2 Voice of the customer: our approach to engagement

2.1 Key messages

We have gained a greater understanding of customers' expectations than ever before, underpinned by a comprehensive and structured engagement programme.

- **A combination of innovative techniques:** Behavioural insights to shape improved services and future investment, and data science to help prioritise what is important for customers
- **Over 90 separate pieces of research that meet and often exceed the principles of customer engagement:** Rich and varied insights to support triangulated approach
- **Extensive reach into different types and classes of customers, including those hard-to-reach:** Over 142,000 residential and business customers participated
- **Engagement has shaped the plan and led significant changes to long-term proposals:** Early implementation in AMP6 where possible
- **Improving CSI and SIM scores show benefits of customer engagement:** Detailed customer segmentation driving personalised communication
- **Approach scrutinised and influenced by independent customer challenge group:** Providing robust challenge which made a difference

2.2 Overview

The 'Marketplace for ideas'[1] paper we published in 2016 was our thought leadership contribution to industry thinking on engaging with and listening to customers when developing business plan proposals. This set out an enhanced framework for engagement and participation, including innovative ways to give customers and stakeholders the opportunity to shape their current and future water and wastewater services. We have sought to follow this core approach – set out in Figure 2.10 – to ensure that the proposals in our business plan for 2020-2025 are shaped by customers and stakeholders. For instance, we have adopted new and innovative research methods, from immersive research on river water quality issues and supply interruption scenarios to using behavioural insight to inform our plans for water efficiency and sewer flooding.

In this chapter, we explain our approach to engagement and how we have gained and applied customer insight, including the methodologies and innovative approaches used. We describe how insight already gathered in AMP6 is helping to deliver excellent customer service, recognised externally. We explain how the results of our engagement and participation are shaping our long-term plans and how we have secured a representative view of the customer base.

Our understanding of the region we serve is more comprehensive than ever before. We have enhanced our understanding of customer preferences through better analysis of ongoing interactions and a five-fold increase in customer participation than at PR14. This has given us a much richer picture of customers and a deeper understanding of their needs and expectations, at a segmented level.

We highlight the important role played by YourVoice, the independent customer challenge group (CCG), which established a specific sub group to scrutinise the quality and reach of our customer participation to make sure the business plan consistently reflects customers' views and priorities. Where appropriate, the CCG worked with us in seeking third party expertise to validate results, including independent advice such as that from ICF on triangulating

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[1] https://www.unitedutilities.com/globalassets/z_corporate-site/about-us-pdfs/looking-to-the-future/water2020-feb16-customerengagement.pdf

research results from a variety of sources.[2] This insight, and the value customers place on our services, underpins the proposed performance commitments and ODIs.

Our engagement approach is embedded in our business processes. It is helping us test new ideas and proposed improvements with customers, in particular with the 7,700 member online customer research panel, "WaterTalk". Beyond research, our broader public engagement campaign reached over 1.7 million people, with the number of engagements on social media surpassing 46,000 over a two-phased campaign. We canvassed views on the priorities for the plan and the value placed on delivering the outcomes we propose.

Throughout this chapter, we highlight examples of our engagement with customers, and how this has influenced the development of our business plan. It is structured as follows:

- Section 2.3 outlines our approach to customer engagement;
- Section 2.4 describes the social economic and environmental factors affecting the North West;
- Section 2.5 sets out how we prioritise, gain and apply customer insight;
- Section 2.6 describes how we are embedding customer insight into AMP6 service;
- Section 2.7 highlights how customer insight is being applied to our long-term plans;
- Section 2.8 summarises the application of research to performance commitments and ODIs;
- Section 2.9 describes how our enagaement reaches across the full customer base;
- Section 2.10 outlines our broader community and stakeholder engagement campaigns; and,
- Section 2.11 describes how YourVoice, the independent customer challenge group, scrutinises our approach.

A series of supplementary documents support this chapter. Key among these are research findings – including the output of over 90 pieces of research - as summarised in supplementary document S1001 – "Customer research and engagements reports – Executive Summaries." This is a key document which signposts further details on the research methods and findings.

2.3 Our approach to customer engagement

We are clear that good engagement with customers requires a dynamic, multifaceted approach which seeks continual feedback across multiple channels which we can assimilate and act upon quickly.

During AMP6 we have built a deeper understanding of the customer base in the North West. We have sought to understand customer priorities for the services they receive and what we can do to increase their satisfaction. We have taken time to understand more about customer motives and behaviour, so that we can utilise this to deliver services more effectively and efficiently. Over the last five years, we have communicated and listened to customers in new ways and through new channels giving us unprecedented breadth and depth of insight. This has changed how we communicate and deliver services based on customer feedback and is embedded in the way we run the business. We have investigated ideas with customers – sometimes this has led to co-created solutions and sometimes we have gone back to the drawing board.

Looking to 2020 and beyond, we are confident that our future plans are more reflective of customer priorities – and hence better targeted to deliver efficiency, satisfaction and value for money – than ever before. We are committed to deepening our understanding further as we progress through the next five year period and to flexing our approach where we identify new insights. Through our engagement we are confident we have made strategic decisions and developed plans for AMP7 that are truly reflective of the customers we serve. This is evident in three strategic decisions that have been informed as a direct result of engagement.

- **Leakage** – from analysis of our own data, leakage reduction service valuation through the WaterTalk panel, stakeholder feedback and challenge by YourVoice it was clear our proposed leakage intentions in our Draft Water Resources Management Plan were not ambitious enough. We therefore doubled our target and propose a 15% reduction by 2025, aligning to customer preferences and Ofwat's indicative expectations

[2] See third party report T3002 – Triangulation review and assurance: ICF

- **Manchester and Pennines resilience** – our inspection of the Haweswater aqueduct, supplying 2 million customers across the region, revealed the need for investment to reduce supply risk. Working closely with YourVoice and independent experts, we created an effective approach for this complex research requirement that incorporated an array of techniques to demonstrate the scale of the task and to understand customer preference towards short and longer term solutions. Results indicated that both residential and business customers have a strong preference for increased resilience in future water supplies, directly informing our strategy and plans.

- **Delivering environmental enhancements through integrated catchments** – the design of innovative and sustainable catchment schemes and inclusion in the plan is as a direct result of several engagement approaches with customers and local stakeholder groups. These included WaterTalk panel research that revealed a preference for us to work with partners to protect water quality; immersing customers in catchment simulations; and holding workshops for stakeholders to discuss conventional versus alternative integrated catchment options. We gained greater understanding of the value customers place on the environment and enhancements, and they were largely supportive of integrated catchment management solutions.

Table 2.1 sets out Ofwat's principles of good customer engagement and provides a summary of the steps we've already taken, or are currently taking, that align with these principles.

Table 2.1 Our approach to customer engagement

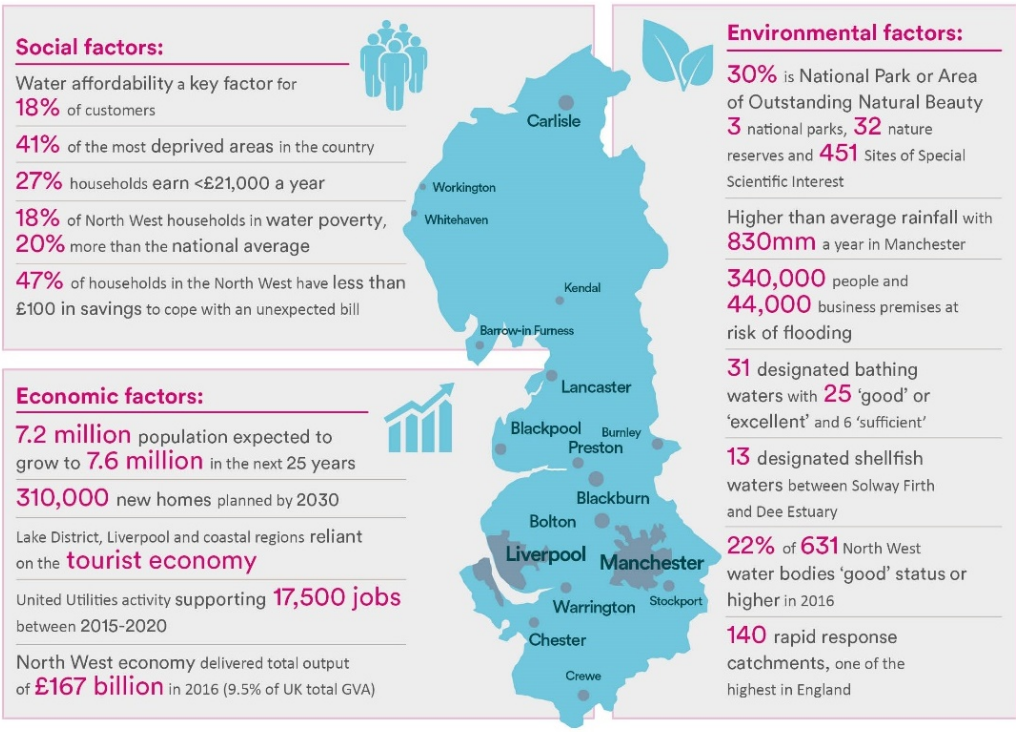
Principle	Illustration of our approach
Understanding customers	
Delivering outcomes that customers and society value at a price they are willing to pay	Insight triangulated to provide balanced and robust outputs e.g. research with residential and business customers regarding service request expectations compared with 'natural experiments' information to balance behavioural responses to service events.
Understanding the needs and requirements of different customers	Each research project designed to reflect customer diversity (age, gender, county, income, ethnicity and disability). Analysis of customer contact data segmented according to demographics. Research carried out with residential and business customers.
Using a robust, balanced and proportionate evidence base	Decisions based on multiple research approaches across tens of thousands of participants including stated preference, revealed preference, valuations, co-creation, internal data analysis, behavioural insight, trials and experiements, exploratory surveys and use of the WaterTalk panel. Revealed and stated preference approaches used to develop plans e.g. repeat sewer flooding research allowed differentiation, comparing repeat and single incidents and, alongside willingness to pay and acceptability testing, informed our conclusions.
Setting the context through the use of comparative information	Willingness to pay survey and acceptability testing included use of comparative information to help customers make informed choices.
Understanding what customers want and responding to that in plans and ongoing delivery	Immersive research provided deeper insight into customer behaviour around reaction to long-term supply interruptions, giving valuations to avoid such service events (for both residential and business).
Engaging customers	
Achieving the right outcomes at the right time and at the right price	Customer priorities research explored priorities now and in the future and covered inter-generational funding. Customer research undertaken to support development of performance measures.
Discussing longer-term issues, including resilience	Several projects explored priorities now and in the future and covered inter-generational funding, such as customer priorities, Manchester and Pennines resilience, immersive sessions on water supply resilience and specific research on reducing leakage, addressed by the WaterTalk panel. Research undertaken for development of performance measures.

Reflecting North West circumstances and its various residential and business customers	Research stratified to include hard-to-reach and customers in vulnerable circumstances such as ‘Lowest Bill Guarantee’ targeted at specific customer segments. After visiting vulnerable customers at home to understand how they might use online services and what they need, we enhanced website accessibility and digital services. We have introduced an online tool to improve customer accessability called ‘Recite Me’.
Adopting a continual and ongoing approach	Ongoing interaction with the WaterTalk panel enabling us to better inform and engage with them over time. Allows dialogue about issues of mutual benefit and provides a platform for ongoing two-way engagement.
Ensuring a two-way and transparent dialogue; informing and educating customers	Multiple approaches to ongoing customer engagement, appropriate to all customer needs, described in sections 2.5 to 2.10. In the Petteril catchment, we conducted engagement to develop co-creation ideas through interactive workshops. These interactive, two-way conversations with stakeholders helped gain truer and deeper insight.
Involving customers in service delivery	Customers involved in WaterTalk panel research, participation in sewer misuse trials and public consultation on draft business plan service levels. With mobile app and bill design, customer feedback specifically shaped final outcome and prioritised onward development.
Effective challenge of company engagement process	Challenges from the CCG included treatment of inflation, simplification of willingness to pay survey, use of comparative information, sewer flooding messaging and use of Plain English.

2.4 Understanding what it means to serve the North West

We operate in a diverse region of contrasts: rural communities in sparsely populated areas; significant commercial and industrial centres in major cities; large densely populated inner city areas; over 1300km of coastline; and three national parks with a thriving tourist industry. This means that customers have varying priorities for the services we provide, although the single most important metric they cite in engagement is the affordability of bills and ensuring that we provide them with value for money. The region has some of the most deprived communities in England and Wales and the need to meet service challenges on the most cost effective basis is always foremost in our mind. Long-term forecasts suggest demand for our services will grow during and beyond AMP7. We need to understand how customers will want to use our services in future so that we can plan to deliver them efficiently and effectively to their satisfaction.

Figure 2.1 Social, economic and environmental factors in the North West



2.5 How we prioritise, gain and apply customer insight

2.5.1 Identifying research requirements

We used the outputs of customer engagement to inform our long-term investment plans for AMP7 and beyond. This research has ensured we are measuring performance and setting targets on all aspects of service which are important to customers. We have used research to determine where to prioritise service improvements and to set outcome delivery incentives which reflect the value customers place on them.

In considering engagement with customers through research activity, we ensure our efforts are focused and coordinated to provide meaningful insight where it can make a difference. Our decision framework includes:

- what does transactional data (e.g. customer contacts, tracking surveys or social media comment) tell us about customer attitudes to the issue;
- from existing information, including previous surveys, how important do we think the issue is to customers;
- how do customers prioritise the issue, if possible, relative to other important areas;
- how material is the issue in terms of potential investment required, if known, and is there an opportunity to give customers appropriate choices to be able to make trade-offs;
- how complex is the issue;
- can we realistically involve customers in delivering a solution to the issue; and,
- could behavioural approaches such as revealed preference or trials and experiments be applied successfully

We use the decision framework to guide the research approach we pursue. For example:

a) **environment** – not the highest priority for all customers, but still a key requirement of a high quality plan. Customer contacts are less determinative than statutory requirements in this area. Immersive research was undertaken, providing customers with the opportunity to trade off between areas for improvement through willingness to pay and acceptability testing research.
b) **long-term supply interruptions** – a high priority for customers, but a complex issue because of the presentation of risk. We took the opportunity to learn from behavioural research and analysis of transactional data. Other sources of insight were gathered from in-depth immersive research, Manchester and Pennines resilience, willingness to pay and research following any incident such as the Lancashire water quality incident.
c) **air quality** – a medium priority for improvement for customers but with limited opportunity to learn from customer contact data. Given its complexity, WaterTalk panel research was undertaken but it was not included in trade off research.

Breadth and depth of research and participation

Adopting the approach above means our plans for 2020 and beyond are built on a broad range of customer engagement methods for retail, water and wastewater services. These include existing data sources, regular monitoring research and learning from specific events in AMP6, to provide real time feedback about improvements we can make to services, and the value customers place on such improvements.

In addition, we have undertaken a range of specific research activities to gain deeper understanding of customer views on particular issues. In total, our plans draw on over 90 different research strands using a broad range of techniques to provide a rich base of customer insight.

YourVoice was fully engaged across our research programme, covering design, execution, analysis and application. YourVoice encouraged us to consider how we could apply immersive research to difficult subject areas, working with us to develop simulations; suggested we should involve business customers in our behavioural research plans; and members attended the sessions and suggested further improvements, all of which were taken on board. The CCG was also actively involved in the development of stated preference studies, championing the use of comparative information and supporting the simplification of the survey mechanisms and use of graphics. In particular, it encouraged the use of the ‘build your own bill’ concept to make choices easier for customers.

Research overview

We've used a range of research types and methodologies across retail, water and wastewater services.

Behavioural economics

Application of behavioural understanding to the way people make decisions about economic aspects of their lives, based on lessons from psychology and sociology. Useful when considering research approaches because people don't always do what they say they do, helping explain sometimes irrational approach to decision making.

Applied to two 'immersive' research projects which employed 'real-life' simulations of events.

a) **Long-term supply interruptions - immersed customers in 'fourteen day' loss of water scenario, using mock-up text and telephone messages, newspaper articles, supermarket stocks, water rationing activity, and estimating level of customer compensation demands for long-term water shortages.**

b) **River catchment management - involved a 'virtual' video tour of Greater Manchester's River Irwell, a model farm to simulate what happens with water 'run-off' and floor puzzle games which when completed revealed a balanced eco-system. Customers asked to 'bid' for investment in their chosen areas of environmental priority.**

Observing customer behaviour reveals insight about how to improve a product, service or the presentation of the product or service. e.g. we sought to understand how visitors to a local shopping centre disposed of toilet wipes when presented with different messages (on the back of toilet doors) about problems caused by flushing such items. Study found differences in the amount of wipes flushed depending on type of messaging.

Data analysis

Investigating disparate data sources to understand whether, when combined, it reveals insight otherwise not visible. We compiled several sets of customer data (billing, service events, complaints), a rich source of information about customer priorities.

2 million lines of customer data from 3 years collated and analysed to understand customer preferences. Data from phone calls, letters, webchat, social media posts, customer satisfaction surveys, a customer feedback channel called 'rant n rave' and MP letters combined into customer insight. Revealed differences in expectations depending upon where customers live, that customer experience can also vary depending upon location, that service provided doesn't always match customer need, and economic deprivation can exist where not expected.

Tracking surveys

Continually test customer views or opinions over time to compare responses period-on-period. Examples include Brand Tracker, Weekly Customer Satisfaction survey and Service Incentive Mechanism scores.

Brand tracker monitors our brand 'health', comparing responses to questions about customer satisfaction with service, value for money, understanding of our operation and communications campaigns, levels of trust and how well experience reflects traits of trustworthiness, social responsibility, genuineness, helpfulness, and reliability.

Trials and experiments

We regularly pilot ideas for operational improvement. Trials and experiments are used to test new service propositions, from providing financial support to customers under Town Action Planning, trialling disposal of fats, oils and grease and testing if customer communications affect items flushed down the loo.

Exploratory surveys

Research projects that obtain basic feedback about customer opinions and views but materiality not significant enough to require more sophisticated approaches.

Examined customer priorities this way, dealing with services customers think are investment priorities (from water quality to environmental issues and climate change resilience). This involved both household and non-household customers, and typically, a cross section of the whole customer database demographic.

Stated preference valuation

Willingness-to-pay valuations for a non-marketed product or service (such as water or wastewater), derived from questionnaires or experiments where preference is 'stated' verbally or numerically (and orally or in writing).

Undertaken studies to obtain such valuations. For example, service valuation (willingness–to–pay survey) obtained valuations for some water and wastewater services we could invest in and set framework for later studies such as leakage reduction willingness-to-pay, Manchester and Pennines resilience and acceptability testing.

Customer research panel

Called WaterTalk, this panel is an online research forum of 7,700 customers. Research activity undertaken regularly. Techniques used include 'pop-up communities' (around 25 -30 participants discuss topics over 3-4 days) and quantitative surveys attracting thousands of responses.

WaterTalk panel particularly helpful in co-creating and co-designing customer communications materials e.g. in re-designing bill formats, provided feedback iteratively during the design process helping us gain customer view of best practice in bill design.

Co-creation

Approach to problem solving bringing us together with groups of customers to jointly produce mutually valued outcomes. Used to address re-designing bills for metered and non-metered customers. Customer feedback showed bills could be improved so we worked collaboratively with customers and WaterTalk panel to re-design them. Test versions piloted and further improved with feedback from an employee panel, contact centre agents, and customer complaints data.

Further example of co-creation in section 2.5.2, integrated catchment management.

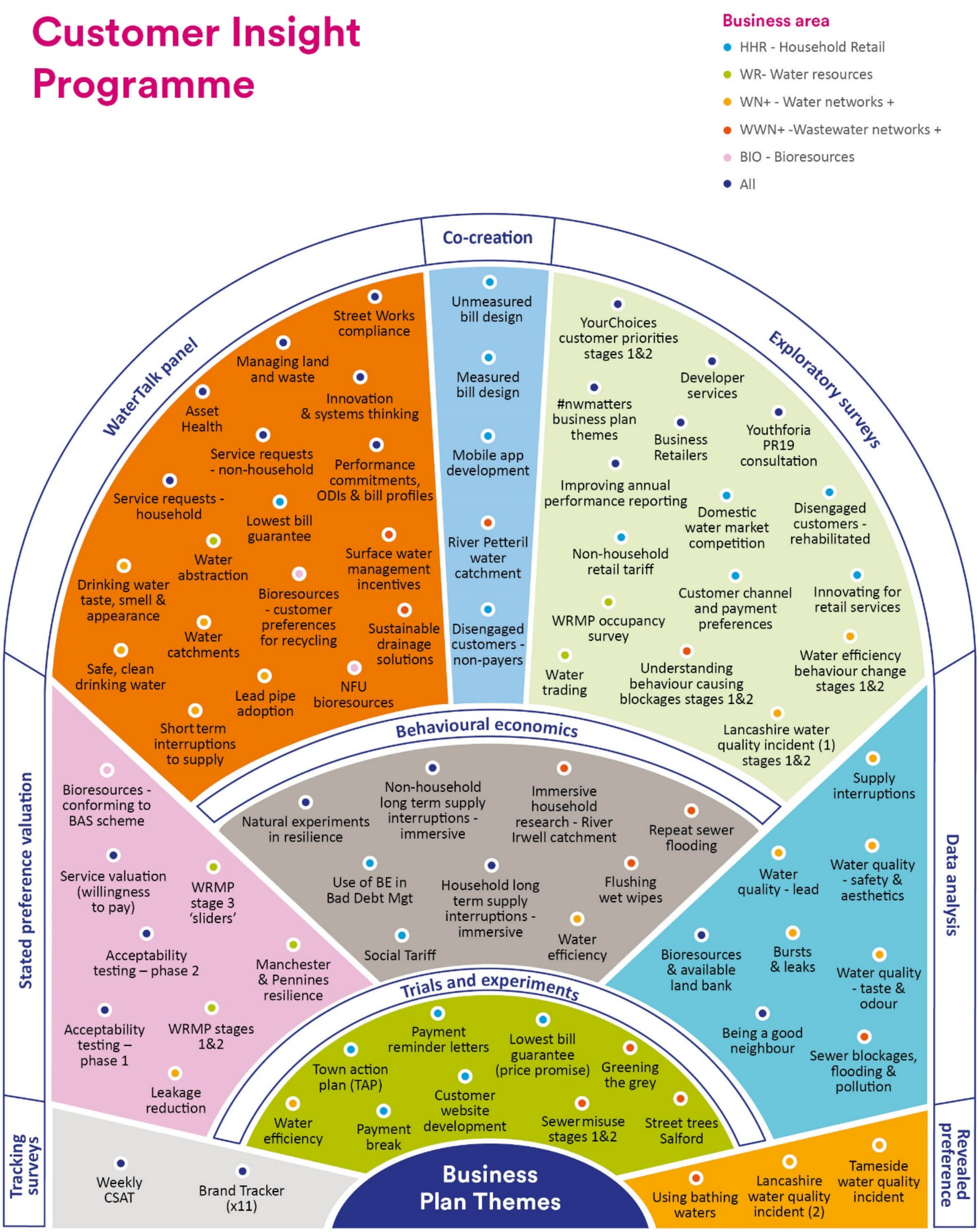
Revealed preference

Economic theory of consumption behaviour states best way to measure consumer preferences is to observe 'purchasing' behaviour.

We surveyed 1,800 beach users at 30 North West beaches during 2016. Study analysed money spent by participants (on travel, accommodation, food and drink) and their experiences of bathing waters and beaches to draw conclusions about the value in monetary terms.

Figure 2.2 shows a summary of the breadth and depth of our approach and over 90 separate pieces of bespoke research, with the vast majority of projects providing insight that has shaped our proposed plan.

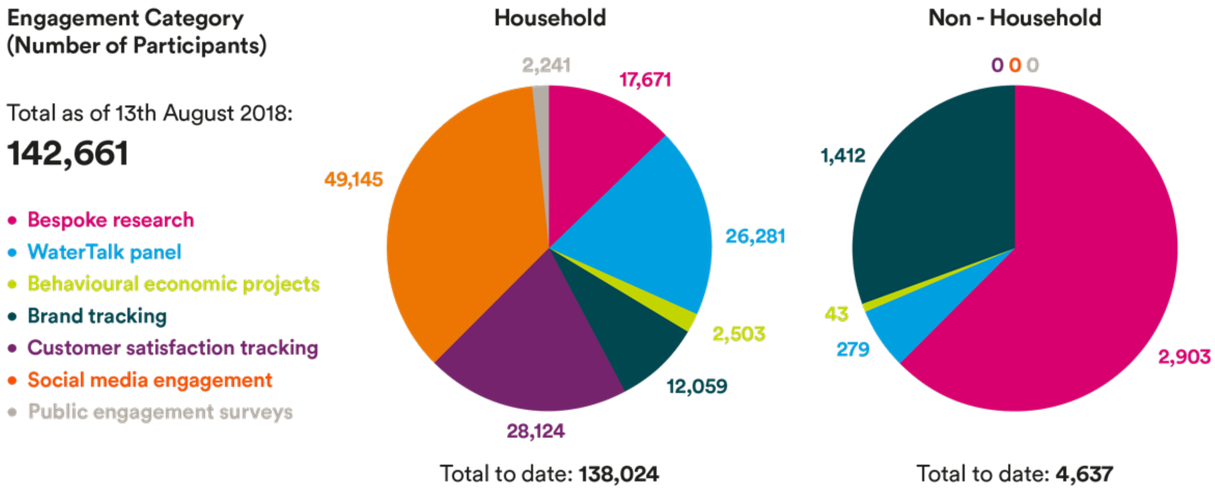
Figure 2.2: Breadth and depth of research and participation



Research is characterised by type (behavioural economics, trials and experiments, data analysis, tracking surveys, exploratory surveys, stated preference valuation studies, the WaterTalk panel, co-creation and revealed preference) and then colour coded to its specific business area – water, wastewater and retail – or where the research covers all business areas. Any research activity referenced in this chapter can be found on this diagram.

We have undertaken 17 strands of research covering retail services, 26 covering water services, 17 covering wastewater services and 34 covering the service overall. Figure 2.3 summarises the number of customers by engagement category since April 2015.

Figure 2.3: number of customers per engagement category



2.5.2 Innovation in customer research

Listed below are some examples of the innovative steps we have taken in our research programme.

Example 1: Involving customers in service delivery

78% of customers placed provision of a reliable, continuous supply of water as a top priority and 95% told us that reducing unplanned interruptions is important to them because water is important to their daily lives. We receive more calls regarding supply interruptions than any other service.

We carried out specific research to understand the priority customers attach to reducing short-term interruptions and the risk of long-term interruptions through immersive research, natural experiments, analysis of customer contacts and an exercise with the WaterTalk panel. We gave customers the opportunity to trade off reducing interruptions to supply against other potential service improvements through our willingness to pay research and acceptability testing.

Since most customers do not have experience of long-term interruptions, we carried out an immersive research exercise to replicate this as far as possible. Our aim was to observe customers' response to supply interruptions of varying lengths, using role play to watch customer behaviour and reactions. The approach was received enthusiastically as attendees quickly immersed themselves in the subject matter.

We applied our triangulation criteria to determine how much weight to put on all the interruption evidence we gathered (See supplementary document S3004 - Customer research triangulation). We then calculated the valuation for interruptions of different durations, ranging from £50 for a six-hour interruption to over £4,000 for 14 days. We used these values to weigh up the costs and benefits of potential schemes to increase resilience and to assess the extent to which customers would support reductions in short-term interruptions. We also used it for initial evaluation of proposals for our Manchester & Pennines resilience scheme, before carrying out specific research on the shortlist of options.

Our research supports the proposals for Manchester & Pennines resilience, and some further reduction in short-term interruptions, although this is not customers' highest priority and so limits the extent to which we think we should increase spend in this area. We propose to reduce incidences of interruptions to supply by 33% through increased investment in proactive maintenance of assets, investing £20m more than AMP6. We plan to further increase the number of Alternative Supply Vehicles (known as 'water on wheels'), deliver network enhancements to prevent pressure shocks to the network that can interrupt supplies and invest to address the root causes of failure through effective system operation. We will continue to send targeted, area specific communications to customers during any incident, across numerous communication channels.

Example 2: Engaging on longer term issues – Manchester and Pennines resilience

72% of customers told us "ensuring there is enough water to meet demand both now and in the future" is their top priority. We explored this in relation to the long-term resilience of water supplies to Manchester and the Pennines area by undertaking extensive engagement with over 2,400 residential and business customers. The CCG's customer engagement sub group helped create an effective approach for this complex research requirement – understanding customers' attitudes to securing the future water supply for Manchester and the Pennines area.

Given its importance, CCG sub-group members were briefed by the CEO. Given the complexity, the CCG proposed direct engagement with the research company. It also recommended securing help from independent experts in social and economic policy research to ensure the research was balanced and proportionate. After a short selection process, experts from Sheffield Hallam University (SHU) were engaged.

The CCG and SHU were involved throughout the development of research content and material, challenging the company and researchers to make improvements. CCG members attended pilot focus groups to observe customers and were involved in developing the online survey, suggesting improvements, which were responded to.

As a result of the CCG's challenge, the research topic guide and stimulus to improve participant engagement were extensively revised. Comparative options were added with associated risks of service failure and bill impacts for easier assimilation. The influence of risk values was tested by halving the values with some focus groups and not with others.

Figure 2.2 Manchester and Pennines resilience research stimulus

At the sessions, we explained the current supply situation and associated risks, presenting customers with five options ranging from minimal investment, repairs to sections of existing assets in worst condition, to long-term solutions such as fully replacing the Haweswater Aqueduct and introducing additional water sources. Customers were presented with information regarding the risk of supply interruptions and water quality issues, the potential number of affected properties and bill impact of each approach. A full explanation of potential pros and cons of each solution was given.

More details can be found in the UUW_WN1_4 – "Technical Report 4 - Customer and stakeholder engagement" which evidences the efforts made to turn a complex problem into an issue that customers could understand and provide meaningful feedback.

The survey results indicated that both residential and business customers have a strong preference for increased resilience in future water supplies. Having triangulated information from all the research, the two options providing the greatest future resilience were most preferred. 45% of residential customers stated that risk reduction was their main concern, while 32% of business customers said that it was the annual bill impact, evidencing that customers have an appreciation for the resilience of water supplies in the longer term. As a result, we are proposing to proceed with the less costly of the two options.

Example 3: Co-design and co-delivery – integrated catchment management

With significant land holdings across the North West, we have a long history of delivering sustainable catchment management and wish to see further environmental improvements in the future. We sought customer views on the issue with WaterTalk panel research in which 57% of customers prioritised an improvement in water quality to protect wildlife. 59% of participants said that one of our future priorities should be to work with partners such as the Environment Agency and farmers to protect water quality.

Figure 2.3 River Irwell catchment immersive research

To gain further insight we applied behavioural economics techniques and involved 196 customers in immersive research workshops, in which catchment management issues focused on the River Irwell catchment in Greater Manchester were simulated for greater customer understanding[3].

In a separate study focusing on the River Petteril catchment in Cumbria, we organised collaborative workshops with 36 residential customers and stakeholders to discuss the challenges and choices of conventional versus alternative integrated catchment options and opportunities to co-create and co-deliver solutions. We ran similar workshops with Cumbrian residential customers focusing on catchment and flooding[4].

Both stakeholders and customers were largely supportive of integrated catchment management solutions, concerned that success depends upon effective co-creation and delivery with local farmers and landowners. They felt any savings from the integrated catchment approach should be re-invested in flood mitigation schemes. We are exploring opportunities to do this in the Petteril catchment and it is integral to our future strategy.

So far we have identified 13 catchments to deliver innovative and sustainable schemes in AMP7 which provide multiple benefits beyond our statutory requirements. We plan to achieve this by working in partnership with stakeholders to achieve the best environmental outcomes in the most cost-effective way. This approach will protect and enhance natural capital, a goal of the government's 25 year natural environment plan. In its scrutiny, the CCG encouraged us to link to natural capital and to develop a separate ODI on this, which we are proposing.

Example 4: Comparative information

We trialled several opportunities to provide customers with comparative information about our performance. In early 2016, we participated in a joint trial facilitated by Frontier Economics to understand whether providing comparative information, based on cross industry data, had any effect on customer valuations. Despite inconclusive results, we have included comparative performance data in several important research initiatives to aid customer decision making:

- Service valuation (willingness-to-pay): as part of choice experiments, inclusion of current performance and industry rankings on service aspects;
- Performance commitments and ODIs: current performance, proposed targets over 5 years and key industry rankings included to enable customers to consider whether future targets are reasonable and stretching; and,
- Acceptability stages 1 & 2: inclusion of current performance data and industry rankings to allow customers to understand the context of proposed service improvements and potential bill impacts.

From customer feedback, participants appear to appreciate the additional information but there is mixed evidence this leads to any perceived difference in results.

2.5.3 Applying customer insight

We have applied the insight we have gained through three principle types of application:

- In the immediate term, and where it has been possible to do so during AMP6, we have used our learning to change the way we deliver our services and communicate with the different segments of the customer base. We have seen benefits arising from this in a range of operational metrics including customer satisfaction scores, SIM score, cash collection metrics and take up of customer assistance schemes. We discuss this in section 2.6.

[3] See research report T1068
[4] See research report T1069

- In the medium to longer term, we are using the results of our customer engagement activity to shape our approach to providing services and delivering investment in AMP7 and beyond. Our plans have undergone significant change in response to the insight we have gained so that we can deliver services more effectively and efficiently, better suited to customer requirements. We provide illustrations of this in section 2.7.
- For AMP7, we have used the research to drive a comprehensive suite of performance commitments which drive good outcomes in the areas that customers care about most. This insight underpins a set of outcome delivery incentives which calibrate financial incentives for out- and under-performance of targets to customer valuations. We discuss this approach in chapter 5.

2.6 Embedding customer insight into AMP6 service

We have invested significant resources in understanding the customers we serve, what drives them and how we can tailor our services to meet their requirements. We want customers to identify United Utilities as providing high quality services with excellent value for money. To achieve this, we need to understand what drives high levels of satisfaction and anticipate customers' needs. The first step to effective engagement is to identify key customer segments and what differentiates them. Only then can we offer a tailored approach to fulfil their needs and alleviate their concerns. And, having got to understand customers better, we can target engagement in a way that is most likely to yield a more informed response.

2.6.1 Residential customer segmentation approach

To ensure our engagement is effective, we need to understand the needs and expectations of the seven million people we serve, recognising their priorities and the environment in which they live. Segmenting the customer base in a granular and dynamic way is an important contribution to this.

For example, we have segmented the residential retail customer base to tailor and target our services. During AMP6 we have embedded third party sociodemographic data into contact and billing strategies, at a residential level, so we can offer services and promotions targeted to customer needs and wants, now and in the future. This is updated regularly with internal and external data so engagement is shaped with the best available knowledge of the customer and their service requirements.

Working with customer data and marketing experts CACI, we have used a variety of data sources (our own and from third parties) to build this understanding. Sources include payment patterns and history, credit reference agency data on income levels and wealth indicators, property occupancy and usage information, and statistics on age, health and employment. A top level segmentation for residential customers based on their financial position and other characteristics is set out in figure 2.6 and shows their differing priorities and concerns.

Figure 2.4: UU customer segments developed in conjunction with CACI

Depending on the issue, customer segmentation and engagement is different. The segmentation structure we apply when promoting affordability support to households is different to that used for a "What not to Flush" campaign for example. As customers' needs and expectations change over time we review and revise our approach, improving the way we use and segment customer data.

Example 1: Applying segmentation: thinking differently about engaging with hard to reach customers

We have worked particularly hard to develop new means of engaging with customers who have typically not dealt with us through any of the existing customer channels. The first step to understanding these customers' needs and ensuring that we provide them with the best possible service is to make initial contacts which help build trust and confidence in a future relationship. One example of this is our Town Action Planning (TAP) approach which reaches out to customers that had not previously interacted with UU.

We created TAP as an experimental approach to improve awareness of, and sign-up to, financial assistance schemes for customers most in need and who had previously not engaged with us. Under TAP, customer segmentation data is used by specially trained staff to target postcodes where water poverty is highest. Ahead of face to face contact, leaflets are posted making customers aware of our intentions. This is followed by specialist interviewers carrying out 45 minute visits to uncover long-term solutions to best suit customers' circumstances. They are supported by a leading edge mobile analytical tool to quickly identify the most appropriate solution for the customer to sign up there and then. If we can, we bundle a debt scheme to reduce arrears with an affordability scheme to reduce bills.

Since the trial started in 2016, we have visited 77,000 customers, focusing on the region's 10 most deprived areas. 46% of visits have resulted in successful outcomes through better understanding of the customer's personal circumstances and identifying other changes related to property occupation. To date, we have around 20,000 customers on payment plans and, as of July 2018, 67% are maintaining payments. These customers had not previously paid their water bill for a number of years or at all. 9,000 customers now benefit from lower bills via one of our broader affordability tariffs, such as Help to Pay, Support tariff and Watersure. 18,700 payment plan customers are benefiting from either a lower tariff or our matched payment towards their arrears and the guarantee to be debt-free in two years.

This success is due to an agile implementation approach and effective customer engagement. The pre-visit leaflet is popular with customers and behavioural nudging has proved successful. We have adjusted our schemes to accommodate Universal Credit and launched new transition arrangements to support those moving onto it. TAP has received external recognition with three prestigious awards in the credit sector.

For any customer who falls off the scheme, we undertake various proactive and digital campaigns to re-engage and get them back on track with their payments. Appropriate collections activity based on their segment would be pursued if this remained unsuccessful.

Example 2: Applying segmentation: payment reminders

When chasing non-payment, our payment reminders previously failed to differentiate between different payment behaviour or risk from different segments of customers i.e. a difference between those who had simply forgotten versus those who won't pay. By taking into consideration feedback from customers, we introduced four new reminders and legal notices based on data about previous payment history and applied behavioural based nudge techniques to this (using positive reinforcement and indirect suggestions to influence how people behave and make decisions). Results are positive, driving service improvements with a 34% reduction in payment reminders, 51% reduction in legal notices reminders and a 50% reduction in complaints.

2.6.2 Understanding customers: ongoing two-way feedback channels for customer engagement

Customer engagement is ongoing through multiple, two-way contact channels. As figure 2.7 illustrates, every day we collect and action customer data, analysing instant feedback and implementing improvements swiftly. We use speech analytics systems to analyse daily inbound telephone call volumes to identify common themes and issues. We have used analysis of customer data to change services and propositions and how we communicate.

Figure 2.5: summary of customer contact volumes by channel

The high number of proactive communications is, in part, generated by the success of the Unified Messaging Service and ways of keeping in touch with customers in real-time (see section 2.6.3 below). Feedback from Priority Services customers revealed that the instant 'letting you know of an issue' communication was something they particularly valued.

Ethnographic, payment channel and debt research revealed that people want more choice and ways to pay and access information about their bill. The growth of these self-serve channels is helping us meet customer needs now and we are using feedback from those interactions to develop the future roadmaps for each channel, for example the online portal, development of Web Chat and the mobile app. Through these interactions, customers have said they want more dynamic consumption related advice and information and our trial of home usage reports for 100,000 customers will be the first phase in delivering that (see table 2.2).

This scale of customer interaction and gathering of insight will continue beyond the business plan submission and through AMP7.

2.6.3 Understanding customers: gathering and applying insight

Example 1: Co-design with customers to deliver new bills

Feedback from customers showed that our bill design could be improved. We worked collaboratively with customers to redesign and launch a new bill for metered customers. Using the WaterTalk panel, we learned what aspects of the existing bill were not working effectively and created opportunities for customers tell us their ideas for improvement.

Once designed with customer feedback taken into account, we involved an employee panel and used complaints information and feedback from contact centre agents to gain a detailed picture of where new bills were working well and where we should focus further changes. The Consumer Council for Water and the CCG contributed to the process.

The bill is now clearer, brighter and jargon-free with key new features such as personalised messages based on customer circumstances, ideal for the App or My Account. The bill was piloted with the WaterTalk panel which, overall, said the changes provided greater clarity, convenience and was easier to understand. When the bill was launched to the wider customer base, customers provided direct feedback which was especially positive.

Case study: WaterTalk customer research panel

Early in 2017, to bridge the gap between the general level of customer's understanding of the water sector and the need for informed customer views and insight to support business planning, we established WaterTalk, an online customer research community.

The ongoing interaction between ourselves and the 7,700 panel members enables us to better inform and engage with them over time. It allows dialogue about issues of mutual benefit and provides a platform for ongoing two-way engagement, with agile and flexible access to customers for research driving actions and changing our approach. Results provide actionable timely feedback for business planning.

Examples of issues put to the panel include service response expectations, bill redesign, water quality, sustainable drainage solutions, interruptions to supply and leakage with, typically, two projects completed each month. Details can be found at https://bit.ly/2mcskR8

Example 2: Engagement with customers to gain insight following incidents

Significant customer incidents which result in disruption to customers are regrettable and something we seek to avoid at all costs. However, they do provide an opportunity to engage with customers about their experience and what we can do to reduce the impact of these. When we talk to customers who have been involved in an incident, they provide authentic feedback based on actual experience, rather than stated feedback on a hypothetical experience.

As part of our engagement approach, we asked customers who had experienced service failures what improvements they would like to see, focusing on the experience of those in vulnerable circumstances. Their key messages were that it is important for us to keep customers informed, there should be urgency in sending and receiving communications, updates should be at a frequency customers expect and different types of communication should be used.

Based on what customers told us, we implemented a Unified Messaging Service (UMS) into our operational practices. UMS is an innovative, proactive customer communication system that allows us to send out targeted, area specific communications to customers across numerous channels during an event. This is a step change in our ability to manage incidents and events and keep customers proactively informed, communicating directly and quickly with targeted customers using multiple, appropriate digital channels, such as text messages and emails.

Following the Lancashire water quality incident in 2016, feedback from several agencies and third sector organisations such as Public Health England, Local Authorities, MPs, Citizens Advice Bureau, Red Cross, AgeUK and Salvation Army led us to enhance the services offered to customers in vulnerable situations. Our new Priority Services proposition (see chapter 3, section 3.7) has been shaped by this stakeholder insight and offers tailored support to customers who may be vulnerable in a wide range of circumstances. Over 52,000 customers are currently registered and in a December 2017 survey of 3,000 registered customers, satisfaction with the service was high. Providing the right level of service to Priority Service customers was a key consideration in our response to the 2018 freeze-thaw extreme weather event.

Research from sewer flooding incidents showed how we can improve our response. As a result we have changed operational practice and implemented our 'imminent flooder process' so call agents ask customers reporting a blockage if they've ever experienced flooding before. We check historical records to ensure we have full breadth of information. For customers who have previously experienced internal flooding we raise a priority response and have amended service level agreements accordingly. Where a call is received before 10am we aim to respond on the same day.

2.6.4 How customer engagement has driven activity in AMP6

Table 2.2 provides additional information on how customer engagement has already changed AMP6 service.

Table 1.2: Summary of how customer engagement has changed AMP6 service

Engagement approach	Customers and stakeholder insight gained	How customer insight has shaped services. In AMP6 we have:
Addressing affordability		
Research • Channels and payment preferences • Acceptability testing • Debt non-payers • Social tariff **Participation** • Lowest bill guarantee • Payment break • Payment reminder letters • Town Action Plan • Debt rehabilitation • Use of behavioural economics in bad debt **Engagement** • North West affordability summit – stakeholder and third sector participation	• Communication moving towards mobile and smartphone take-up (whether SMS, online or app) • Customers with flexible, unpredictable income need flexible payment options and channels to support them • Payment channel choice data shows customers in areas of socio-economic deprivation more likely to pay via channels other than direct debit • Direct debit mandates take away financial predictability and control from households managing to tight budgets • Those in financially vulnerable circumstances need early intervention and direct communication • Customers value stable, predictable bills. Stable bills help customers to avoid falling into arrears • Affordability summit stakeholders identified need to work collaboratively to help those struggling with all residential bills, not just water, and to provide a means for other groups supporting customers to be able to access help and support more easily	• Launched a fully integrated mobile app offering new ways to pay. Next release informed by customer expectations and preferences • Launched a new payment break proposition, creating more flexibility for customers to be able to stay in control of their bills and stay out of debt • Introduced a price promise to help those who would save money on a meter but are fearful of switching • Launched new scheme with the only 'win-win' company funded support tariff which benefits both customers and the company • Used a segmentation model to drive targeted interventions and campaigns for those in debt or 'just about managing' • Offered links to education programmes for budgeting and money advice • Trialled links with an independent switching service, targeting those who may benefit from broader reduction in other main residential bills
Supporting those in vulnerable circumstances		
• Lancashire water quality incident • Service expectations research • Priority Services survey • Energy and water data share pilot	• Lessons learnt from the Lancashire water quality incident highlighted gaps in vulnerable customer register, making it difficult to prioritise communications and assistance • Customers place great value on the support we provide, in particular the enhanced information and support we provide during service disruptions. Customers most highly value proactive contact through a preferred channel, bottled water delivered directly to their door and the offer of alternative accommodation in the event of internal sewer flooding	• Used insight to further develop Priority Services in a way that is of most value to customers • The first water company to trial the sharing of data with an energy company to help customers in vulnerable circumstances, now informing a wider UK water sector and energy roll-out • Created a dedicated and specially trained team to manage day to day service. Our customer event and incident response team proactively contact and support Priority Services customers through lifecycle of event
Great service designed by customers		
Research • Water efficiency • Digital expectations • Lancashire and Tameside incidents • Service expectations	• Ethnographic research identified customers want more control over what goes on in their home and lifestyle; alongside 'ease in life' so channels, access to services and help	• Created a trial to test home usage reports for 100,000 metered customers, with user-friendly timely information to empower customers by driving digital engagement and generating more engagement around home water use and how to save money and water

• Service analytics from two-way feedback **Participation** • Bill re-design • Lowest bill guarantee pilot • Website development including vulnerable customers • Mobile app development • Web chat and social 24/7 trials • 'Tell Me' customer agent insight	needs to be quick and easy, with minimum effort • Customers want to spend as little time reading their utility bill and told us new bill design was a vast improvement, helping them digest important information quickly • Customer barriers to getting a meter include comfort with a fixed bill; fear bills will rise; concerns about look, size & where it would go and lack of motivation • Customer app – high priority enhancements were water efficiency rating tool; tracking and projection and reporting a leak	• Introduced better billing with crystal clear pricing, help and information • Updated website, informed by customers and analytics • Implemented 'Recite Me' to improve accessibility to online services • Adopted behavioural techniques to shape metering proposition (free meter options and home checks) • Provided more channels of choice. Online operates longer to match expectations 24/7 of webchat and social media • Implemented real-time capability to keep customers informed

2.6.5 Insight making a difference – a positive impact

The implementation of new measures in response to engagement is having a positive impact. In SIM performance for 2017/18, we moved to 3rd out of 18 and, in wave 4, were in 1st place. We were named as fourth most improved company between 2017 and 2018 in the Institute of Customer Services Customer Satisfaction Index, proving our improvements to service driven by engagement are meeting customer expectations. Our overall score is significantly above the utilities average score and we achieved upper quartile for complaint handling and speed of response to complaints. In August 2018 we also become one of only 14 companies in the country – and one of only 3 utilities – to be awarded the UK Customer Service Institute Service Mark with Distinction. This is a national standard recognising an organization's achievement in customer service, and its commitment to upholding those standards. Our efforts to tackle pollution contributed to our leading 4 star performance in the Environment Agency's annual assessment of environmental performance, retained for the third consecutive year.

2.7 Applying customer insight to our long-term plans

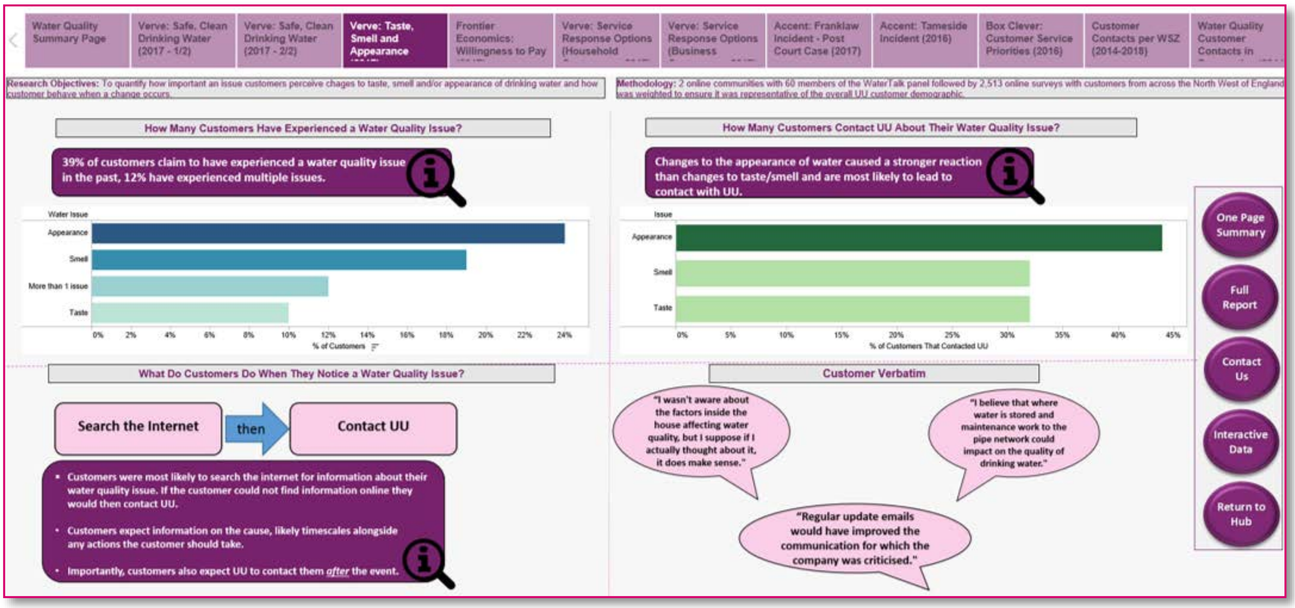
We have used the outputs of our customer engagement to inform our long-term investment plans for AMP7 and beyond. In this section we describe how we ensure the full breadth of customer engagement is captured, accessible and utilised by those undertaking long-term planning by combining the information into our innovative 'customer insights hub'. We then use several examples to describe how new services, initiatives and performance levels we propose are fully informed by customers and stakeholders.

2.7.1 Bringing all sources of data together in our Customer Insights Hub

To ensure customer insight drives the development of our service and strategies we implement, we developed the 'Customer Insights Hub' to make data available and accessible to colleagues. This interactive, digital platform displays a full range of customer data in a concise, visual way to make information easier to access, analyse and triangulate. In the past six months, our strategy teams have made good use of the hub with over 1,300 views across the different pages.

Data from customer research and routine contacts (e.g. inbound calls, complaint letters) is collated into service area components (such as leakage) and displayed on screen. It presents more granular customer insight by including maps of information (such as contacts or SIM and customer satisfaction data), analysed by geographical and spatial boundaries including, for example, water supply zones, district council and drainage areas.

Figure 2.6: screenshot of Customer Insight Hub



The hub's interactive nature enables us to contextualise insights and produce high quality analysis of customer preferences in manageable formats. On each page there are navigation links to full reports, summaries and complementary information. This ensures that all users of the hub have access to a wealth of relevant information, drawing on all sources of information to gain a deeper understanding of customer views to develop plans and improve services in line with customer expectations. More information on the hub can be found in supplementary document S1007 – "Customer insights hub" and our video which explains how we use the hub[5].

We presented the hub to the CCG to seek feedback and comment. It was well received and the Group considered it an effective mechanism to share insight.

2.7.2 How customer engagement has driven our plans for AMP7 and beyond

The new services, initiatives and performance levels we propose are fully informed by customers and stakeholders. Innovative approaches such as behavioural economics and co-creation has revealed new insight that has changed our approach on immediate and long-term issues. In this section, we highlight some of the key changes; further details of some of the changes made as a result of engagement and participation can be found in supplementary document S1001.

Example 1: Affordability and vulnerability

Several strands of research, including stated preference research[6] and co-creation activity on debt with non-payers[7], have had a significant influence on our proposals for a substantial increase in the range and scale of affordability and vulnerability support we provide (see chapter 3 for full details). In AMP7 we propose to:

- deliver our largest ever bill reduction which will help lift 250,000 customers out of water poverty, with another 66,5000 helped through targeted financial support;
- invest £71 million over the five year period in affordability schemes;
- establish a North West community advice online hub, enabling co-delivery of affordability and vulnerability support through 'one stop shop for third sector';
- place stronger focus on early intervention, using data share and credit insight to provide targeted solutions for customers at risk before they fall into debt; and,

[5] https://www.youtube.com/watch?v=d8Sdzb1y5Lk&feature=youtu.be
[6] T1027 – "Service Valuation for PR19 (willingness-to-pay)"
[7] T1103 – "Disengaged customers – Non-payers"

- extend registration levels for Priority Services to five times the number registered in 2015, enabling us to provide necessary additional support on the scale needed.

Case study: Social tariff research
Engagement revealed support to extend the existing social tariff scheme to more customers on pension credit and in debt. To deliver insight on support for increased social tariff contributions, traditional customer research has its limitations so specific behavioural traits were considered when designing the survey:

a) Priming - people's answers may change depending on the information preceding a question
b) Framing - people's answers may change depending on other information present around the question
c) Social Proof - people usually strive for conformity and avoid conflicts in groups.
d) Ease - too much information can increases mental effort and lower decision quality

The research improved our understanding of customer support for social tariffs and revealed an appetite for a higher cross-subsidy from the majority of groups tested.

The support for a further extension of the scheme to help more customers on Pension Credit and in debt means we can double the number of customers we can support, allowing us to help 34,000 customers through this tariff.

Example 2: Taste and smell: customer feedback driving a step change
92% of customers told us they drink tap water[8] and since 2014, we have had over 107,000 contacts relating to water quality[9]. This includes day-to-day contacts as well as targeted research and engagement such as pop-up communities, online surveys and social media. Customers rank safe drinking water and water that tastes and smells good, that is not discoloured, consistently in their top three priorities in several research pieces[10].

Willingness to pay insight revealed that customers valued a reduction in taste and smell contacts by around £1 per 100 (business customers placed a higher valuation on safe clean drinking water and improvements to taste and smell, compared to residential customers[11]). Furthermore, during WaterTalk panel research, we discovered that most customers are unaware of factors in their own homes that can affect the quality of their water, with only 46% aware that the cleanliness of their taps can affect water quality[12].

We propose to make further investments in taste and smell and discolouration projects, a change from AMP6 when this has been managed operationally. We will address taste and smell issues caused by algae by installing permanent treatment processes at up to five of our highest risk water treatment works and in the longer term we will explore both catchment and innovative treatment solutions. By early AMP7 we will be the first water company to have 'start up to waste' capabilities at all of our water treatment works. Through this project, we will install a fail-safe system where treatment works will automatically shut down to prevent the risk of partially treated water ever entering supply. We also propose to deliver a water quality communication plan to help customers look after water in their home. We will work with the WaterTalk panel to co-create an effective plan and with partner organisations to promote at every opportunity plumbing systems compliant with the Water Supply (Water Fittings) Regulations.

Example 3: Leakage – plans changed as a direct result of stakeholder and customer feedback
We know leakage is an important issue for customers and the public at large. In our water resources research, for both residential and business customers leakage reduction emerged as the most preferred option to avoid investment in

[8] T1051 – "Drinking water, taste, smell and appearance research"
[9] T1057 – "Understanding water quality: Safety and aesthetics internal data summary"
[10] T1013 – "Customer priorities quantitative research (2)" and T1116 – "Customer priorities: Qualitative research"
[11] T1027 – "Service valuation (willingness to pay)"
[12] T1050 – "Safe, clean drinking water research"

new water sources[13]. At our North West regional stakeholder workshops, improving leakage performance was a high priority[14]. Between 2014 and 2017 we received 150,000 customer contacts about leakage[15]. Given the importance of leakage to customers, we ran a dedicated WaterTalk panel to probe attitudes further.
Unsurprisingly, 92% of participants at the panel stated that it is important to reduce leakage to benefit the environment[16]. We discovered that customers expect us to respond quickly with 73% of residential and 81% of business customers expecting resolution within 12 hours[17].

Recognising the regulatory challenge to deliver a 15% reduction in leakage, combined with feedback from stakeholders, customers and the CCG, and triangulating this insight, we have revised the target leakage reduction to 15% by 2025. We propose to spend an additional £20m compared to AMP6 to reduce the number of leaks, find and repair them more quickly and efficiently and prevent bursts through preventative maintenance and managing pressure shocks.

We plan to make it easier for customers to tell us about leaks through our online app; work with them to reduce supply pipes leakage through increasing flow meter coverage; build on existing pressure management success to install a new generation of advanced units; enhance data analytics in our event recognition system; work with supply chain partners to deliver an efficient leak repair service; and continue to trial new and innovative leak detection techniques using aerial imagery from drones and satellites and deploying the UK's first leakage sniffer dog team.

Example 4: Behavioural insight and co-creation – sewer misuse
In the past, we have delivered programmes of customer communication, including information about wet wipe disposal, under the banner of "What Not to Flush". Despite these efforts, our recent engagement with customers showed limited awareness of our campaigns[18].

In light of this, we have adopted innovative strategies such as behavioural economics to understand the most effective communication methods. We have designed and tested two new approaches to address both short and long-term behavioural changes. A significant finding from this research was that customers typically have a desire to flush a 'product' because they have a strong aversion to disposing of wet wipes in the bin[19].

Figure 2.7 Customer campaign on "What Not To Flush"

As a result, we propose to spend significantly more (a forty times increase) on customer communication compared with AMP6. We plan to use customer segmentation and research findings to target communications using customers preferred channels, adopting innovative approaches using the behavioural economic techniques based on our trials. By better informing customers, we aim to significantly reduce blockages and instances of flooding.

[13] T1060 – "Water resources management plan (WRMP) research, stages 1 and 2"
[14] T1113– "Regional stakeholder workshops July 2017 - Summary of findings" and T1114 – "Regional stakeholder workshops November 2017 - Summary of findings"
[15] T1056 – "Understanding bursts and leaks: Internal data analysis summary"
[16] T1049 – "Leakage reduction (willingness to pay) research"
[17] T1041 and T1042 – "Service requests – residential and business customer research"
[18] T1026 – "Brand tracking research: Wave 22"
[19] T1065 – "Wet wipes flushing trials"

With partners, we have already co-created a new method of collecting flushed items from sewers using traps[20]. Collected items are analysed and where wet wipes found, we use this knowledge when communicating with the local community, having established the method of communication that influences the audience most effectively. We have worked with Keep Britain Tidy to raise awareness and co-create a participation study to understand how behaviour of different customer segments drives sewer misuse[21].

Example 5: Land management

78% of customers told us it is important that they have a say in how our catchment land is managed and 66% want us to take good care of the land and reservoirs that we own[22]. Furthermore, there is some willingness to pay to extend the amount of catchment land managed in a sustainable way albeit this is not extensive at less than 88p per year on annual bills. During water abstraction research with the WaterTalk panel, 96% of customers said it was important for us to invest in environmental initiatives[23].

In response we're planning to enhance biodiversity and continue to manage safeguard zones through our successful Sustainable Catchment Management Programme. By 2025, we propose to deliver five catchment schemes to improve raw water quality by restoring natural processes which will also enhance habitat condition at Thirlmere, Haweswater, West Pennine Moors, Bowland and South Pennines. This builds on the schemes delivered at these sites since 2005.

During immersive research, customers most favoured improving green spaces for recreation[24]. Wherever possible we will co-create and co-deliver land management projects with partner organisations, spreading costs and benefits across the wider North West community, and improving the efficiency of our delivery. We will seek alternative funding sources such as grants, to support benefit realisation at lowest cost for customers.

Example 6: Gathering and applying insight for the first time: bioresources

We haven't previously engaged customers on bioresources, partly because of the complexity of the issue. We made a concerted effort to interact with customers, conducting specific bioresources research with the WaterTalk panel[25], engaging with stakeholders such as the National Farmers Union (NFU)[26] and including the topic in other research activity where we could, such as River Petteril research[27] and immersive willingness to pay[27].

We engaged in a partnership with the NFU to co-deliver a survey to its members to gather views on the use of biosolids. Although respondents were incentivised to complete the survey, uptake was not substantial and whilst we received a range of responses, they have not been statistically significant to draw a consensus. Two in five said they would be interested in using biosolids and 77% said that they would look at certified biosolids for future use. Interestingly, 83% of farmers agreed to some extent that the use of biosolids for agricultural purposes is a sustainable thing to do.

We now understand more about end customers and how best to engage and we will be testing various options including more direct face-to-face communication.

We have a responsibility and legal obligation to dispose of waste in a sustainable manner and we fully expected customer research to support this. We recognised there was an opportunity to engage with customers on the topic, especially as it is a complex subject with long term implications. During a WaterTalk panel, we learned that 74% of customers thought it was important to have a say in whether we recover nutrients from wastewater by-products and immersive research revealed customer support for the use of biosolids, as long as there was no increase in bills. We've used this insight to develop a stretching performance commitment 'Recycling Biosolids'.

We have minimum limits for air emissions set by legislation. However, in the WaterTalk panel bioresources study, 81% of customers said they valued cleaner technologies to reduce emissions and the number of road journeys. We have

[20] T1071 – "Understanding 'sewer misuse' trials and research: Stage 1"
[21] T1072 and T1119 – "Understanding behaviour causes blockages"
[22] T1073 – "Managing land and waste research"
[23] T1064 – "Water abstraction research"
[24] T1068 – "Managing the River Irwell water environment: Immersive research"
[25] T1078 – "Bioresources: Customer preferences for recycling" and T1079 – "Bioresources: Conforming to the BAS scheme (willingness to pay) research"
[26] T1118 – "Bioresources: NFU farmers survey"
[27] T1069 – "River Petteril water catchment research"

customer support to outperform our legal requirements and have proposed a performance commitment to achieve this.

2.8 Application of research to performance commitments and ODIs

The 'Marketplace for ideas' paper we published in 2016 was our thought leadership contribution to industry thinking on engaging with and listening to customers when developing business plan proposals. We have sought to follow this core approach – set out in Figure 2.10 – to ensure that the proposals in our business plan for 2020-2025 are shaped by customers and stakeholders. This includes setting the scope and level of specific performance commitments we are proposing to deliver the outcomes that customers tell us are important to them. It also includes determining the financial consequences for out- or under-performing these targets.

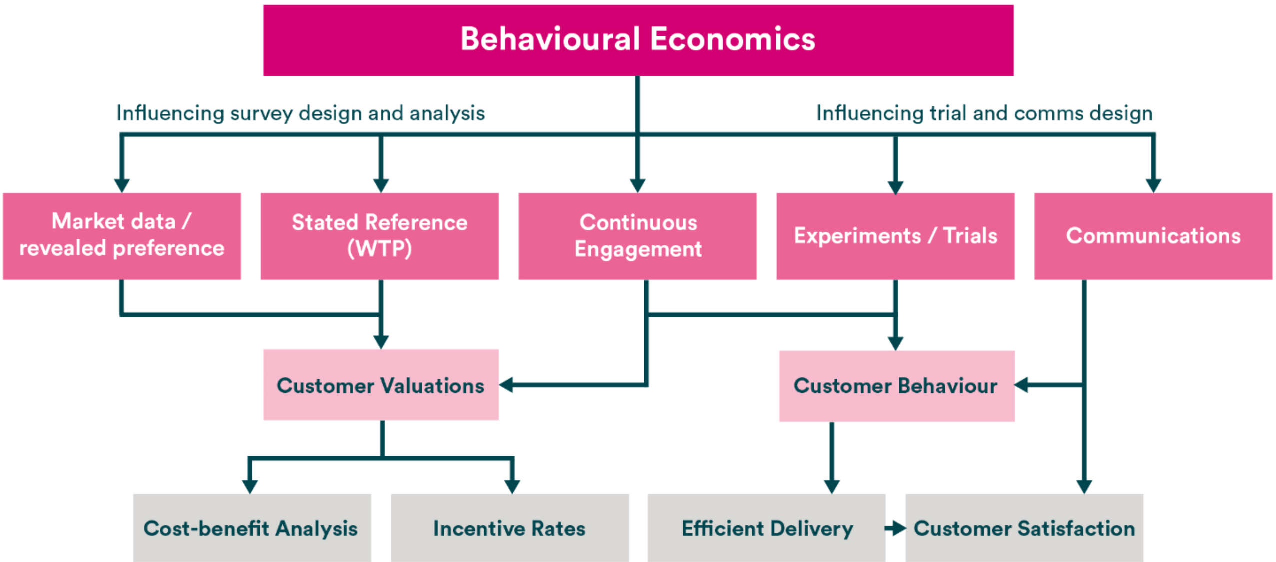
To help ensure a robust process, we discussed this with the CCG which challenged us to enhance our approach and advised we should use an experienced third party. We jointly commissioned external consultants ICF – authors of CCW's report on triangulation – to report to both the company and the CCG about our approach to triangulating the evidence. This work led to several iterations of the results before we, and the CCG, were satisfied that the approach was robust and sufficiently well evidenced. ICF's report is provided as document T3002 – "Triangulation review and assurance: ICF".

ICF challenged our approach allowing us to better interpret the broad range of views and valuations identified from our research including:

- Identifying which aspects of service required the strongest evidence from customer research – areas of our plan where there is a significant element of choice.
- Developing a plan to achieve the right degree of comparison for triangulation (e.g. stated preference willingness-to-pay survey, analysis of data from customer contacts, behavioural research).
- Setting criteria to assess how much weight to put on evidence such as :
    - are the results representative of the customer base?;
    - do they reflect observed behaviour or responses to survey questions?; and,
    - combining results to produce overall valuations and a range for sensitivity testing.

The results were used to compare costs and benefits of service improvements, and to contribute to setting incentive rates. Additional information about the use of customer valuations and preferences in formulating our suite of ODIs is provided in chapter 5 and S3001 – "Performance commitments technical document".

Figure 2.8 Customer engagement framework



2.9 Reaching our customer base

We ensure the wider customer base is informed and involved in shaping and delivering water and wastewater services. We seek to reach many community and stakeholder groups representing environmental, social and economic interests, including regulatory bodies, Defra, MPs, local authorities, NGOs and community groups, the media and other stakeholders. We engage with third parties outside of the traditional water sector including debt charities, technology firms and other organisations.

Table 2.3 sets out Ofwat's principles of good customer communications and provides illustrations of the steps we have already taken, or are currently taking, that align with these principles. It is followed by some specific examples in sections 2.9 and 2.10, relevant to our region and stakeholder base.

Table 2.3: Summary of how customer engagement has changed AMP6 service

Communication theme	Illustration of our approach
Channels – two way, diversity of customer base, accessible, relevant	• Face to face stakeholder workshops and conferences • Use of different social media channels to reach different audiences, complemented by face to face, traditional media (newspaper, radio and TV) and print • Use of surveys with specific stakeholder groups • Social media used for annual performance report and draft business plan consultation • 'Dark' postings used on social media to increase customer engagement through targeting North West customers • Face to face engagement at shopping centres
Messaging – explaining the engagement journey and how process was developed in response to customer views	• Targeted messages for specific groups e.g. economic benefits from infrastructure for Greater Manchester stakeholders in relation to Manchester and Pennines resilience, partnership benefits with Natural England secondee • Adopted theme of North West matters (#nwmatters) and 'you care more than you realise' to encourage public engagement • Campaign covered proposed services and associated bill impact, resilience, systems thinking, affordability and innovation; feedback from the CCG to shape approach
Audience – segmentation to understand different customers, wider stakeholder engagement, setting context	• Engagement designed to be statistically robust and reflect diversity of region • Town Action Planning and approach to 'hard to reach' customers, including first ever North West affordability summit • Partnership with Youth Focus yielding insight from future bill payers • Specific subject matter engagement such as businesses, retailers, developers and local authorities • Relationship-building with new devolved bodies such as combined authorities and local enterprise partnerships • Two rounds of stakeholder engagement across five counties in 18 months covering economic, environmental and social perspectives
Governance – customer voice at Board, cross business involvement	• CCG attendance at Board meetings • Board attendance at research sessions and CCG meetings
Evaluation – how measured and evaluated? How influencing day to day operations and plans?	• Social media analysis • Draft business plan consultation results – fed into planning process • Results of business engagement – see 2.9.4

2.9.1 Residential customers

A full range of customer demographics has been reached, aided in some cases by carefully developed materials to enhance participation. Our research has been carefully segmented to reflect the views of the full range of customers and over the last three years our programmes have directly involved over 142,000 participants.

Research has been based on customer participation in surveys, for which participant recruitment was governed by sampling quotas to ensure representative segments of customer profiles. Individually, the projects are designed to be statistically robust and reflect the diversity of the people in the region – segmentation based on age, gender, income, county of residence, rural versus urban and metered versus unmetered are routine. For example, we monitor the level of inclusion for customers in vulnerable circumstances, such as people who are disabled, speak English as a second language, rely on water for medical purposes or who struggle to pay their water bills.

Taken together, this base of participation is, we believe, a robust reflection of the depth and breadth of the research and engagement we have undertaken, as well containing statistically sound individual research outcomes, in which we can be confident in respect of fair reflections of the views of people in the region.

2.9.2 The hard to reach

In general, for all the major strategic research programmes, such as YourChoices – customer priorities, service valuation (willingness-to-pay), acceptability testing and Manchester and Pennines resilience, the recruitment approach for participants included a comprehensive range of incomes and a cross-section of customers in vulnerable circumstances (e.g. disability, language, ethnicity). We aim to ensure there is sufficient sample size of customers on low incomes or in vulnerable circumstances to draw out insight and have confidence in the results.

Differences in results based on low income have been highlighted in the projects mentioned above. Any mitigating actions are reflected in the appropriate chapter of the business plan where results have been used.

In terms of hard-to-reach segments of the population, we have included a component of computer-aided-personal interviews in key research projects, as this face-to-face recruitment channel is more effective in getting to hard-to-reach customers (e.g. those who avoid telephone interviews or don't have access to online surveys).

2.9.3 Youth

Figure 2.9 Engagement with Youthforia

We are in a two-year partnership with Youth Focus (YFNW), the organisation behind the UK's Youth Parliament (see http://youthfocusnw.org.uk/), working with young people from a range of backgrounds to identify water related projects that they conceive and deliver. This customer engagement means we can take into account the views of future – as well as current – customers when making long-term plans.

Priorities identified through this engagement varied by county area:

- Cumbria – flooding caused by too much rain through changing weather patterns;
- Lancashire – sewer blockages and the flooding this causes;
- Merseyside – affordability and difficulties some people face paying their water bills;
- Greater Manchester – flooding caused by too much rain as a result of changing weather patterns, and reservoir safety; and,
- Cheshire – how using less water can contribute to reducing bills.

Two projects on reservoir safety and affordability are being co-created with young people in order to enhance engagement and to help deliver better results. On reservoir safety, we have co-designed a communications strategy to focus on an Instagram campaign, targeting 13-21 year olds, using the YFNW network to get messages out to target audiences. This year, we are trialling new reservoir safety signs which incorporate feedback from the young people.

On affordability, YFNW is working with us to develop a financial management module to improve understanding of the types of debt and how to budget. These skills will support its 'Curriculum for Life' to help young people who start living independently early. Materials are currently being developed in conjunction with the young people and these will be rolled out across selected schools and universities towards the end of 2018.

We have used innovative approaches to engage young people in order to build awareness of "what not to flush." In particular we launched a digital campaign to find a teenage 'vlogstar' to build awareness of flushing wipes to a key target segment and to use them to influence others. 500 high schools across the region took part and the five finalists attracted more than 9,000 views of their video entries with 6,500 online votes. The winner is now the face of a year-long online campaign, working with us to educate his peer group about the problems of wet wipes and blockages, using media most popular with his secondary school age group[28].

2.9.4 Business customers and business retailers

We regularly consult with North West businesses and other economic stakeholders to ensure our services meet their needs. To plan for AMP7 and beyond we carried out 12 research studies to understand business service priorities including customer priorities, Manchester and Pennines resilience, service valuation (willingness to pay), immersive supply interruptions and the Petteril catchment participative project. We held specific business consultation on the draft business plan and completed a qualitative study to understand business sentiment. This revealed the importance of water to our region's economy and the common thread was how numerous businesses, no matter their annual turnover, number of employees, or location, rely on water to ensure that they can trade every day.

We held conversations with organisations representing business interests such as the local enterprise partnerships. In addition, the CBI and Federation of Small Businesses are members of the CCG.

Business retailers are important stakeholders so that we can serve businesses well. Retailer engagement offers potentially different insight about their customers' needs and helps to ensure that our interface and transactions work well and provide the best possible service for the business customer. However, interaction has been largely limited to day-to-day aspects of the open market requirements with just a small amount of engagement on longer term aspects. This is perhaps understandable given the infancy of the retail market and that retailers have tended to focus on more immediate commercial needs rather than on longer term planning of wholesale activities. This is something that may change as the market develops and matures and we remain committed to developing a deeper engagement over time.

During 2017 and 2018, we carried out 15 interviews, conducted on a one-to-one basis, and five online surveys to gather insight into retailer priorities to incorporate into wholesale service strategies. We meet regularly with all licenced retailers and for those who operate within the North West we hold regular service reviews on a one-to-one basis.

As a result, we understand the key areas that matter most to them. We have weighted the outputs to identify two significant retailer priorities. The first is improving wholesale data and consolidating unpaired supply points – we already have a Supply Point ID consolidation programme underway and a dedicated data cleanse project which will be completed in AMP6. The second priority is to allow disconnection services to be conducted via accredited entities (the Water Industry Registration Scheme Accredited Entity Scheme). We are working alongside retailers to co-imagine and develop solutions to deliver the best service for the customer.

Retailers identified that quick and efficient turnaround of site activities and getting it right first time is of high importance to them. To meet this expectation, we have a continuous improvement plan to ensure effective routing and tracking of service requests and inquiries.

By engaging with business retailers we have already made good progress in ensuring we provide them with good service. In a recent survey undertaken by 'water.Retail'[29] we were ranked top English water and sewerage company (WaSC) for service to retailers, scoring particularly highly for dealing with emergencies. Since April 2017, our operational performance standards has improved from 76% to 99% and we are currently the best performing WaSC. We will continue to engage and give great service and futher details can be found in supplementary S1003 'Engagement with business retailers: Research findings'.

[28] https://www.youtube.com/watch?v=7RiCbQoZk2o
[29] http://read.water-retail.com/

2.9.5 Developers and local planning authorities

As a key provider of local infrastructure we have a strong role to play in facilitating local economic development and housebuilding. We actively engage with local planning authorities to understand development and major infrastructure projects to help us invest ahead of need. We hold regular drop in sessions for stakeholders to address any concerns and hold forums to update stakeholders on standards that we look for them to work to. We participate in events organised by bodies such as the Home Builders Federation (HBF) and Water UK to help support and lead on industry matters.

> "We are a customer of the water and sewerage sector. It is beholden on them to engage with the industry… We have a phenomenal working relationship with United Utilities in the North West of England, where we have brought about a whole new concept of service pipe installation and dedicated training, with the aim of reducing leakage. It was through United Utilities that we produced above-ground automated meter reading."
>
> Stephen Wielebski, Senior Consultant, Home Builders Federation, giving oral evidence to the Environment, Food and Rural Affairs Select Committee on regulation of the water industry, 20/06/18

Twice a year we send customer satisfaction surveys to over 1,500 individual stakeholders seeking feedback on our performance as well as insight to inform our future plans. This culminates with our annual Developer Day, an industry leading event with over 150 attendees including developers, Ofwat, self-lay providers (SLPs), the HBF, and Fair Water Connections. In 2017, we were the first company to share indicative charges to developers following changes in the charging approach. We consulted on the development of the connections charges, infrastructure charges and income offset/asset payment, and shared information on proposed changes. Following feedback from attendees, we made changes to charges setting. Information was published on our website for those unable to attend, along with a set of frequently asked questions in response to issues raised by stakeholders on the day.

Through this engagement, we have shaped our plans to ensure our offering is stable and predictable, transparent and customer focused, offers fairness and affordability, and gives environmental protection.

2.9.6 Regional devolution and political engagement

In 2017, Greater Manchester and Liverpool City regions elected their first metropolitan mayors with devolved functions relating to strategic planning, housing and economic development. We have sought to understand where City Region priorities cross over into our plans, for instance working closely with Greater Manchester's Infrastructure Advisory Board to develop the solution for the Manchester and Pennine resilience scheme.

We have leveraged existing stakeholder relationships to understand sub regional priorities through engagement with the five Local Enterprise and four Local Nature partnerships (LEP and LNP). Discussions relating to flooding and resilience have led to the collaborative development of new projects, such as our leading contribution to Greater Manchester's Natural Course project (see http://naturalcourse.co.uk/).

We commissioned research on the priorities of several North West stakeholders including LEPs, LNPs and the voluntary sector. Covering 18 different stakeholders, this analysis revealed a focus on sustainable economic development with significant increases in new housing and businesses, which require water infrastructure. It also highlighted how environmental stakeholders are generally positive about our engagement on environmental issues. This insight was shared with colleagues through several dissemination workshops to provide an external perspective and ensure our plan reflects these priorities, in particular, providing improved services to local authorities and developers.

We have an active meeting programme for the region's 76 North West MPs (55 Labour, 20 Conservative, 1 Liberal Democrat) and engage more widely across political parties. The timing of our draft business plan consultation coincided with the North West Labour Party conference which we attended to launch the public consultation and secure feedback from MPs, council leaders, councillors and party members. This was a positive experience with most attendees pledging to promote the consultation and giving support to our Priority Services offering for vulnerable customers.

2.9.7 Regulatory engagement

As well as business as usual engagement with all our regulators, we have had a member of Natural England's team seconded into our Asset Management team to improve respective understanding and work on projects to improve water and natural environment outcomes from catchment management.

As a result, our plan includes an enhanced join up between Sites of Special Scientific Interest and drinking water drivers, as well as resilience in the form of natural flood management. An approach to development planning and species licencing is underway and there is more collaboration and partnership working on catchment schemes. We have also seconded a member of the Asset Management team into the Rivers' Trust to similarly identify shared opportunities.

As a member of NewPIN (see www.sustainabilityfirst.org.uk/index.php/new-pin) project, we contributed to discussions to create a public interest 'voice' from customer champions, think tanks, NGOs, regulators, Government representatives and other participants from across the energy and water sectors.

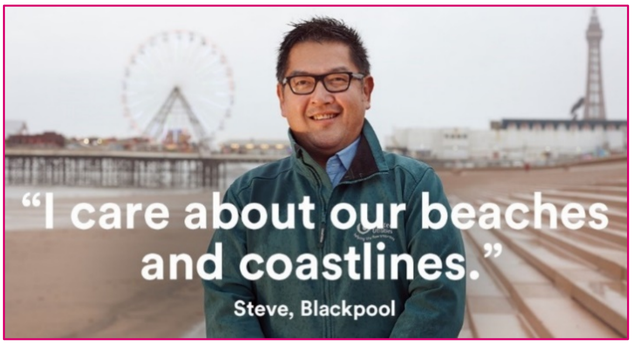
2.10 Broader community and stakeholder engagement campaigns

We reached over 1.6 million people and directly engaged with over 46,000 members of the public and 200 stakeholders to cavass their views on priorities for the draft business plan and the value they place on delivering proposed outcomes.

2.10.1 #nwmatters

Our consultation on draft business plan measures and targets in November 2017 sought to inform the wider customer base and stakeholders about proposals developed as a result of customer engagement (see supplementary S1009 – Engaging the public: #nwmatters - Summary report). We adopted the positioning statement "you care more than you think" (#nwmatters) to suggest that when people think about what water really means to their lives, they will realise it is something too often taken for granted. More details are at: https://www.unitedutilities.com/nwmatters

Figure 2.10 #nwmatters engagement campaign



We involved YourVoice and acted upon its suggestion to start this specific PR19 engagement by sharing information about current performance. Once this first phase was complete, we asked questions about potential priorities using a mix of offline and online channels and organised roadshows to talk to customers.

At nine shopping centres, attracting substantial footfall and mixed demographics, we adopted innovative ways to ask the public for its views, from pouring water into relevant funnels to a bespoke graffiti wall for people to leave personal comments on current and future services. Social media activity promoted current performance and built awareness, driving people to our website where key consultation documents were loaded, along with a simple questionnaire for customers to give feedback.

This campaign reached over 1.6m people with over 46,000 engagements from North West social media users. At the roadshows we recorded around 4,250 interactions with the public and over 2,000 surveys were completed.

Results revealed a difference in insight from offline and online channels. Offline respondents favoured support for vulnerable customers whereas for online it was the everyday services we provide. There was higher acceptability to pay for priorities that will help improve the environment or support customers in vulnerable circumstances. These results have fed into the broader triangulation of research, as described in section 2.8.

2.10.2 Stakeholder participation in workshops

We held workshops in each of the five North West counties to provide feedback on how stakeholder views gathered during summer 2017 had been used to inform the draft business plan and to gather feedback on proposed future priorities. Attendees represented a range of organisations and interests, including local authorities, tourism, environmental regulators, public health, charitable organisations, environmental groups, housing trusts, industry and commercial organisations. Outputs from the workshop can be found in a series of supplementary documents T1001 to T1010, T1113 and T1114 – "Regional stakeholder workshops".
YourVoice commented on the planned approach for the workshops, suggesting how we could maximise the effectiveness of our interaction with a diverse stakeholder audience and increase the number of attendees. More stakeholders did attend than at previous events – around 120 participated in the November sessions, building on the 75 that first contributed in the summer.

The key messages that attendees fed back included:

- Consensus the plan was heading 'in the right direction' but needed further refinement and detail;
- A breadth of views, from largely supportive to challenges about greater ambition, especially around leakage. Some felt the proposed measures were not a priority and that existing performance targets should be maintained, with others suggesting they could even be relaxed slightly;
- Broad support for more action to help customers in water poverty and vulnerable circumstances;
- Do more to communicate and educate customers to save money, reduce sewer flooding risks and safeguard the water environment;
- The need for greater partnership working continues;
- To think creatively to address future challenges; more innovation is needed across our services;
- More transparency and specificity about where money is going to be spent;
- Positive feedback about our engagement to date with a desire for future engagement events; and,
- That we had broadly listened to stakeholder opinions so far, but there was still some way to go.

One of the headlines pieces of feedback from these stakeholder workshops was that we needed to be more ambitious with our leakage performance. Section 2.7.2 describes how this feedback has been actioned.

2.10.3 Affordability summit

On 'Blue Monday' in January 2018, we staged our first ever North West Affordability Summit and brought together more than 100 stakeholders from across the region to discuss how more support could be provided to customers struggling to pay their water and other bills and to stimulate new ideas and share best practice. Blue Monday is a day when the consequences of being in debt or struggling to keep out of debt can come to a head as the aftermath of the festive season takes hold.

Opened by Angela Eagle MP, the event was attended by charities, foodbanks, Citizens Advice Bureau, StepChange, Department for Work and Pensions, credit unions, debt agencies, housing associations, local councils and other utilities and financial service companies. Also attending was Lord John Bird, the founder of the Big Issue, who spoke about the importance of the regional community coming together, going beyond what Government, central or devolved, could achieve alone.

The event was largely interactive, encouraging discussion to generate actions which could be pursued in partnership by those attending outside of the summit itself. Clear themes emerged from the event which have been developed into five workstreams of action, where projets will be co-created and co-delivered. Each has an external sponsor from the stakeholder community which attended the summit. Attendees are emailed a progress report every eight weeks and a second summit will take place in January 2019. Further details can be found in chapter 3.

2.11 Scrutiny by YourVoice, the independent customer challenge group

An independent Customer Challenge Group (CCG) was created in 2012 as part of the PR14 price review and renamed YourVoice in 2015. During AMP6, YourVoice took on an enhanced role in providing oversight on how we report our performance to customers. This led to innovations such as being the first company in the sector to publish a customer-facing performance report which achieved the Crystal Mark for Plain English.

YourVoice's role in scrutinising our customer engagement approach for PR19 has benefited from having a greater degree of insight into the company's performance strengths and weaknesses. This means it can operate with an informed view in judging the company's performance.

YourVoice has had substantial access to company data and exerted a great deal of influence in the creation and conduct of our research activity, with numerous changes made to our approach in response to the challenges its members raised. The quality of customer engagement is much improved for this input and the business plan process has benefited substantially as a result of their significant commitment.

2.11.1 Membership, structure and operations of YourVoice

YourVoice has developed and matured over the last six years, most notably by broadening its membership with additional appointments from the charitable, disability and affordability sectors. It has created a sub group structure to establish clear accountabilities for scrutiny of different elements of the plan. Resources are available for its work, including secretariat support from our Customer Research & Reporting Manager and a budget to meet any specific requirements. Its work is publically available with dedicated pages on our corporate website which includes details of membership, agendas, minutes and governance arrangements - see: https://www.unitedutilities.com/corporate/about-us/performance/yourvoice/

A new chair was appointed in 2016 after a rigorous recruitment process which used the services of a third party executive search firm, interviews with the CEO, a non-executive Board director, and with three founding members of the group itself.

The full membership meets as required, no less frequently than bi-monthly, and oversees the work of three sub groups, covering customer engagement, environment and affordability. These typically meet monthly, and even more often when the situation merits it. Since February 2017, over 40 meetings of the CCG and its sub groups have taken place, providing robust challenge to our approach and development of our plans.

As well as senior executive engagement, there has been regular interaction between YourVoice and the Board: for example, the CCG chair has attended the main Group Board meeting three times in 2018 as well as one meeting of the Board Corporate Responsibility Committee. There have also been several visits to YourVoice meetings by non-executive Board directors. The "Customer challenge group report", including the log of challenges it made to the company is provided as supplementary document C0007.

Case study: How the CCG contributes to research – Acceptability Testing
The CCG customer engagement sub group worked closely with us to create an effective approach to test customers' acceptability for the proposed plan and its associated bill impact. We accepted the sub group's recommendations to improve the rigour of the testing. In particular, to:

- remove the middle level of acceptability question to improve effectiveness of resulting;
- boost sample sizes to increase robustness, including young bill payers;
- restructure questions to include uninformed acceptability and informed acceptability;
- include comparative information on performance;
- include calculations to simulate the effect of inflation; and
- test the impact of a range of ODIs on customer bills.