AVK SMART WATER NETWORK MANAGEMENT

SMART WATER
NETWORK MANAGEMENT

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CONTENT:

WHY DO WE NEED
SMART WATER MANAGEMENT?

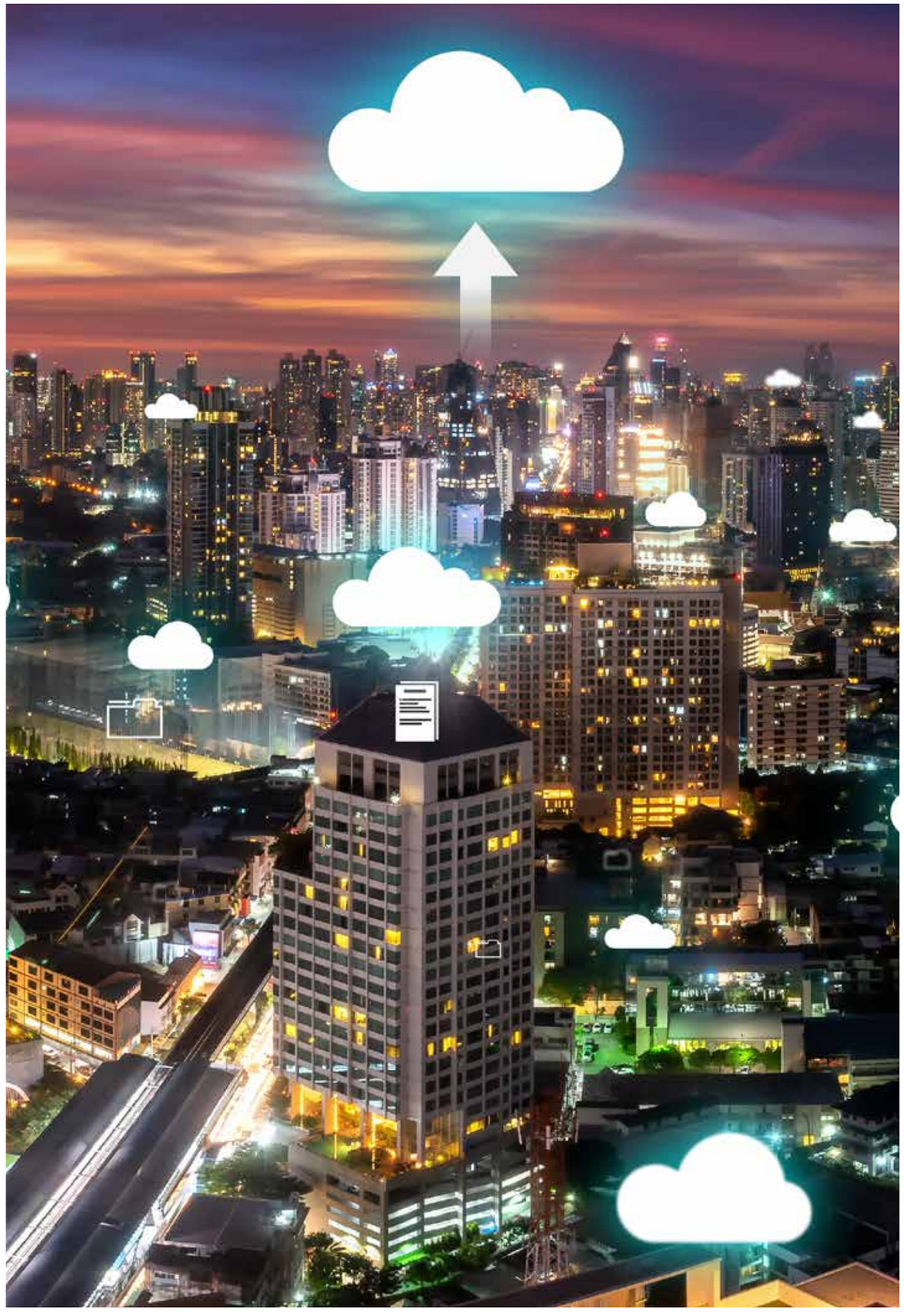
Every day, water companies face challenges related to water supply management. The potential impact on water scarcity, increased water consumption and high energy costs are just a few of the challenges forcing water companies to think of innovative solutions to overcome them.

AVK and AVK Smart Water has developed a new concept with IoT devices installed on AVK quality products. This concept offers an intelligent new solution to monitor and control the water distribution network. You can install standard products with sensors that communicate with a dedicated communication platform, that lets you as an operator collect all necessary information directly from your assets in the distribution network. This gives you an overview of the status of all components such as valves, air valves, check valves, pressure reducing valves, hydrants, flushing valves and more.

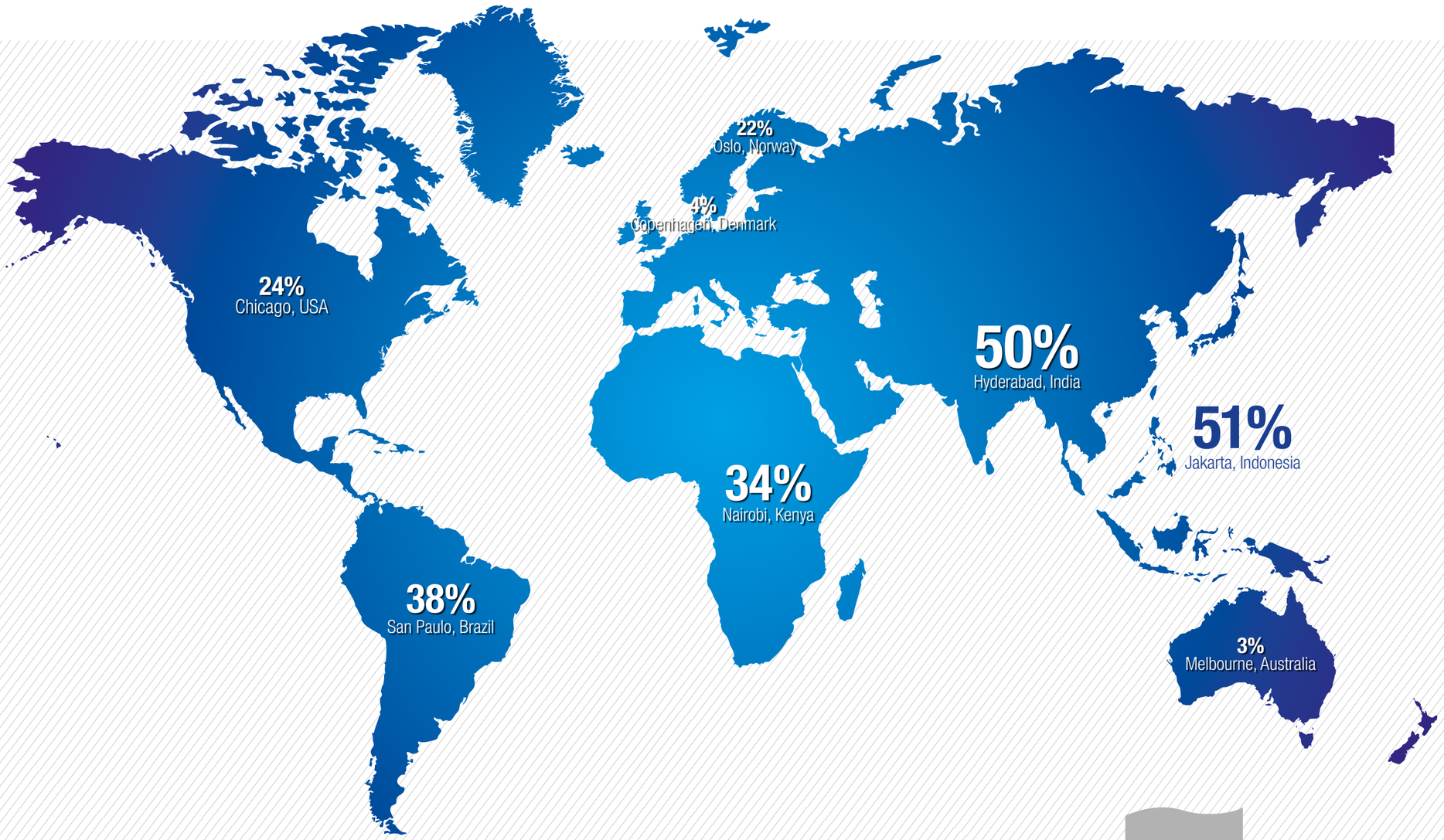
The solution is for pressure management and Non-revenue Water (NRW) as well as safety and tamper alert in relation to unauthorised operation of hydrants. It also acts as an assurance of water quality to ensure a safe water supply to the consumer 24/7. You can easily access and process data on a standard IT device (PC, laptop, tablet, smart phone) with the AVK Smart Water VIDI Cloud application and the AVK Assist.

AVK Smart Water's solution will provide numeral benefits for your water company, and it will provide you with great savings e.g. by reducing repair and maintenance costs, water loss, leaks, and energy costs. In addition, you will prolong the life of your assets and be able to provide a better customer service. Finally, it is a good example of green new technology as the solution will provide considerable savings in CO^2 emission.

The Smart Water Network concept has a significant contribution in the efforts towards achieving the SDG (Sustainable Development Goals) No. 6 and No.11.



WORLDWIDE DIFFERENCES IN **NON REVENUE WATER LEVELS**



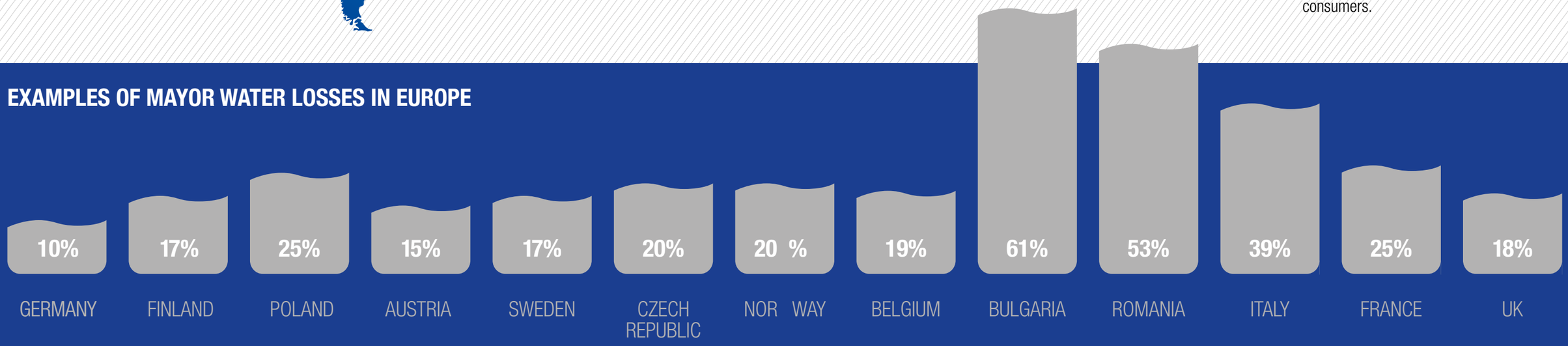
Non-revenue levels differ around the world from close to 5% to as much as 80% with around 40% as average and 26% in Europe.

Huge volumes of clean water are lost through leaks and overflows, and are not accounted for due to metering inaccuracies at consumers and illegal connections (theft). In many parts of the world this results in far more extraction than needed, and limited water resources are being over-exploited.

Reducing NRW levels is a pivotal management challenge, and the aspiration should be to reduce NRW down to the Economical Level of Leakage (ELL), an optimal level defined by the International Water Association (IWA), with a view to maximising benefits in relation to economy and resources.

Sustainable water management is, besides being good for the environment, simply good business. In the long run, a sustainable approach to clean water supply does not cost money – it saves money, for utilities as well as for consumers.

EXAMPLES OF MAYOR WATER LOSSES IN EUROPE



IWA WATER BALANCE MODEL

The IWA Water Balance model helps to identify where to address the various types of issues.

The first step in reducing non-revenue water (NRW) is to develop an understanding of the "bigger picture" of the water system, which involves establishing a water balance. This process helps utility managers to better understand the magnitude, sources and cost of NRW.

The IWA developed a standard international water balance structure and terminology that has been adopted by national associations in many countries across the world.

NRW is equal to the total amount of water flowing into the water supply network from a water treatment plant (the 'System Input Volume') minus the total amount of water that industrial and domestic consumers are authorised to use ('the Authorised Consumption').

<table>
<tr><td rowspan="6">SYSTEM INPUT VOLUME</td><td rowspan="2">AUTHORISED CONSUMPTION</td><td>BILLED AUTHORISED CONSUMPTION</td><td>BILLED METERED CONSUMPTION</td><td rowspan="2">REVENUE WATER</td></tr>
<tr><td></td><td>BILLED UNMETERED CONSUMPTION</td></tr>
<tr><td rowspan="4">WATER LOSSES</td><td>✶ UNBILLED AUTHORISED CONSUMPTION</td><td>UNBILLED METERED COMSUMPTION</td><td rowspan="4">NON REVENUE WATER</td></tr>
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<tr><td>✶ APPARENT LOSSES (COMMERCIAL LOSSES)</td><td>✶ UNAUTHORISED CONSUMPTION</td></tr>
<tr><td></td><td>CONSUMER METER INACCURACIES</td></tr>
<tr><td></td><td>✶ REAL LOSSES (PHYSICAL LOSSES)</td><td>✶ LEAKAGE ON TRANSMISSION AND DISTRIBUTION MAINS</td><td></td></tr>
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<tr><td></td><td></td><td></td><td>✶ LEAKAGE ON SERVICE CONNECTIONS UP TO POINT OF CONSUMER METER</td><td></td></tr>
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✶ The VIDI Solution delivers data to the highlighted boxes.

- System Input Volume is the annual input to that part of the water supply system.
- Authorised Consumption is the annual volume of metered and non-metered water taken by registered customers, the water supplier, and others who are implicitly or explicitly authorised to do so (e.g. water used in government offices or fire hydrants). It includes exported water and the leaks and overflow after the point of customer metering.
- Water Losses is the difference between System Input Volume and Authorised Consumption. It consists of Commercial Losses and Physical Losses.
- Commercial Losses, sometimes referred to as 'apparent losses', consist of Unauthorised Consumption and all types of metering inaccuracies.
- Physical Losses, sometimes referred to as 'real losses', are the annual volumes lost through all types of leaks, bursts and overflows on mains, service reservoirs and service connections, up to the point of customer metering.
- Non-revenue Water (NRW) is the difference between System Input Volume and Billed Authorised Consumption. NRW consists of Unbilled Authorised Consumption (usually a minor component of the water balance) and Water Losses.

AN INTELLIGENT WAY TO MONITOR WATER INFRASTRUCTURE BASED ON IOT-SOLUTIONS

It provides stakeholders with the opportunity to make fact-based decisions instead of managing their distribution through assumptions. You do not need to buy and to set up dedicated hardware or software, but you can use any internet connected devices (laptop, smartphone, tablet, smart TV) to browse through your data from your smart devices.

With the devices from the VIDI Solution, you can remotely monitor and diagnose problems, prioritise and manage maintenance issues, and optimise the entire network's efficiency through technology and IoT-driven devices.

The VIDI Solution is a cloud-based solution that provides great value in the form of data. The value you obtain is related to the fast provision, ease of use, independence from premises infrastructures, low cost of ownership and global access to the data.

The web-application VIDI Cloud is intuitive and enables the user to interact with the data, while security policies of each user define the level of interaction with the data. The cloud service will enable you to access the data by giving you access to real-time monitoring, trend analysis, exporting, KPI and Software-as-a-Service.

There is no huge capital investment related to the infrastructure and no high operational cost for the management service; only an operational cost related to the number of VIDI devices and the number of users for the software.

The VIDI Cloud platform can be interfaced with third party software e.g. SCADA-system or Dashboard solutions.

VIDI SOLUTION FEATURES

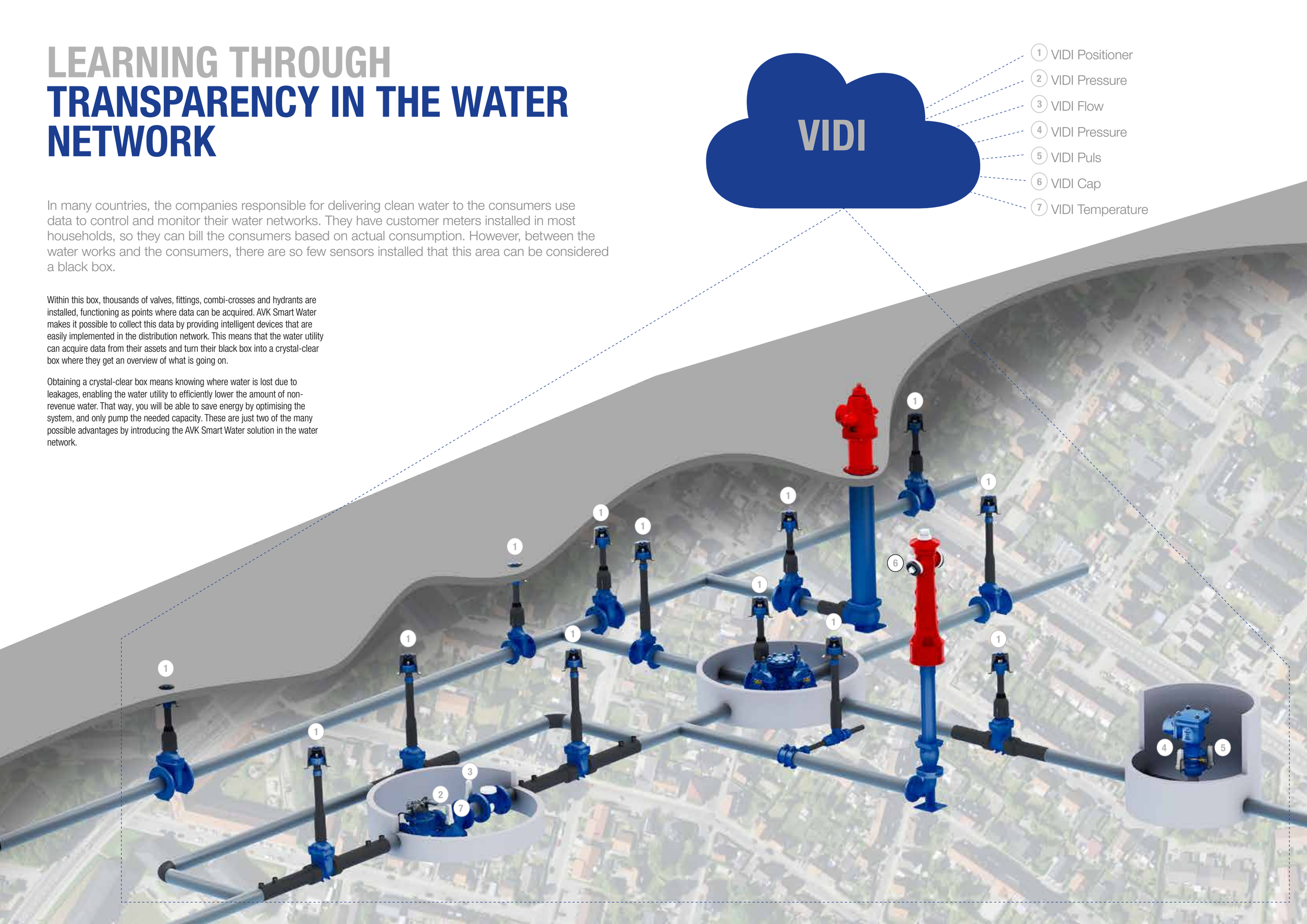
NON REVENUE WATER	ASSET MANAGEMENT	OPERATION MANAGEMENT	HEALTH
LEAK DETECTION	POSITIONING OF ASSETS	PRESSURE	WATER QUALITY
TAMPER ALERT	PRESSURE	TEMPERATURE	TEMPERATURE
DEMAND DRIVEN PRESSURE MANAGEMENT	FLUSHING SCHEDULE	GATE POSITION	
	ACCESS CONTROL	OPEN/CLOSE FUNCTION	

LEARNING THROUGH
TRANSPARENCY IN THE WATER NETWORK

In many countries, the companies responsible for delivering clean water to the consumers use data to control and monitor their water networks. They have customer meters installed in most households, so they can bill the consumers based on actual consumption. However, between the water works and the consumers, there are so few sensors installed that this area can be considered a black box.

Within this box, thousands of valves, fittings, combi-crosses and hydrants are installed, functioning as points where data can be acquired. AVK Smart Water makes it possible to collect this data by providing intelligent devices that are easily implemented in the distribution network. This means that the water utility can acquire data from their assets and turn their black box into a crystal-clear box where they get an overview of what is going on.

Obtaining a crystal-clear box means knowing where water is lost due to leakages, enabling the water utility to efficiently lower the amount of non-revenue water. That way, you will be able to save energy by optimising the system, and only pump the needed capacity. These are just two of the many possible advantages by introducing the AVK Smart Water solution in the water network.



ACHIEVE A TRANSPARENT NETWORK WITH **VIDI POSITIONER**

Usually, reliable information about the position of a valve is based on assumptions as the valve is installed deep in the ground. With the VIDI Positioner, you no longer have to guess, you can receive regular information about the position of the valve due to the open/close feature of the device.

The VIDI Positioner can tell if the valve is opened, closed or anything in between. Utilities can monitor the activity of the valves in their water system and pinpoint in real-time every asset in a DMA zone.

Knowing the positioning of your assets, you can ensure that valves are positioned correctly according to your management plans. The VIDI Positioner can provide the necessary information for you to establish detailed plans for closing valves in relation to leaks or pipe bursts that can lead to greater costs.

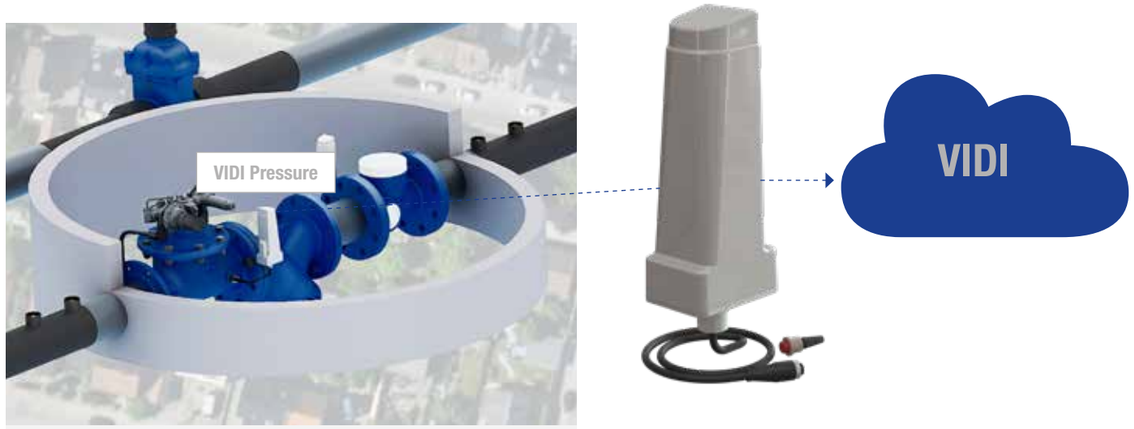
It is important to have a clear picture of your assets and their position; that way, when you experience a leak or a burst, you know exactly which valves should be closed.

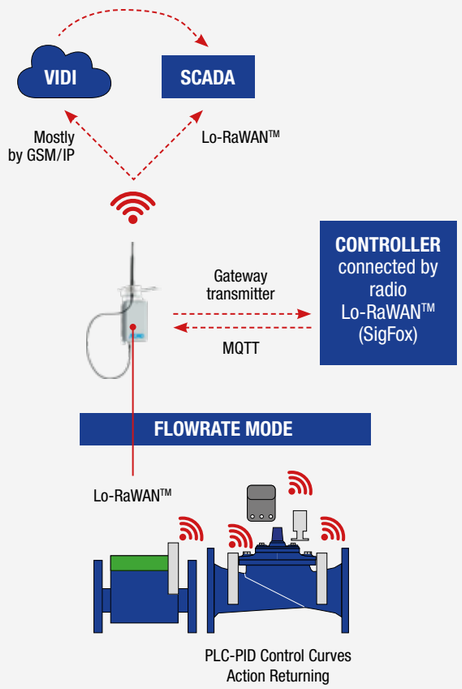
With optimised asset management plans and an established procedure for closing valves, you can reduce water loss, operational and maintenance cost, and energy consumption.

If you want to perform efficient non-revenue water reduction, it is of highest importance that all the District Metering Areas are effectively isolated, and that no uncontrolled flow takes place between DMAs. The VIDI Positioner can deliver that safe operation by monitoring the positioning of the assets in the network; thereby giving you the opportunity to establish closing plans for your valves.

MINIMISE YOUR WATER LOSS THROUGH LEAKAGES WITH **THE VIDI PRESSURE**

The smart sensor VIDI Pressure helps monitoring water pressure and provides you with crucial information about your water network. Managing pressure is considered the most beneficial, important and cost-effective leakage management activity. Sensing the pressure in your water system can reduce stress on infrastructure, extending its lifetime and minimise maintenance cost.





REDUCE WEAR AND TEAR ON WATER INFRASTRUCTURE

It is well-known that high pressure influences the leakage rate. However, it is not always because of high pressure that pipe bursts occur, it also due to ongoing pressure fluctuations that force the pipes to continually expand and contract, resulting in stress on the infrastructure.

Pressure monitoring is an important tool in smart pressure management. To prevent pressure fluctuation, and thereby minimise the risk of pipe bursts, you must have an intelligent pressure sensor and an intelligent software-system that lets you handle the data provided by the sensor. By embedding the VIDI Pressure sensor across your distribution system, you will be able to monitor the condition of your system regularly.

With the VIDI pressure installed on e.g. a control valve, the device registers and samples data every 5 minutes and transmits this data frequently to the VIDI Cloud. This information will help you obtain a clearer overview of the stress impact on the pipes in the system.

The VIDI Pressure combined with an intelligent control valve can form the basis for informed decision making, and thereby:

- Reduces stress on infrastructure
- Reduces non-revenue water and water loss
- Minimises risk of water contamination
- Reduces energy consumption, and;
- Minimises risk of pipe bursts

INTELLIGENT CONTROL VALVES ARE A VITAL TOOL FOR SMART NETWORKS

A Smart Water Network is an integrated set of products, solutions and systems that enable utilities to remotely and continuously monitor and diagnose problems, prioritise and manage maintenance issues and use data to optimise all aspects of the water distribution network. Managing distribution of water correctly can save money and ensure the overall performance of the network is improved.

The AVK control valve mounted with the PMD communication device is a local controller that can provide a wide range of control applications in a smart pressure management system.

The features are a highly accurate control and auto-adaptive PID in order to fit the valves for a multitude of different hydraulic conditions.

The PMD is supplied with pre-configurable hydraulic control functions and data-logging features, that enable the operator to preset conditions for flow and pressure.

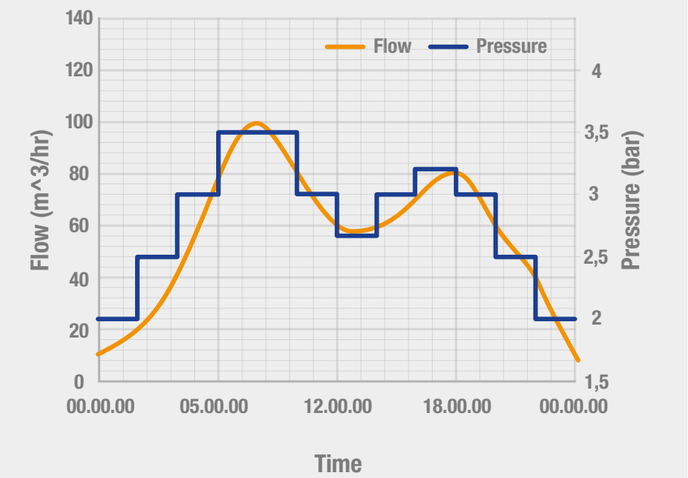
The unit will communicate with flow meter and adjust the pressure according to flow regardless of time of the day. Should an unforeseen large volume of water have been consumed leading to a higher flow, the unit will increase the pressure, in order to deliver more water and to avoid pressure fluctuation in the pressure zone. Once the flow is returning to normal condition, the system will automatically adjust to lower pressure again.

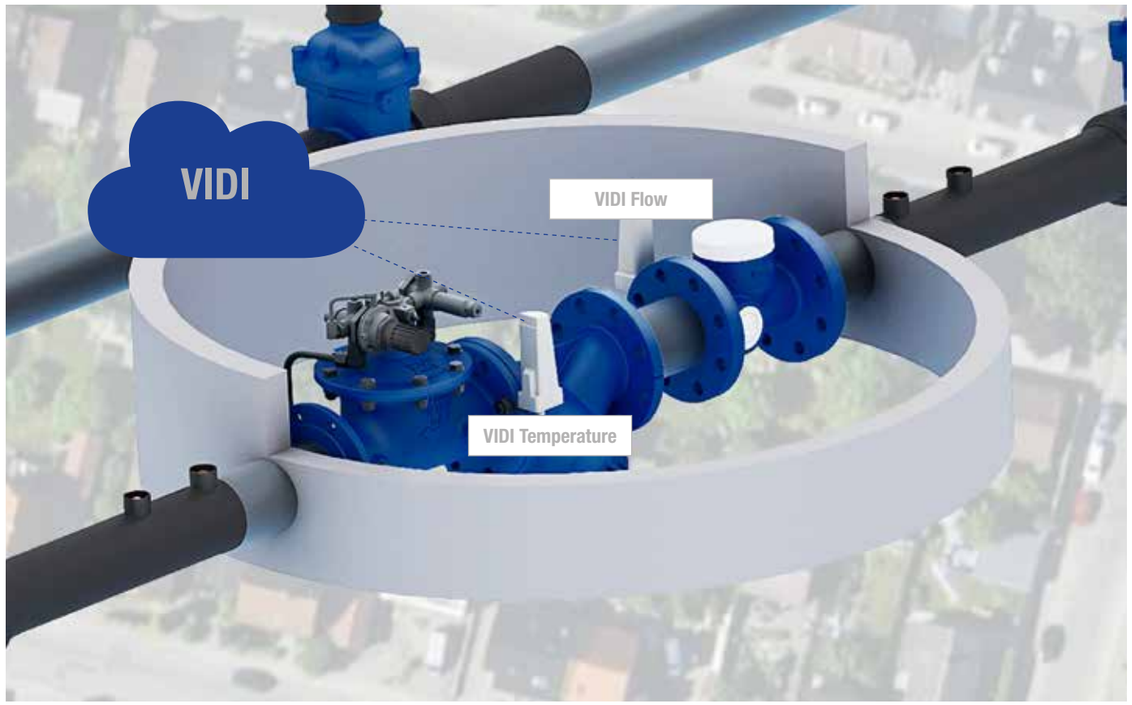
Reducing the pressure is a major method of reducing the overall leakage level. This graph shows how the control valve can control the pressure stepwise in relation to the flow. If the flow goes up, so will the pressure, while if the flow decrease, the same will the pressure. This is especially relevant at nighttime flow, or if an unforeseen event happens.

AVK intelligent control valve has been a proven solution for reducing leakage and burst frequency, bringing optimal and cost effective pressure control to your network. How can intelligent control valves contribute to a smart network?

They can:

- Provide optimised and calm network pressures
- Offer pressure feedback
- Offer valve position feedback
- Pressure Management Areas (PMAs)
- React to system failures – isolate bursts, re-zone areas
- Reduce leakage
- Increase/decrease reservoir flows
- Control storage level
- Work alongside other equipment – pumps, meters





ENSURING SAFE AND HEALTHY WATER

The smart sensor VIDI Temperature senses water temperature in the distribution network. The information gathered enable utilities to review the water condition on an ongoing basis.

Working with a scarce resource like water, you want to ensure clean and safe water for your consumers. While being the source to all life on the planet, water poses a severe health risk when the supplied quality is not fit for drinking.

Water utilities can experience challenges with stagnant water that can lead to low water quality and in worst case scenario contaminated drinking water. Stagnant water occurs when the flow is influenced or has completely stopped. In some countries the water quality can be affected by the fact that pipes are placed above ground, which expose the water pipes to heat.

With VIDI Temperature, you can get a clearer view of the water condition by measuring the temperature of the water. The sensor sends data to VIDI Cloud where it can be managed and help utilities to decide if there is need for action. That way, water utilities can ensure that the quality and health of the water is safe to drink for consumers.

The VIDI Temperature will help water utilities gain a greater understanding of the health and quality of their water supply, and thereby, help them manage their water supply in the best possible way.

FIGHTING NON-REVENUE WATER THROUGH LEAK DETECTION

The smart sensor VIDI Flow provides you with a regular set of data telling you how much water is flowing into your supply zone. Based on the number of pulses registered, the VIDI Flow can indicate the condition of the flow and volume in the network on a regular basis.

You will need a source of constant information that can tell you what is going on in your system. The VIDI Flow is that source. It will tell you the exact amount of water running through to your consumers, which enables you to act whenever you experience an irregularity in the flow. Irregular flow can e.g. cause pipe bursts or leaks. If you have a leak, your water inlet will increase continuously, and thereby increase your non-revenue water level.

Water utilities continuously seek to increase the efficiency of their leak detection. With the exact amount of flow inlet provided by VIDI Flow, you can compare flow inlet with water consumption in your DMA. That information gives you the upper hand and enables you to act right away. This will both reduce operational and maintenance costs, but also minimise your non-revenue water.

SAVE ENERGY AND MINIMISE MAINTENANCE COSTS BASED ON DATA

Ensure you have a complete overview of the condition of your air valves with the combination of two sensors. VIDI AirValve is installed in combination with a regular air valve and transmits data about water pressure and pulses in the network. The data is logged in the VIDI Cloud platform where water managers can access and view the data. With the VIDI AirValve added to the air valve construction, utilities can save energy and water and minimise maintenance costs.

Air valves are placed on strategic places where air will accumulate, and where air pockets often occur. It is important to ensure normal working conditions for the water system; utilities do that by making sure that air valves only close after all air has left the system and water has entered the chamber.

VIDI AirValve is the tool that can provide you with crucial information about the condition of the water system where the air valve is placed. The AirValve consists of a pressure sensor and a pulse sensor on a flange. That way, you can measure water pressure and at the same time keep an eye on any malfunction in the air valve.

With frequently transmitted data directly from two different sensors, the VIDI AirValve provides you with information about the condition of a water system that can be crucial to avoid leaks because of hard impact on the pipes.

With real-time data directly in hand, managers can make informed decisions about pressure regulation, system maintenance, asset and operational management to minimise the occurrence of leakages.

DETECT UNAUTHORISED USE AND REDUCE NON-REVENUE WATER

Make your fire hydrants intelligent with the VIDI Cap. The smart hydrant caps provide information about the condition of the hydrant by regularly transmitting data to the VIDI Cloud. The VIDI Caps provide features such as tamper alert, assets management and unauthorised use detection giving utilities the ability to act and reduce non-revenue water.

Non-revenue water caused by stealing or leakages is one of the challenges water utilities face on a regular basis. As fire hydrants are spread around the supply area, utilities struggle to keep themselves informed about the condition of hydrants and who is using them. It is difficult to establish wether it is in fact authorised operators who are using the hydrants before it is “too late”.

But with the VIDI Caps installed on your fire hydrants, you will receive data that tells you whether the hydrant cap is opened or closed. That way, when the cap sends an alarm, utility managers can assess the information and check if the fire department is on site. In addition, the VIDI Caps can pinpoint how long the cap has been opened.

ENSURING A HEALTHY WATER SYSTEM

Another challenge water utilities face is stagnant water, which can lead to contaminated drinking water. It is a challenge simply because utilities cannot investigate all pipes in the network to check for irregular or no water flow. To prevent water from being contaminated utilities ‘flush’ the system to empty dead-ends.

The VIDI Caps can help you create a flushing management plan based on the data that indicates the activity level of each fire hydrant in your network.

The VIDI Caps optimise your operation and asset management and lets you focus on ensuring clean water.

With an optimal overview of the assets and operation of units in the supply area, you can create flushing plans, enabling you to prevent stagnant water and to reduce non-revenue water via fire hydrants.

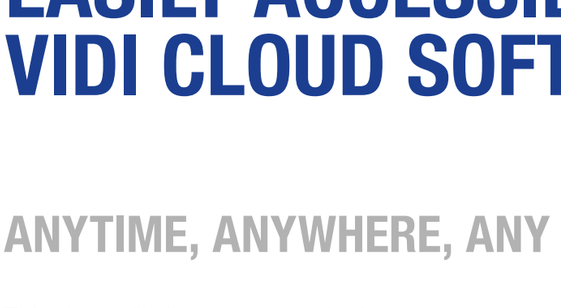
TURN UNKNOWN FACTORS INTO EASILY ACCESSIBLE DATA WITH VIDI CLOUD SOFTWARE

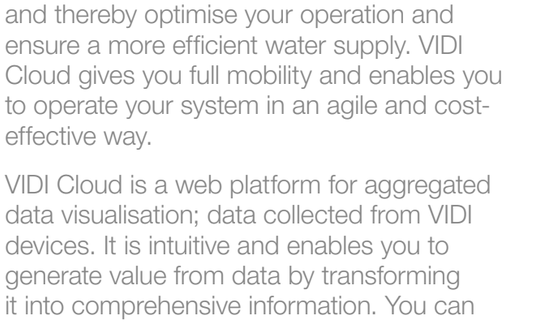
ANYTIME, ANYWHERE, ANY DEVICE, ANY BROWSER

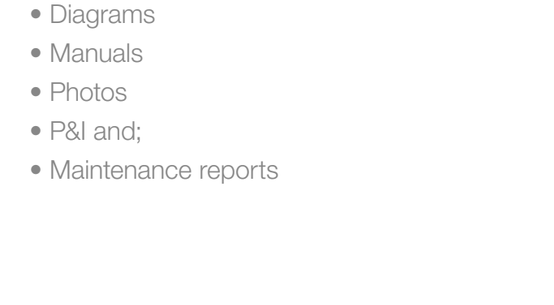
This data will allow you to make improvements, and thereby optimise your operation and ensure a more efficient water supply. VIDI Cloud gives you full mobility and enables you to operate your system in an agile and cost-effective way.

VIDI Cloud is a web platform for aggregated data visualisation; data collected from VIDI devices. It is intuitive and enables you to generate value from data by transforming it into comprehensive information. You can review data in:

- Analytics
- Diagrams
- Manuals
- Photos
- P&I and;
- Maintenance reports







The cloud service holds many functionalities that allow you to access real-time monitoring, trend analysis based on data history, exporting, KPI and Software-as-a-service. You can access data through any device (smart phone, tablet or computer).

In the cloud service system, you can display and compare multiple measures and signals. In addition, you can perform historical analyses where you can compare a series of historical data with a previous period.

VIDI Cloud stores the data that gives you the necessary information to better understand the water system process, and ultimately gives you the incentive to make informed decisions, implement saving plans and perform resource optimisation.

MAKE OPERATION AND ASSET MANAGEMENT EASIER AND MORE EFFICIENT

NOTIGRAM

NOTIGram is an application for your smartphone (android or iOS) with a telegram bot that sends alarm dispatches from your VIDI Cloud platform. The application is easy to use and gives you the incentive to act quickly whenever an alarm occurs.

The application's main function is alarm notification. For example, if your VIDI Cap, placed on a fire hydrant, detects an open cap; it will send an alarm to the VIDI Cloud. Then the alarm is forwarded to the NOTIGram app, where you can interact with the alarm by either acknowledging or ignoring it. If the alarm is not responded to, it will reappear within a time frame you have predefined.

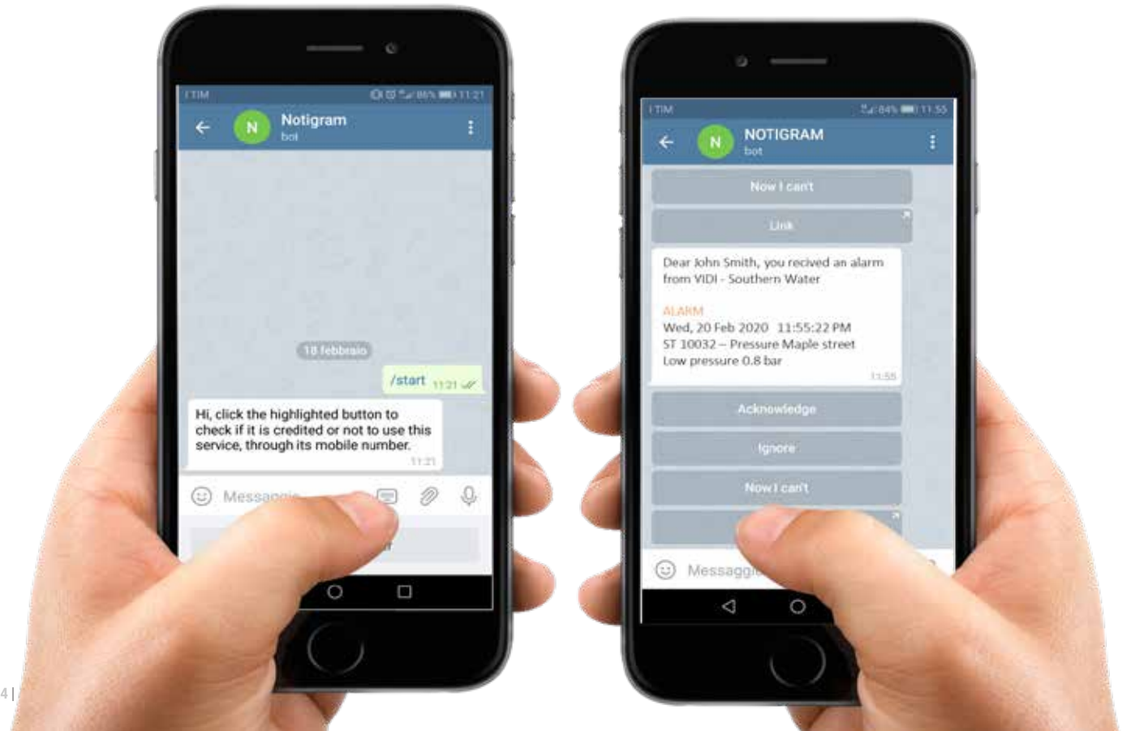
In addition, the NOTIGram-app can provide you with an accurate location of the asset, as the VIDI devices share their location. That way, you can facilitate the routing of the message to the facility manager closest to the device.

NOTIGram has a specific section for analysing the alarms. From the Alarm Dashboard, you can investigate the incident through multi-criteria selection: time and/or type of alarm. Through the feedback function, you can check the management status of the reported event and see the actions carried out when the alarm appeared in the application.

Keeping track of multiple assets can be difficult, but with NOTIGram you can be notified whenever an alarm is detected. Making it easy to optimise your maintenance, asset and operation management.

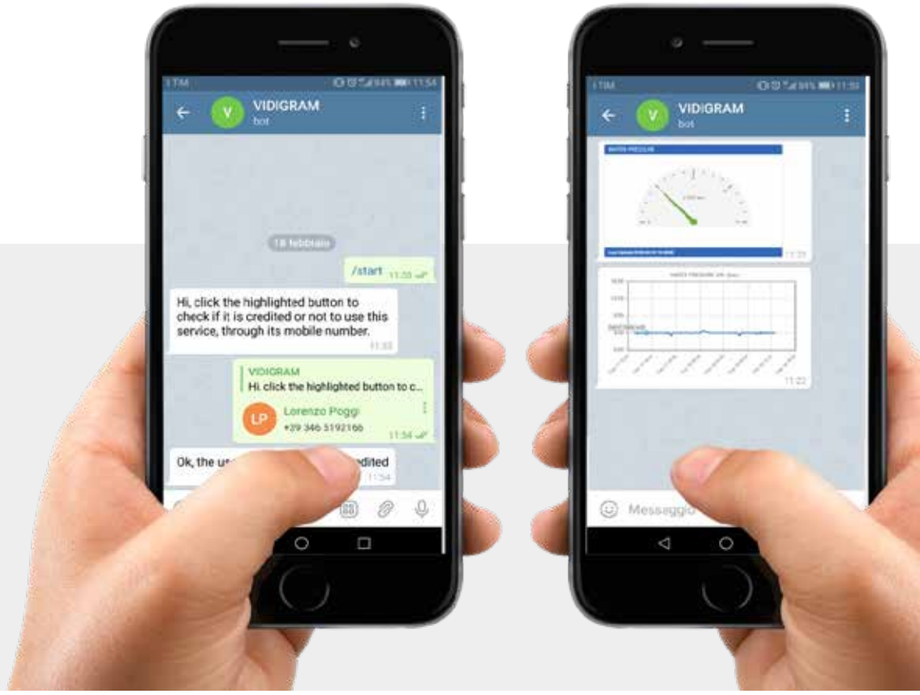
NOTIGram features

- Alarm alert via sound and visual notification
- APP for smartphones (android or iOS)
- Receiving alarms from SCADA
- Voice synthesis
- Interaction with the alarm
- VIDI feedback



VIDIGram features

- Analysing data in tables and charts
- Geographical location and distribution of information
- Network status
- Process of KPIs
- Intuitive and easy access to system data



VIDIGRAM

VIDIGram is an application for your smartphone where you can retrieve useful information about your water system through a subscription in VIDI Cloud. This gives you easy access to system data and lets you handle the data intuitively.

VIDIGram provides data analysis, geographical distribution of information, network status and process of Key Performance Indicators (KPIs). VIDI Cloud facilitates the knowledge of values and KPIs of any VIDI device in your network. Subscribe to specific sets of data through your VIDIGram-app, and you can access data about your VIDI devices; anytime, anywhere. This allows you to view information on an hourly/daily/weekly/monthly basis. The VIDIGram bot will inform you directly about trends and values of the variable you have subscribed to.

If you are checking data from multiple assets every day, normally you would go to each of the assets to check one by one looking for value or trend. But with VIDIGram all the data is available in one place. Making it easy to optimise your maintenance, operation and asset management plans.

AVK ASSIST

Improving your customer journey with the AVK Assist application for registering newly installed assets. Scan and register your products on-site when they are being installed with the AVK Assist application. Providing you with a clearer picture of your assets, the AVK Assist allows you to track and trace key data from your assets in the distribution network.

Use the unique QR-code to scan and track an AVK asset through the application. Among other things, you will be presented with an overview showing installed assets on a map. Furthermore, you will be able to filter your assets based on different inputs.

All products are labelled with a QR-code, which can be used for:

Product material: Datasheets, drawings, installation manuals, interactive models

Product installation: Combining product with installation picture, installer and data of installation

Traceability: Linking unique valve identification number with location

The data registered when the asset is installed is paired with the information in the QR-code (product number, production site number and unique asset number). When you sign in on AVK Assist, you will be presented with product information, installation information and location data.

DIGITALISATION ENSURES SAFE AND CLEAN DRINKING WATER

CASE STORY

By Lars Bo Kristensen, Business Development Director, AVK Smart Water

Skanderborg Forsyning has a vast supply area in which they need to ensure safe and clean drinking water for the consumers. But it can be challenging to get a general overview of the fire hydrants' status because they are placed around the supply area.

It is Skanderborg Forsyning's top priority to ensure safe and clean drinking water for the consumers, while at the same time improving their fire hydrants' service level, when they decided to initiate a collaboration with AVK Smart Water.

Currently, the water utility Skanderborg Forsyning in Denmark has no overview of when or if the fire hydrants in the area are being used, and who is using them. The fire hydrants are only to be used by the fire department or the water utility, however, unauthorised use has been detected before. Unauthorised use is not only illegal; it also poses an increased risk of water contamination.

"Skanderborg Forsyning always seek to reduce possible incidents that can negatively affect drinking water. Therefore, it was important for us to find a solution that could indicate the duration of time a fire hydrant has been inactive to ensure sufficient water quality", says Michael Pilc, Head of Operation at Skanderborg Forsyning.

IOT TO ENSURE SAFE DRINKING WATER

Skanderborg Forsyning decided to look for an intelligent solution that would enable them to monitor the fire hydrants in their network, and thereby reduce and ultimately end unauthorised use. Therefore, Skanderborg Forsyning decided to team up with AVK Smart Water.

AVK Smart Water developed the VIDI Cap solution that makes it possible to monitor where and when the hydrants are being used and for how long it has been unused. The solution consists of an IoT-device mounted in the cap of the fire hydrant. This enables the device to send a radio signal to a cloud platform, whenever the cap is opened.

"An IoT-based solution gives the utilities a reliable and cost-effective way of monitoring the water distribution network, and further, it enables utilities to make informed choices whenever they detect an opened fire hydrant cap", explains Lars Bo Kristensen, Business Development Director at AVK Smart Water.

BENEFITS AND UNIQUE OPPORTUNITIES

The technology behind AVK Smart Water's VIDI Cap solution provides countless benefits and unique opportunities for utilities. Not only can it monitor whether the cap is open or closed; it can also monitor how long a fire hydrant has been unused e.g. in connection to flushing the network. This is important as stagnant water poses the risk of bacteria growth and water contamination.

In addition, this IoT solution will also enable Skanderborg Forsyning to inform consumers when the fire hydrants are being used, as this sometimes can affect the colour of the water due to iron and manganese.

"The IoT solution brings a lot of opportunities and benefits with it, and it will definitely improve our service level and help ensure safe and clean drinking water for our consumers," says Michael Pilc.

WHAT DOES THE FUTURE BRING FOR MONITORING FIRE HYDRANTS?

AVK Smart Water and Skanderborg Forsyning have tested the solution with positive results, and now Skanderborg Forsyning is planning the next step in the digitalisation of the 80 fire hydrants in their water network.

"We are looking forward to continue our collaboration with Skanderborg Forsyning to ensure the water usage and quality in Skanderborg," says Lars Bo Kristensen.

As for the future, Lars Bo Kristensen states: "The future holds many exciting projects for AVK Smart Water, and we are looking forward to welcome additional IoT devices to the VIDI solution like valve positioner, pressure sensors, temperature sensors and more".

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