

Challenges impacting the rising number of smart cities



Water stressed environments



Lack of integrated water cycle management



Climate Change

Network requirements for sustainable and resilient smart cities

Monitor and manage all networks



Prolong asset life of new build



Maximise water capture & re-use

Maximise environmental performance



Pro-actively maintain and intervene as needed

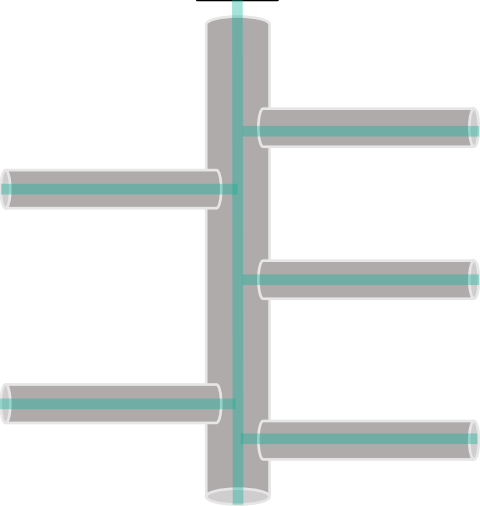


Minimise water usage

No disruption to services

Drive sustainable living

nuron monitors pipes enabling the precise pinpointing of issues and capacity upgrade requirements



Gravity Sewers

- Measure flow, depth and temperature every 5m
- 100km+ from one monitoring base station
- Detect blockages, fatbergs, damage, infiltration and mis-connections before they cause flooding or spills

Vacuum Sewers

- Detect and localise vacuum leaks & blockages
- Minimise loss, optimise operation

Clean Water Pipes and Pressurised Sewers

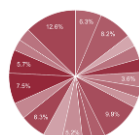
- Detect and localise leaks to within 5m
- Targeted rapid intervention to minimise loss & damage

There is no other solution that can deliver the measurement capabilities of nuron system.

nuron water & wastewater monitoring: superior sustainability and performance in a water-scarce environment

Step 1:

Install
Robotically

Step 2:

Measure
In Real time

Step 3:

Analyse
Continuously

Step 4:

Resolve and Prevent
pro-actively

Step 5:

Improve
Performance & economics

Gain Visibility	Data led decisions	Resolve	Lead the world
Continuous monitoring	Detect & monitor flow restrictions	Whole water cycle view	Use of active control
Correlated to baseline	Capacity constraints	Water conservation levers	Secure network
Lateral inflows	User behaviour	Treat precursors to H2S	Environmental performance
Integrated with external data	Security alerts	Rapid response to security breaches	Sustainable & resilient water network.
			Proactive operation

Sustainability & operational benefits for smart cities by real time monitoring of water and wastewater transport networks

Full visibility for active control and pro-active management
Safely operate network closer to capacity, delaying or avoiding capex build costs

Improved operational efficiency
Proactive and predictive operation is **40%** more efficient than reactive.

Targeted sewer flushing
Intervene to remove sand based on build-up rather than schedule

Clean water leak detection
Integrated monitoring of water mains with same underlying platform



Protect the environment
Actionable information to intervene early & efficiently

All fluid accounted for, optimised storage, treatment and re-use
Tracking of fluid within the water networks. Real-time alerts of issues which may cause loss.

Enhance quality of life
Minimise customer impacts such as bad odours and loss of service

Prevent corrosion of assets Monitoring identifies precursors to H2S, allowing treatment at source, reducing ongoing opex and capex.