Ofwat regulates a vital public service and customers are at the heart of everything we do. We have set out our priorities for the next regulatory price control, PR19, which challenges the sector to improve customer experience, deliver a step change in customer service, maintain affordability and drive efficiency, as well as improving information and transparency across the sector. We expect companies to deliver affordable bills and an inclusive service for all. The effective use of customer data will play a key role in helping the sector step up to these challenges.

In this report, we have set out a framework for unlocking the value in customer data, building on a message we have previously highlighted; that the better use of data can be used to drive greater customer service and satisfaction, improve efficiency and encourage smarter network management. Good customer data can also be used by companies to help identify and support customers who are struggling to pay their bills, or find themselves in vulnerable circumstances.

Our research shows that customers expect to be kept informed about how their data will be used to drive better services that are tailored to their needs. Changes made by other sectors, innovation and the use of new technology demonstrates that the water sector is behind. But we do not just want the sector to catch up with current good practice, we want to see the sector pushing boundaries, putting customers first as it leads the way in how it uses customer data.

There is still work to be done to increase customer confidence in the sharing and security of personal data, and companies will need to ensure they minimise risk and react quickly to any incidents.

One of our ongoing priorities is to modernise the sector. Companies can make better use of customer data to help to achieve this. While we expect to see evidence of how companies are making better use of customer data in their 2019 price review business plans, we also expect companies to begin to make changes now. We will follow up on the expectations in this report in early 2018.

John Russell
Senior Director, Strategy and Planning
What is customer data?

Customer data is information that can be used to give companies insight and intelligence about their customers. It includes, but is much broader, than billing data. It is information shared through correspondence or on social media, on how much water customers use and what behaviours drive that usage. Customer data can also be sourced from outside the sector to supplement information already held. Some customer data may be personal data, which has specific meaning under data protection law.

Having a high-quality, rich data set allows companies to get to know their customers and networks better. Customer data can help drive the next step change in company performance to deliver greater customer benefit.

Customer data can help to drive behaviour change

We have been looking at customer engagement for the next price review (PR19). Our Tapped In report explains that customers are not passive recipients but active participants in the water sector. Unlike in many sectors, in the water sector, customers drive the demand for water as well as being an integral part of what goes into the system. Encouraging customers to recognise themselves as active users in the chain will help the sector to understand what customers want. The report highlights how encouraging behaviour change among customers can help water companies achieve their strategic goals. For example, persuading more customers to adopt water saving behaviours improves the resilience of supply. Empowering customers not to put the wrong things down sinks and toilets directly reduces sewer blockages. In order to change behaviours, companies will need to be smarter in understanding their customers. Customer data will be central to this.
The role of customer data in the water sector

Exceed customer expectations
By being available. Video, online web chats and social media are just some of the way companies can do more for their customers

Drive product and service innovation
Through the improvement of existing or the creation of new services

Make markets work better
By revealing customer preferences and insights

Make the sector more resilient
Targeting behaviour change to increase water efficiency and increasing operational resilience through better monitoring of usage

Support customers who are struggling to pay their bills
Data can help companies to get to know their customers better to target support or further action

Help customers who need more support
Data sharing and collaborative working can help to identify and target support to these customers
Our approach

In recent years, substantial research has been carried out on the importance of data and customer attitudes toward it. We have used this research to inform our work.

In developing this report and framework, we asked water companies to provide information on their current customer data practices. We also engaged with:

• the Information Commissioner’s Office (“ICO”);
• other regulators;
• credit reference agencies;
• new retailers in the business market;
• companies from outside the sector, including Transport for London; and
• the Open Data Institute.

We also tested this framework at an early stage by holding a workshop with water company representatives, Water UK (the industry trade body) and the Consumer Council for Water who represent the interests of water customers.

The feedback from engagement has been used to co-create this framework with the sector.
Unlocking the value in customer data

Data knowledge
Know what data you hold, how you hold it and where it comes from

Data quality
Have a robust system of governance and minimum standards for data

Data security
Keep your data secure. Work collaboratively and use best practice from outside the water sector

Data strategy
Have a strategy which sets out a vision and approach to data, then embed this

Data innovation
Use data to get better insight to offer better or new services

Customer empowerment
Give your customers control and information about how their data is used

Collaborative working
Work collaboratively to tackle sector wide issues to achieve better outcomes for everyone
An opportunity to act

As citizens, we are creating new data all the time, through websites we visit, mobile apps and health tracking devices we use and information we share on social media. This information reveals preferences and lifestyle choices. It gives companies insight and intelligence to enable them to do more for customers. While the sector is making progress on customer engagement, radical change in innovation and technology-led advances in other competitive sectors now set the bar for excellent customer service much higher than before. The water sector is lagging behind. There are lessons to learn from other sectors which are paving the way and delivering services to customers that perhaps they did not even know they wanted.

Through customer data, we see opportunities to deliver improved customer satisfaction and smarter working while also securing the sector’s resilience.

Data innovation

Be brave and dynamic. Learn from other competitive retail markets where companies are working hard to offer customers better or new services and are available when customers demand through traditional and digital channels.

Customer empowerment

Be open with customers so that they know how their data is used. Give customers more control and clarity about how their data is used. Tell customers how they are benefitting from the use of their data so they understand how they share in its value.

Collaborative working

Working collaboratively can give a richer and fuller insight on customers. It helps to build trust and confidence in the sector by supporting those customers who need it most and to tackle sector-wide issues.
Data innovation

We want to see the sector make a step change and start driving innovation through better use of data. Customer data is more than just a billing tool and customers benefit if companies demonstrate a wider understanding and application of customer data. Companies should consider how innovative use of data can achieve a wide range of objectives such as:

- demand reduction through targeted behaviour change measures;
- increasing operational resilience through better monitoring of customer usage patterns; and
- reducing levels of bad debt through smart approaches to different customer groups.

In the future, we hope to see examples of:

- the application of multiple sources of information layered with customer data to gain better insight and intelligence, for example, to target support to customers who need it most;
- companies making data available publicly so that data innovators can help develop and expand the market, for example, through open data;
- how big data and data analytics can give better customer insight, for example, giving customers tips on how to save water based on their actual usage.

By doing this, companies can become smarter in approaching different customer groups to deliver a better, more personalised service. It will improve overall efficiency by enabling smarter management of networks and more targeted and lower cost interventions. Beyond this, there is a future where cutting-edge ideas like blockchain, edge analytics or machine learning could be implemented in a water sector which proactively pushes towards dynamism and intelligent insight.

Blockchain – Allows for records between different parties to be recorded and managed in an efficient, verifiable and permanent way. Records are held in a database which is not stored in one location, but distributed across multiple computers, allowing information to be open to many users who can view all updates to records in real time. Water trading across company boundaries is one example where this type of technology could be considered.

Edge Analytics – A method of optimising cloud computing systems by performing data processing near the source of the data rather than at a central data centre. This reduces bandwidth and cost by performing analytics and knowledge generation at or near the source.

Machine learning – Giving computers the ability to learn without being explicitly programmed, particularly within the field of data and predictive analytics.
Unlocking the value in customer data

Case studies

Advizzo has developed a software solution layering customer data, meter data (smart and non-smart meters), open and social media data, and applies data science to offer customer engagement for utility companies.

This software platform is able to give end users information such as usage comparison with neighbours or similar homes, personalised water saving tips as well as bill information, all in one interface. It is also able to offer a loyalty/reward scheme for customers to set goals on saving water and tips on how to achieve these.

Advizzo is currently working with four water companies, including South East Water, where it has been trialling the software with a subset of its customers. South East Water has seen positive results, including a reduction in demand for water, increase in digitalisation and very low complaint levels about the trial. It is also closely monitoring the overall effects on customer satisfaction. It is intending to roll this out to its entire customer base over the summer.

Transport for London (TfL) has been transformed by its evolving approach to data. In 2007 it made the decision to introduce its open data policy. This data includes transport schedules, expected arrivals, disruption, availability of bikes on the cycle hire scheme, and real time road traffic information. Now, more than 42% of Londoners use a travel app powered by TfL data with over 600 apps and 12,000 developers. This has resulted in increased customer engagement through the customers’ preferred method and more innovation.

Qantas has an active approach to data analytics. It uses big data to create personalised experiences for its customers by giving front line staff customer information, such as food and seat preferences and frequent flier status, in a format that allows them to pre-empt customers’ needs.

Red Planet, previously the Qantas data analytics division, has been launched as a separate commercial entity, offering insight from the data capabilities built up at Qantas with new external clients.

Qantas has an active approach to data analytics. It uses big data to create personalised experiences for its customers by giving front line staff customer information, such as food and seat preferences and frequent flier status, in a format that allows them to pre-empt customers’ needs.
Customer empowerment

When customers are empowered, they have information at their fingertips which is relevant or personalised to them and is quick and easy to absorb. These customers trust who they do business with. They choose when they want to engage through their method of choice. Empowered customers have transparent and good quality information on how their data is managed and they recognise how they get a share in the transactional value of their data. Encouraging customers to be active users in the chain will help the sector to understand what customers want, and to act on their behaviours to deliver better service, greater efficiency, innovation and ultimately build trust.

The Citizens Advice Personal Data Empowerment report (2015) highlights an emerging trend which sees the value of data shared more evenly between consumers who generate data and organisations that use it. It found that while consumers wished to have greater control of their data, they were willing to share more information if the service was better tailored to their needs, or helped them make better decisions or save money – when there is a clear benefit to them, and when companies are open about why they want this.

Case studies

Aviva, an insurance firm, now uses a central data system called CYCLOPS, to layer and analyse their internal data alongside various external sources to create new solutions to customer issues. By layering weather data, flood risk and customer contact details, it can contact customers in advance of when there is a risk of flooding. By giving advice on how to mitigate the effects of floods, it has successfully reduced flooding claims and increased customer satisfaction.

Wales and West Utilities uses social media to inform its customers of any planned disruptive roadworks, to respond to customer queries 24 hours a day, seven days a week, and to provide information during any unexpected incidents or repairs which may cause disruption. It uses a sentiment monitoring tool to help tailor future messages to customers and has started to use Facebook advertising to target messages to smaller groups of customers.

Affinity Water is looking to ensure robust decision making by exploring the customer behaviours and attitude changes revealed by customer communication. It has been encouraging engagement with its customers to improve water efficiency, most recently through increased social media activity. Affinity Water uses this information to consider how this data can be used to achieve greater efficiencies and better outcomes for customers.

CNH Industrial, a global manufacturer of agriculture and construction equipment, analyses data on farmers’ activity collected from sensors in its products. It uses the data to advise them on how to maximise crop yield.
Empowering water customers

Shared value
Tell customers how they have benefited when you use their data so they understand how they get a share in its value

Responsive
Be available for when customers want to engage with you

Proactive
Use digital channels to get messages out to a greater number of customers more quickly

Information
Give customers easy to understand information on how you use their data

Control
Give customers control over their own data

Personalise
Make customer contacts personalised and relevant to them

Engagement
Engage with customers through their channel of choice, including digital media
Collaborative working

Collaborating, sharing information and ideas and working with a range of organisations allows for fresh and varied perspectives and new insight to be gathered about how data can be used to drive better outcomes for customers. Not only can this lead to new or better services, through Open Data for example (which is discussed later in this report), but working collaboratively can help to tackle sector wide issues. Our 2016 vulnerability focus report emphasised the importance of collaborative working with other organisations to help companies support customers whose circumstances make them vulnerable.

We are pleased to see progress through examples of the sector working with:

• organisations such as Citizens Advice, the Money Advice Service, Age UK, and local organisations with the aim of driving benefits for customers, such as improving and tailoring services and identifying customers in situations of vulnerability; and
• credit reference agencies to reduce bad debt and target financial support to customers by identifying customers who can’t pay their bill from those who won’t.

Being more collaborative with data can help achieve much broader benefits for customers and we expect to see:

• greater participation of customers, communities and organisations to help to deliver a culture change, reducing customer demand for water to ensure the resilience of networks;
• work with other regulated sectors to identify and support vulnerable customers. We know that companies are already working across sectors but initiatives tend to be small scale and localised;
• greater collaboration with government in light of the provision in the Digital Economy Act 2017, allowing for water companies to share data with some government departments so that customers entitled to financial support receive it;
• commercial opportunities, for example, wholesalers and retailers to find ways to share data with third-party intermediaries to improve price transparency, encourage switching and enable customers to benefit from new services, such as innovative water management technology; and
• joint work to tackle sector-wide issues, such as ensuring the sector is ready for the new data protection regulations and minimising the risk of data breaches.

“If you don’t have data, you are blind. Ignorance is bliss, but it isn’t a place that you want to go”

– Horace Dediu, Senior Fellow, Clayton Christensen Institute for Disruptive Innovation
Case studies

**DataKind** was named one of the most innovative not-for-profit organisations in 2017. It undertakes data dives, a deep but quick interrogation of a data set to identify trends, provide insights or prototype solutions for the client. Through a network of volunteers, DataKind draws on the power of data science to better serve communities through a range of different initiatives.

In December 2016, DataKind worked with **Moulton Niguel Water District** (which provides water, recycled water, and wastewater service to 170,000 customers in Southern California), Bloomberg and Data Ambassador Will High to develop a micro level demand forecasting model with potential for future expansion. The company wanted to more accurately forecast water demand to improve pricing, expand conservation programs and implement initiatives to increase the efficiency of water transportation throughout its network. A model was developed using past water usage data, weather data and census data on household characteristics.

**Policy in Practice** is a company that has developed a software solution to help individuals and local authorities better understand the impact of welfare reform policies. The suite of software solutions simplifies complex information into personalised advice. This enables local authorities, housing associations and welfare-to-work providers to give advice to individuals to make informed lifestyle choices.

Policy in Practice is also working with 50 local authorities across the UK. Using local authority data sets, it analyses the impact of government welfare reform policies at individual household levels to help local authorities target support.

**The Theft Risk Assessment Service (TRAS)** is a data analytics service which can help energy suppliers assess the risk of energy theft at customer premises. TRAS uses data provided by suppliers and from third parties, such as credit referencing agencies, to identify instances of unusually low energy consumption, which may be an indication of theft.
Building from a good data management foundation

As the regulator, our ongoing priority is to work with companies to modernise the sector and customer data will help to achieve this. The sector has work to do to improve the way it manages its data. It is important that customers do not miss out because the sector has not got the basics right.

There are lessons to be learned from the work that was carried out in preparation for retail business market opening, but this is only the tip of the iceberg. We want to see good quality, well understood, secure data as the basis of a strong foundation from which to build a data strategy. We want good data management to be business as usual, so that the sector is able to move fast to adopt new technologies, be more innovative, respond to customer trends and drive efficiency.

Data strategy

Put in place a data strategy which sets out a vision, approach, protections and success measures. Assign data leaders to own that strategy to embed this throughout the organisation. Refresh this regularly to reflect changing challenges and opportunities.

Data knowledge

Know what type of data you hold, how it is held and what business processes create it. Keep the structure of the data you hold simple. Identify demographic or other external sources that will create a richer data set.

Data quality

Put in place a robust system of governance around data quality. Build on existing work and good practice and apply it to all customer data you hold.

Data security

Keep your data secure, minimise the risk of that data being breached and ensure no technical weaknesses that make systems vulnerable to cyber-attacks exist. Work collaboratively to share best practice and learn lessons from outside the sector.
Good customer data is a rich source of intelligence about customer behaviour and preferences. Having a strategy in place that demonstrates how this data will be used ensures customers’ needs remain at the heart of company plans.

When we asked companies for information on their data practices, some were able to provide us with examples of how customer data is being used more innovatively. However the majority were only able to provide us with information on how data is used to support customers who are in vulnerable circumstances and no company was able to provide us with a copy of its data strategy.

This is a concern to us. Many companies are trying to improve their use of data but we found no evidence that any company had a clear strategy in place running through all levels, from the Board to front-line services.

We expect all companies to have a data strategy in place. The strategy should clearly set out how the company will comply with all applicable legislation in the management of its data. However, to unlock that data’s value, the strategy must set out:

• a longer term ambition and vision on how to obtain best value from the customer data held;
• the approach for achieving this, including success measures;
• how this approach will benefit customers;
• how this will be embedded at all levels within the organisation.

A data strategy is not static and should evolve and develop over time, responding to market developments and legislative changes or policy developments.

Dŵr Cymru has started developing its business wide data strategy and customer data is an important element of this. It is working with partners to better understand customer behaviour, using information within its customer billing and debt collection systems to develop a better understanding of different customer groups. It is also developing its in-house data and analytics capability which will enable the company to use customer insight to consider the effectiveness of its decision-making. It has also developed data quality measures and tracking tools which provide Dŵr Cymru with real time insight into data quality issues in the business. Dŵr Cymru has put in place a new team with a responsibility to establish a quality strategy and framework for customer data and to oversee the effectiveness of that strategy.

While it is too early to measure the impact of this approach on customers, Dŵr Cymru anticipates that the initial outputs will help to drive innovation and change across the business and help develop requirements for other changes.
Open data

The UK is ranked second in the world in the Open Data Index 2015. We are seeing a continued trend in non-government sectors opening up their data to allow new and innovative solutions and services to be offered and tailored to specific customer needs. For example, Sport England is collaborating with the Open Data Institute to make it easier for citizens to get information about physical activity sessions and get more active.

The Competition and Markets Authority in its review of the retail banking sector has set requirements for banks to implement Open Banking by early 2018. Open Banking will allow personal customers and small businesses to share their data securely with other banks and with third parties. This will allow other banks and third party providers to view securely a customer’s transaction information and offer products better suited to that customer’s requirements.

The water sector has made good progress to improve transparency through its Discover Water website which provides comparable sector-wide customer-facing information to its users. Now, the sector should consider how it might respond to this trend towards greater openness towards customer data. When implementing their data strategies, companies should assess the potential benefits of making more of their data ‘open’, to not only improve customer service, but to enable innovation from third-party services.
Every person in the country needs water and wastewater services every day. This means the water sector has one of the most universal data sets in the UK. This valuable information can be used to energise customers to help tackle some of the challenges facing the water sector, such as the resilience of the networks.

We want the sector to be smarter with its data so it can explore opportunities through:

- data analytics, ‘layering’ existing data sets with societal (personal information which individuals share) and demographic (socio-economic data) information; and
- opening up data to stimulate innovation or crowd sourcing ideas.

This will allow companies to hold less data but still have a richer dataset overall.

When working with clients within or outside the water sector, data experts told us that a first step is to assess existing databases to understand the data the company holds. This is crucial. Understanding what information, and the type of data held, will lead to better analysis of and value obtained from existing data. Good data knowledge also facilitates the different levels of legal requirements associated with different types of customer data (in particular, personal data within the meaning of data protection law). Because many water companies outsource part of their service provision and make extensive use of others through the supply chain, they need to consider carefully the data they collect. This consideration should also be given to supplier and contractor activities.

The sector has been slow to make the most of this valuable asset. We want this to change so that customers can benefit from a better service from a smarter company. A well-performing company would be able to clearly articulate:

- the business processes that generate data, the type of data generated, and where data is stored;
- whether there are interdependencies between the different data sets (for example, if data collected from meters is separate to the billing information);
- the process it has in place to identify any data gaps or duplications in records and how this is addressed; and
- how data is deleted or archived.

Data knowledge

Unlocking the value in customer data

Case studies

**Aiimi**, an independent information management specialist, has worked with organisations within both the UK water sector and across other industries to verify, understand and utilise the nature of customer data that they receive and hold. For example, Aiimi has enabled a client in the water sector to understand better their customer data, enabling it to plan and prioritise future investment throughout its asset estate. This was done by combining internally held customer information and external data such as social media activity to inform decision making. This involved interpreting both actual information received from customers and an analysis of unspoken customer thoughts and feelings deduced from available data.

**Southern Water** demonstrated that by having good information about blockages in its wastewater networks and postcode data, it was able to target its fat, oil and grease, and flushables’ programme. Southern Water will target 2,000 postcode hotspots (areas with more than four sewer blockages in three years) and will visit an estimated 75,000 customers. The rollout of universal metering has also provided much improved data about water use which is used to target its water efficiency programme.
Data quality

High-quality data is the foundation for better service for customers, and enables the effective development of markets. Good quality data allows companies to move fast to trial and adopt new technologies, be braver and more dynamic with the innovations it explores and open opportunities to work with partners or to collaborate. Good quality data is an enabler to unlocking the value in customer data. It also helps to build trust and confidence, which will continue to become more important as the sector improves its data practices.

Quality is an issue the sector has to work hard to address, as identified during the preparation for the opening of the business retail water market to competition in April 2017. Companies invested in bringing their business customer data up to the standards expected by the Market Operator Services Ltd. (MOSL) and the market codes which set out the rules and processes for the business market. MOSL set out the minimum standards of data integrity for the competitive market. The minimum standard is a Market Arrangements Code requirement, which sets up arrangements for how the business market will operate, and is a licence obligation. It requires that data held in the central systems should accurately reflect the circumstances at each supply point. These represent a useful starting point for companies to consider in relation to residential customers. But the sector can do much more to improve the quality standards of all data sets it holds.

Some water companies told us about the different ways good quality data is maintained. We encourage others to explore what lessons they can learn from these examples. However, we would expect companies to:

• have a structure of standardised data collection to make quality checking a more efficient process;
• have a framework to ensure data is regularly cleansed; and
• encourage customers, through customer contacts and other channels, to keep personal data up to date.

Data quality

Affinity Water complies with the ISO 27001 2013 standard for information security, which includes regular data cleansing and independent audits. This enables it to gain a better understanding of the valuable data it holds.

Yorkshire Water shares its data with Credit Reference Agencies (CRAs). This has allowed it to improve its identification of customers who may be financially vulnerable. By utilising CRA data to make fairer debt collection decisions, 25,000 fewer customers per year are taken through the litigation process avoiding £3.5 million court fees per annum that otherwise would have been added to customer accounts. Yorkshire Water is now able to signpost these customers to its customer support schemes. CRA data is also used to sign customers up to its social tariff using real time credit data. 97% of customers who sign up to its social tariff said they found it easy to sign up.
Data security

Data is a valuable resource and it is important to ensure it is well protected. Companies should have appropriate governance procedures to deal with any breaches of data security and robust technology to prevent unauthorised access to data. There should be clear processes and training in place to minimise the risk of human error in relation to data security.

The case studies presented in this report highlight that protecting data does not prevent companies making better use of and being innovative with data. Companies with a clear strategy in place, and which have both a high-quality data set and know the data they hold, will be in a better position to put in place practices to ensure data security.

Working collaboratively, the sector can share best practice about good security cultures, both in terms of technology updates and effective approaches and responses to customer data breaches. Through Water UK, companies are already working together to prepare for the move from the Data Protection Act to the General Data Protection Regulations. We are encouraged that companies are working closely on this. Going forward, we expect that:

• the sector maintains and works with other sectors and experts in this field to minimise the risk of a data breach;
• companies ensure good practice on security and transparency is an integral part of their data strategies and their Board takes ownership of this; and
• companies identify and adhere to relevant data security standards, for example, those set out by the International Organisation for Standardization. The ISO is a global network of standards bodies, including the British Standards Institution (BSI).

“It’s not privacy or innovation – it’s privacy and innovation”

– Elizabeth Denham, UK Information Commissioner, 26 September 2016
Building trust and confidence is our vision for the sector and we are challenging companies to improve their data practices to unlock the value of data for the benefit of consumers. Consequently, the focus of this report is on developing a framework which helps companies unlock this value. Everything in this report is set within the context of the paramount importance of compliance with data protection law. This remains the sole responsibility of each individual company. It is not Ofwat’s role, nor the purpose of this document, to give guidance.

The Information Commissioner’s Office (ICO) is the UK’s independent authority set up to uphold information rights in the public interest, promoting openness by public bodies and data privacy for individuals. The Data Protection Act 1998 (DPA) sets out the boundaries within which an individual’s personal information may be used. In May 2018, the new General Data Protection Regulation (GDPR) will come into effect. These new regulations update the protections to fit with the modern, connected world we live in. The move to these new regulations provides companies with a window of opportunity to review their data practices, while ensuring they are meeting protection requirements.

Cyber Security is something that many companies across different sectors are working hard to maintain, and lots of lessons have been learnt following cyber attacks on companies where customers’ personal information was breached.

In its 2016 House of Commons Report on cyber security in light of the Talk Talk breach, the House of Commons Culture, Media and Sport Committee made a number of recommendations. These include that oversight of cyber security should sit with the Board and consumer awareness of scams should be improved. In its response to this report, the Government highlighted a number of cyber security initiatives. This includes a consumer guide for staying safe when shopping or banking online, the Cyber Essential Scheme and the establishment of the National Cyber Security Centre.

Defra’s Water Sector Cyber Security Strategy for 2017-2021 refers to the need for a collaborative approach to cyber security between government and the water sector. It notes that understanding threats, managing risks and incidents, and developing capabilities will help achieve a secure, effective, and confident water sector, resilient to the ever-evolving cyber threat.

Water Industry Act

The Water Industry Act 1991 section 206 restricts the disclosure of information which:

- anyone has obtained by virtue of provisions set out in the Act; and
- relates to any particular individual person or business.

This applies to us, and to companies and licensees, among others. Section 206 also sets out certain gateways under which this information can be disclosed and the criminal sanctions for breach of the section.
Our expectations for the water sector

Data innovation
Be brave and dynamic. Learn from other competitive retail markets where companies are working hard to offer customers better or new services and are available when customers demand through traditional and digital channels.

Customer empowerment
Be open with customers so that they know how their data is used. Give customers more control and clarity about how their data is used. Tell customers how they are benefitting from the use of their data so they understand how they share in its value.

Collaborative working
Working collaboratively can give a richer and fuller insight on customers. It helps to build trust and confidence in the sector by supporting those customers who need it most and to tackle sector wide issues.

Data strategy
Put in place a data strategy which sets out a vision, approach, protections and success measures. Assign data leaders to own that strategy to embed this throughout the organisation. Refresh this regularly to reflect changing challenges and opportunities.

Data knowledge
Know what data you hold, how it is held and what business processes create it. Keep the structure of the data you hold simple. Identify demographic or other external sources that will create a richer data set.

Data quality
Put in place a robust system of governance around data quality. Build on existing work and good practice and apply it to all customer data you hold.

Data security
Keep your data secure, minimise the risk of that data being breached and ensure no technical weaknesses that make systems vulnerable to cyber-attacks exist. Work collaboratively to share best practice and learn lessons from outside the sector.

Unlocking the value in customer data
Throughout this report, we have set out where we expect to see improvement in how companies use customer data. This is not something new, we have talked about the power and importance of customer data as tool to provide better outcomes for customers in a number of recent key reports.

- In our vulnerability focus report, we identified the effective use of data as one of the three principles of good service that companies should consider when developing their approach to customer vulnerability.
- In our review of extending competition to residential retail customers in England, we highlighted that in other competitive retail markets, we have seen radical change, innovation and improvements in service driven by better use of customer data.
- In our Water 2020 customer engagement policy statement we highlighted the range of sources of customer data that companies have available to them. Insights can be drawn from these, including operational data, customer contacts and social media.

In preparation for the business market opening in April 2017, all companies had to make significant improvements to data quality and management to operate in the open market. The lessons learnt from this process should be applied to residential customers’ data.

Our priorities for the next price review is to see better customer service and innovation, alongside improving resilience and affordability. We have highlighted in this report that customer data has a role to play in all four of these areas. When companies submit business plans in September 2018, we expect to see evidence of how companies are making better use of customer data over the next price control period, and the longer term.

But we do not want companies to wait. There is plenty of scope to improve the use of customer data now. So we expect to follow up on our recommendations in early 2018, to see what improvements companies have made in this time.
Ofwat (The Water Services Regulation Authority) is a non-ministerial government department. We regulate the water sector in England and Wales. Our vision is to be a trusted and respected regulator, working at the leading edge, challenging ourselves and others to build trust and confidence in water.