# HARNESSING THE POWER OF DATA

It's a digital world out there, with artificial intelligence, real-time data insights and digital innovation paving the way for transformation. And the water sector is benefiting.

By Martin Kovacs

PRESSURE BUILD-UP
STATUS ● ● ● / 214574

MAINS LEAK
STATUS ● ● ● / 9854213

VALVE FAILURE
STATUS ● ● ● / 471365

LOW PRESSURE
STATUS ● ● ● 354612

Smart devices in water networks are delivering vast amounts of data to help utilities deliver better customer service.

NORMAL FLOW
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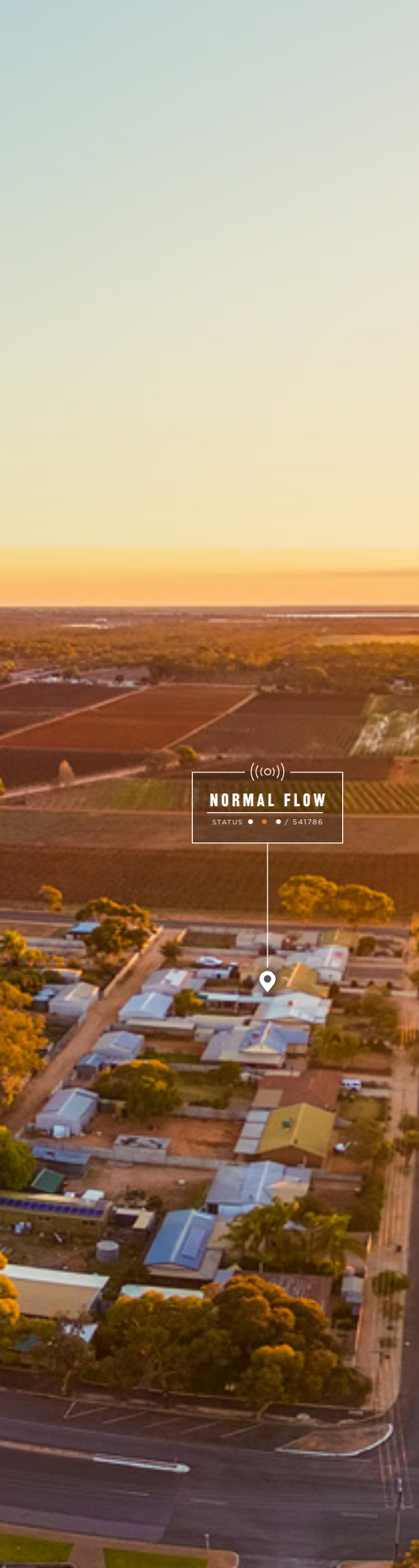
D igital technologies are paving the way for a range of operational benefits within the water sector, with utilities increasingly using real-time data insights to proactively monitor and manage water networks. These insights can be harnessed to enhance customer service offerings, and utilities pursuing digital transformation stand to benefit by prioritising customer expectations. Customer-centricity is a key feature of digitalisation, with a new breed of online-based businesses having set the bar for service quality. And, while these digital enterprises may be structured to be inherently more service-focused than their pre-digital counterparts, customers are nonetheless demanding more transparent, interactive and easy-to-use offerings across all sectors.

DATA IS EVERYTHING

Data is key in this rapidly evolving digital landscape. Utilities need to ensure they have systems in place that support effective end-to-end data management. This will facilitate efficient and flexible decision-making and can be integrated as required with the customer-facing end of operations.

As noted by Sean Cohen, SUEZ Water Senior Manager, Smart Water, the greater focus on service provision means utilities no longer have the option of simply getting on with operations in the background. "It's only very recently that there has been any expectation at all about any kind of innovation or customer-facing responsiveness from water utilities," Cohen explains. "People's interest is starting to pick up, and they're realising that in most of Australia, there are really not many points of connection that customers have to water consumption and production, where it goes and what it costs."

> *Technology is just an enabler – it's actually about the data.*
>
> **Corinne Cheeseman, Australian Water Association**

HANDLING CUSTOMER EXPECTATIONS

Cohen points to a number of convergent factors that are both contributing to a wider shift in customer attitudes towards service provision in the water sector, and compelling utilities to re-examine their service offerings. He notes that customers not only have a growing range of digital tools at their disposal at a household level, but are also becoming more proactive about managing consumption, especially amid a focus on sustainability.

"The sustainability revolution around utilities like water, and the energy revolution around renewables, has really opened people up to paying attention," he says. "The water industry is also being touched by the customer-centric smart-home Internet of Things (IoT) revolution, and people have gotten used to the idea of looking upon their own private infrastructure as something that needs to be thought about."

Greater transparency about consumption can help customers moderate their usage and deliver cost-saving benefits, with Cohen also highlighting the potential to raise awareness at a broader community level about sustainability issues.

He observes that utilities are increasingly focusing on how data can be used to both cater to customer interests and drive ➤

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behavioural change, and points to a natural intersection of operational and customer-focused outcomes.

"Having a digital utility doesn't mean you have to use it for a customer-facing activity – most of the benefit that you'll get from the digitisation of the water network is operational," he says.

"However, if you have a smart water network that reports a few times a day, or every hour or 15 minutes, it gives you a closer sense of where the water is going. People are led from smart metering and smart water to the customer space."

The customer-centric rhetoric is supported by many others.

With customers now demanding more comprehensive service offerings, Grant Dixon, KPMG Executive Director, National Water Lead, observes that utilities need to ensure their offerings measure up to the standards set by other sectors.

Dixon says utilities should be especially aware of customer expectations in seeking to avoid issues related to organisational practises, values and effectiveness.

"If you end up being dramatically out of step with customer expectations, it starts to become a reputation-trust issue," he states.

"Customer satisfaction is a pretty standard way of assessing performance, and increasingly we're seeing regulators in the water sector also much more mindful of the customer's perspective in relation to overall services, not just the core services."

ASK THE EXPERTS: THE CUSTOMERS

Transitioning to a data-focused, customer-centric approach will typically be underpinned by significant cultural change within an organisation, and Dixon points to the importance of drawing on customer feedback to drive changes in operations.

"Feedback processes are great seeds of opportunity to identify areas that need more attention," he says. "If you've got new digital tools, which are more flexible,

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> **Grant Dixon, KPMG Executive Director, National Water Lead**

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Meanwhile, smaller and regional utilities in particular may not only be limited in their capacity to trial new innovations, but also hesitant to up-end long-established processes and integrate digital technologies amid cost concerns.

However, Dixon notes that as the pace of digital change has accelerated in the past five years, the marketplace has also become more varied, with there now being a growing pool of knowledge for utilities to draw on.

"The level of collaboration and sharing in the industry allows smaller water businesses to access ideas, solutions and approaches that are proven, have been seen to work, and have been evaluated against the local need," he explains.

"While there are constraints in terms of investment dollars, capacity and experience for some smaller businesses, I think some of the solutions will be found in that collaboration space, and by working with organisations such as the AWA and WSAA."

Water Corporation has undertaken extensive customer engagement amid its transition to digital platforms in recent years, which General Manager Customer and Community Group, Karen Willis, says has helped both guide its investment decisions and improve its service offerings.

Among these initiatives, Water Corporation's Voice of Customer survey collects more than 60,000 pieces of customer feedback annually, delivering the ➤

EXPERT ADVICE

Here are four broad steps utilities can take to prioritise customer feedback when undertaking digital transformation.

1 ENSURE THAT AN INVESTMENT PLAN IS UNDERSTOOD AND AGREED TO BY CUSTOMERS.

2 INCORPORATE THE CUSTOMER VOICE INTO THE DESIGN PROCESS.

3 IMPLEMENT SYSTEMATIC FEEDBACK PROCESSES.

4 REGULARLY MONITOR CUSTOMER FEEDBACK ONCE ANY CHANGES HAVE BEEN MADE.

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>
> **Sean Cohen,
> SUEZ Water**

utility a window into customer preferences and potential pain points. "These surveys are provided across a range of different touch points and channels, including telephone, email, website and face-to-face interactions," Willis explains. "The results are analysed to identify where we are performing strongly and where we can improve."

This ongoing engagement has provided additional scope for Water Corporation to weigh up customer expectations as it has rolled out a number of new digital initiatives.

By way of example, Willis highlights the key role customer engagement played in Water Corporation's development of

an online outages map, which consolidates outages and issues data in one easily accessed location.

"It has improved transparency and trust with customers, helped reduce call volumes to the operations centre, and helped the operations team improve their processes and data quality," she explains.

A wider overhaul of Water Corporation's digital offerings saw the utility relaunch its website last year, bringing together a range of functions via the one platform, with Willis stating the website has been designed to deliver customers a "seamless and sophisticated experience".

"It was a project of significant

Sydney Water incorporates real-time customer feedback into its operations.

complexity, integrating data, functionality and content from seven different systems owned by different parts of the business," she says.

"Most importantly, the new platform has been imperative in supporting our customers during the COVID-19 pandemic, where we have been able to respond swiftly to provide new financial relief services and information online."

PRIORITY ONE

With digitalisation continuing apace in comparable sectors, AWA CEO, Corinne Cheeseman, emphasises that now, more than ever, it needs to be a priority for the water sector, and points to a "massive opportunity that industry has probably not fully tapped in to yet".

Against this backdrop, Cheeseman observes that water businesses are now faced with the challenge of navigating a digital environment in which customer expectations around service provision are already firmly entrenched.

"Customers know what's possible and want to have ease of access at a time that's convenient, to get what they need as quickly as possible with the least amount of effort. That's where you tap into digital," she notes.

Beyond operational and customer-facing benefits, Cheeseman notes that digital transformation can lay the groundwork for wider cultural benefits within an organisation, facilitating free-flowing exchanges of information and more seamless organisation-wide interactions.

However, when integrating digital technologies, she emphasises that businesses should not lose sight of the fundamental importance of being able to effectively manage and use data to deliver a range of specific outcomes. "Technology is just an enabler – it's actually about the data," she says. "It's about the data that the business ➤

CASE STUDY
SYDNEY WATER CUSTOMER HUB: FOCUSING ON THE CUSTOMER EXPERIENCE

Sydney Water's Customer Hub has been in operation since 2017, delivering the utility a real-time overview of its operations and the customer experience, and allowing it to proactively engage with and support customers.

Customer Hub Manager, Darren Cash says customers increasingly expect utilities to be aware of any potential issues before they need to be reported, and to subsequently keep them in the loop via regular status updates.

"Our customers expect that we will keep them informed through various technology means," he comments. "Gone are the days of a water interruption happening and customers having to call up to get information."

Cash says the Customer Hub incorporates a Spatial Hub, which displays data from different systems geospatially, and a SCADA (Supervisory Control and Data Acquisition) system, with Sydney Water also exploring the use of Internet of Things (IoT) sensors to deliver additional network insights.

Highlighting the importance of wedding digital technologies with cultural change, he explains that Sydney Water had expressly set about creating a system that incorporates real-time customer feedback and provides scope for it to be acted on.

"It really does help to shift the culture," Cash states. "Keeping the customer informed and making a personal connection are the two easiest things that can be done to increase the focus on the customer experience."

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Corinne Cheeseman, Australian Water Association

needs to make quick decisions, and to also personalise or customise interactions and experiences by knowing what customer needs are. It helps with capture and access to data, however it's about the people being able to analyse that data or have the data in their hands to make decisions quickly and efficiently."

INNOVATING THE FUTURE BY CHANGING THE CULTURE

Cheeseman notes that as digital technologies continue to evolve and become more widely available, more opportunities will, in turn, open up for businesses to connect with customers.

She also emphasises the importance of cultural change and encouraging innovation. "Businesses need to get the data in order, and they've got to understand more about their customers. However the biggest challenge is promoting employee mindset and capability change," she says.

"Being agile and an innovation

culture is also really critical. Staff need to feel they can play and learn, and test and fail, because that's how innovation happens."

A new wave of workers now entering the industry also has the potential to usher in a new era of digitalisation, with Cohen observing that this next generation is, as a rule, more accustomed to dealing with digital technologies and diverse data sources.

In addition to this, he points to the potential for the Australian water sector to look overseas and learn from the experiences of utilities in international markets.

"We're a couple of years behind in Australia, however we can look to the rest of the world and cherry-pick the good stuff," he says.

"Water utilities need to be in control of their destiny, as there's a whole world of the free movement of data, including the insights you can get into a business and the improvements you can achieve with customers." ◖

YARRA VALLEY WATER: EMPOWERING CUSTOMERS

Yarra Valley Water's (YVW) ongoing digital water meter trial in Melbourne's Vermont South area is providing the utility with data insights it can use to both facilitate greater customer engagement and assist with network management.

Digital Metering Divisional Manager, Raghu Bharadwaj (below), says the trial, under which approximately 2000 meters have been deployed, is primarily structured around delivering improved customer experiences.

"Our focus has always been dominated from a customer perspective," he explains. "What information, products and services customers want, and how and when they want to receive them."

Bharadwaj points to the importance of securing customer feedback, as YVW seeks to refine its suite of digital offerings and provide an increasingly customer-focused service.

The metering technology allows YVW to deliver customers a more detailed insight into their household consumption patterns, which can be accessed online in near real-time.

"We've also developed a mobile app, presenting all this data to customers, along with leak notifications, and they also get tips based on their consumption patterns, the size of their family and the season," Bharadwaj says.