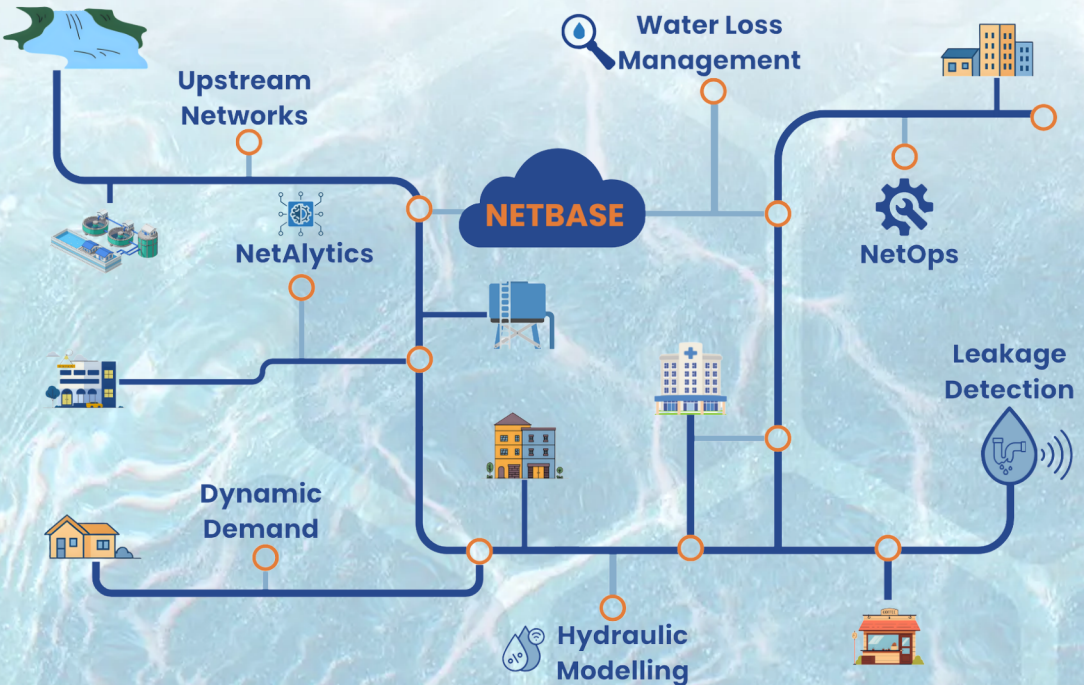


Crowder Consulting

Managing Water
to make the world a better place

Smart Water Network Solutions

crowderconsult.com



About Us

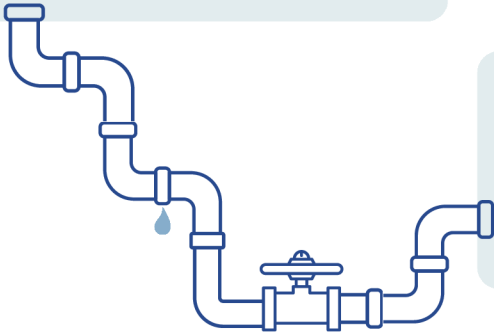


We provide **innovative solutions** to support the management of water networks, helping major water operators **worldwide**, reduce losses and advance toward **Smart Networks**.

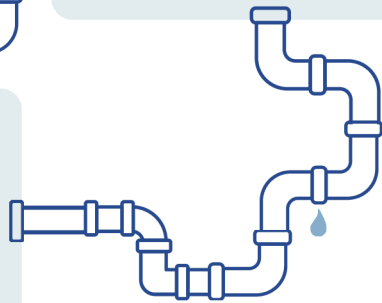
Our collective knowledge and experience of all aspects of **water network management** has enabled us to become a leader in this field.



Our suite of **digital services** provide utilities with the tools and analyses to **reduce water losses** and manage networks more efficiently.



We aim to lead change through continuous innovation, creating **practical services** and **solutions** built on cutting-edge technology and industry best practices.



Our **core values** and **principles**, guide our employees' attitudes, behaviours, and decisions, and are **at the heart of what we do**.

We work all over the world, implementing **Netbase**, our flagship product, as well as providing **Engineering Consultancy**.



Our Services



Netbase & Digital Solutions

Industry-leading solutions to help Water Operators efficiently monitor, manage, and report on their networks.



Consultancy Services

Innovative consultancy for managing, monitoring, and improving water networks from source to tap.



Data Services

Partnering with Water Operators to enhance data management and improve water network intelligence.



Field & Leakage Services

Managing critical field tests with precision, providing multi-skilled teams and cutting-edge technology.

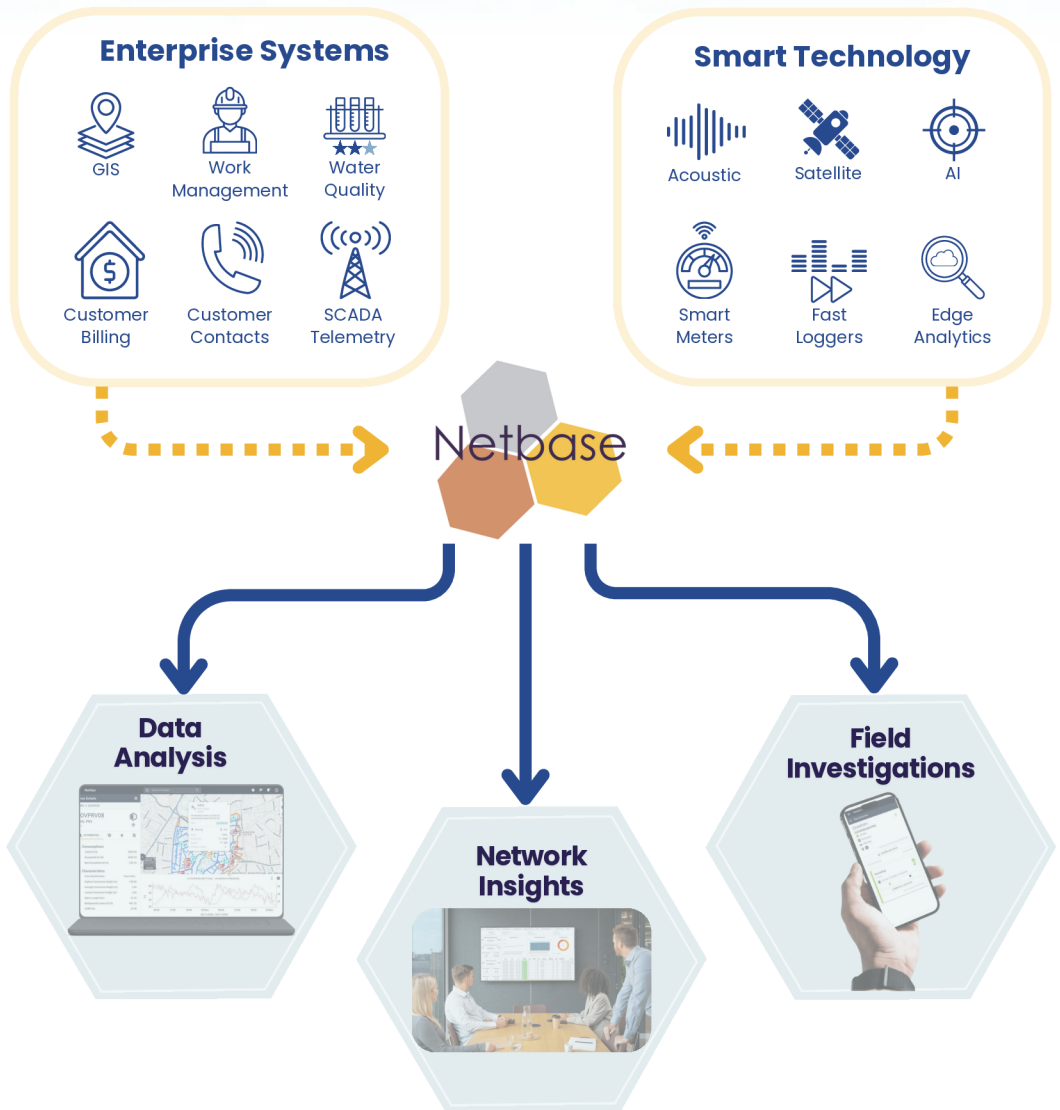


Training Services

We can provide a wide range of training from Production Planning, Water Industry, Leakage Detection, Netbase and much more.

Netbase Platform

The Netbase Digital Platform integrates **water operator enterprise systems** and **smart technology** into a single data hub, offering a complete toolkit to support **water network management** and **leakage reduction**. Designed to meet global industry challenges, it provides managers, analysts, and field operatives with **on-demand insights** for smarter, more efficient operations.



Our Digital Solutions



Netbase

Netbase turns your data into insights

Comprehensive platform: Digital twin that delivers real-time insights into your water network.

Advanced web applications: Delivers powerful tools and analytics for streamlined water network management.

Rich data integration: Data pipelines that combine core systems and smart technology into a single version of the truth.



NetAlytics

NetAlytics transforms your insights into actions

Dynamic demand: Analyse and evaluate consumption data to improve confidence in water balance and hydraulic modeling.

Mass balance: Perform sophisticated intraday analysis of smart meter data to predict water usage.

Total leakage: Comprehensive analysis of water losses to prioritise, monitor and manage leakage detection initiatives.

Upstream analysis: Assess trunk mains network using flow balances for anomaly resolution and water loss reduction.



NetOps

NetOps converts your actions into outcomes

Explore your network: Collate all utility assets and data into one platform. Visualise your water network insights with powerful dashboards, mapping and search capabilities.

Plan your interventions: Plan, monitor and optimise your operations. Publish to mobile devices and capture feedback from operators and technicians performing activities.

“World-leading digital solution for water loss reduction and smart network management”

Find out more here



Water Balance

A robust water balance provides the foundation for both strategic and tactical decision-making for Non-Revenue Water Losses. At the **strategic level**, it guides investment planning, performance benchmarking, and regulatory compliance. At the **tactical level**, it pinpoints operational inefficiencies and directs field action to reduce losses and improve resilience.

1 Automate

Apply standardised Water Balance methodologies to assess your network performance. The **Top-Down** approach evaluates daily system inputs, customer consumption, and overall water losses across each zone or supply area. In parallel, the **Bottom-Up** approach focuses on monitoring daily and nightly flows, pressures, consumption patterns, and losses, enabling more granular analysis and targeted operational improvements.

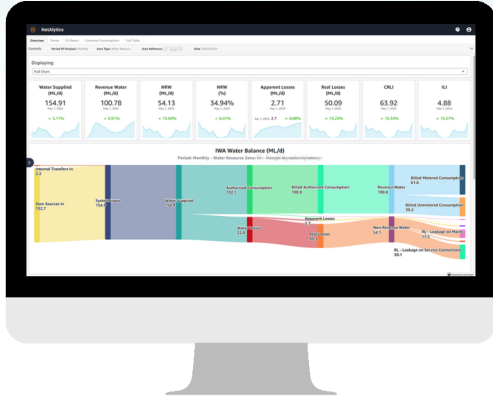
Consistent, accurate, and reliable water balance reporting is essential to achieving your strategic goals for **water loss reduction** and sustained performance improvement. Our standardised, best-practice water balance solutions fully comply with regulatory and water audit requirements. Regular **tactical reporting** provides detailed, area-level insights and enables easy comparison between current and previous reporting periods

2 Report

3 Monitor

Our **advanced solutions** enable you to monitor losses across your network and ensure performance targets are met. A key focus is prioritising interventions in underperforming areas through activities such as active leakage control. Our **data-driven** approach delivers a more accurate and reliable water balance, which supports both strategic and tactical investments, including network sectorisation, pressure management and pipe renewal.

Every step forward in your water loss journey requires continuous improvement of the water balance.



Netalytics Water Balance provides a clear, interactive breakdown of the IWA, UK and AWWA Water Balance, visualising how your water supply is distributed between consumption and water losses. By embedding recognised industry methodologies, Netalytics ensures consistent, transparent reporting that helps utilities optimise water resource management.

Netalytics Dashboards deliver full visibility of your performance against target levels. Each component of the water balance can be explored in detail, providing area-level insights and comparisons between current and previous reporting periods. This enables rapid identification of data anomalies, operational inefficiencies, and opportunities for targeted intervention.



“We would not have achieved our leakage target without support from Crowder...”

Yorkshire Water



Water Loss Management

Our digital solution provides a **Smart Investigation Toolkit** built specifically for water loss management. By integrating **full network visualisation**, **actionable analytics**, and **guided operational workflows**. It empowers your workforce to analyse, implement and deliver tangible leakage savings with greater speed, accuracy and confidence.

1 Analyse

NetAlytics Total Leakage is an advanced decision support solution that transforms your complex leakage data into actionable insights, enabling you to conduct smarter investigations. Prioritise leakage interventions, optimise resource deployment, and track performance improvements to achieve your water loss reduction targets with confidence.

NetOps Explore leverages your data into an integrated digital twin of your water network, combining asset and monitoring data to provide powerful visualisation and interrogation tools.

NetOps Downstream is your digital assistant to plan, publish and execute leakage activities. Offering a full end-to-end workflow management system to assign tasks, track resources and monitor performance.

2 Implement

3 Deliver

NetOps Mobile enables your field teams to easily capture their on-site activities, including leaks detected. Each leak can be automatically raised in the work management system and tracked through to repair.

NetOps Dashboards provide real-time performance insights, showing water loss reduction achieved in line with your targets across all operational areas.

Faster detection, investigation, and resolution of water loss across the entire distribution system.



Upstream Networks

Make your network smarter with advanced drawing tools that transform your GIS data into integrated **water network schematics**. Gain deeper insight into your upstream systems with advanced analytics. These insights help you assess network integrity, identify upstream water losses, and prioritise targeted interventions.

1
Define

The **Upstream Network** is established by tracing your GIS pipe data to define hydraulically discrete sub-networks, isolated by flow meters and boundary valves. These sub-networks form the backbone of our Water Network Schematics, generated in our **NetConn** application. Our network schematics provide a clear and simplified view of how your network is supplied from source to tap.

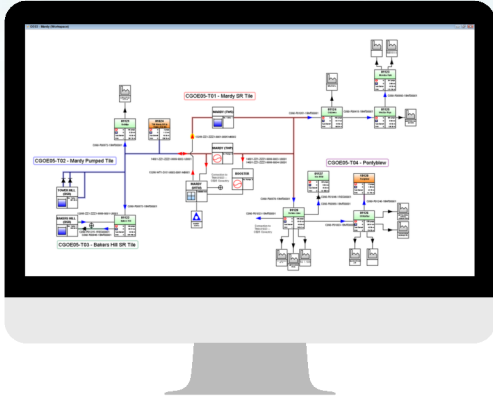
The **integrated network schematics** combine rich data-sets, linked to GIS and measured flows from each meter via **Netbase**. This integration enables seamless **upstream flow balances** using all available network data. Each flow balance is assigned confidence scores, helping you identify water losses, improve data confidence and mitigate issues.

2
Investigate

3
Action

Our advanced **upstream analysis tools** enhance the accuracy of detecting water losses and anomalies by applying systematic flow balances and confidence scoring. Through validating boundaries and assessing flow-meter reliability, trunk main correlations and temporary flow metering can be applied to accurately **localise and pinpoint leaks**.

Enhanced visibility and faster intervention for water loss in upstream networks.



NetConn enables the creation and maintenance of dynamic schematics representing the strategic upstream water supply network. They provide visibility and understanding of the upstream network connectivity to aid water network management activities and conduct meter balance analysis to assess and isolate potential upstream losses.

NetAlytics Upstream is a tactical dashboard for supply, demand and leakage insights across your upstream network for analysis, reporting and targeting. The powerful visuals support a range of business functions from regulatory reporting to leak detection investigations.



HIGH SCORE

High reliability for Trunk Mains Leakage Reporting

↓

Leakage Targeting

↓

Leakage Investigations

SCORECARD

Boundary Validity
Survey Suitability
Meter Availability
Meter Reliability
Balance Discrepancy

LOW SCORE

Low reliability for Trunk Mains Leakage Reporting

↓

Anomalies & Actions Targeting

↓

Anomalies Resolution



Dynamic Demand

Water consumption constantly shifts with **daily demand**, **weather**, and **seasonal events**. Dynamic Demand provides a clear, data-driven view of these variations at every delivery point, tailored to local and environmental conditions. Better understanding of demand will improve efficiency, and help achieve your performance targets while building long-term resilience in the face of population growth, climate change, and carbon reduction goals.

1 Interrogate

NetAlytics Dynamic Demand fuses data from your water network to deliver powerful real-time insights into consumption and demand. By integrating smart meter, household and non-household data with context using predictive modelling, it enables accurate dynamic forecasting of consumption across the entire network, even for delivery points that are not currently monitored.

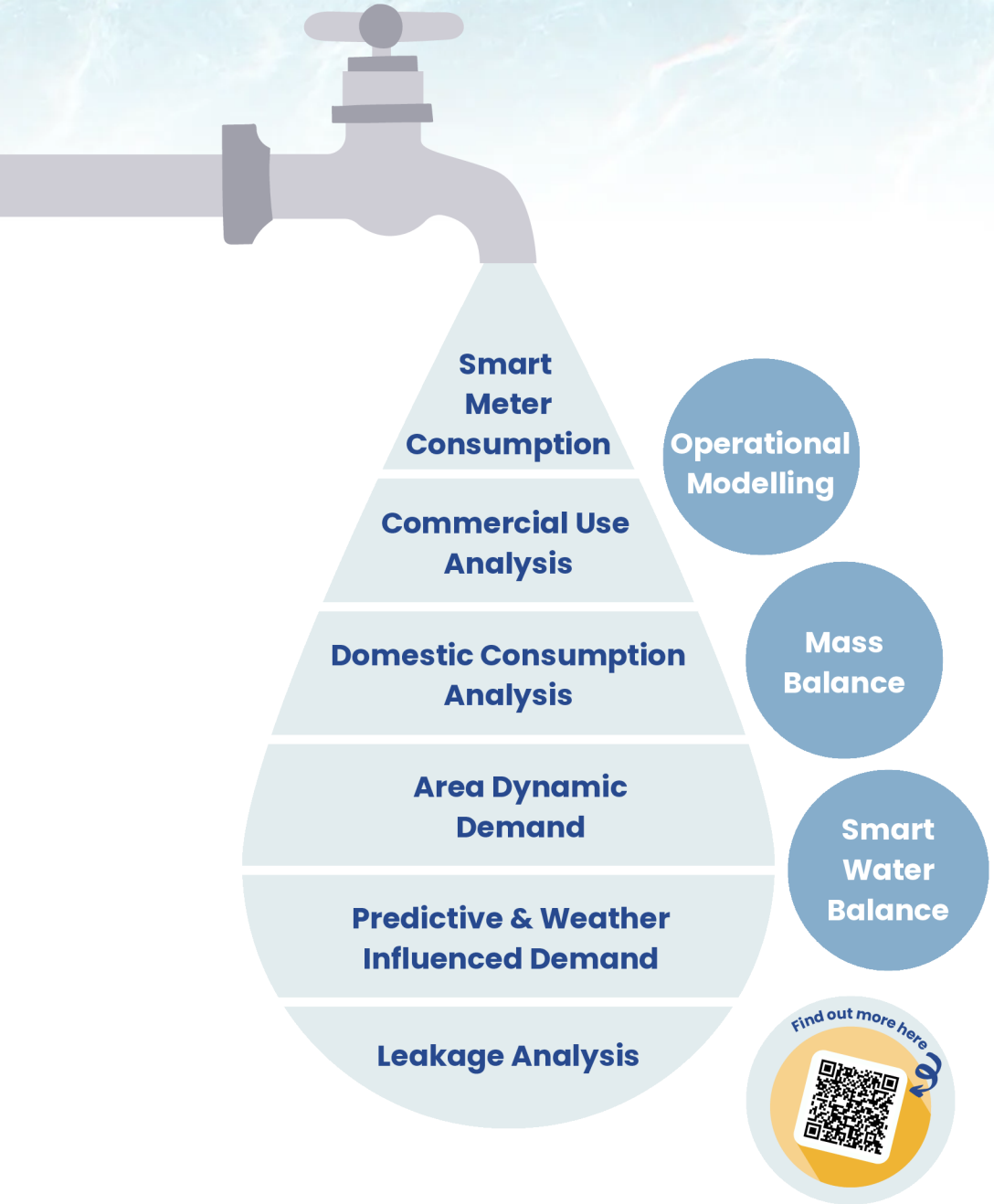
NetAlytics Dynamic Demand underpins effective network management by aggregating household and non-household data, it delivers a complete view of measured and unmeasured usage, enabling area mass balance and demand modelling at every level using your operational data. It supports leakage analysis, hydraulic modelling, production planning, and long-term network resilience.

2 Extrapolate

3 Incorporate

NetAlytics Dynamic Demand Modules show you exactly where your water is going using reliable data from smart meters, logged consumption, and area analyses. Combined with environmental context, AI-driven forecasts reveal the dynamics of demand underpinning mass balances, operational modelling, supply-demand planning, and network optimisation across **NetAlytics**, **Netbase** and **NetOps**.

Dynamic Demand: Your consumption data, varying each day across every area.



Hydraulic Modelling

Our digital solutions provide a whole life cycle approach to **build, validate** and **maintain your hydraulic models**. Our comprehensive hydraulic model management processes ensure your network models accurately reflect your current network configuration to provide confidence in your **analysis and operational decisions**.



1
Data

Netbase brings together all the key information needed for effective hydraulic modelling including GIS, time-series flow and pressure, consumption and asset data. Our **NTRACC platform** collates and validates your data, ensuring it's complete and ready for analysis. Then, using **Hydraulic Modelling (HM) Manager**, we enhance and transform your data into powerful, actionable models to drive smarter decisions and improve performance.

HM Manager is more than just a model-building tool, it's a complete lifecycle solution for managing and maintaining your hydraulic models. You can build, update and refine your models with ease, ensuring they stay accurate over time. Models from other sources can also be imported into your Netbase ecosystem, allowing you to take full advantage of our advanced maintenance and management tools.



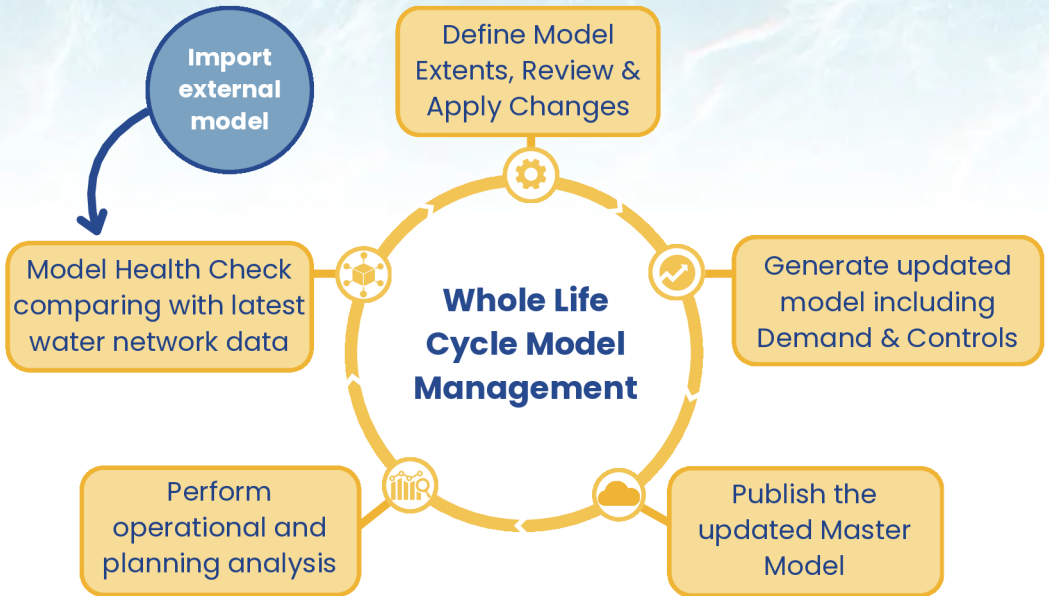
2
Management



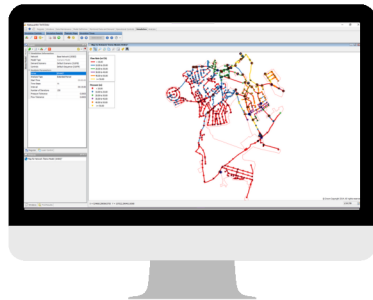
3
Analysis

You can export your models from Netbase to a range of **industry-standard simulation packages** for calibration and analysis. Alternatively, run your models directly in HM Manager to carry out operational analyses; from mains design for new housing developments to DMA optimisation, pressure management, water storage and pumping, and supply interruption planning.

Optimise your planning, maintain your models with confidence.



Sophisticated tools to build and maintain your model demand profiles



Seamless integration with standard hydraulic model simulation packages



**Our NETBASE Water Management System
is working 24 hours a day, 365 days a year for
water operators all over the world.**



68 million
Population
served



320,000km
Pipework
Managed



18 billion l/d
Water
Managed



18,000
DMAs
Managed

Contact us



+44 (0)151 647 7772



enquiries@crowderconsult.co.uk



crowderconsult.com

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