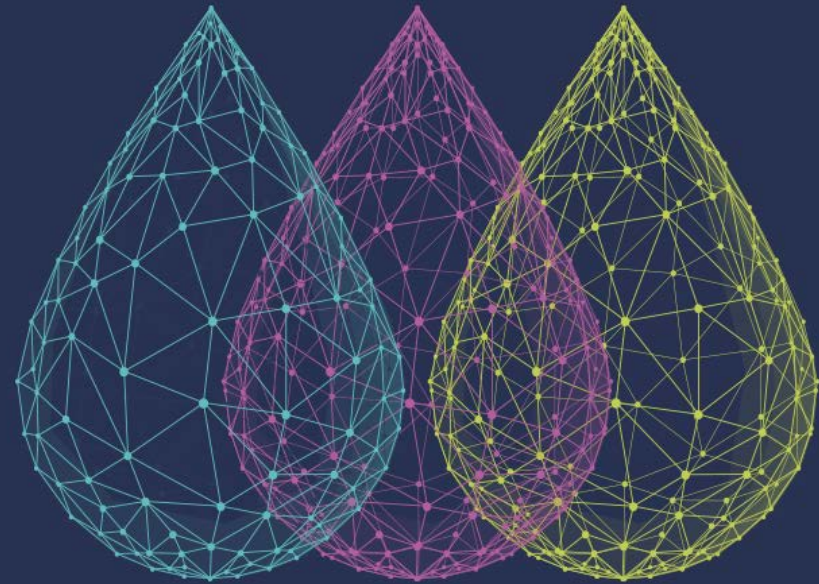




BEYOND SMART


Meet Waterfall from Creative EC, the next stage in the evolution of water metering.

This innovative solution empowers water companies and consumers to truly understand water usage, embed behavioural change, and ultimately improve the resilience of our water supply.





“Waterfall is a quantum leap forward helping consumers save water as water companies look to meet and beat PR19 reduction targets and manage supply stress areas. This has been clearly evidenced in trials, where Waterfall has been shown to significantly lower per capita consumption across UK households.”

 **Steve McCorry**, Chief Technology Officer, Creative EC



Why does Waterfall exist?

With supplies stretched by soaring summer temperatures, growing populations and increased industrial consumption, governments worldwide are calling for tougher penalties on water companies that miss leak reduction targets. For those that get it right the prize includes financial rewards and the commercial value of green credentials.

The limited functionality, complexity and excessive cost of current water management solutions makes it hard for stakeholders in the water ecosystem to stay with the game. And even harder for them to win the hearts and minds of their customers.

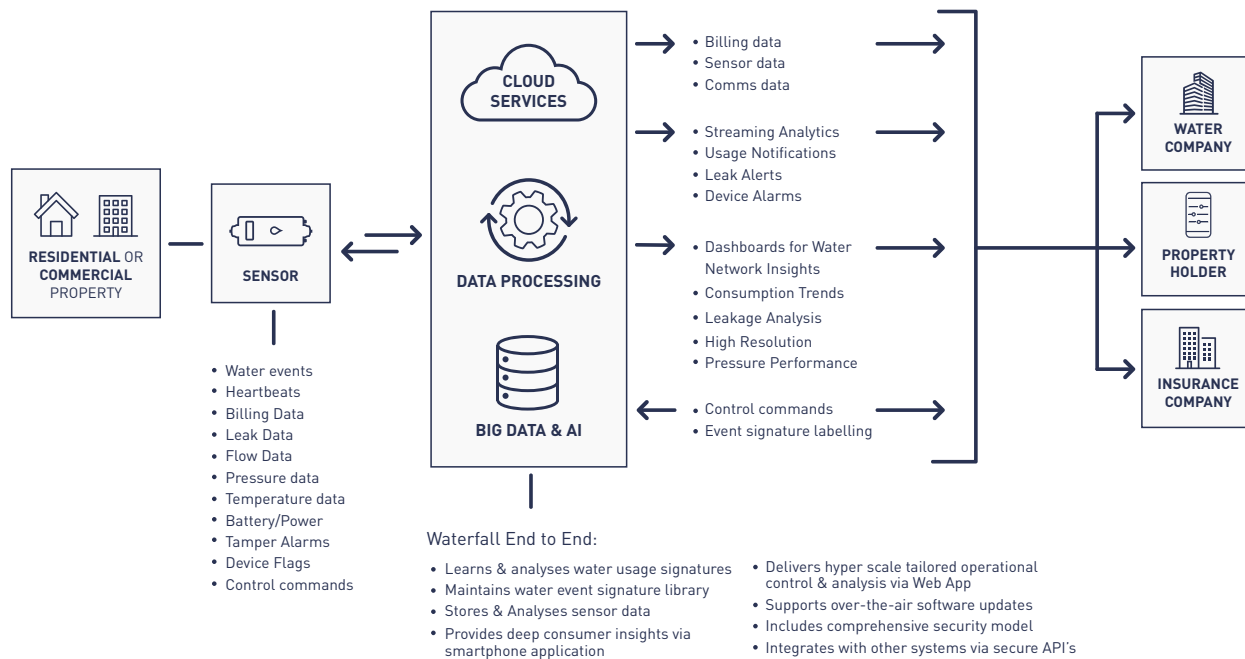
Waterfall has been developed alongside water companies to help them:

- Meet and beat leak reduction targets.
- Optimise average network pressure to reduce stress on pipes, fittings, and valves.
- Meet or exceed targets for reducing per capita consumption.
- Reduce customer bills.
- Create and maintain closer customer relationships.
- Improve leakage “Find and Fix” using pressure and flow at each supply point.
- Onboard more customers in hard-to-reach areas, such as flats and multiple occupancy sites.
- Complete new water meter programmes, faster and at lower cost.
- Gain valuable data insights to feed future business innovation.



How does it work?

The key is what we refer to as 'water event metering' (WEM). Waterfall can accurately detect every water event in every property where it is installed. It records not only how much water is used down to the millilitre, but also - using a powerful combination of machine learning and AI - identifies how that water was used through water signature profiling. Further, it can remotely stop the flow as soon as a leak is detected.



KEY FEATURES

Sensor device fitted on site to the water mains

Collects billing-grade water data (such as pressure, temperature, and flow) and – through learning – profiles different types of usage events and anomalies (e.g. for early warning of water escapes).

Azure Cloud IoT hub

Provides property data capture, analysis and modelling at scale and forwards on to water and insurance companies for further processing.

Flexible connectivity

Maximises coverage with a choice of connectivity options including wireless WAN, LoRaWAN, Wi-Fi and NB-IoT.

Management tools

Boosts innovation possibilities with open APIs and simplifies operations through customisable dashboards and intuitive features.

Mobile apps for installers and building occupants

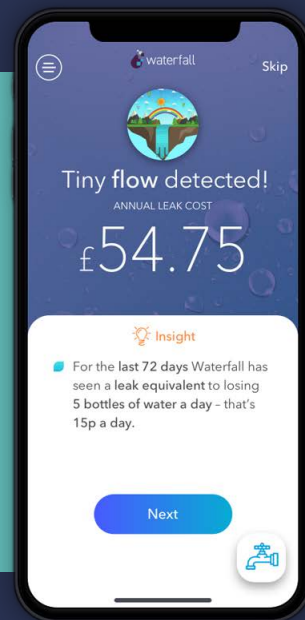
Keeps solution installers up-to-date and puts end users in full control of their water consumption, with the ability to receive real-time alerts and remotely shut down supply at the first sign of water escape.

How is it implemented?

Delivered by Creative EC as an end-to-end, turnkey solution, Waterfall provides a cost-effective alternative to current water meter offerings and easily extends to cater for flats and shared occupancy buildings. It is also available with a range of training and support services.



“This solution is a major step forward, both in terms of bringing together the water industry and our partners in the development process, but also because of the potential to provide our customers with an unprecedented level of water use information and control.”



Waterfall gains further acclaim

SES Water have been shortlisted for Water Resources Initiative of the Year at the prestigious Water Industry Awards following the continued success of its Waterfall smart meter rollout with Creative EC.





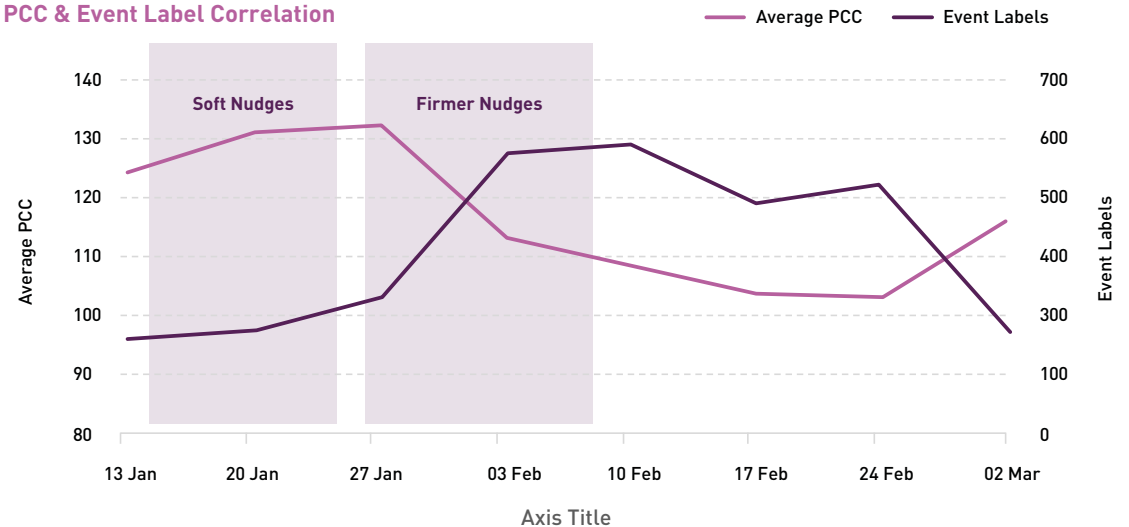
SMARTER PCC REDUCTION

With improvements of up to 40% needed to reach the UK Government's PCC reduction targets, efficiencies will only go so far. Where real impact has yet to be made is in educating consumers.

The statistics bear out our belief that awareness and behaviour change are key to PCC reduction. Metering of any stripe is shown to reduce consumption by up to **17%**. Over and above this, Waterfall immediately identifies in-home leaks which can then be fixed - a further **5%** average reduction.

By educating consumers on how much water they are using and giving real, personalised examples of ways they could reduce their consumption via the app, initial trials of Waterfall reduced PCC by an additional **5-15%**. The app's built-in nudge messaging capabilities are highly effective. There is also the opportunity to incentivise PCC reduction with rewards, and gamification aimed at encouraging children to adopt water-saving behaviours from an early age.

PCC & Event Label Correlation



SMARTER METERING

Waterfall brings truly smart metering above ground, providing accurate data in near-real-time from every household in your network.

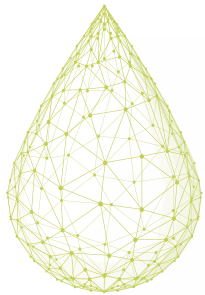
The billing grade meter connects to the property's Wi-Fi network but has built in options of LORA WAN or NB-IOT as an alternative option for critical data. If the device becomes disconnected, data will be sent daily, to preserve the life span of the battery backup, and include the 15-minute meter reads for the day in one message.

Data is processed and stored in the Cloud using Microsoft Azure, so no on-premise infrastructure is required. Our multiple open APIs can integrate with your backend systems, so that functions including billing can be fully automated.

Easily fitted by a qualified plumber in under an hour, Waterfall starts to transmit data on water pressure, temperature, and flow immediately. This means that in-home leaks can be identified and repaired in the same visit. It also removes the need for costly wireless WAN infrastructure and inconvenient manual meter checks.

By improving billing accuracy and identifying issues so they can be rectified quickly, Waterfall has great potential to improve customer satisfaction and confidence.





SMARTER NETWORK MANAGEMENT

Based on near-real-time pressure and flow data, Waterfall finally makes it possible to optimise your network for demand.

With each household's consumption accounted for down to millilitre levels of accuracy, pinpointing unmetered flow elsewhere in your network becomes relatively simple. Waterfall gives your team visibility - immediately and continuously - across all points of the network, so you can detect and address pressure surges, for example, based on early warning signs rather than consequences.

The data Waterfall provides makes it easier to prioritise, plan and budget for maintenance and repair work. It can also reduce the excess costs and customer complaints associated with over- or under-pressurisation of your network. For consumers, this translates into fewer interruptions to their supply and fewer reasons to complain.



For more information, contact enquiries@creative-ec.com
or learn more at www.waterfallbeyondsmart.com