



Stop Guessing.
Start Controlling.

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Introduction

Water should no longer be an afterthought. It is a resource that is now a strategic issue for the real estate sector. It affects operational costs, asset resilience, compliance readiness, and long-term value. And across Europe, climate volatility, aging infrastructure, rising tariffs, and growing demands for credible environmental data are only increasing the pressure.

Despite all this, there remains a significant lack of insight into the actual use of water in most buildings. With limited visibility, consumption is often reviewed too late, abnormal patterns go unnoticed, and long-running losses can continue for weeks before anyone realizes something is wrong. Instead of an abstract, elusive issue, water is a clear and operational risk.

This past year, the European Commission published its first ever [water resilience strategy](#), aiming for 10% water efficiency by 2030 and highlighted digitalization as a primary driver to make this possible. At Smartvatten, our digital follow-ups show that, on average, more than 10% of water consumption in buildings is wasted – with 4.1% due to persistent leaks and 8% caused by high-flow anomalies. That is a significant amount of waste, but also shows tremendous potential for savings.

In this report, we bring these realities together. Starting with the broader forces reshaping the

water agenda worldwide, we then dive into our 2025 data to provide tangible examples of what happens inside monitored properties. Finally, we take a look at what a more proactive approach to water management requires in practice and what we can help your company achieve.

At Smartvatten, we make sure you're not flying blind when it comes to navigating your water efficiency future. We transform data into insight, and insight into impact. With our water intelligence, you detect leaks in real-time, track usage patterns across your portfolio, and benchmark your water performance. Because every drop we save counts – not just for cost or compliance, but for climate resilience and the long-term value of your company.



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What We're Facing.

A NEW REALITY FOR WATER

Imagine opening your company's annual report and discovering that one of your most essential resources is quietly being depleted. Not because of a single shock or one isolated mistake, but because standard operations have continued too long without a clear understanding of the resource's limits. That's becoming the reality for water.

In its [2026 flagship report](#), the United Nations University described the world as entering an era of global water bankruptcy: a structural imbalance between how much water societies use and how much nature can reliably replenish. Instead of relying only on renewable flows of freshwater, we are increasingly using up reserves that took centuries or millennia to accumulate. Aquifers are being depleted faster than they can refill, glaciers are shrinking beyond recovery, and wetlands that once stabilized hydrological systems are disappearing. This analysis is not just significant for the environment, but for finance, operations, and strategy as well.

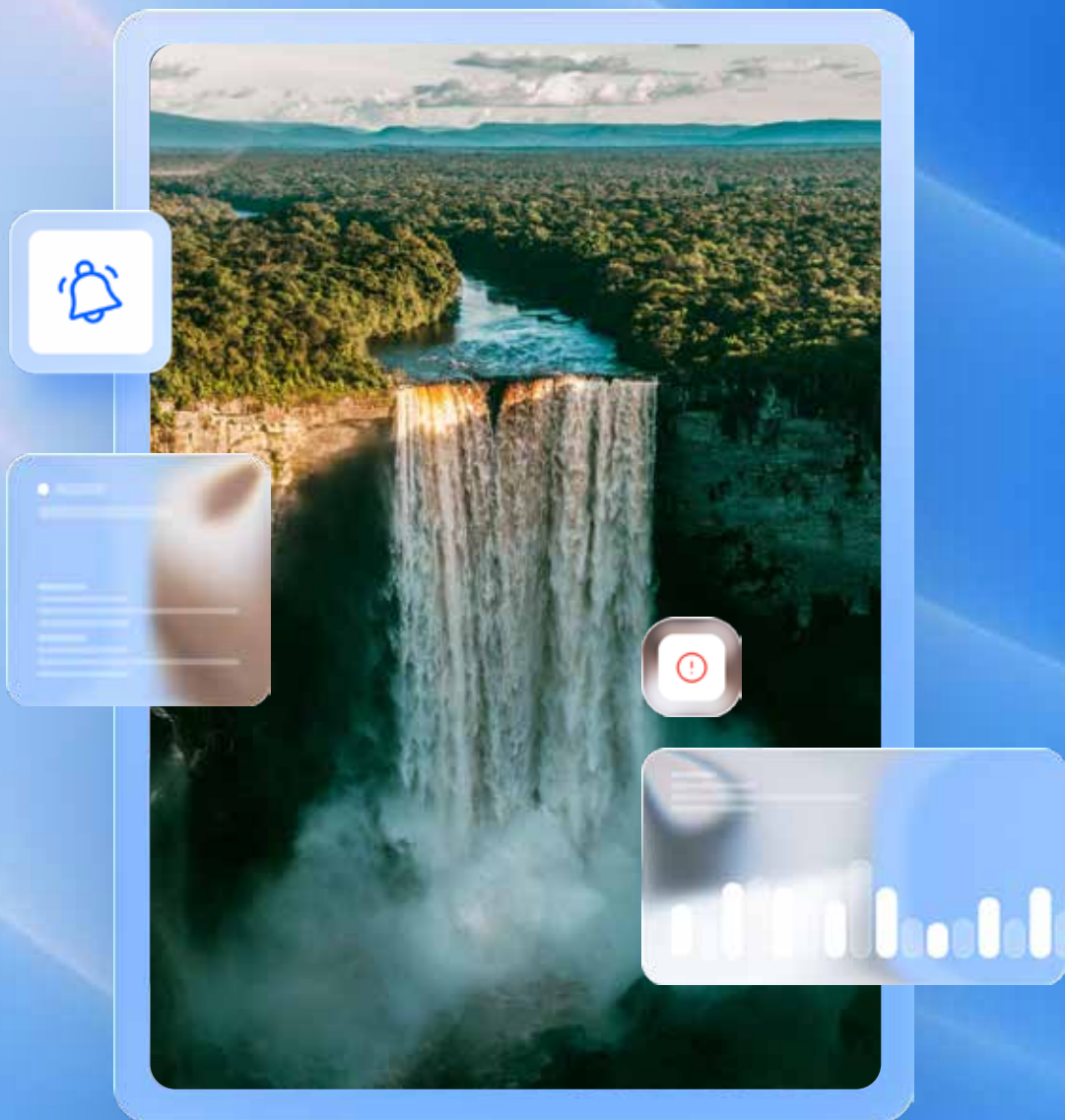
For years, the world has treated water as if it was limitless, even though we knew it was scarce. That mindset of abundance can no longer be defended. Groundwater levels are under pressure in multiple regions, water infrastructure systems are aging rapidly, and climate variability is making droughts and intense rainfall more disruptive. The entire water system is becoming more volatile, right when cities, portfolios, and managers need more predictability – not less.

Buildings are much more dependent on water than we might realize. Its importance is quiet, but continuous. Water affects tenant comfort, maintenance routines, operational

costs, energy use, damage risk, compliance work, and the overall resilience of every asset. When its supply, cost, or the stability of its infrastructure becomes less certain, it will no longer be ignored and instead it will demand our undivided attention.

And yet, many organizations still continue to manage water with only limited visibility. Their monthly billing data may provide total use numbers, but no information on when anomalies began, how long they continued, or where losses are concentrated. Leaks remain hidden and abnormal use blends into averages. Add to that a slow feedback loop, and waste can continue long after it should have been addressed.

What makes water such a defining issue right now, is that this challenge is not just about scarcity in the traditional sense. Instead, it's about a growing mismatch between the critical importance of our water resources on the one hand, and the lagging quality of information and management by organizations on the other hand.



What We're Seeing.

STEEP WATER TARIFF INCREASES ACROSS EUROPE

Water prices across Europe are rising sharply, often exceeding general inflation rates, driven by climate change-related water scarcity, aging infrastructure, and higher treatment costs.

€ Water price in euros per m³

Critical Water Stress

High Water Stress

Emerging Water Stress

NORWAY WATER PRICES €

2024	2025	Change
€5.84	€6.43	+10.18%

SWEDEN WATER PRICES €

2024	2025	Change
€4.14	€4.66	+12.44%

UNITED KINGDOM WATER PRICES €

2024	2025	Change
€4.81	€5.85	+21.65%

NETHERLANDS WATER PRICES €

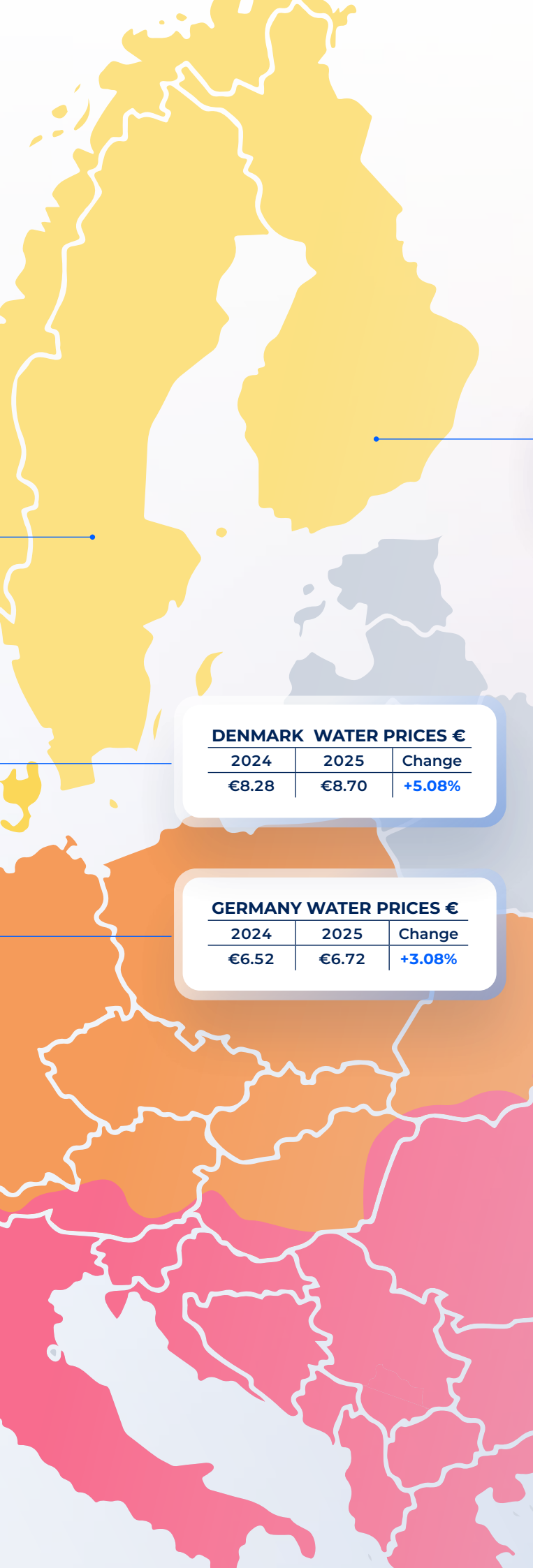
2024	2025	Change
€6.27	€6.71	+7.07%

FRANCE WATER PRICES €

2024	2025	Change
€4.43	€4.69	+5.97%

SOURCES:

- Copernicus European Drought Observatory (EDO)
- EU Joint Research Centre drought situation reports
- Regional climate reporting 2025
- ECMWF/Copernicus climate summaries



FINLAND WATER PRICES €

2024	2025	Change
€5.78	€6.29	+8.84%

DENMARK WATER PRICES €

2024	2025	Change
€8.28	€8.70	+5.08%

GERMANY WATER PRICES €

2024	2025	Change
€6.52	€6.72	+3.08%



INSIGHT

The Cost of Inaction is Rising

The business case for better water management is not just about sustainability, but also about price pressure. Water and wastewater tariffs rose across all included comparison markets in the 2025 dataset. The increases ranged from 3.08% in Germany to 21.65% in the United Kingdom, and even within a single year we see a clear upward trend across all markets.

We know that water costs are rising, but what we might not realize is that every liter we lose is becoming more expensive over time. Rising tariffs make the financial argument for early detection, faster response, and more disciplined operational control even stronger. With higher prices, the same unresolved leak creates greater cost exposure than it did only a year earlier. The sooner we optimize our water efficiency system, the better.

What We're Seeing.

TURNING WATER DATA INTO STRATEGIC INSIGHT

Smartvatten's 2025 data shows us that the biggest water challenge is often not consumption itself, but the lack of visibility. The most costly patterns of use are rarely dramatic right from the start. Instead, they are quiet but persistent, distributed across portfolios, and expensive precisely because they can continue unnoticed for too long.

In our analyses here, we've included over 7000 properties, in which every minute of water consumption has been monitored over the past 24 months.

2025 DATA SNAPSHOT

19.3

billion liters monitored

= 643,075 tanker trucks of water



8%

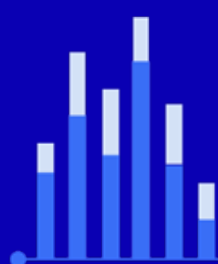
leak volume reduction achieved by Smartvatten customers



1.47

billion liters lost to leaks

= 9.8 million bathtubs



68%

likelihood of a leak event in each building per year

4.1%

of total water consumption is lost due to continuous flow leaks

**32.67%
HOT**

VERSUS

**67.33%
COLD**

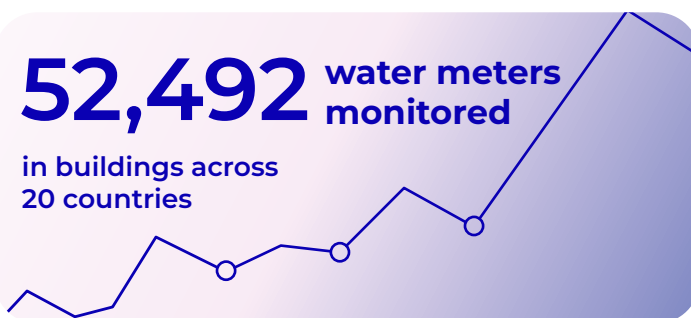
USAGE IN APARTMENTS

17%

likelihood of a high-consumption anomaly

52,492 water meters monitored

in buildings across 20 countries



8.1%

of total water consumption is due to anomalous usage



Numbers are calculated based on properties with 24 months of complete and comparable water consumption data from Smartvatten's database. Continuous flow % and leak volume reduction % are calculated based on a subset of properties using Smartvatten's Pro-level service, adjusted for outliers.

Water Intensity

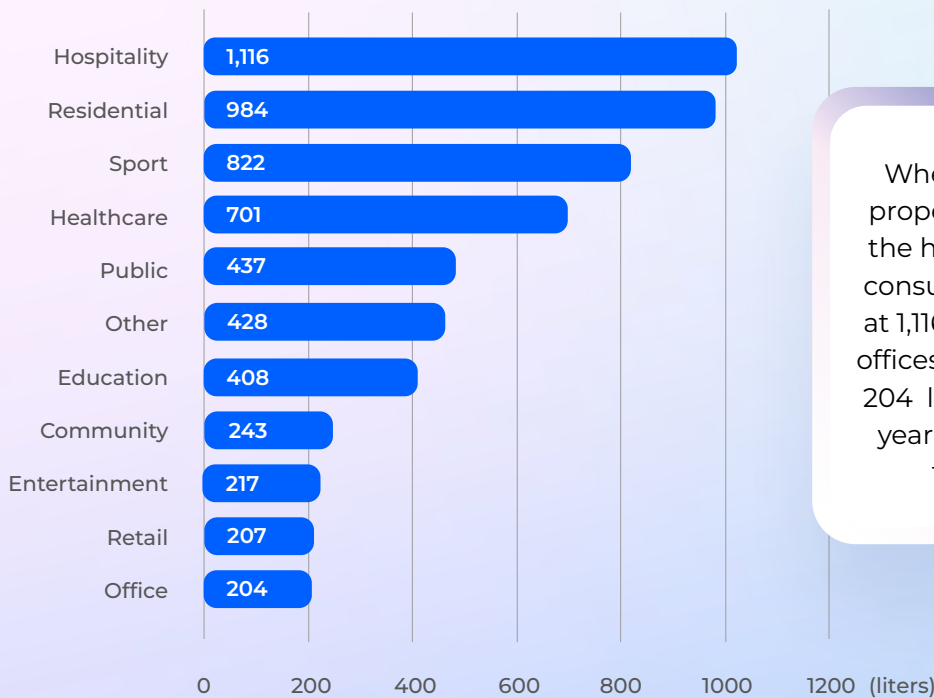
Looking at straight-up water use totals doesn't tell us much. To understand water performance more fairly, we have to view consumption in context. Water intensity measures water use relative to building size, typically expressed as liters per square meter per year. It allows for fair comparisons between different properties by accounting for differences in scale and usage. Used correctly, water intensity data helps

identify where anomalies are truly abnormal, where performance is in line with building use, and where there may be the greatest opportunity for improvement.

2.65 million liters
average consumption
per property per year

580 liters/m²/year
average consumption

Average consumption liters/m²/year



Where hospitality properties recorded the highest average consumption per m² at 1,116 liters per year, offices came in at just 204 liters per m² per year – more than 5 times less.

Total value across the dataset (580 l/ m² / year)

The Importance of Segment-Specific Analysis

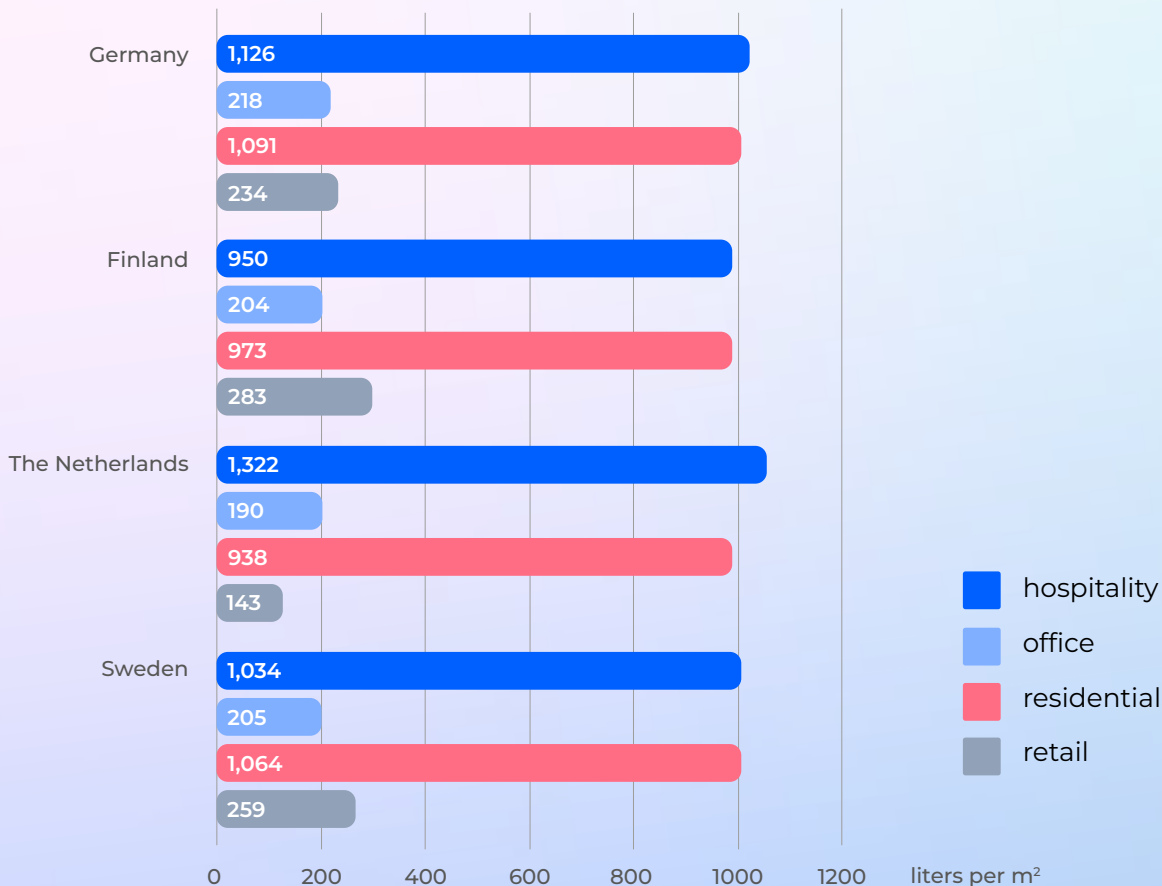
Water intensity varies significantly by property type and, to a lesser extent, by country. Across all markets, hospitality and residential buildings show the highest annual water consumption per square meter: typically 5 to 7 times higher than offices and retail properties. This reflects both water intensive activities and more complex, continuous usage patterns. Offices show remarkably consistent water intensity across countries, making them a high confidence benchmarking segment. Any deviations recorded are more likely to indicate operational inefficiencies or leaks rather than structural differences. Retail sits between

these extremes, with a comparatively low average consumption but the largest relative variation between countries. That suggests that operational practices, tenant mix, and water using processes all play a significant role.

At an aggregate level, countries differ substantially in overall water intensity. That's driven by a combination of building stock composition, usage patterns, and local practices. These differences show us that segment specific analysis is very important: meaningful water efficiency insights don't simply emerge from country averages, but from comparing like for like properties and understanding how intensity, variability, and baseline consumption interact to shape both water risk and savings potential.

Water Intensity Across Most Common Building Types & Main Markets

Average annual consumption 2025 in liters per m²





Building Use Shapes the Baseline

Water demand depends heavily on how a building is used, but high water use does not automatically mean poor performance. Instead, it reflects the operational reality of the building. 24-hour facilities like hotels require large volumes of water for guest rooms, kitchens,

laundry, and cleaning, while small businesses open only during office hours use much less by default. Their lower water intensity does not necessarily mean they're more efficient, just that their water profile is fundamentally different.



High-Consumption Anomalies

High-consumption or high-flow anomalies refer to unusual or excessive water use compared to expected patterns, that cannot be directly classified as a leak. These patterns are often linked to operational behavior, technical systems, or equipment settings, such as cooling systems, irrigation, cleaning routines, or malfunctioning installations. While not always caused by faults, they still represent significant and often avoidable water use. Although these anomalies represent only a minority of events identified by Smartvatten – 17% of properties received a warning last year, and only 5% were alerted more than 5 times – their importance shouldn't be underestimated: they indicate a sudden and very high spike in flow that requires fast action.

High-consumption anomalies



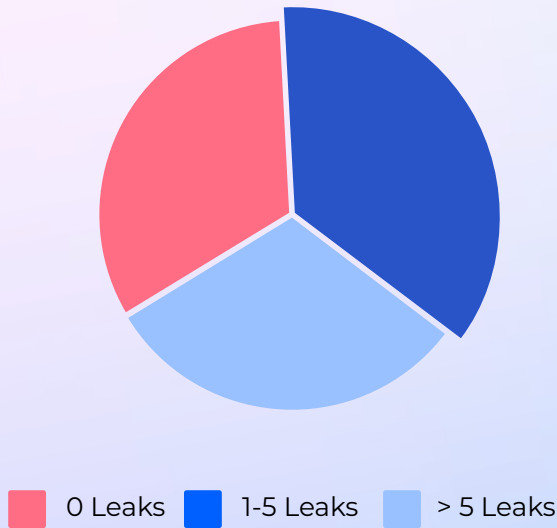
Water Loss



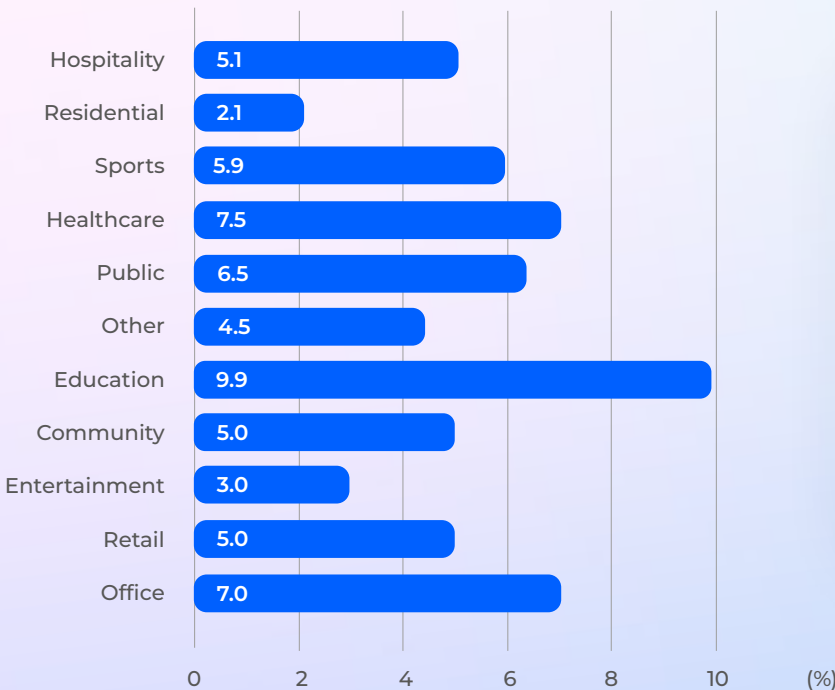
Continuous Flow Leaks

By monitoring water consumption with a very high resolution, we can identify whether or not there is a base load of water flow which does not stop and separate it from regular consumption. This indicates a continuous flow leak. By then looking at the duration of these continuous leaks, we can pinpoint leaks that haven't been addressed. If they last for more than 5 consecutive days, we classify them as persistent leaks.

Continuous flow leaks per property per year %



Percentage of total consumption due to continuous leaks



70% of water wasted is attributed to just the 15% of leaks which persisted for more than 5 days. Based on these and other insights, Smartvatten's customers were able to reduce the amount of wasted water by 8% in 2025.

Leak Persistence Leads to the Biggest Losses

One of the clearest conclusions from our data – both this past year and in previous years – is that long-running problems have a bigger impact than one-off incidents. A sudden leak draws attention. It is usually visible and urgent, and is then dealt with. A quiet but steady leak, however, can continue without being noticed and accumulate waste, cost, and risk. To uncover these types of invisible leaks, continuous monitoring is invaluable.

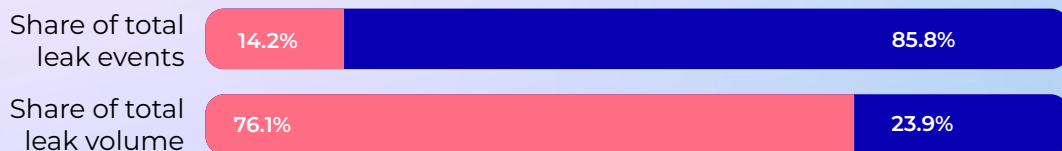
For each property, there's a typical pattern of water usage. Residential users go to sleep, stores and offices close down for the night. By analyzing the patterns based on high-resolution water data, we can identify when there is a base load of water flow which does not correspond to normal usage. When that continues day after day, we're talking about a persistent continuous flow. And at Smartvatten, that triggers an alert. Even a small leak can add up to a lot of water wasted and a significant cumulative cost and

becomes an operational loss – entirely avoidable with quality monitoring.

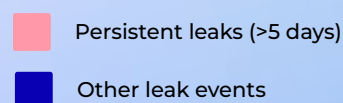
To put that into perspective: for the retail sector, 82% of the total leak volume was the result of long-running leaks (ongoing for five days or more). For hospitality, that share was 72% and for residential 67%. And 76.1% of the total leak volume came from only 14.2% of leak events.

In the 2025 dataset, offices had the highest share of properties affected by persistent leaks with 39.6%. The hospitality sector followed in second place at 35.2%, and healthcare facilities came third at 27.1%. Residential properties remained significant in scale, with 20.5% of properties affected and the second-highest total number of persistent alerts. Industrial properties stood out with a significantly lower 8.1%, contributing a relatively small share of the total leaked volume.

Persistent leaks represent a relatively small share of all leak events, but account for the majority of total leak volume.

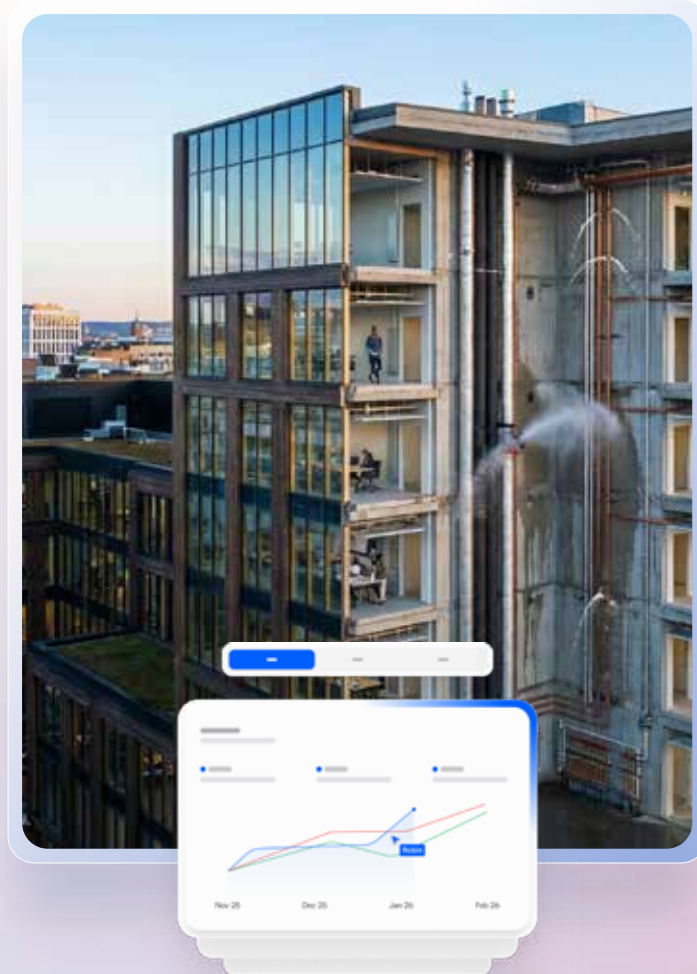


Although only 14.2% of leak events lasted more than five days, they were responsible for 76.1% of total leak volume in 2025.



Context Is Essential for Alert Interpretation

Like water consumption, persistent leakage shouldn't be viewed in isolation. Underlying consumption patterns are essential to correctly interpret alerts and take appropriate action. Hospitality properties and sports facilities recorded an average annual consumption of 9,601 m³ and 6,654 m³ respectively, while community buildings came in at 638 m³. To accurately judge these sectors' efficiency performance, however, we should realize that hotels and swimming pools will always have a higher base consumption than a local library. That's why Smartvatten takes all this information into account to accurately report, alert, and benchmark.



INSIGHT

Country-Specific Conditions Impact Risk

Another factor to take into account when determining risk and benchmarking performance, is country-specific conditions. Not all portfolios operate in the same context. Think of varieties in the state of infrastructure, property mix, local tariffs, or usage profiles dependent on climate and geographic particulars. That's why a country comparison should focus on relative exposure, not only total consumption.

Among the larger countries in the dataset, the share of properties affected by persistent leakage varied significantly: Sweden 40.7%, Finland 20.8%, Norway 18.5%, Germany 14.7%, and the Netherlands 13.7%. Clearly, portfolio exposure is far from uniform – which means one common water management model would be useless.

What We're Doing.

BUILDING WATER INTELLIGENCE

The next step in water management is not more data for the sake of data. Instead, it should be developing the ability to turn that data into action, early enough to change the actual outcome. And that requires first-rate data combined with expert interpretation.

So far, water management in buildings has been mainly reactive. Meter readings were reviewed periodically, and sometimes even annually. Problems were discovered late, if at all, and follow-up depended heavily on manual interpretation. And while this reactive model may accurately record total usage, it is no help when it comes to identifying abnormal patterns in time for corrective action.

A more appropriate model is proactive, and relies on continuous visibility. Instead of going over last month's consumption totals, organizations can focus on more recent and practical issues. Yesterday's deviation in nightly use, for example, or exposure patterns that are revealed over time when detailed data is

collected. Companies can prepare for issues that are most likely to pop up and plan to take action where it will have the highest operational impact.

This shift in management matters both at the building and the portfolio level. For individual buildings, faster detection reduces waste, cost, and damage exposure. For portfolios, it offers strategic value: benchmarking, prioritization, and resource allocation can be based on recurring patterns rather than assumptions. That's the difference between merely monitoring to create awareness, and actively managing to create quality solutions and long-term strategies.



Case Study: Simple Cause, Invisible Risk

One monitored property showed a stable continuous flow of approximately 27 liters per minute. There was no obvious visible leak, no dramatic incident, and nothing that immediately suggested a major problem. On the surface, everything appeared to be normal.

The cause turned out to be surprisingly simple: a valve had been left partially open after maintenance work. The impact, however, was anything but small. Over one month, the property lost approximately 1.17 million liters of water, corresponding to more than €5,000 in direct water costs alone. At the same flow rate,

the total loss would have reached roughly 14.4 million liters and more than €60,000 if the issue had continued for a full year.

This case shows us that it's not just about leak volume. It's about visibility. Without continuous monitoring, a problem like this can continue for weeks or months because it's small enough to go unnoticed. It does not present as an emergency, but stays under the radar, disguised as normal background use. That is, until someone can prove otherwise with the right, detailed data, comparing small anomalies with regular behavior and patterns over time.



From monitoring to management

"Improving your water performance is rarely the result of a single technology. It is a combination of technology, applied insights, and thorough and consistent management. With timely data, correctly interpreted patterns, and effective actions that are embedded in daily operations. Quality water management enables organizations to move from occasional awareness to repeatable routines: early detection, accurate prioritization, faster response, and portfolio-wide learning. And now that water resources are far from limitless, those capabilities will matter more each year."

– **Karl Jepsson**

Chief Strategy & Product Officer at Smartvatten

Case Study: Transforming Daily Operations with Smartvatten

For Norwegian real estate company Utstillingsplassen, Smartvatten's services have turned their everyday operations around. With up to the minute insight into their water use, they are now in full control of water management – for themselves, and their tenants.

[Check out the full case study here](#)



Why Water Intelligence Matters

For investors, owners, and managers, water data is becoming relevant beyond the confines of sustainability communication. High-quality insight into water performance makes it possible to lower avoidable operating costs, identify damage risk earlier, strengthen resilience against tariff increases, and collect better evidence for environmental performance discussions. That means water intelligence is more than an operational tool. It is an essential part of your decision infrastructure.

Beyond Buildings: One Water System, Shared Pressure

The same forces affecting buildings are also impacting utilities and the wider water infrastructure. Aging networks, investment gaps, climate adaptation needs, and rising

expectations regarding service reliability are turning the pressure up for the full water system.

It's important to keep this broader perspective in mind. Buildings do not exist outside of the infrastructure. They are an integral part of it. Inefficiencies in one part of the system will affect the entire network. The future of water management increasingly depends on better visibility – not just inside assets, but across the networks and systems that support them.



In Closing.

Water has become an important issue. That's no longer in question. What matters now is how quickly organizations will be prepared to move from a place of limited visibility to one of informed action and strong resilience. And that begins with a change in mindset.

Water should no longer be treated as a passive utility cost, reviewed in hindsight and without thorough examination. It should be managed as the strategic operational resource that it truly is. One that affects your company's resilience, risk, efficiency, and long-term value.

The organizations best positioned for the years ahead? It won't necessarily be the ones who boast the most ambitious sustainability statements. Instead, it will be the companies who have the clearest view of what is happening within their water systems, who have the ability to respond early, and who have the discipline to turn quality insight into valuable action.

Our strategic, highly-detailed approach to water management helps your company to reduce losses and costs, and strengthen confidence among investors, tenants, and stakeholders.



Three questions every leader in real estate should ask:

1. Where are we still lacking in timely visibility into abnormal water use?
2. Which properties or categories are affected most by repeated persistent losses?
3. Are we treating water data as just a reporting output, or as invaluable operational input?

Company.

Smartvatten is Europe's leading SaaS platform for data-driven water management, designed for both real estate portfolios and water utilities. Through digital monitoring, analysis and data-driven insights, we help customers detect deviations early, optimize water use and make better decisions.

Today, Smartvatten monitors more than 40,000 buildings, over 200,000 apartments and more than 40 water networks, contributing to more efficient operations, reduced risk and more sustainable water use.

Contact.

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Get in touch

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