South East Water Iota - Introduction

lota, a genuine partner to the water industry, was incepted during the Millennium drought to support the translation of innovation from South East Water for the benefit of the broader industry. Iota continues to play a unique role in helping water authorities adopt proven innovations.

lota's role is to incubate, commercialise and attract global partners for the purpose of scaling innovations that accelerate technology adoption and deliver positive impact in the water value chain. Our portfolio of solutions helps utilities achieve water security for customers and communities by reducing leakage, supporting customers to make smarter usage choices, optimising operations, enabling proactive asset management, and avoiding environment spills.

As a South East Water unit, lota understands the challenges of trialing and adopting innovative technologies without compromising the essential service provider role. Innovation in the water industry often dictates the adoption of technology developed for other sectors. In response, lota earmarked an opportunity for water authorities to play an innovation leadership role and develop technologies fit for water. Iota is not a technology vendor, rather we focus on partnering and transferring technology based on open standards.

☐ Business model

lota actively incubates and commercialises a portfolio of proven technologies for the global water sector. Most are sourced from South East Water's research and development as it undertakes a digital utility transformation. Iota is also commercialising intellectual property from sources such as universities and is open to innovations with potential for material global impact.

☐ Iota partnership approach

Being a genuine partner, lota shares technology and learnings from network deployments to promote technology adoption and minimise risk.

☐ Iota leadership

Daniel Sullivan, Iota CEO, brings over 20 years of experience across technology commercialisation, consulting, and diplomatic trade. Daniel has been translating South East Water's expertise and technologies, driving the digital transformation. Director positions include Australian peak industry body and Australian Water Association.

Lara Olsen, South East Water Managing Director was appointed director of Iota on 24 February 2020. Lara has in-depth utility experience focused on customer experience and innovation. Lara was the Tesla Energy Global Head of Business Development and Industrial Products. She led Business Development and Industrial Products teams for Tesla Australia.

lota Partners

We work with an eco-system of partners to commercialise solutions at scale:

- Fujitsu: For ongoing development, deployment, service support of our Lentic IoT platform
- Landis+Gyr: To integrate Sotto network leak detection sensors into digital meters
- Avnet: To commercialise and scale Huizhong digital meters in Australia and New Zealand
- Optus: To deploy 68,000 smart meters and IoT platform at Toowoomba Regional Council
- Ecoflow: For deploying OneBox Smart Pressure sewer systems in New Zealand

Select lota customers

Digital meters and sensors			Sewer Pressure		Enterprise and commercial IoT platforms		
Cura™ Digital Meter	Sotto [®] Sensor	FlowLotic™ Data Logger	OneBox [®] System		Footprint® Platform		Lentic [®] Platform
TOOWOOMBA	Watercare 🎇	TOOWOOMBA REGION	Yarra Valley Water	South Gippsland Water	Westfield	Rega	TOOWOOMBA
South East Water	Christchurch City Council	South East Water	UISCE	South East Water	Mondelēz,	ALISTRALIAN	South East Water
Unitywater	Barwon Water	WATER	altogether.	Wellington Water	W	Coca Cola	
Water	Wellington Water				MORNINGTON PENINSULA Shire	Com	
WATER	South East Water		Western Bay of Plenty District Council	Christchurch City Council	GREATER DANDENONG City of Opportunity		
Barwon Water							

Technology

lota's portfolio is fit-for-purpose to support water utilities' digital transition. All products are trialed and scaled by South East Water and deployed within water utilities worldwide.

- Sotto Sensor Miniaturized leak detection sensor embedded in digital meters using LwM2M connectivity over NBIoT. Continuously monitors networks, enabling water authorities to detect and locate network leaks proactively and efficiently, to reduce nonrevenue water losses and optimise operations.
- Flow Lotic™ Data logger A ruggedised bolt-on device, connects to commercial analogue meters. Operates on LwM2M over NBIoT enabling remote configuration and updates. Offers visibility into consumption at main/sub-meter levels. Comes with device-driven alarms. Captures usage data and device health for data-rich reports and proactive cost management.
- Lentic® Enterprise Platform Simplifies IoT asset management, connects devices and reduces monitoring expenses. Delivers quality data for operations at scale and improved customer experience.
- Footprint Platform Plug-and-play solution for water authorities' commercial customers. Manages water usage anomalies with real time monitoring of water, gas, trade waste and more. Sub-metering enables commercial customers to identify leaks more effectively and directly bill tenants or units.
- Onebox Smart Low Pressure Sewer System For remote monitoring, visibility, and real time control. Helps to minimise inflow and infiltration, reduce pressure on network assets, minimise spill risk and improve customer experience.
- Pyroco Reactor Breakthrough pyrolysis technology and innovative reactor system, first of its kind, converts biosolid to high quality biochar and eliminates PFAS.

Cura™ digital meter product and technology highlights



The Cura digital meter identifies leaks, measures flow and temperature, and monitors pressure through a separate integrated sensor. The meters are fully integrated ultrasonic NB-IoT with industry-first objects for open standards, enabling LWM2M communication. Cura meters provide customizable data points with built-in auto-alarms. The alarms deliver early-stage leak detection to prevent bursts and address areas requiring predictive maintenance. Meters are configured and managed remotely. Each

devices can connect to lota's Lentic IoT platform, or other system of choice for managing devices and data in real time. **Use cases** encompass leak detection, daily usage visibility at customizable intervals, accurate billing, and pressure monitoring for managing network health. End-to-end processes use digital meter data and APIs with enterprise systems.

Deployment advantages

- At Sydney Water the transition from trial to scale of 25,000 meters can be achieved in confidence as our meters endured stringent testing inside South East Water's network, with the backing of our support team
- Following field trials and early-stage roll outs, the technology has matured and is cost-effective to support your digital metering strategy
- With Iota's partnership approach, track record in trials and scale, water industry expertise, as well as shared learnings, Sydney Water will be on track to minimise risk
- Being fully validated, the solution supports Sydney Water's ability to manage the devices' full lifecycle and minimise risk
- Sydney Water can be confident of the investment's lifetime value, as the technology complies with open system architecture and protocols without customisation
- Iota is the supplier of the Huizhong (HZ) meters
- lota devices are designed to be IoT enabled and energy efficient

Select digital meter customers

Many water authorities are still in early-stage phases of digital meter deployment. Iota has successfully piloted and scaled meter network integration. See here select cases.

TOOWOOMBA REGION	South East Water	WATER
Toowoomba Regional Council	South East Water	Water Corporation
A consortium led by Optus Networks partnering with lota was awarded the Advanced Metering Infrastructure (AMI) Smart Water Meter contract for 68,000 meters in Toowoomba Regional Council (TRC). "This is an exciting water-saving project as the meter replacement program will allow for advanced analytics and help balance the entire water network." TRC	One of the largest digital meter rollouts in Australia. By collecting data from the digital meters in near real-time, South-East Water is providing network-wide visualization and delivering actionable insights across the organisation.	The rollout is in pre-trial phase with 1000 HZ meters ordered. Cura meters were selected for next-phase trials scaling to another 1000+ meters.