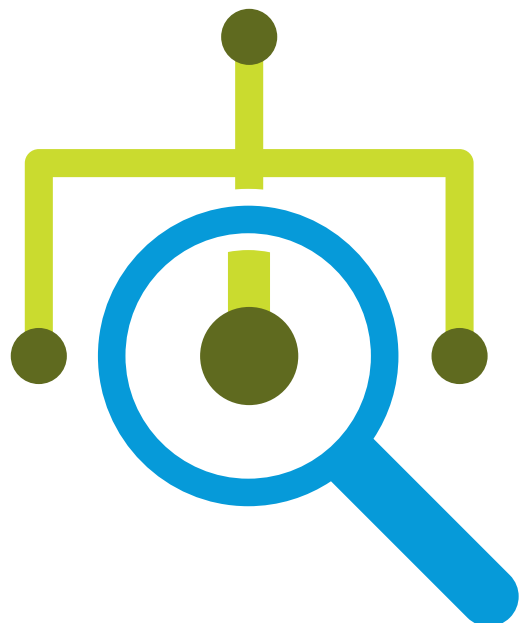


## Solution description

### **Analytics** **- Water Intelligence**

Utilise the full value of your smart meter data.

The Water Intelligence application can be used for both mobile reading of meters and for direct reading from the utility.



## Analytics – Solution description

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# The utilisation of water resources

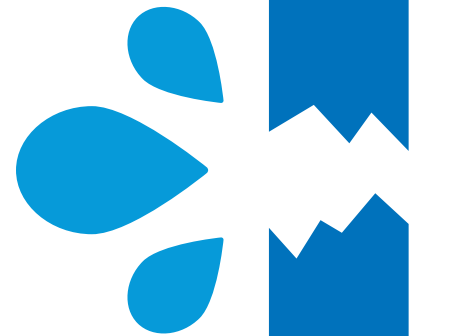
Non-revenue water is an increasing problem around the world and with the current climate changes, it is not something that we can neglect. There is a natural lower threshold for the lowest achievable level of water loss, which is economically cost-effective. To get as close as possible to that threshold, it is necessary to prioritise the work in preventing water loss. This can be done by categorising the losses in the distribution mains, so that utilities can assess the methods that can be used and determine which initiatives can be put into place to fight water loss as effectively as possible.

Non-revenue water (NRW) is an internationally known term which can be defined as:

**“Water that is pumped into the distribution network, but not invoiced.”**

In other words, non-revenue water is the difference between produced water and billed water. It is water that is lost because of bursts due to pressure surges, inaccurate meter readings, leaks or bursts resulting from a high pressure, ageing infrastructure, illegal connections to the network, theft and fire hydrants.

The consequence of a high level of non-revenue water is both loss of earnings and higher operational costs for the utility. It entails a significant financial drain, which, for example, is expressed by the fact that the energy used to pump out non-revenue water is pure waste. In addition, leaks necessitate expensive repairs of the infrastructure as well as a potential need for expanding the capacity.



# Water analysis made easy

The value of your smart meter data goes far beyond accurate billing. So far, the challenge has been to utilise its full potential, but with the right tools, you can do just that and transform your meter data into actionable insight.

With our Water Intelligence application, your meter data is automatically organised, visualised and analysed to give you a total overview of your distribution network and to give you the knowledge needed to effectively target your efforts.

You will be provided with a complete overview of your distribution network split into district metered areas (DMA).

For each DMA, you will receive detailed information on inlet flow, consumption, night flow and water loss, which lets you monitor developments closely, target your efforts and act as soon as the water loss increases in one DMA. With a simple and intuitive web interface, Water Intelligence is tailored and designed to bring power and simplicity to the process of detecting water loss in the network. Your organization can easily set up own rules and demands for the water loss criteria, and thereby create an overview of the water loss in the network.









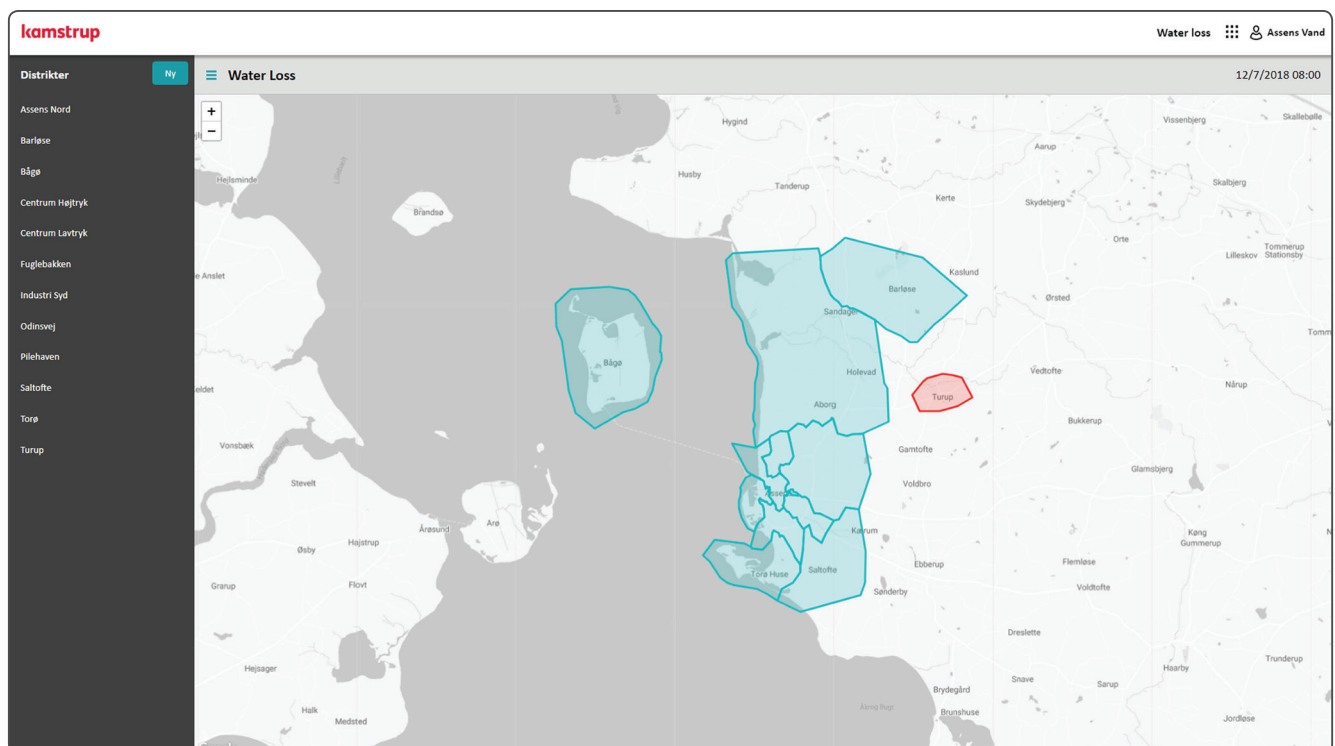
# Water Intelligence

## - ensuring a detailed overview of your network

With the Water Intelligence application, you will receive the complete overview of the water loss in your network, which enables you to focus your efforts efficiently.

### Visual overview of DMA performance on a map

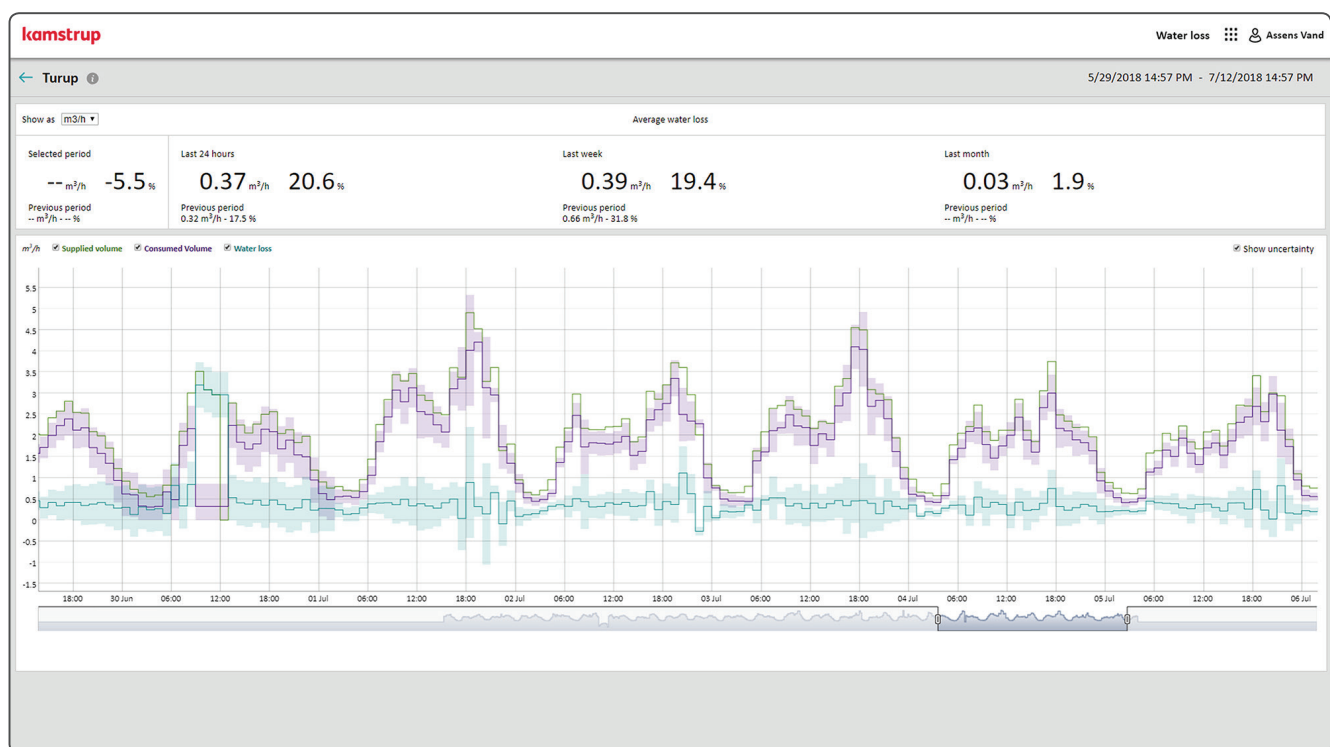
Your water loss is visualised by DMA, whereas a map of your supply area provides a constant overview of the water loss in your entire network. Intuitive colour coding immediately shows their status based on your predefined limits for acceptable water loss. This enables you to enhance your leak detection so that you can react in a matter of hours instead of days. Continuous monitoring and daily water balances also make it possible for you to follow developments and catch small leaks before they develop into large-scale bursts.



## Analytics – Solution description

### Dashboard with water loss statistics and analysis

For each of your DMA, you can dive into a detailed view of the water loss, supplied volume and consumed volume. Choose and switch between views based on data from the last 24 hours, the last 7 days, the last month or specify the exact period you want to examine closer. For each DMA, you define individual limits for the acceptable amount of water loss and what sets off an alarm. This ensures that they match circumstances like population, age and condition of the pipes.

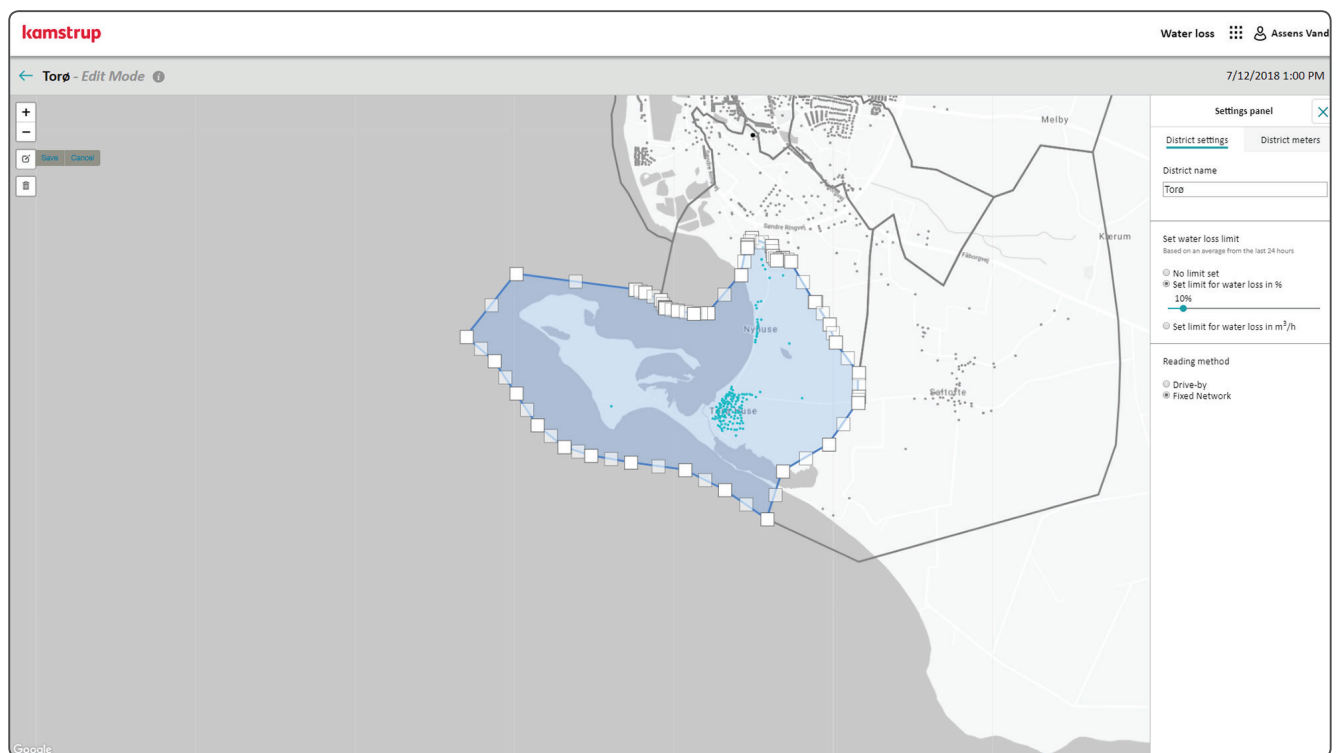




### Define your own DMA with user-defined limits

In the software, DMA is easily defined through a point-and-click system, which is done right on the map.

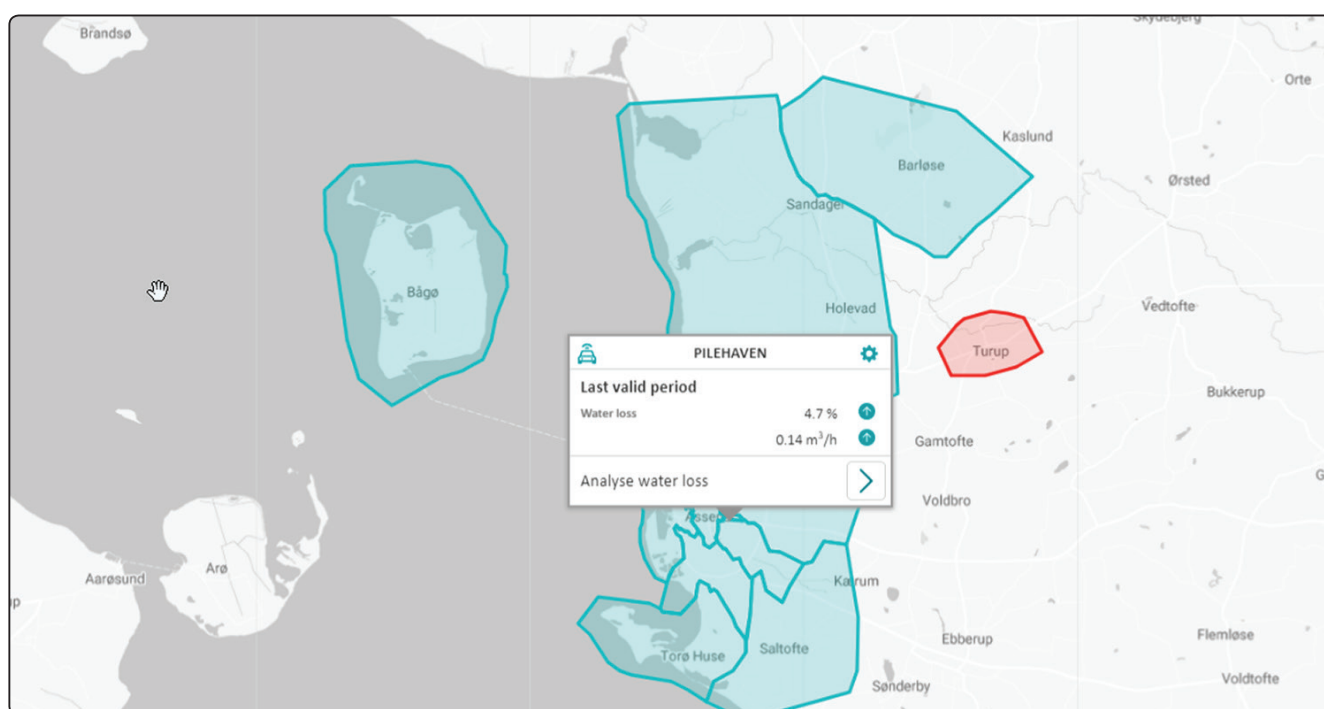
When the desired district is drawn, you will get the opportunity to configure the threshold for what an acceptable water loss is to you, which enables you to be notified on the dashboard whenever that threshold is exceeded. You will also be able to configure which district meters are connected to which DMA and define if they are inflow or outflow meters.





## One-click in depth analysis

The dashboard provides you with valuable insight into the DMA and what is going on right now. But sometimes, it may be necessary to get a quick explanation of how severe the water loss is. By clicking a DMA, you will be provided with an analysis of the water loss in percentage and the amount of  $\text{m}^3/\text{h}$  that is currently lost. This enables you to quickly focus your resources, as one DMA might require more attention than others.



# Data Security

## Role-based access

Data security is not only a technical matter. It is also about internal processes. Among others, this means that there is a difference between who needs to see and handle which data in the system and when to do so. Because of this, our systems make it easy to handle roles and rights and perform the necessary restrictions required for you to comply with the GDPR.

The Water Intelligence application does not make use of personally identifiable data in any scenarios, which means that you do not have to worry about anything.

## Logging of activities

An important element of data security is the human factor – because no chain is stronger than its weakest link. Therefore, activity logs and traceability in our solutions ensure full transparency so that you know exactly which user has done what and at what time. In this way, you can always live up to your documentation responsibility.

## Multiple layers of security

Our systems have several layers of functions and controls that increase the security. Hereby, a potential security breach can be isolated to a single part of or component in the system, because several security layers have been built in between the single layers. This minimises potential damages.





Think forward

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