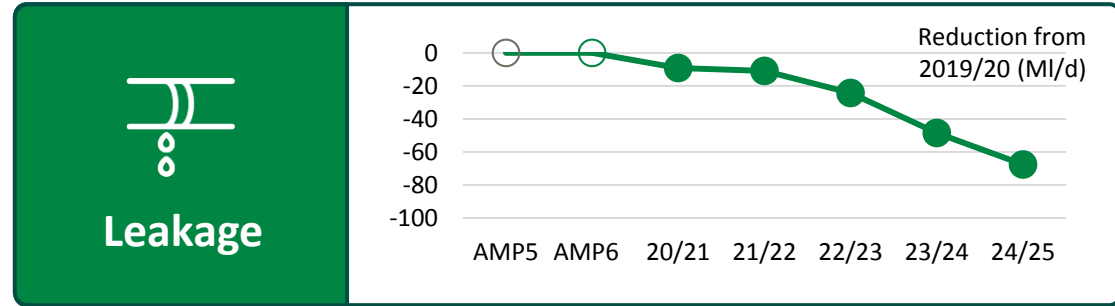
Asset, work and customer data enabling intelligent decisions now and for future investments.

Resolving 85% of customer calls first time



# Ensuring our customers have a reliable supply of water

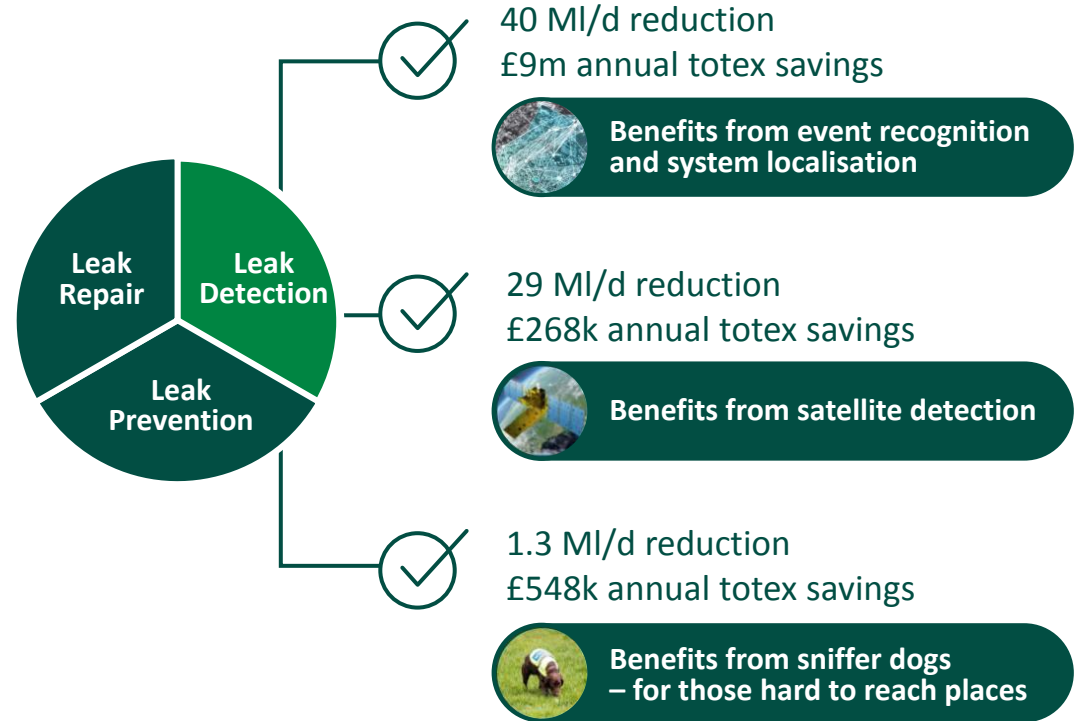
Utilising new technologies, as well as data analytics, to find leaks we couldn't find before and fix them more quickly...



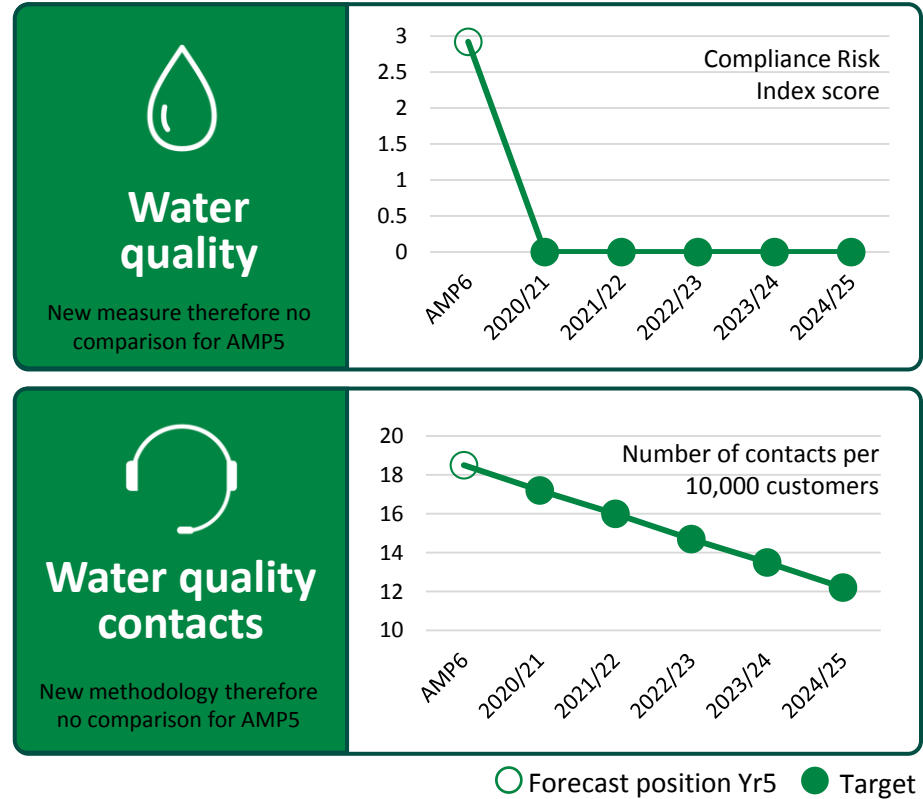
○ Actual Performance Yr5 ○ Forecast position ● Target

- ✓ Installing 100,000 acoustic leak sensors across the region and utilising machine learning to distinguish leaks from other sounds
- ✓ Replacing 100km of ageing water pipes
- ✓ Managing pressure in the network by deploying hundreds of sensors to stop damaging pressure 'surges'.

## AMP7 improvement plans



# Drinking water in the North West is safe and clean



## Investing in a Flying Start

System optimisation to ensure microbiological protection and chlorine analysis in advanced decay models

Reducing customer contact by 22%



## Worlds first UV-LED treatment

Tested and now deploying across multiple treatment works to improve water quality

UV-LED improving the taste and smell of water for 450,000 customers

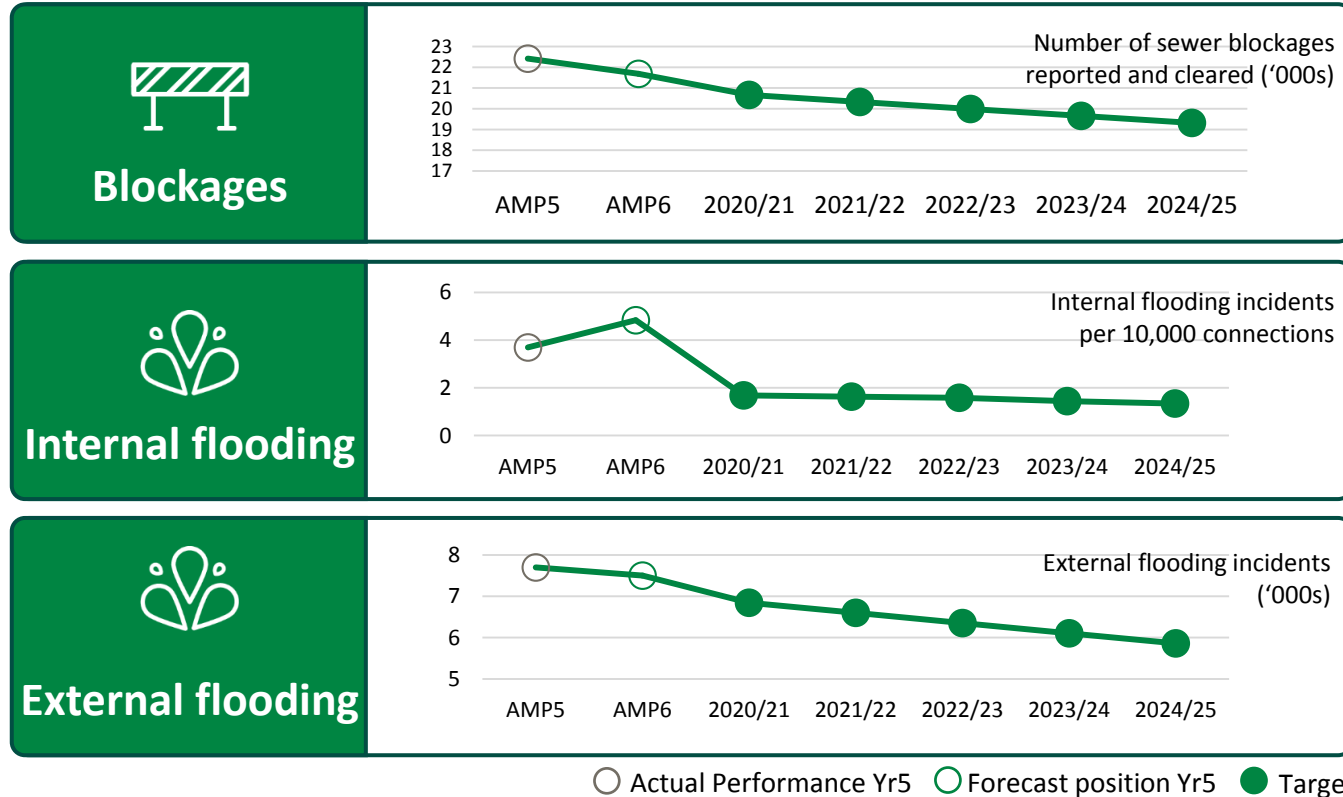


## Online interactive self-serve advice

Customer self serve capability to access advice helping customers before they need to call us

Improving customer awareness and reducing contacts by 10%

# ODIs across our wastewater network operations to ensure the risk of flooding is reduced



## Investing in a Flying Start

Over 2,000km of sewer surveys, then using latest modelling technologies executing prioritised sewer rehabilitations to repair and re-line

Early investment of £50m to prepare for AMP7

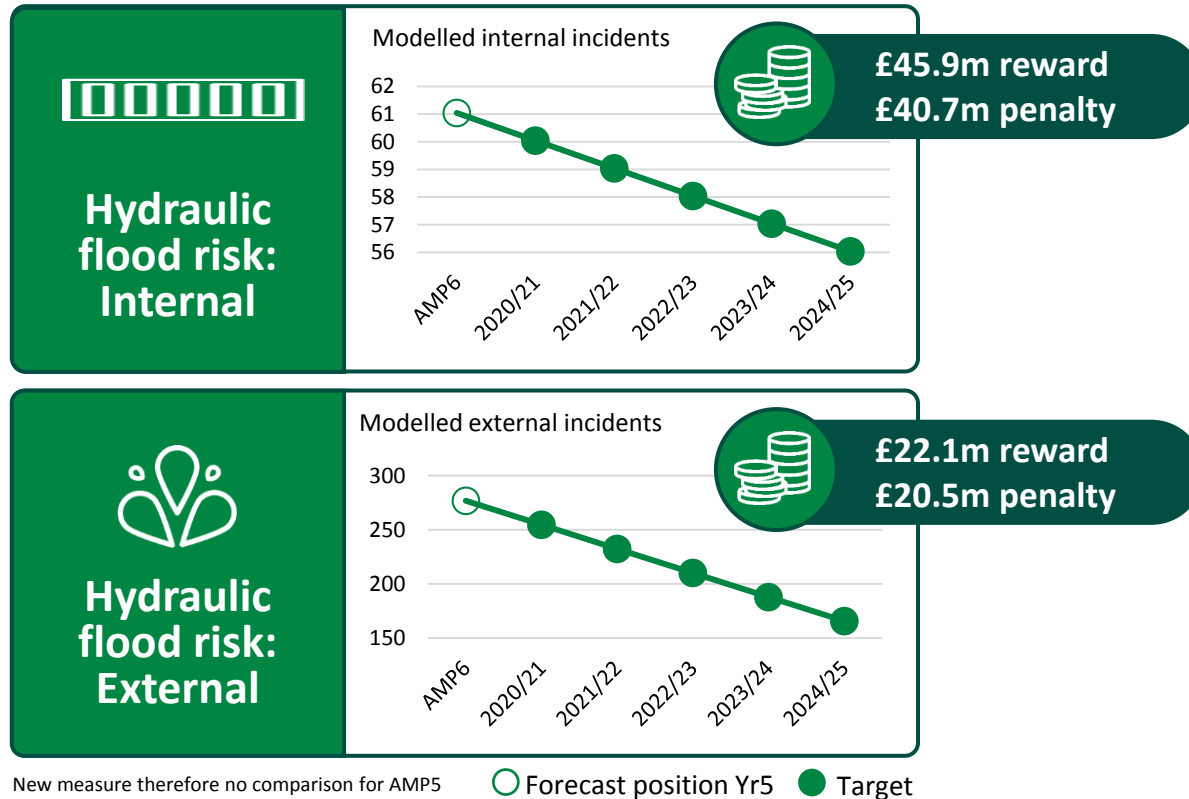


## Customer behaviours

We are building on successful trials to deliver a step change in customer awareness about what not to flush across the North West

Machine learned analytics to target campaigns

# Maximising the opportunities by incentivising a reduction in risk from hydraulic flooding



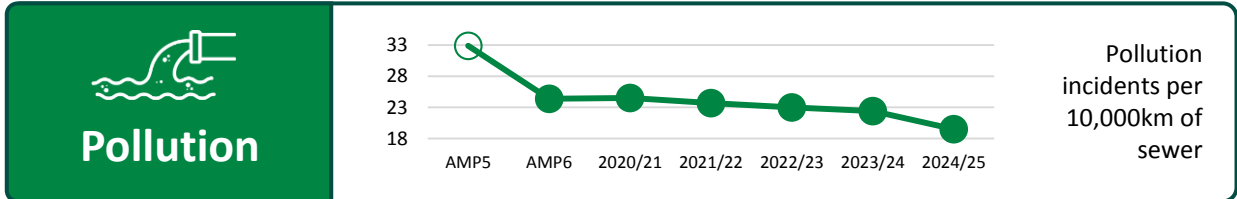
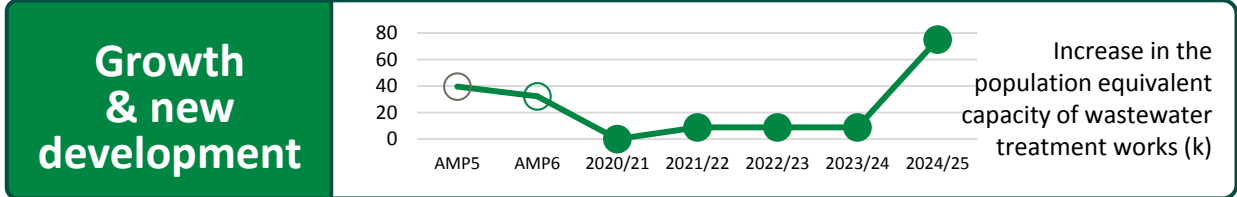
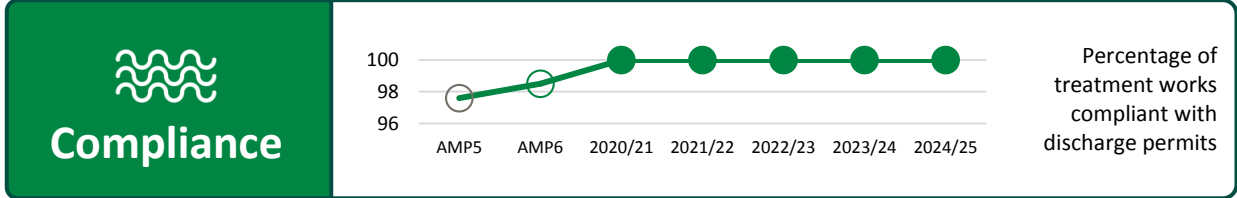
## Investing

Over £25m of expenditure to increase sewer capacity including both;

### Surface water removal and major capital investment

**First in the industry** to trial, adopt and embed class leading tool using cloud based software for advanced predictive modelling techniques for risk and investment planning.

# The natural environment is protected and improved in the way we deliver our services



○ Actual Performance Yr5   ○ Forecast position Yr5   ● Target

- ✓ Over £50m of investment on sewer enhancement, sewer requisitions and adoptions.
- ✓ Improved risk capture and analytics, operational hubs and digital prioritisation tools improving the targeting of maintenance investment.
- ✓ Investment in our treatment works mitigating any impact from population increase.

Through **catchment systems thinking**, we are moving away from asset solutions and towards an optimised integrated approach, considering risks holistically, combining asset and catchment solutions for better outcomes



# Natural Capital = added value for everyone

Measures supporting our climate change and circular economy strategies that are changing how the industry and regulators do business!



## Natural Capital Influence

Influenced regulation to use catchment and flexible permitting

Working with partners across the region to deliver added value

Catchment solutions set in the **Water Industry Natural Environment Plan**



## Natural Capital Markets

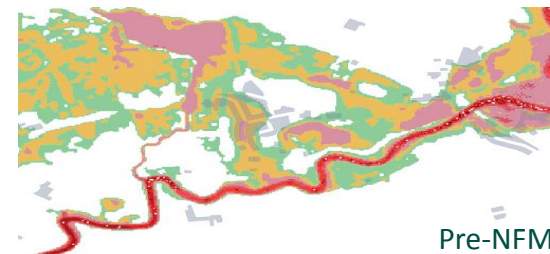
Driving markets in catchments to deliver added value

Accessing additional funding by working with others

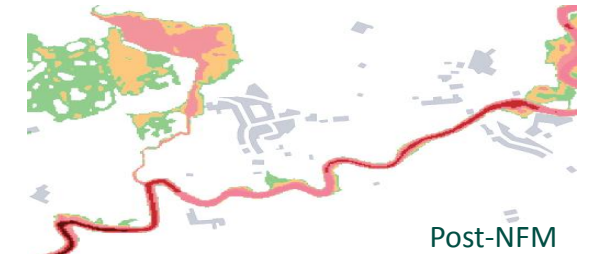
Industry leading performance commitment



Modelling Natural Flood Management interventions for multiple benefits and developing a market to drive investment for catchment and property resilience



Pre-NFM



Post-NFM

	Cost for 1 Event	Cost Over 30 Years
Cost of Flood Event	£1.95m	£11.76m
Cost of Natural Flood Management	£0.45m	£0.7m
Cost Benefit	£1.5m	£11.06m
	<b>3x Return</b>	<b>15x Return</b>

For a 1 in 50 year storm (based on 4 events in 20 years between 1995 and 2015)

Baseline – Assuming 0% uptake of property level protection

# Natural Capital = added value for everyone

Encouraging alternative solutions to ensure additional value through ODI outperformance



## Natural Capital Decision making

Including **natural capital valuation** in internal decision making

Embedding **Catchment Systems Thinking** across the business

Encouraging **green solutions** instead of pouring concrete

## Natural Capital ODI



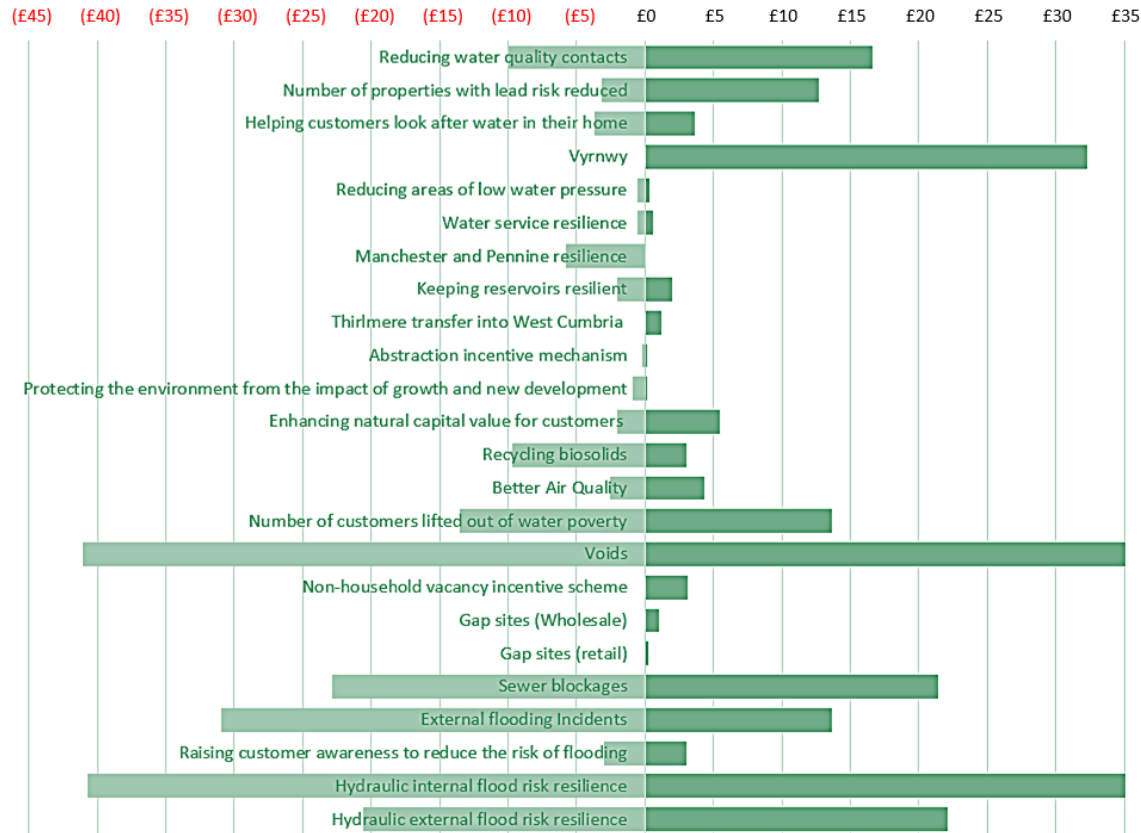
- ✓ New ODI which measures the 6 ecosystem services that our customers value
- ✓ **Our plan already includes delivery of 21 natural capital solutions** to achieve £4m added natural capital value
- ✓ Delivering even more Natural Capital Value within our water and wastewater requirements to **unlock the full opportunity for outperformance.**




## The six measured ecosystem services

1. **Water Quality**
2. **Flooding**
3. **Climate Regulation**
4. **Biodiversity**
5. **Amenity & Recreation**
6. **Health & Wellbeing**

Using Construction Industry Research and Information Association (CIRCIA) tool for blue-green infrastructure.

# In Summary: Opportunities across the plan to unlock outperformance...



- 
 Optimised investment plan for multiple benefit
- 
 Industry leading technologies backed by industry leading innovation culture
- 
 Systems thinking enabling a data driven proactive approach

Projected P10 underperformance payments and P90 outperformance payments for United Utilities bespoke performance commitments over 2020-25 (£ million)  
Data extracted from: OfWAT Final Determination. December 2019.

Capital Markets Day

# Simon Chadwick

Digital Services and Central Operations Director

# Key Differentiators



# Systems Thinking

A **system** is a set of elements that are interconnected and work together to serve a common function or purpose.

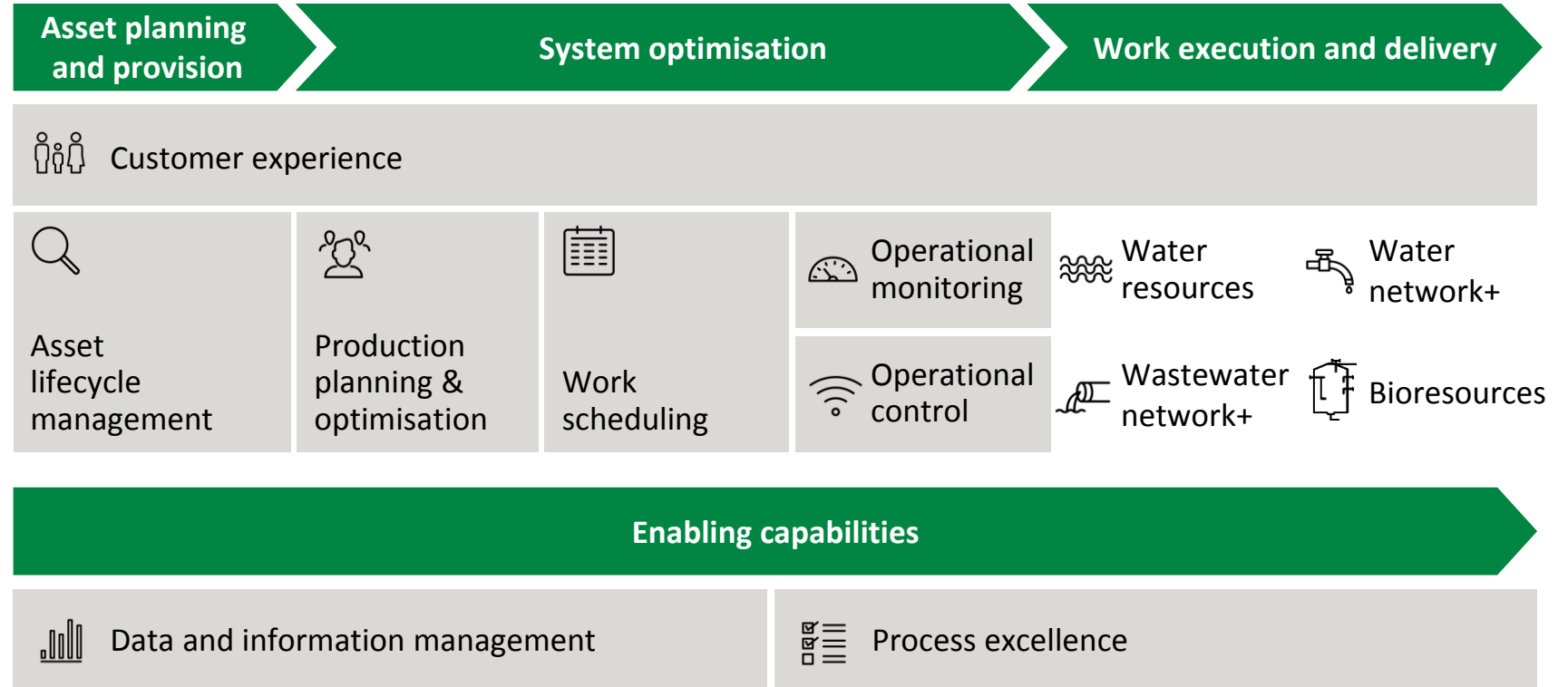
**Systems thinking** involves learning about the individual components of a system and how they interact in order to start to identify patterns of behaviour and therefore predict performance in a given scenario.

## Components of a system



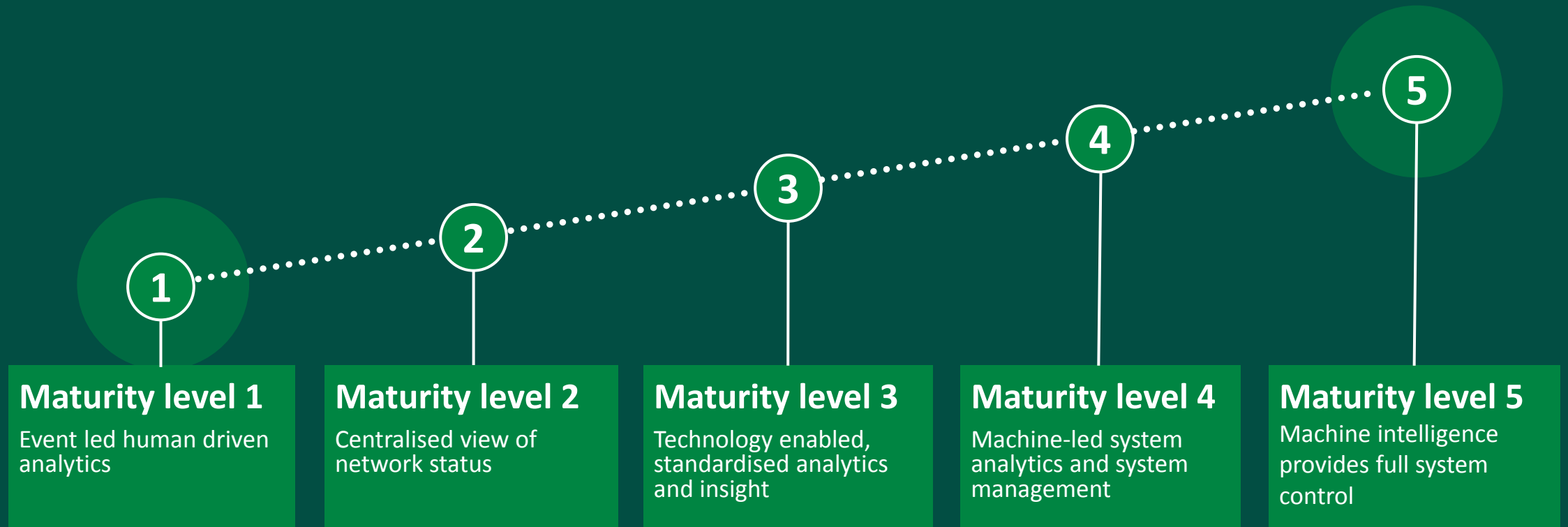
# Capability model design

Our capability model defines the 8 key capabilities required to deliver our Systems Thinking operating strategy.



# Systems Thinking Capability Maturity

## Operational Monitoring Example



# Gavin Moore

Accenture

# Securing benefits from Systems Thinking

An example

## Systems integration at a catchment scale is delivering benefits for our AMP7 plan

Our industry leading work with the EA has resulted in five of our defined environmental obligations for AMP7 (WINEP) being set to follow this approach, saving a total of £18.9m.





# Our Innovation Model

We have an established innovation model that has delivered £445m of total savings through innovation from AMP5 to AMP7.

We are encouraged by the Innovation Fund Ofwat is establishing for AMP7.

**“Out of all the water company business plans we have assessed, United Utilities’ plan has the best evidence of an embedded culture of innovation”**

Ofwat DD, April 2019

Lab 1 - 3 suppliers awarded contracts

Lab 2 – 4 promising ODI related innovations

Academic research to scale-up (e.g. blockage prediction)

*The 4 core components of our innovation model*

**Accessing the innovation ecosystem**

**Academia & leveraged funding**

**Breakthrough innovation**

**Innovation culture**

Catchment, real-time sensing  
Carbon blocks

Innovation as a corporate value  
The ‘Innovation 100’  
Annual CEO Challenge  
Apprentice sprints  
Embedded crowd sourcing capability

# Exploiting Digital Technology

Our technology strategy is focused on leveraging value through the investment made in AMP6. This is now enabling us to exploit this technology across AMP7 to deliver performance & cost benefits.



## Sensors

- An existing fixed sensor network of 99,018 devices monitoring pressure, flow, level, quality, temperature, power & sound
- Further enhancement of the fixed sensors network in AMP7 – broader coverage and new traits & characteristics to measure
- Plus our new, advanced mobile sensor network



## Data & Analytics

- Best in class data & analytics platforms
- ½ billion rows of data automatically loaded daily
- 185,000 analytic requests automatically processed daily
- Advanced analytics developments underway for leakage and C-MEX performance



## Machine Intelligence

### Simple Machine Intelligence

Robotic Process Automation – embedded approach with 1/3 million human tasks now completed by robots saving 33,000 hours per year

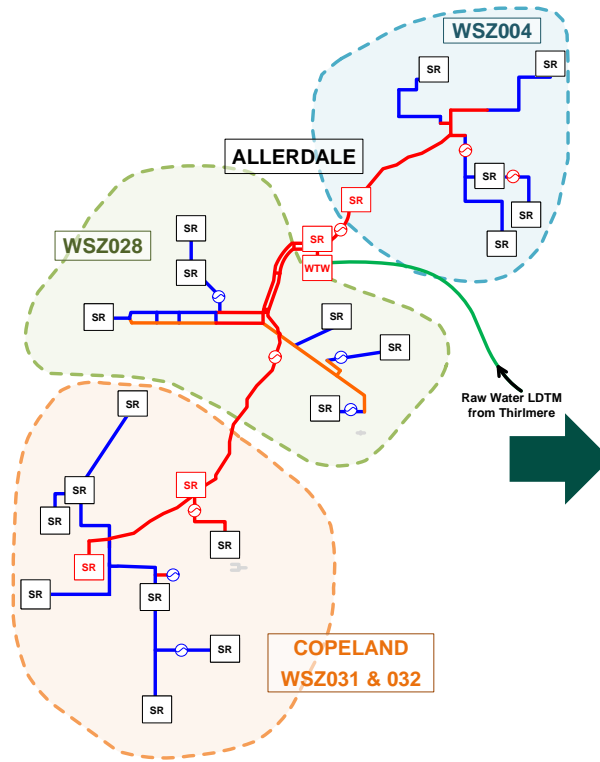
### Advanced Machine Intelligence

Shifting our business from costly response & mitigation to predictive system management with our operational AIs: HARVI and ERWAN, soon to be joined by our third AI - EDDS

# Innovation + Digital + Systems Thinking- the showcase

The West Cumbria project is providing a new water supply to 150,000 customers

This major investment in a pipeline and new water treatment works is an ideal opportunity to establish a new benchmark for advanced operation of a water system.



## Key systems components

Digital Twin

System Visualizer

Predictive Analyser

System Optimiser

## Types of benefits

Customer Service

Totex

ODI

Safety & Wellbeing

Risk & Resillience

# Case Studies

# Customer Minutes Lost

Blending technology, systems thinking and investment to deliver a step-change in comparative performance

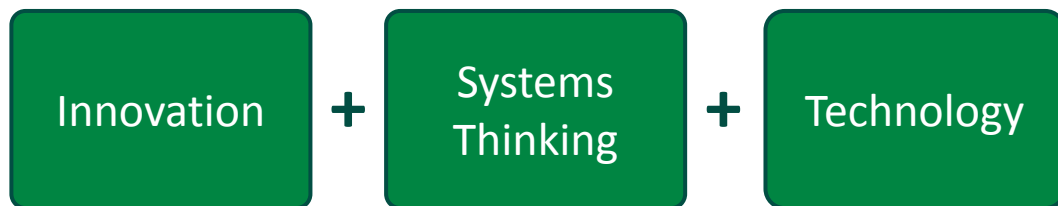
## What is the ODI?

This measure incentivises the delivery of less interruptions to water supplies to customers.

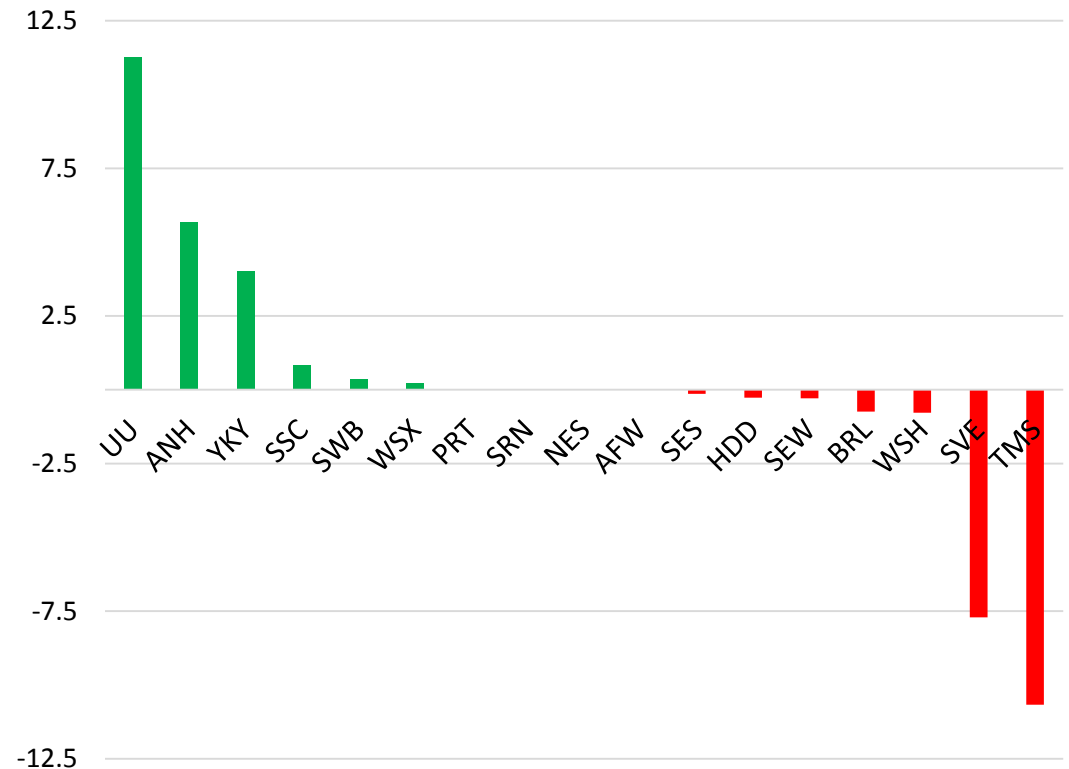
This is an industry common measure for which an assessment of the industry annual upper quartile performance has been used to set the target.

**AMP6** - maximum penalty £52m and maximum reward £60m

**AMP7** - maximum penalty £80m and maximum reward £12m

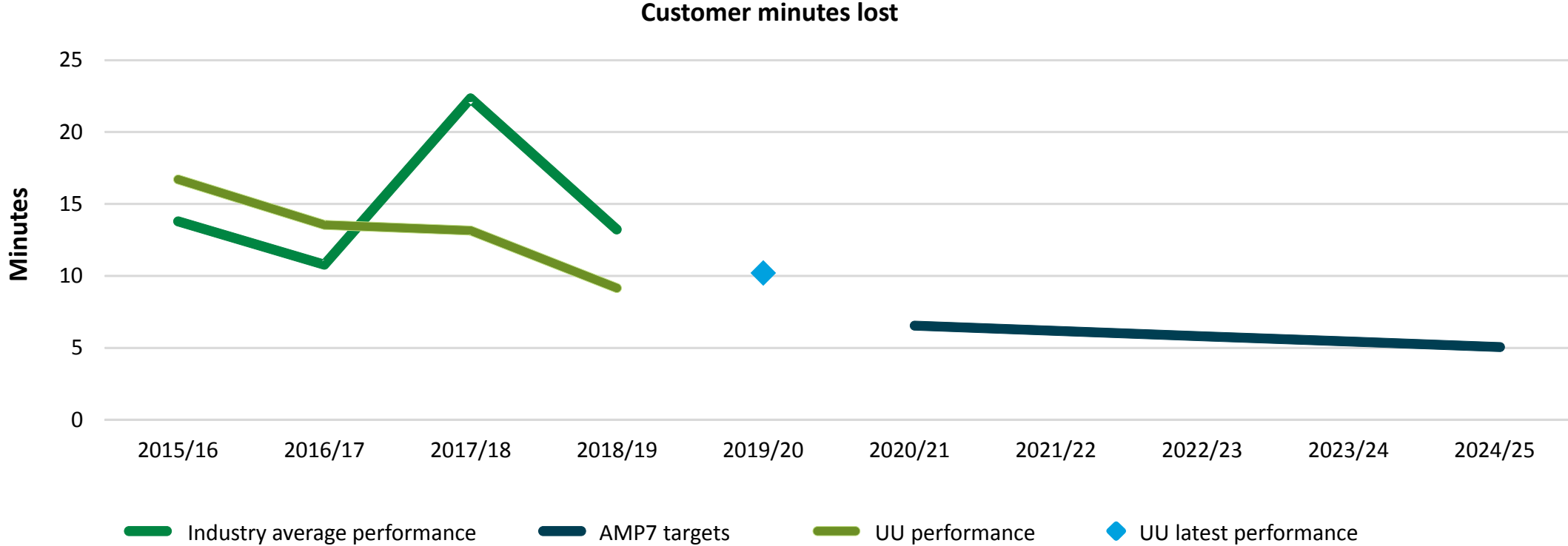


Customer Minutes Lost - ODI Penalty/Reward 2018/19





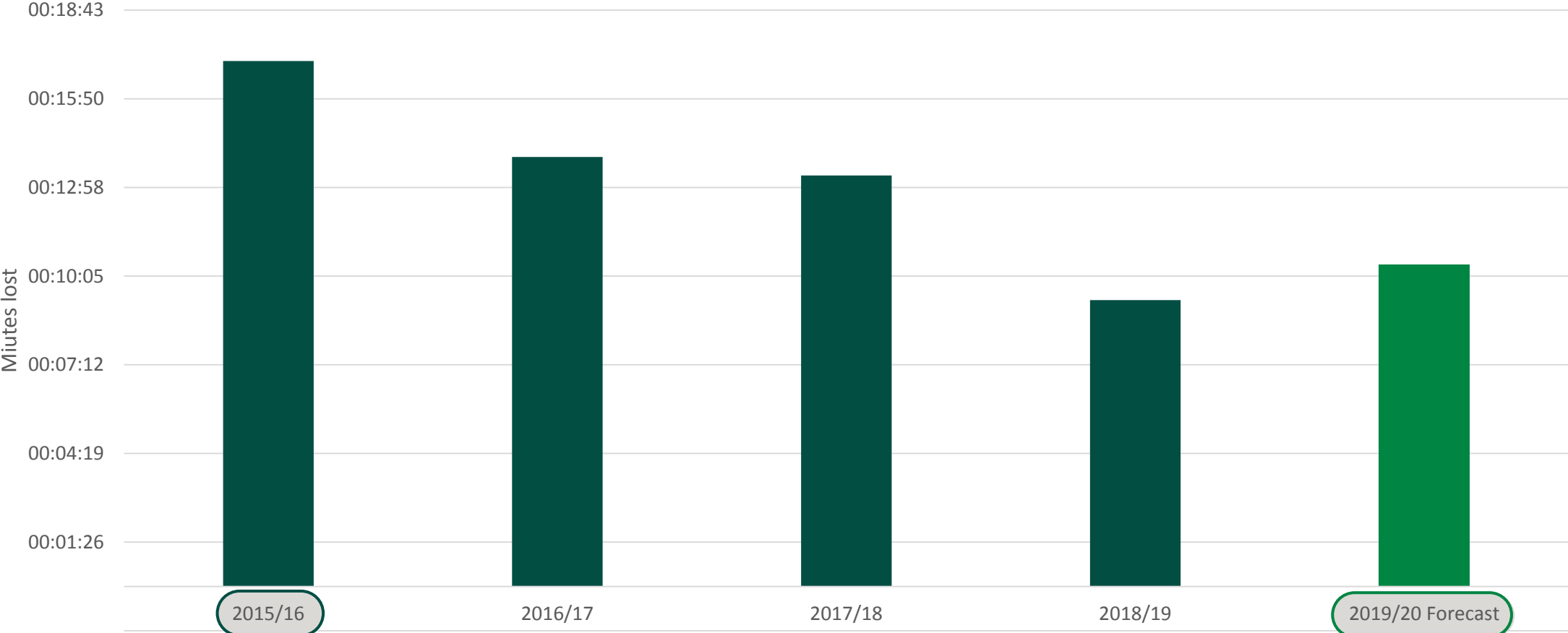
# The industry has been challenged to improve performance on this important customer measure



# Customer Minutes Lost ODI- AMP6 performance

A 39% improvement and an ODI reward forecast of £17.2m.

Well placed for the AMP7 ODI target and supporting overall customer satisfaction

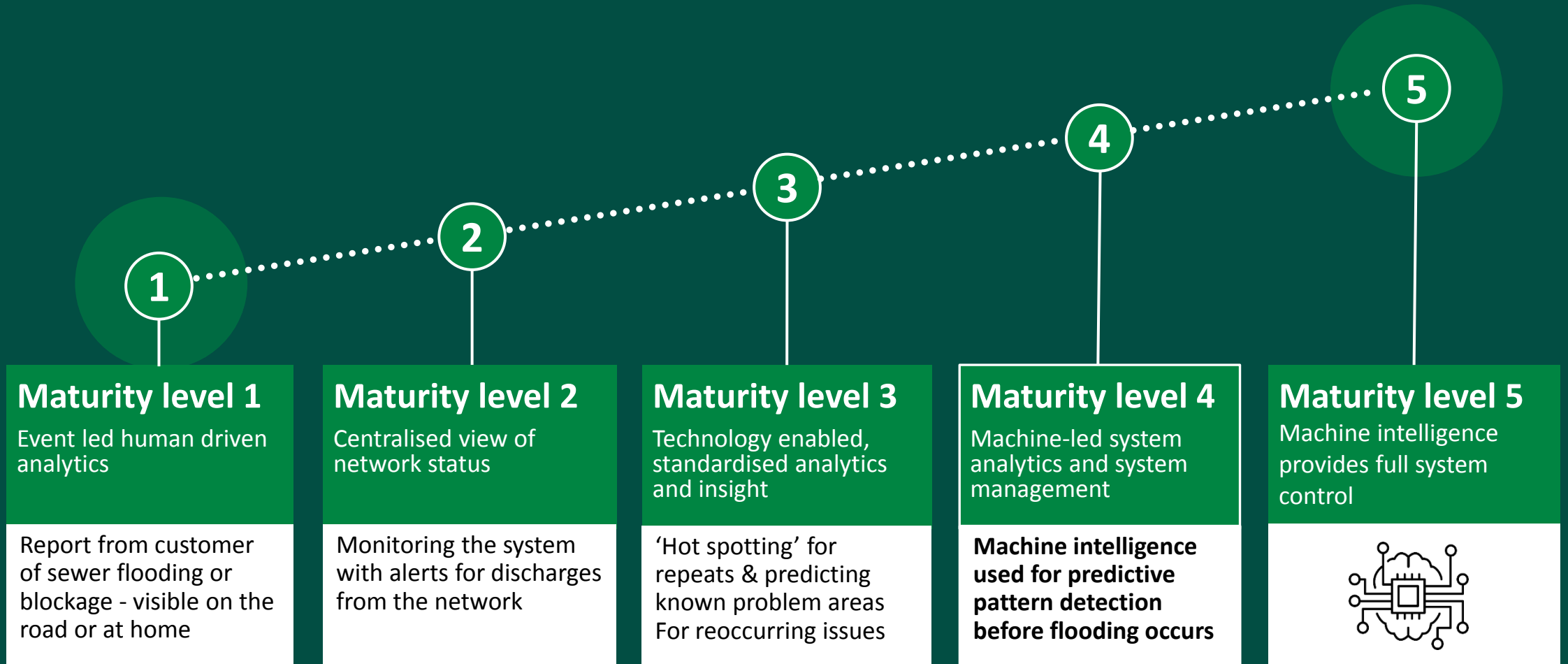


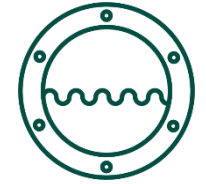
**ODI: £0 reward**  
**SIM position for water: 18th**

**ODI: £6m reward (forecast)**  
**C-MEX position for water: 6th**

# We are thinking differently about how we tackle sewer flooding

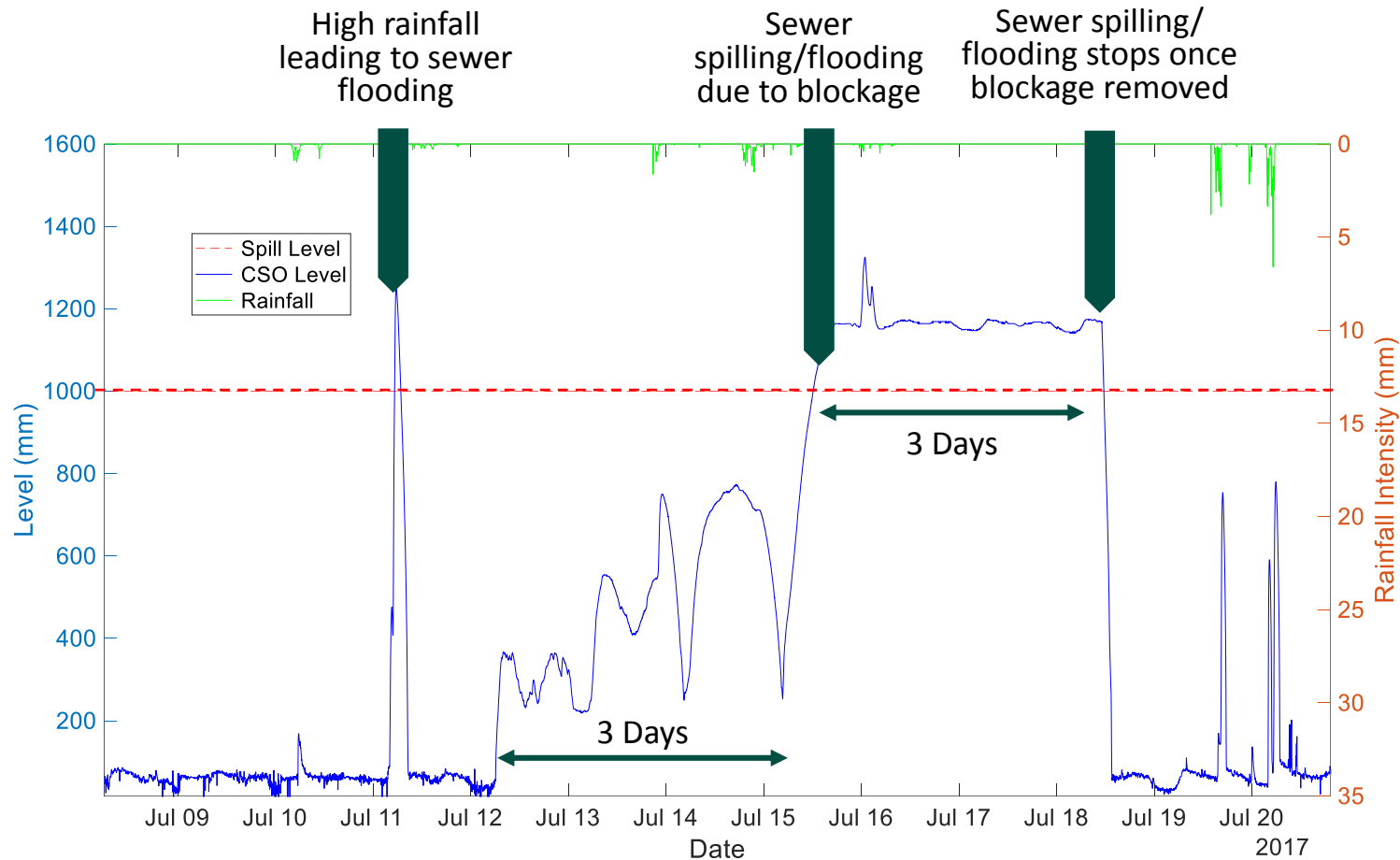
Systems Thinking capability maturity for wastewater





# Predicting Sewer Flooding

Predicting instead of responding to sewer flooding is where our innovation is focussing



## Traditional Water Company:

- Blockage took 3 days to build before spilling/flooding
- Only at the point of flooding/spilling was the issue identified
- Response speed is vital to mitigate the effect but by then the flooding/spilling has already occurred

# Meet EDDS (Event Duration and Detection System) our latest AI

## Combined Sewer Overflow Level Prediction and Near Real-Time Detection of Blockages in Smart Wastewater Systems

- Over the last 5 year we have enhanced our sensor network with over 2,000 new sensors across the wastewater system
- We have applied learning from our ERWAN (Event Recognition in the Water Network) – we developed, refined, and now use this AI everyday
- The new approach takes ERWAN and makes use of a proprietary evolutionary artificial neural networks (EANNs) and advanced statistical techniques to predict and detect the beginnings of network issues in near real-time
- Our capability has come from well developed partnerships with academia
- The novel methodology incorporates a number of scientific advances
  - Accurate level predictions
  - Self-build / self-learning

The question is:  
**How early can EDDS spot the development of a real sewer blockage that will cause flooding?**

## Academic partnerships



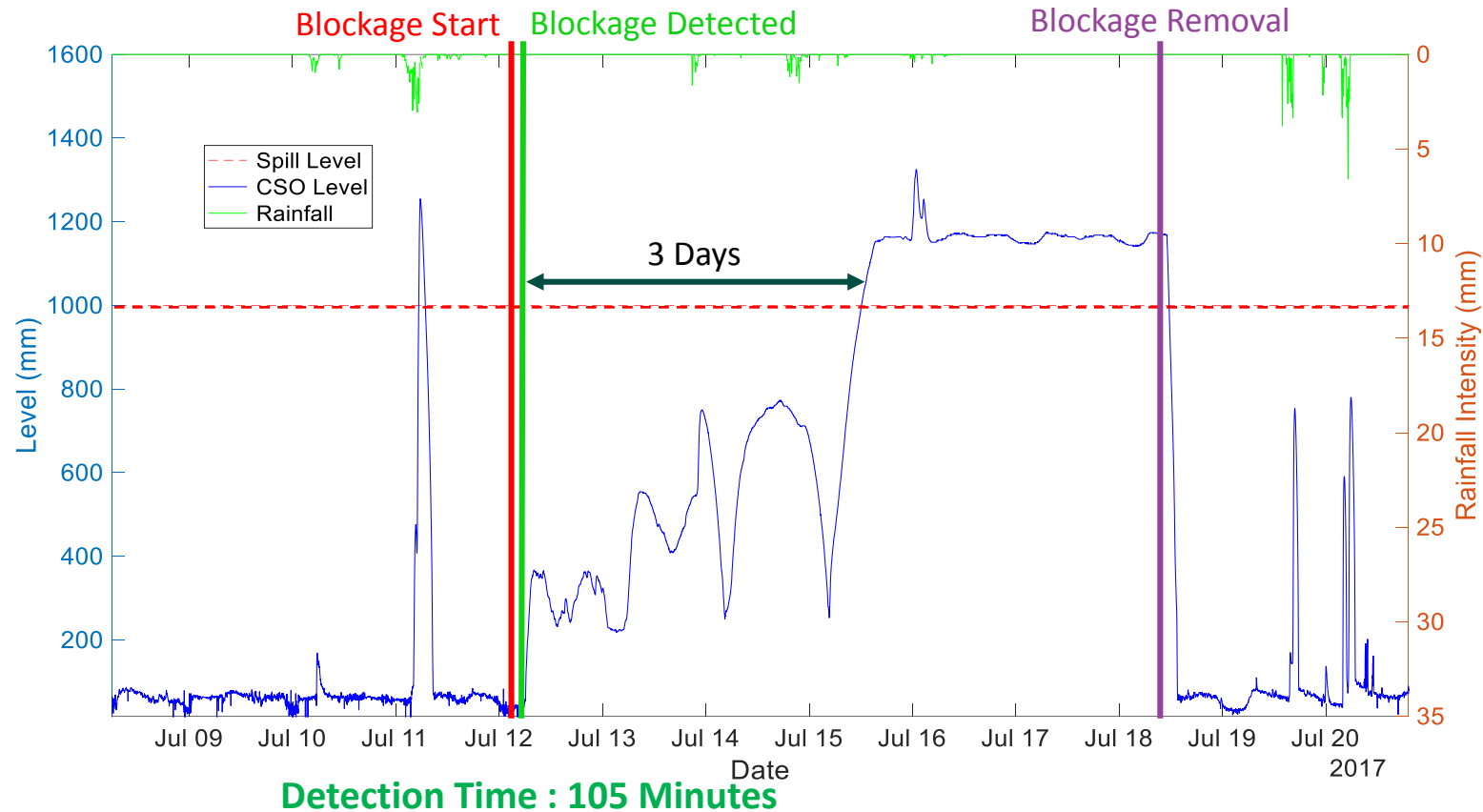
The University of Sheffield.





# EDDS Performance – Proof of Concept

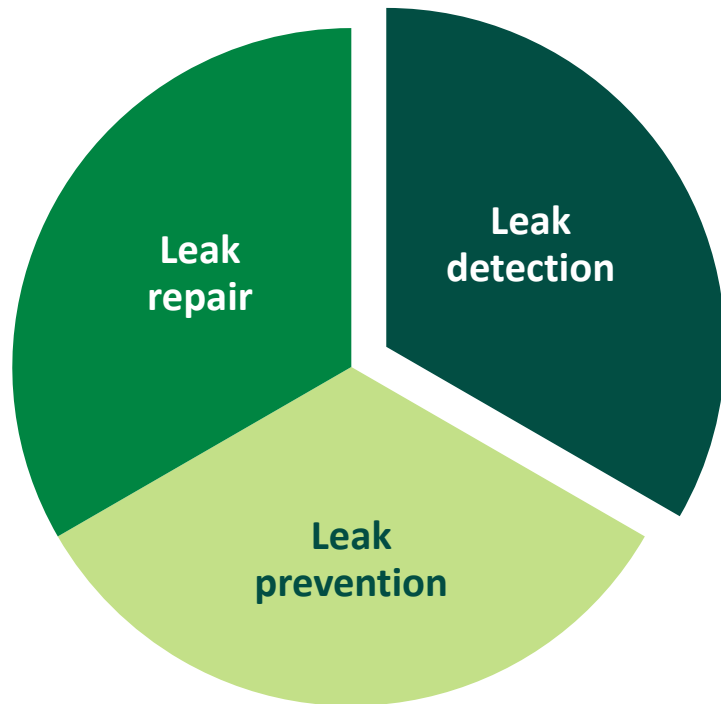
Sewer flooding is predicted by EDDS 99% faster than a traditional detection approach



## EDDS:

- Blockage predicted after 105 minutes vs 3 days with a traditional monitoring process
- No false alerts created

# We have a strong track record of innovation in leakage



Customer Leak Finder App



Sniffer Dogs



Satellites



Acoustic leak sensors

## Delivering our strategy

*Utilising new technologies, as well as data analysis, to allow us to find leaks we couldn't find before and fix them more quickly...*



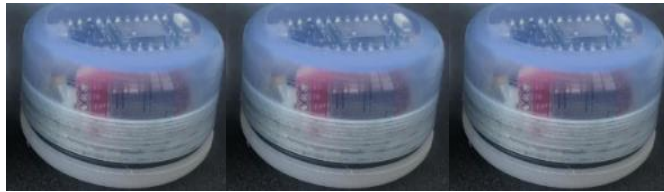
**Faster, more reliable and automated leak detection**

# Breakthrough innovation co-created for AMP7

Exploiting digital technology with our advanced mobile sensor network

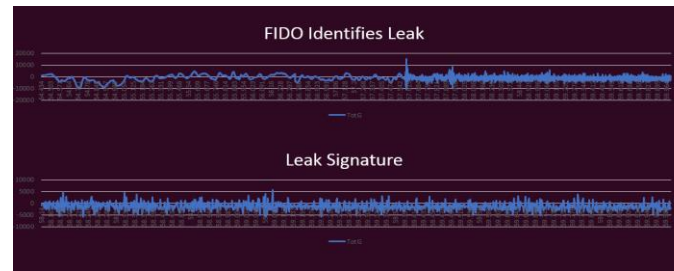
## The Innovation – *Digital Ear*

- 3 Mobile Sensors
- Tech from outside water sector
- Low cost & real time results
- Suitable for many pipe sizes



## Increased Accuracy & Efficiency

- AI software pinpoints leak
- Confirms leak likelihood and severity
- Link to work scheduling (leak repair)



## Asset Mapping & Visualisation

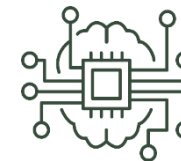
- AI software confirms pipe and leak location
- Simple to interpret results



## Digital sound file analysis - *Efficiencies from AI software*

- ✓ Installing 100,000 acoustic leak sensors across the region and utilising machine learning to distinguish leaks from other sounds
- ✓ AI software receives sound files from leak sensors, compares to leak library, calculates leak likelihood and severity – recommends schedule for leak fix. Continually improves through Machine Learning

## Supports advanced Systems Thinking capability

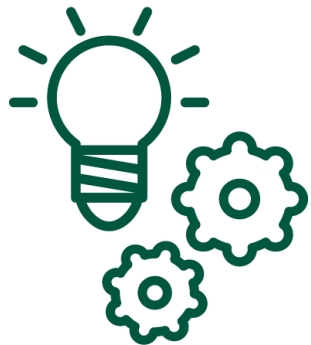


### Maturity level 4

Machine-led system analytics and system management

# Continuing innovation development to maximise business benefit

Our first mover advantage has created a strong relationship with an innovative company



## Ways of working



Integration

## Technology development



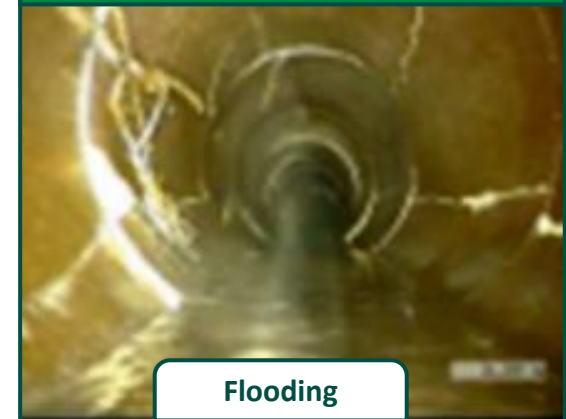
Optimisation

## Co-location at our test centre



Co-creation

## From water to wastewater



Flooding

# Summary

- Our mature and proven approach to systems thinking and innovation is externally recognised as being the most advanced in the sector and is a cornerstone of our AMP7 plan.
- Combining this with the adoption rate of disruptive digital technologies means we are finding new innovative solutions to meet the challenges of AMP7
- This overarching capability and approach is enabling us to accelerate the delivery of benefits and to unlock new opportunities to reduce cost, improve performance and deliver a better service to customers.

**We are therefore confident in delivering the efficiencies set out in our AMP7 plan and in identifying further opportunities across AMP7**





Capital Markets Day

# Q&A



Capital Markets Day

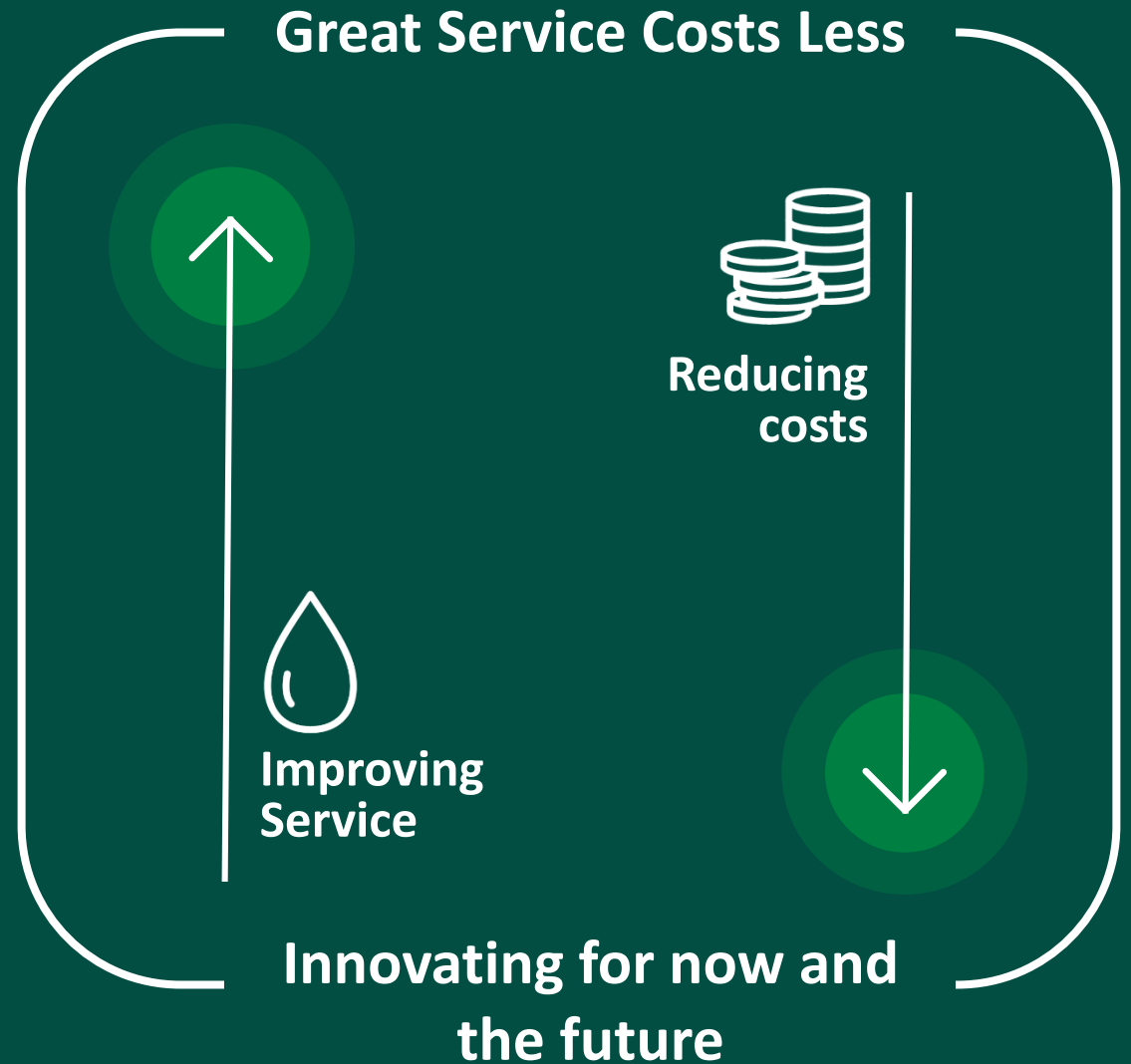
# Louise Beardmore

Customer Services and People Director

# Customer Services Strategy

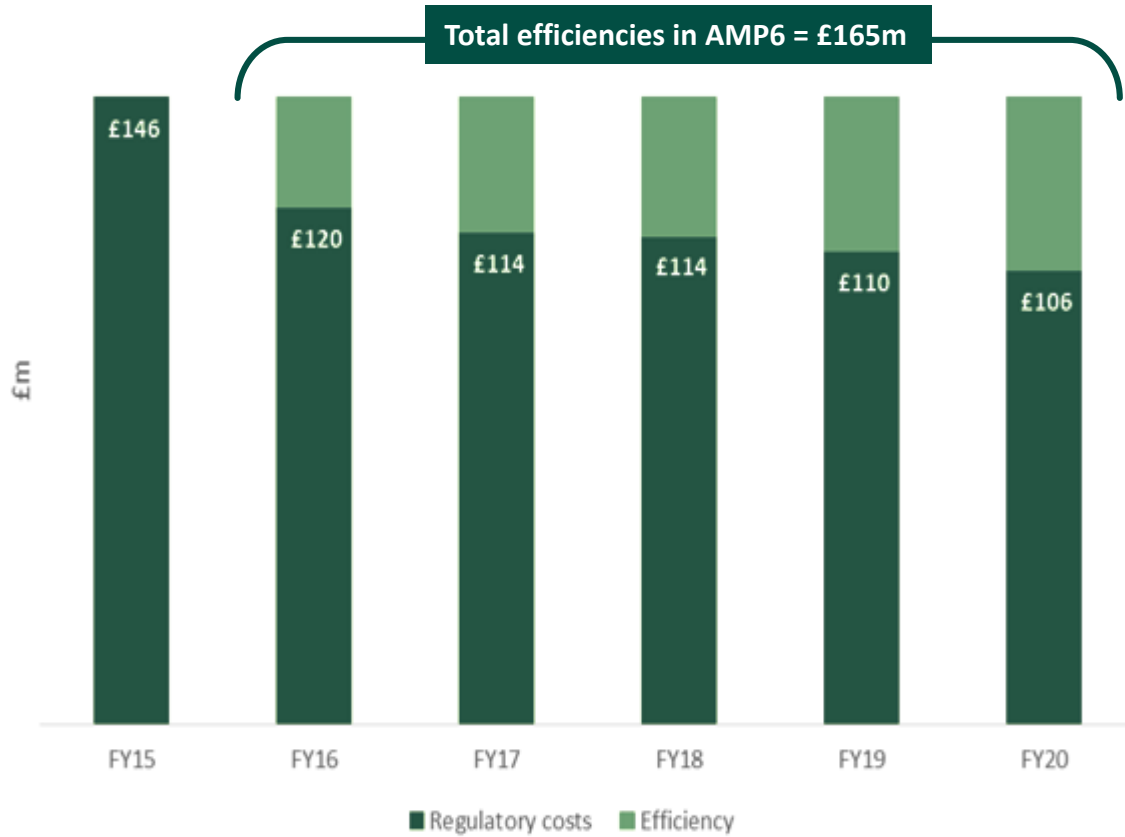
We have a clear strategy in place delivering new services and capabilities to position us now and in the future...

...and at the same time we are responding to the unique demographics of our region.

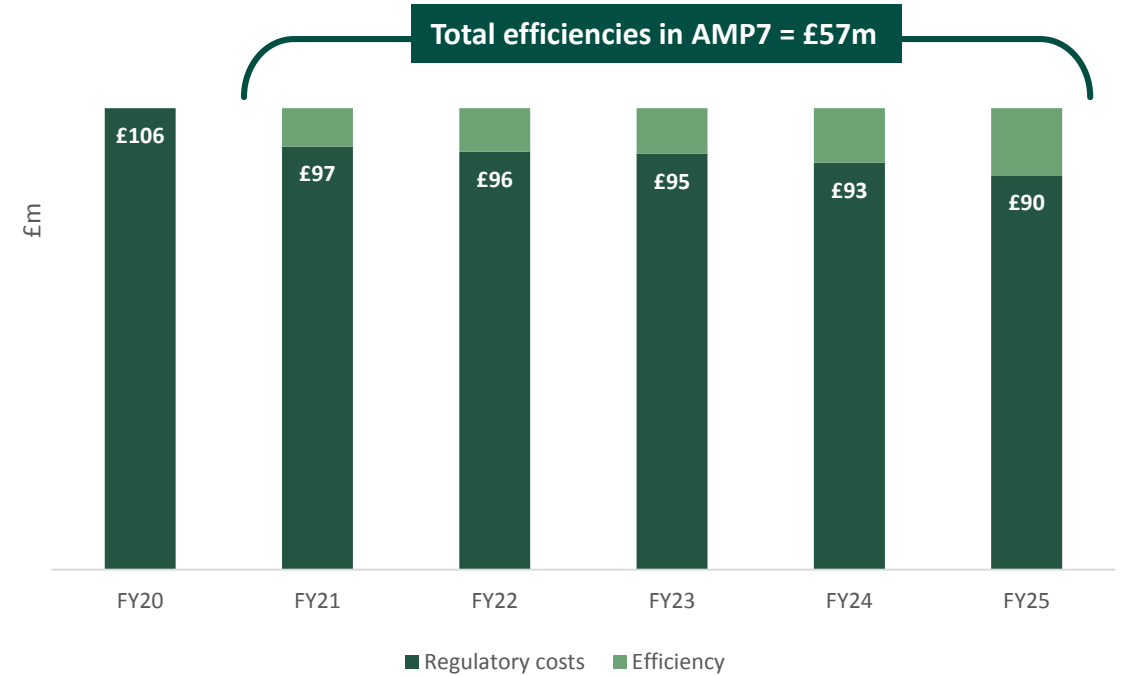


# Driving efficiency – great service costs less

### AMP6 Efficiency



### AMP7 Efficiency



# Step change in service performance

We have delivered an improvement in customer service levels by...

Cultural focus on the customer

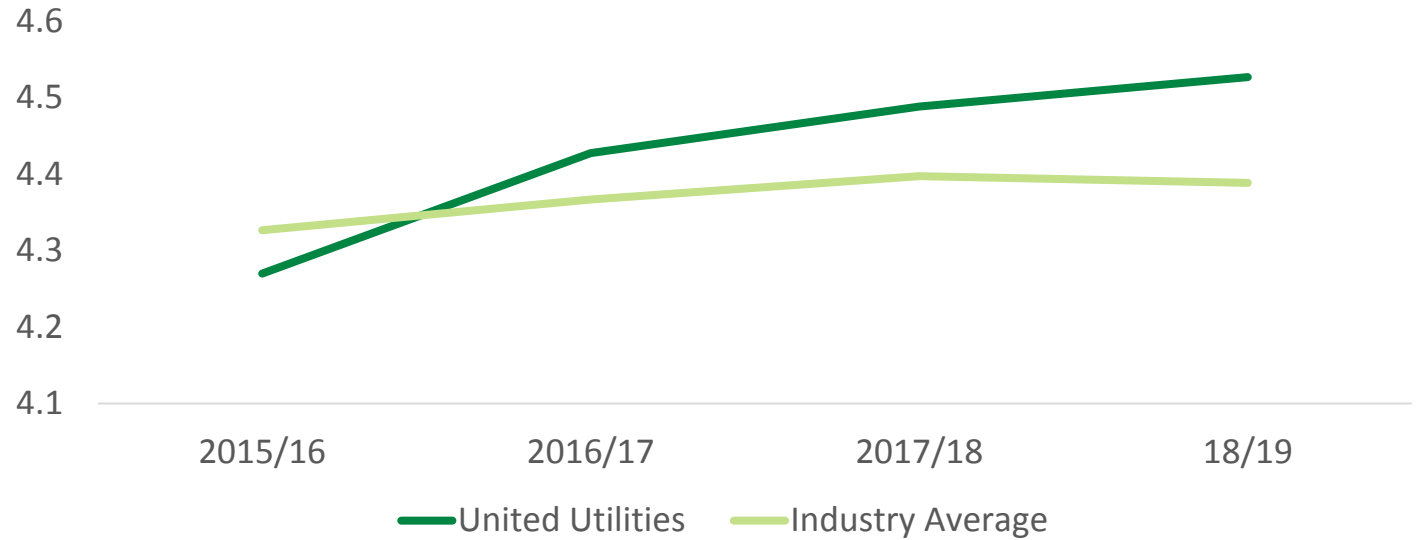
Implementing new technologies

Proactive customer contacts

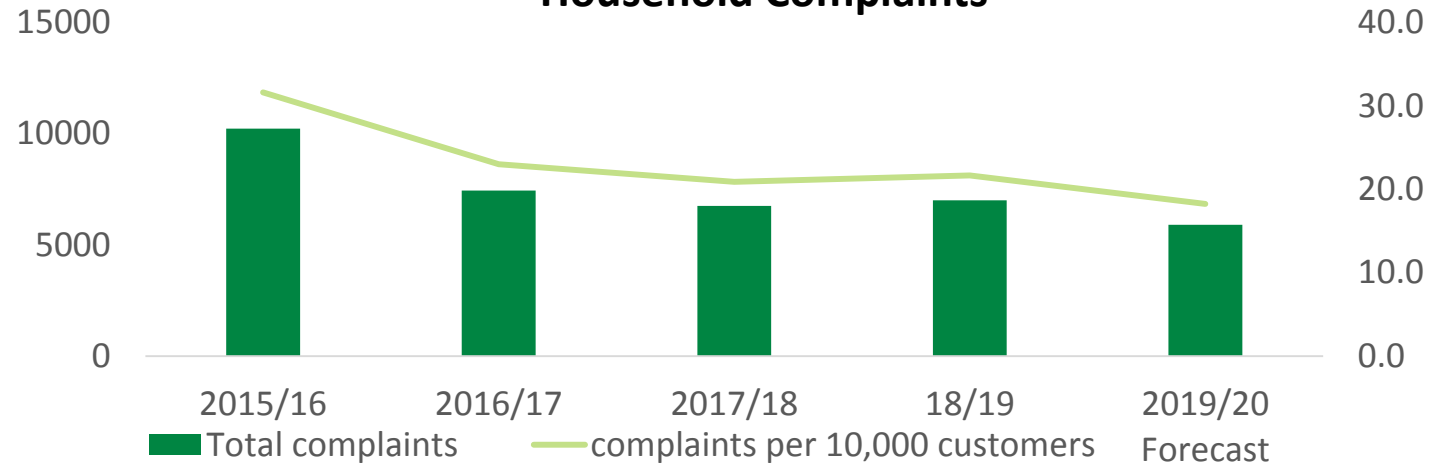
Better complaints handling

## SIM Improvements

4 year SIM qualitative scores 2015/16 to 2018/19



## Household Complaints





# Tackling customer bad debt

## Driving down bad debt



Improving data



Credit sharing



Enforcement



Affordability schemes

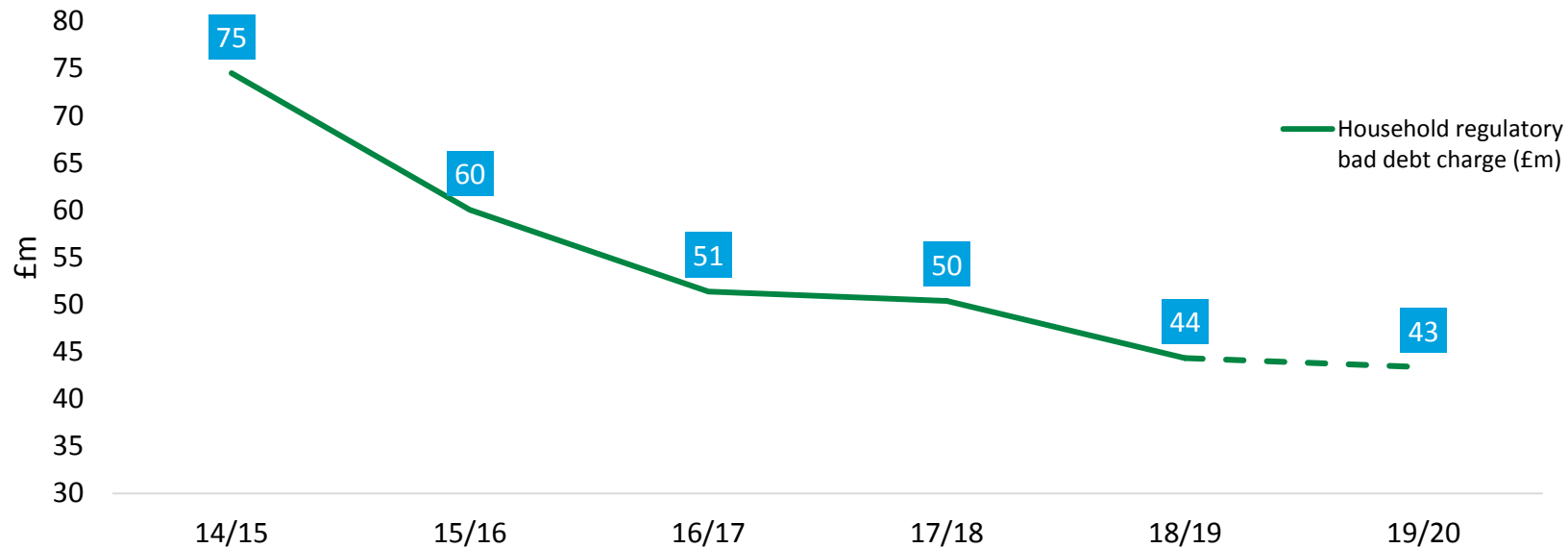


Town action plan



Payment plan optimisation

### Household regulatory bad debt charge across AMP6 (£)



### In the last 12 months

- New Debt Manager capability
- Enhanced data share with DWP

# Customer Services External Recognition

25 Awards

Recognised across all areas of Customer Services; complaints handling, vulnerable customer support, customer engagement, collection and debt management to name but a few

15 Customer Services

10 Collections and Debt Management

3 Accreditations

External accreditations;

- **Service Mark with distinction** - one of only 13 brands nationally
- **CICMQ** – only water company
- **Shaw Trust** – only water company

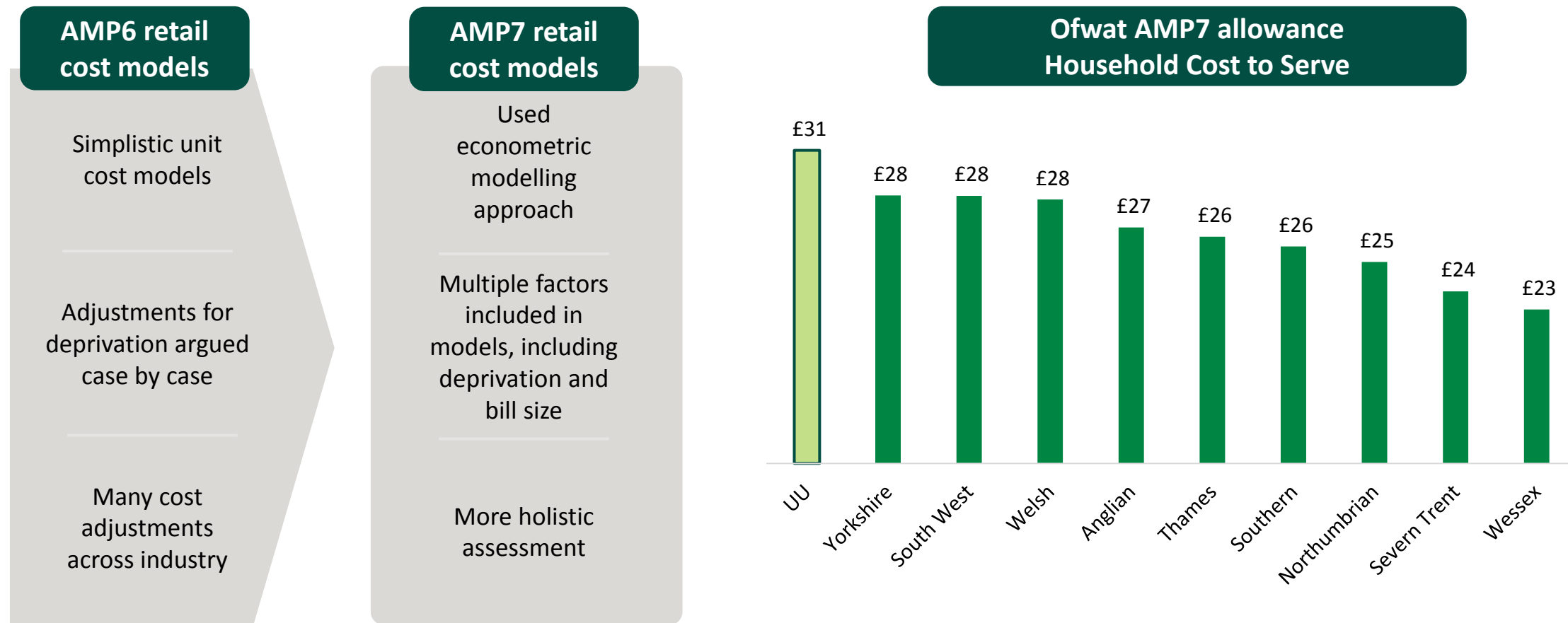


# What's different this AMP

# What's different this AMP for retail

Changes in Ofwat's approach to retail cost models and performance commitments have increased the focus on retail performance in AMP7.

Improved retail cost models now reflect the unique challenges of retail operations in the North West.



AMP7:

# Efficiencies in AMP7



# Delivering cost initiatives



## Debt

New analytic capabilities, innovative affordability schemes and industry leading data sharing

**Saving of c£30m**



## Innovation

Artificial Intelligence, Increased use of robotics, process efficiency, system rationalisation

**Saving c£14m**



## Digital

Enhanced digital channel capabilities, boosting on-line account sign-up, promoting paperless billing

**Saving of c£4m**



## Metering

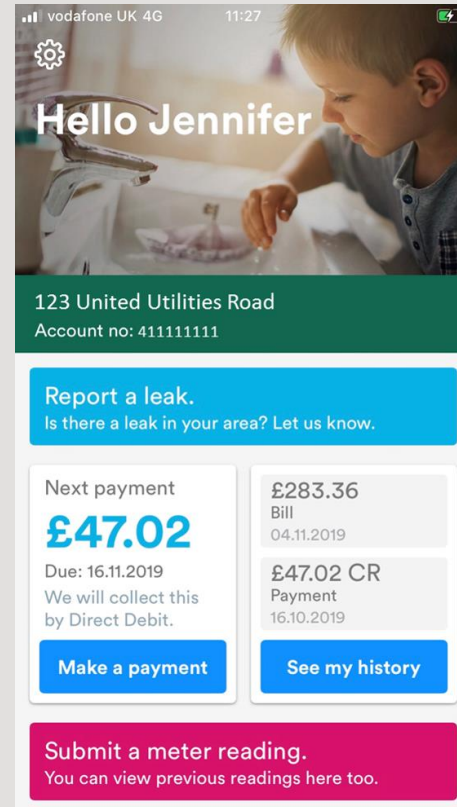
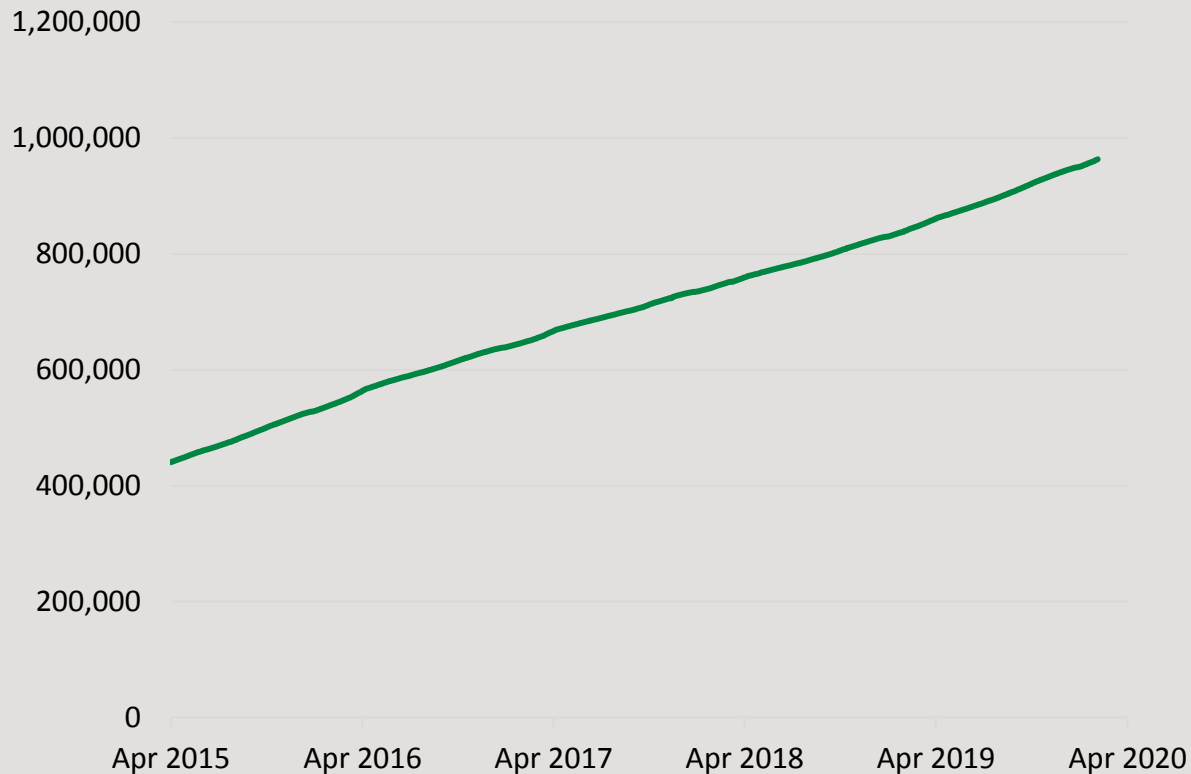
Maximising benefit of AMR meters and new flexible meter reading services.

**Saving of c£9m**

# Digital - driving down operational costs

Digital channels continue to grow in scale and sophistication.

Number of digital billing registrations



**125,000**

Registered for UU app



**£17 million**

Payments made via app to date



**8 minutes**

customer registers for the App



**4.7**

Appstore rating



**964,000**

Registered for My Account



**4 minutes**

Customer registers for My Account

# ODI opportunities

# Customer Services Performance Commitments

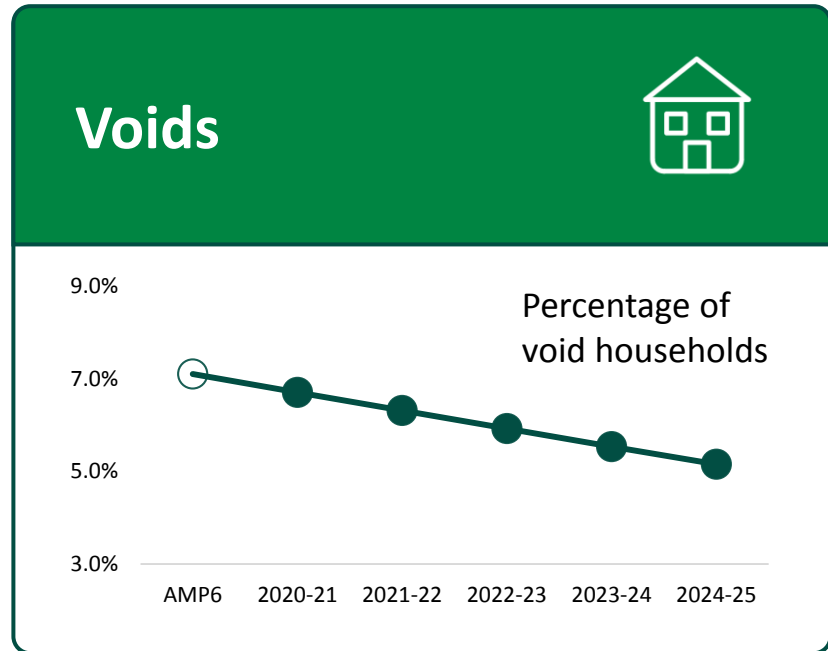
12 of United Utilities' performance commitments are focussed on customer services, delivering the outcomes that are important to customers with rewards available for outperformance on specific performance commitments.



# Tackling levels of void households

Improved data and analytics enabling an efficiently achieved reduction in unbilled homes...

**Bespoke**



## Advanced analytics

Advanced analytics gives us the ability to utilise more operational data in identifying occupied properties more quickly



## Data partnering

Using land registry data provides insight  
No longer relying on customers to self identify



## Flying start

Dedicated team, up and running from 2<sup>nd</sup> March

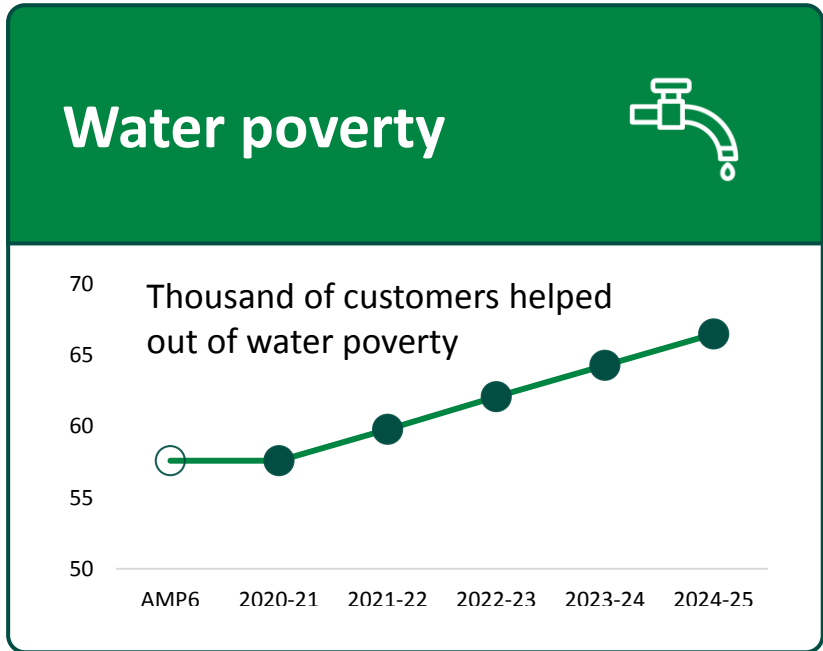
**Reward/penalty range = +/- £26m**



# Keeping bills affordable for all customers

Bespoke measure, to incentivise UU to increase the volume of customers lifted out of water poverty...

**Bespoke**



### Tariffs

Poor pensioners helped through our social tariff, linking to warm homes discount helps raising awareness



### Data provision

New powers under Digital Economy Act supporting delivery  
Working with Cabinet Office and DWP to validate customer eligibility for support



### Partnering

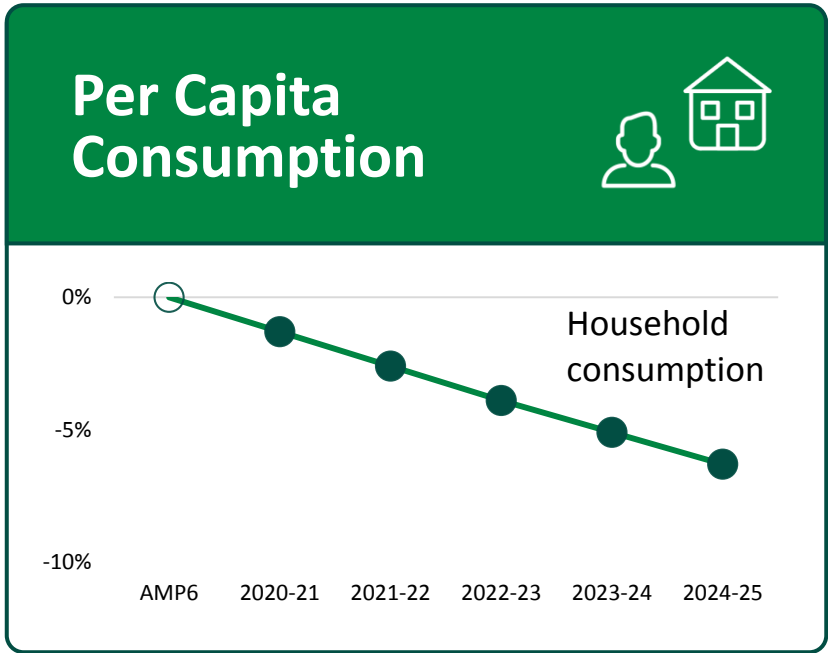
Working with local and national debt advice agencies and government improves our ability to find those that need help

**Reward/penalty range = +/- £14m**

# Bringing down levels of water use

Using water meters and communication campaigns to change customer behaviour...

**Common**



### Lowest bill guarantee

Customers fear an unexpected bill, reducing meter take-up. New 'Lowest Bill Guarantee' overcomes this barrier



### Water audits

Installing water meters incentivises customers to reduce water usage.  
Engagement with customers at point of meter installation maximises the benefits.

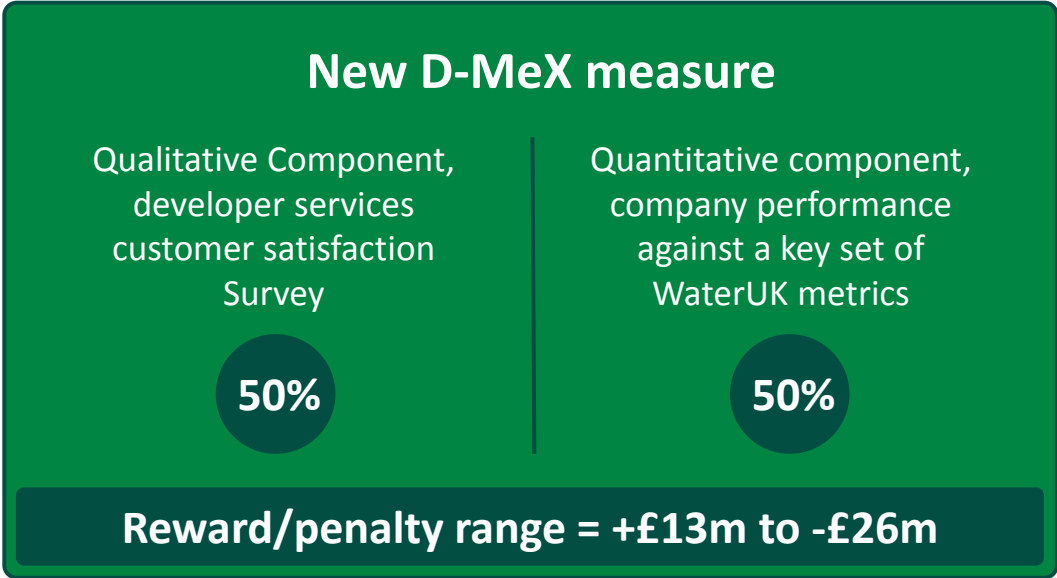
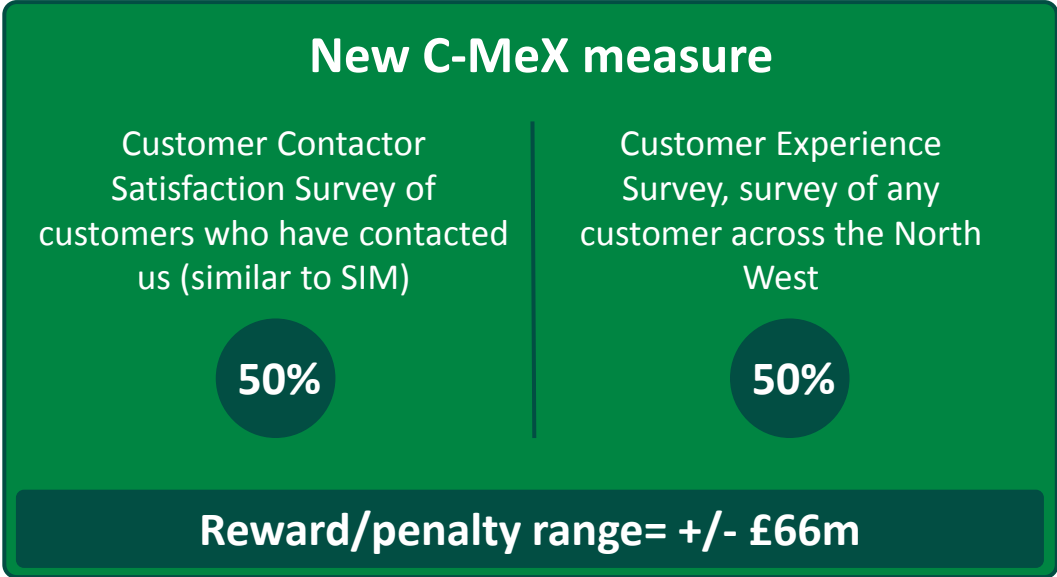
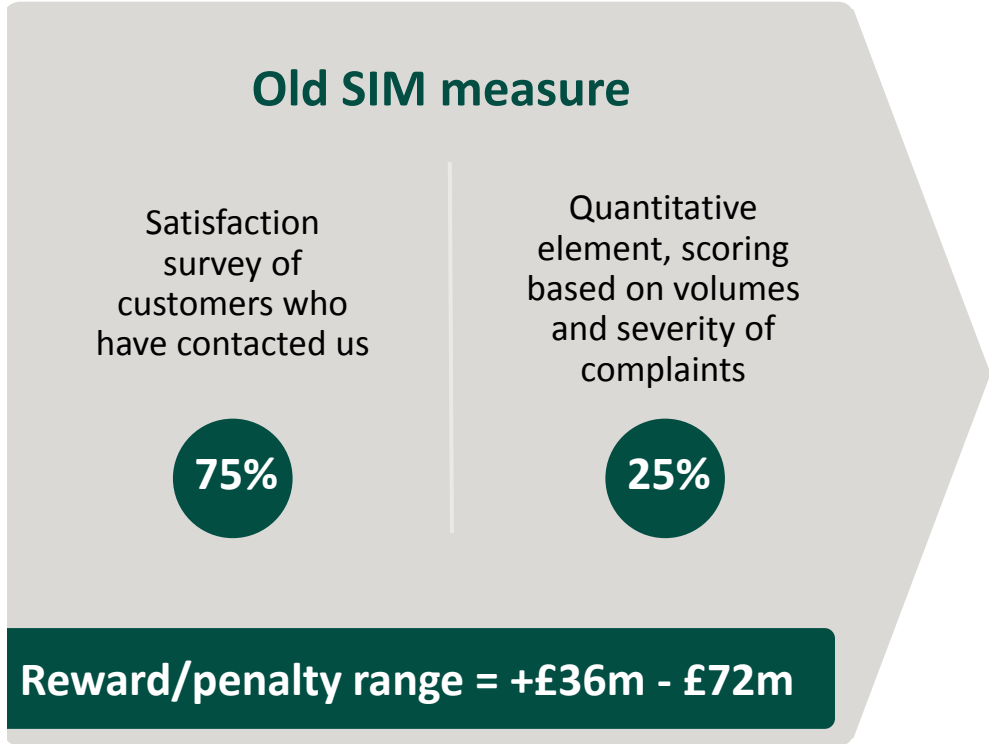


### Visualising water usage

Planned online water consumption reports will drive engagement with water efficiency, and provide opportunity for targeted messaging

**Reward/penalty range = +£2m to - £11m**

# Transition from SIM to C-MeX and D-MeX



# C-Mex Shadow year performance

**Common**

In Quarter 3 we achieved the highest ever industry score, for the contactor element of CMeX.

## Satisfaction Survey

Building on strong SIM performance, our contactor customer satisfaction scores are significantly above industry average.

## Experience Survey

In the new experience survey our performance is above industry average.

## C-MeX score

Our overall combined CMEX score has placed us in reward territory.

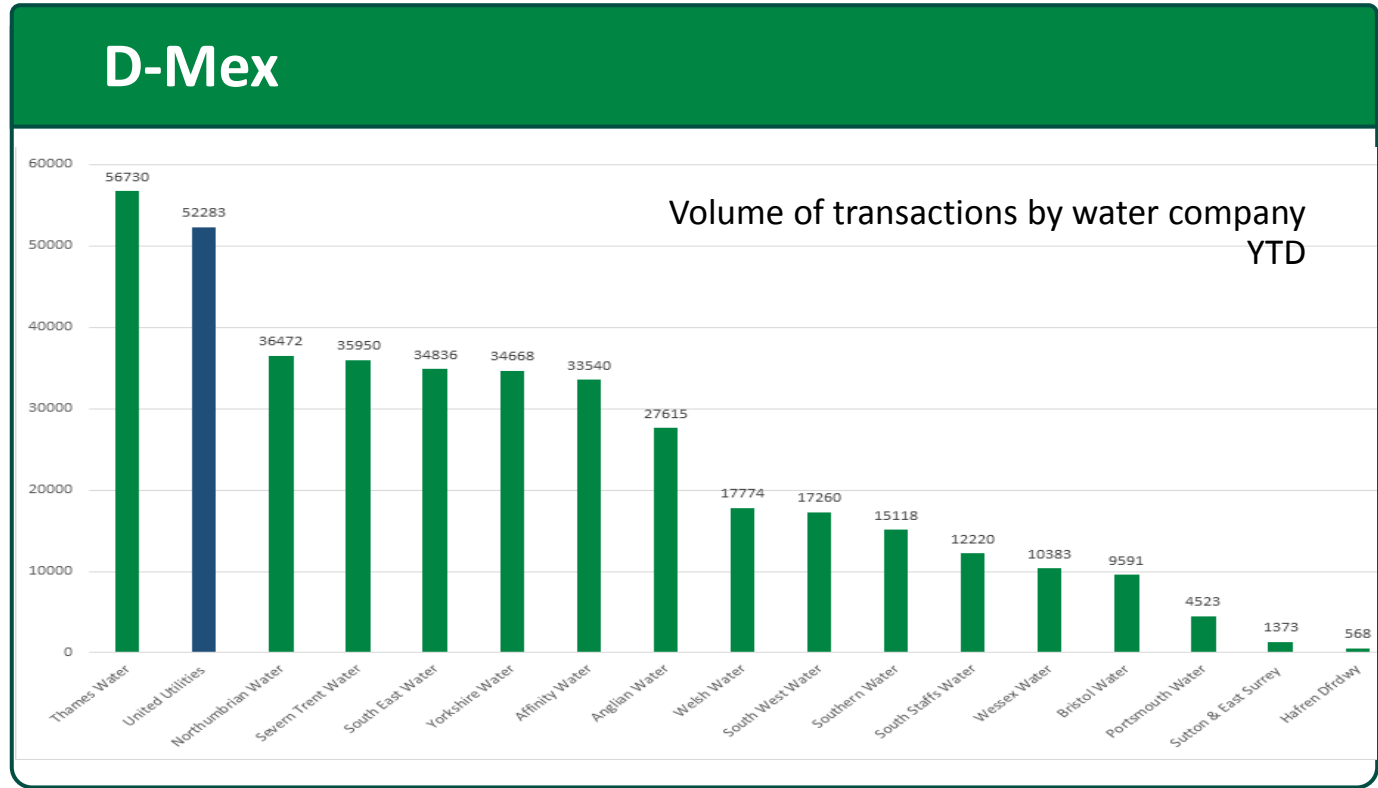


**Reward/penalty range = +/- £66m**

# Developer experience performance commitments

Spreading best practise in household Customer Services to improve developers' experience of engaging with us...

**Common**



## Organisation structure

Moved Developer Services teams into wider Customer Service function to support cross team learning and economies of scale



## Process redesign

Redesigning customer journeys to deliver on what D-MeX measures tell us customers value most

**Reward/penalty range = +£13m to -£26m**

# Ensuring our non-household properties are being accurately billed

Incentivising retailers to keep customer data accurate and up to date...

**Bespoke**



**NHh Vacancy Scheme**



**Gap sites**



**Incentives for retailers**

Implementation of vacancy incentive scheme from April 2020.

An incentive payment of £200 will be made for every successful retailer application.



**Gap sites – Incentive**

Implementation of Gap Site incentive scheme from April 2020.

An incentive payment of £250 will be made for every successful retailer application.

**Combined Reward/penalty range = +£5m to -£0m**

**Cost pass through to facilitate an effective market**



# Driving Priority Services offering for our customers and the utility sector

Common

Registrations remain **strong and embedded** within core customer touchpoints

---

There are now more than **c.100,000** Priority Services customers registered

---

**Launched industry pilot** with Electricity North West to share priority services data

---

Seeking **BSI accreditation** for “inclusive service provision” this year

**Leading role in full data share protocol with Electricity North West**



**Our Priority Services proposition has been shaped by insight...**



**Working with partners, stakeholders and charities.**

# Well placed for next AMP

Improving service and reducing costs for customers today and in the future



## Service

Rapid improvement in service over AMP6

**C-MeX, Q3 industry leading**

UU and ENW first utility data share for Priority Services customers

Leading Priority Services proposition

**Achieved ICS Service Mark with Distinction**

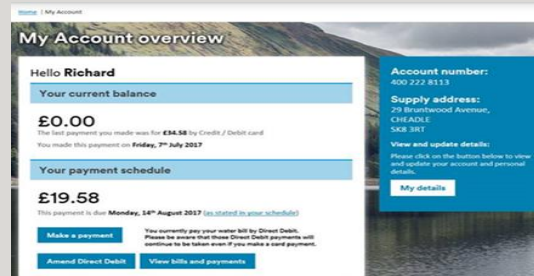


## Cost

Since 2014/15 we have reduced regulatory bad debt by **£25m/year**

**>950,000** customers registered for My Account portal

Total cost reductions of **£165m** delivered over AMP6



## ODIs

**12** Customer Services ODI's;  
**9** with financial incentives

Each ODI has an owner and a clear delivery plan

**We have identified opportunity**  
**In each of the 9 ODI plans that**  
**carry a financial incentive**



# People





# Motivated and engaged



**Top 20 Best Places to Work 2020**  
Rated by employees using Glassdoor



**High levels of retention**  
Attrition is low, ensuring continuity of skills and business understanding



**High levels of employee engagement**  
Consistently tracking UK high performance norms



## Trained and capable

### State-of-the-art Training Centres

- Opened in 2015
- Only government approved apprentice training provider in water industry
- Invested >£3m to deliver industry specific skills
- Rated 'Good' by Ofsted

40,000

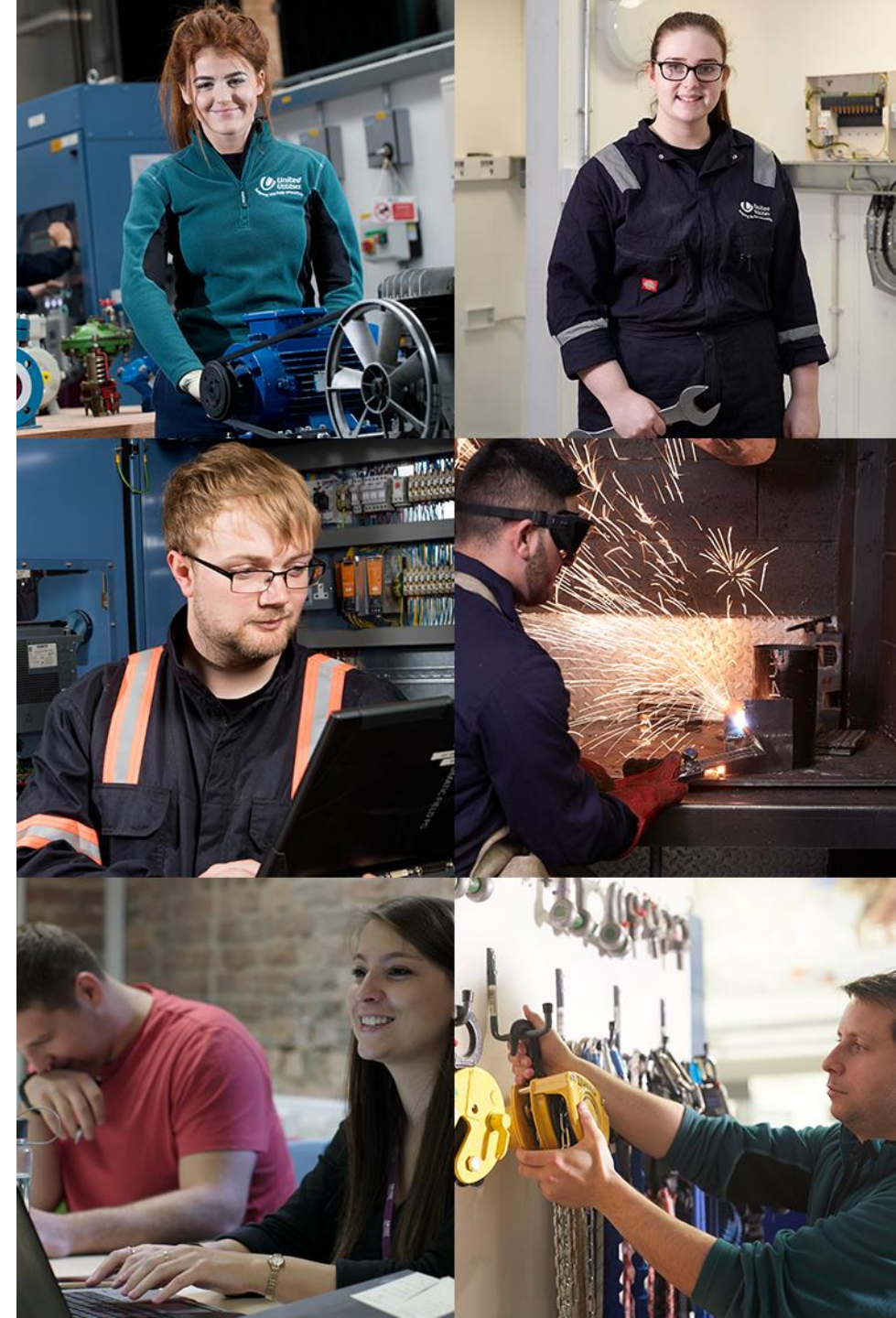
- Training days delivered in 2018/19
- 70% delivered in-house

### Investing in early careers

- Award winning apprentice and graduate programmes
- Regional social mobility programmes

### Investing in skills for the future

- Digital and automation
- Data analytics



# Aligned and motivated



## Clear targets and objectives for all

- ✓ Targets cascaded from boardroom to treatment works and contact centres
- ✓ Employees know how they contribute to delivery of the plan
- ✓ Performance management process ensures frequent conversations about adding value



## Sharing rewards for delivery

- ✓ All-employee bonus plan unique amongst listed water companies
- ✓ Recognises delivery of business and personal targets based on business plan



Capital Markets Day

# Q&A



Capital Markets Day

# Closing remarks



## Capital Markets Day

### Cautionary statement

This presentation contains certain forward-looking statements with respect to the operations, performance and financial condition of the group. By their nature, these statements involve uncertainty since future events and circumstances can cause results and developments to differ materially from those anticipated. The forward-looking statements reflect knowledge and information available at the date of preparation of this presentation and the company undertakes no obligation to update these forward-looking statements. Nothing in this presentation should be construed as a profit forecast.

Certain regulatory performance data contained in this presentation is subject to regulatory audit.

This announcement contains inside information, disclosed in accordance with the Market Abuse Regulation which came into effect on 3 July 2016 and for UK Regulatory purposes the person responsible for making the announcement is Simon Gardiner, Company Secretary.