Quensus

Protect Your Property With Intelligent Water Management & Leak Prevention

HEATHROW PLAYBOOK

Partnered with WhiffAway

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MADE IN BRITAIN®

BREEAM

Welcome to Quensus

Quensus offers an advanced and comprehensive intelligent water management solution at an enterprise level that leverages technology to address critical challenges within the industry.

Through state-of-the-art cloud computing technology, Quensus provides real-time water monitoring, budget reports, leak alerts, and automated shut-off capabilities for all building areas. Ensuring leak-free environments and achieving significant cost reductions through advanced deep learning capabilities.

Intelligent Water Management for Complex Estates

Quensus helps large buildings and estates reduce water waste, detect leaks, improve visibility and support better operational decisions through real-time monitoring and data-led insight.

From airports and campuses to shopping centres and commercial offices, Quensus brings clarity to water use across complex, high-footfall environments without turning every conversation into a product catalogue.

- Exceed Customer Expectations
- Never Complacent
- Empower Customers
- Trustworthy

> *During my engineering PhD all those years ago, I envisioned more than a mere warning beep in an unattended property or plant room. I aimed to craft a comprehensive flood prevention system to protect our valuable assets and investments — autonomous, disaster-averting, and independent.*

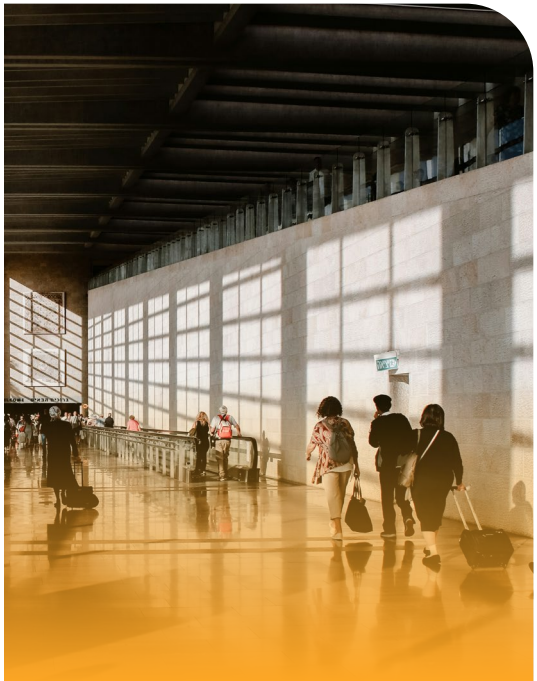
Dr Daniel Simmons, Quensus


Quensus
TAILORED SOLUTIONS
TO PREVENT WATER RISK

The Hidden Cost of Unmeasured Water Use

For estates, facilities teams, airports, campuses and high-footfall environments, water waste is often invisible until the bill arrives or a fault becomes a crisis.

- Water waste is often invisible across large estates.
- Small inefficiencies multiply when spread across hundreds of fixtures.
- Leaks and faulty fixtures can go unnoticed for weeks.
- Cleaning and maintenance decisions are often based on schedules, not live usage.
- Sustainability reporting requires measurable evidence, not estimates.



CASE STUDY

Heathrow Airport, London

26% Less Water, Airport-Wide

Smart monitoring across a major UK airport reducing waste, improving visibility and supporting more efficient operations.

LOCATION
Heathrow Airport, London

SCOPE
400+ points of use - washrooms, toilets, taps and urinals

26%
Reduction in water consumption in six months.

1.7t
CO_2 saved every month

<1yr
Payback on investment

NEW
Data to drive dynamic, usage-based operations

Invisible Waste and Inefficient Operations

For any large facility, operational costs are driven by factors that are often hard to see and measure until monitoring makes them visible.

Undetected Leaks

£60 / Month

A single faulty toilet fill valve went completely unnoticed until the system flagged it.

Inefficient Fixtures

£900 / Month

Small inefficiencies across hundreds of assets multiplied into staggering waste.

High Emissions

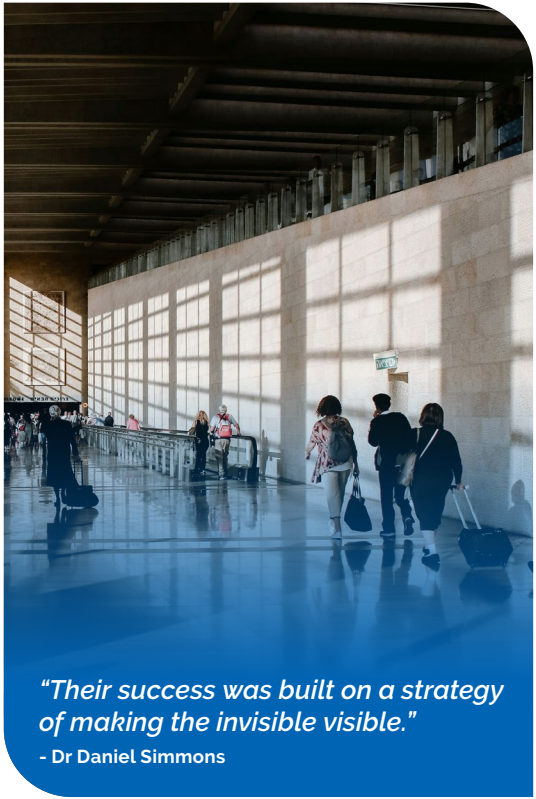
£60 / Month

Every drop of heated water carries an energy cost and a carbon footprint that goes unreported.

Inefficient Cleaning

£60 / Month

Fixed rotas waste resources on quiet areas while high-traffic facilities go unattended too long.



"Their success was built on a strategy of making the invisible visible."

- Dr Daniel Simmons


Quensus
WATER MANAGEMENT
WITH A PURPOSE

The 4-Step Strategy for Intelligent Facility Management

The airport deployed smart water management across 400+ points of use following a clear path from monitoring to measurable action.

Step 1
Monitor
Install granular real-time monitoring across key water assets.

Step 2
Analyse
Use live data and intelligent detection to identify abnormal consumption.

Step 3
Optimise
Use usage data to improve cleaning, maintenance and resource planning.

Step 4
Act & Save
Fix inefficiencies, reduce waste and build a case for wider estate improvements.

STEP 1 - MONITOR

Implement Granular, Real-Time Monitoring

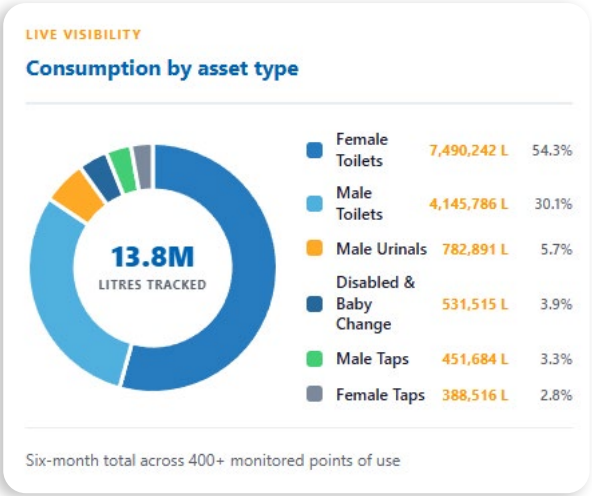
Sub-meters were installed at hundreds of individual points of use across toilets, taps and urinals creating a real-time data stream for every fixture and immediately identifying the highest-consuming assets.

400+ monitored points of use

Sub-meter every asset
Toilets, taps and urinals measured at point of use.

Stream live data
Consumption recorded every second, not just on the bill.

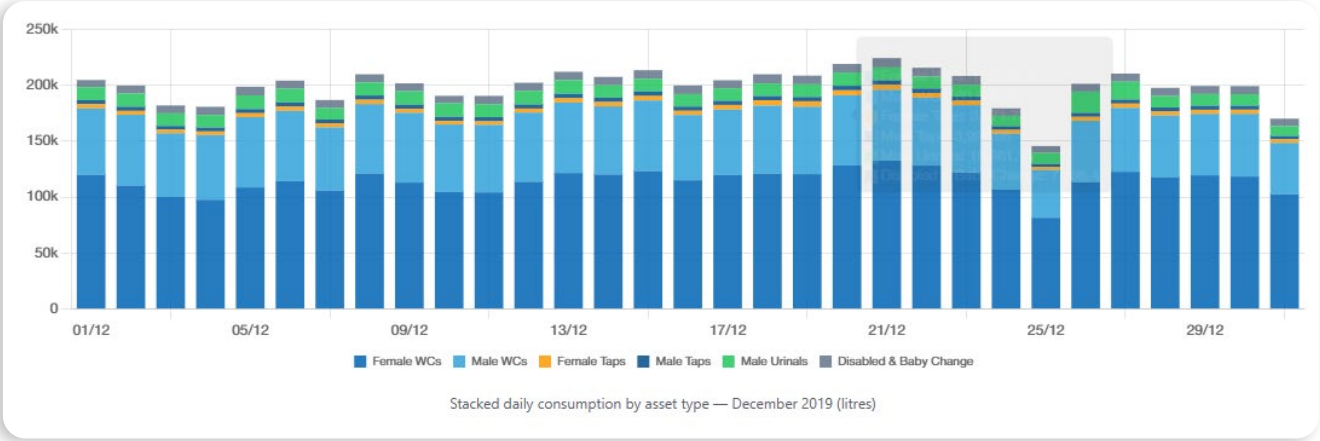
Rank by asset type
See which fixtures drive the most water use across the estate.



STEP 2 - ANALYSE

Leverage Machine Learning for Anomaly Detection

Machine learning establishes a baseline for normal water use. When consumption deviates, the system flags a leak and sends an alert. While this chart shows aggregated daily totals, the underlying data is recorded every second.



> **"What used to be invisible can now be measured, flagged and acted on."**

STEP 3 - OPTIMISE

Transform Data into Dynamic Operations

Every toilet flush is metered, so the system knows precisely how many people have used each washroom in real time. A flush count acts as a direct proxy for footfall, cleaning teams are dispatched based on need, not a generic rota.

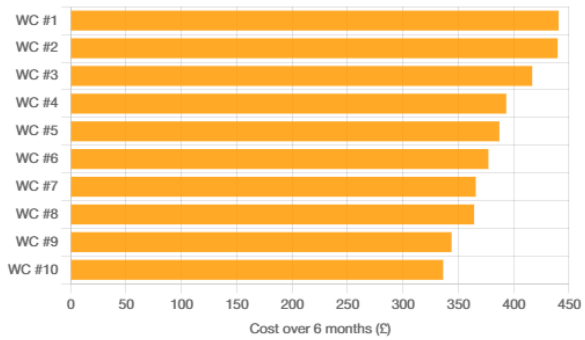
LOCATION	TOTAL FLUSHES (USAGE)	STATUS
Area 4, Female	254	Needs Cleaning
Area 1, Female	215	Needs Cleaning
Area 2, Male	189	Needs Cleaning
Area 3, Female	177	Needs Cleaning
Area 4, Male	150	OK
Area 2, Female	121	OK
Area 3, Male	98	OK

Cleaning shifts from a scheduled chore into a dynamic, highly efficient operation.

STEP 4 - ACT AND SAVE

Use Data to Drive Savings and Optimisation

Real-time monitoring and alerts empower facilities managers to act decisively from automated shut-off on leak detection to pinpointing the exact fixtures wasting water.



Top 10 consumers by cost over 6 months (£)

- Automated valve shut-off when a leak is detected
- Targeted maintenance on exact leaking fixtures
- 26% reduction in water consumption in six months
- 1.7 tonnes of CO_2 saved every month

Measuring water per flush identified savings o**f 2.65–3.6 litres per flush** - a clear business case for targeted upgrades.

How to Replicate the Heathrow Approach

Any facilities or estate manager can adopt this model to generate similar returns whether you manage an airport, campus, shopping centre or commercial portfolio.

Move from reactive maintenance to proactive, data-driven facility management.

STEP ONE

Map the estate

Identify high-traffic areas, priority washrooms and critical assets. Start with public washrooms to maximise water savings and cleaning efficiency.

STEP TWO

Establish a baseline

Understand normal water usage before making decisions. Let the system learn your unique consumption patterns for accurate, customised alerts.

STEP THREE

Monitor at asset level

Collect granular, point-of-use data rather than relying only on whole-building consumption figure

STEP FOUR

Connect data to operations

Use insight to guide cleaning rotas, maintenance priorities and investment decisions including usage-based cleaning schedules.

STEP FIVE

Review, optimise and scale

Use results to build the case for wider rollout, lower costs, happier visitors, and verifiable proof of emissions reductions.

Built for Large, Complex and High-Use Estates

The same principles that delivered results at Heathrow apply wherever water use is high, visibility is low and operational decisions need better evidence.

- Airports
- Shopping Centres
- Universities and campuses
- Hotels
- Hospitals
- Stadiums
- Commercial Offices
- Transport Hubs
- Residential Developments

Reduce Your Water Bill

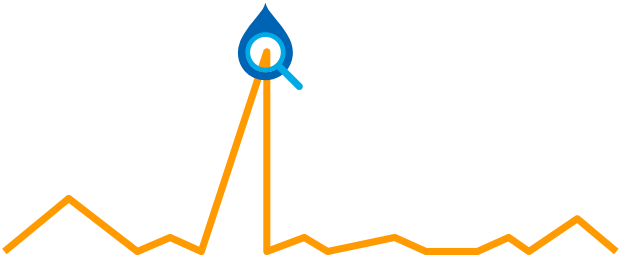
Stop leaks and lower your water bill by up to 60%!

6x Lower Chance of Claim

Water management devices decrease the chance of claims from 6 claims to 1 claim in every 10 construction sites.

Cut Insurance Premiums

Keep your building insurable and achieve huge reductions in Insurance Premiums and Deductibles by up to 50%.



Prevent floods before they happen...

At the heart of our solution lies a sophisticated AI algorithm that continuously monitors water consumption data from sensors installed throughout the plumbing system. By analysing consumption patterns and identifying deviations from normal usage, the AI engine can pinpoint potential leaks with remarkable accuracy.

BREEAM Compliant

By integrating our BREEAM compliant water leak detection systems into your building's infrastructure, you can earn up to 3 BREEAM credits for water efficiency measures. Additionally, utilising our FlowReporter software and Water Management as a Service approach can further enhance your sustainability credentials, earning an additional 6 BREEAM credits.

Could Your Estate Achieve Similar Results?

Whether you have questions about our cutting-edge water management solutions or looking to explore collaboration opportunities, or are seeking assistance with our products, the Quensus team is here to assist.

We look forward to your enquiry.

Enquire Today **Explore The Playbook**

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