POSEYEDON

ALL data under control anytime and anywhere

sebaKMT by Megger®

POSEYEDON

Keep an eye on your water network

ACOUSTIC & FREQUENCY

FLOW

PRESSURE & TEMPERATURE

Request demo access free of charge

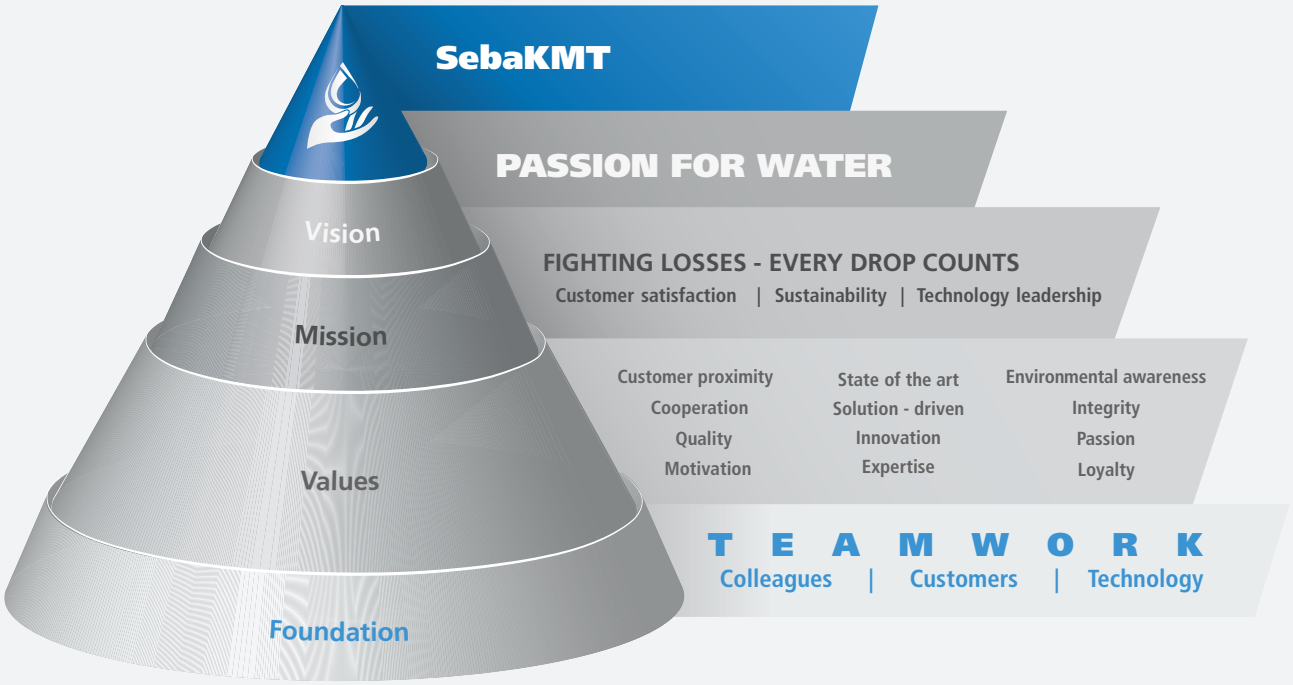
www.poseyedon.com

Water is precious!

Fresh water is crucial for life on earth and a human right. Only 3% of the water on earth are drinkable (97% salt water). The population is continuously growing and as human impact on nature increases, freshwater resources and their conservation are vital for human life and for all life on Earth. According to the World Bank, only 65% to 85% of all produced water reaches the end user.

The remaining 15% to 35% are lost during transport within the water network. The main task of water utilities is to guarantee their customers continuous access to clean and fresh drinking water. Thus, all efforts are directed towards living in a clean and healthy environment and acting responsibly with regard to the resources of our environment.

Since every drop counts for us, we have developed the Permanent Remote Monitoring System and offer our expertise and solutions. We thus give you the opportunity for comprehensive monitoring of your water distribution all the way to the end user.



Every drop counts!

POSEYEDON – equipped for the future

ONE software for detection, visualisation, localisation, prioritisation, forecasting, analysis, monitoring, alerting and repair.

Individual dashboards

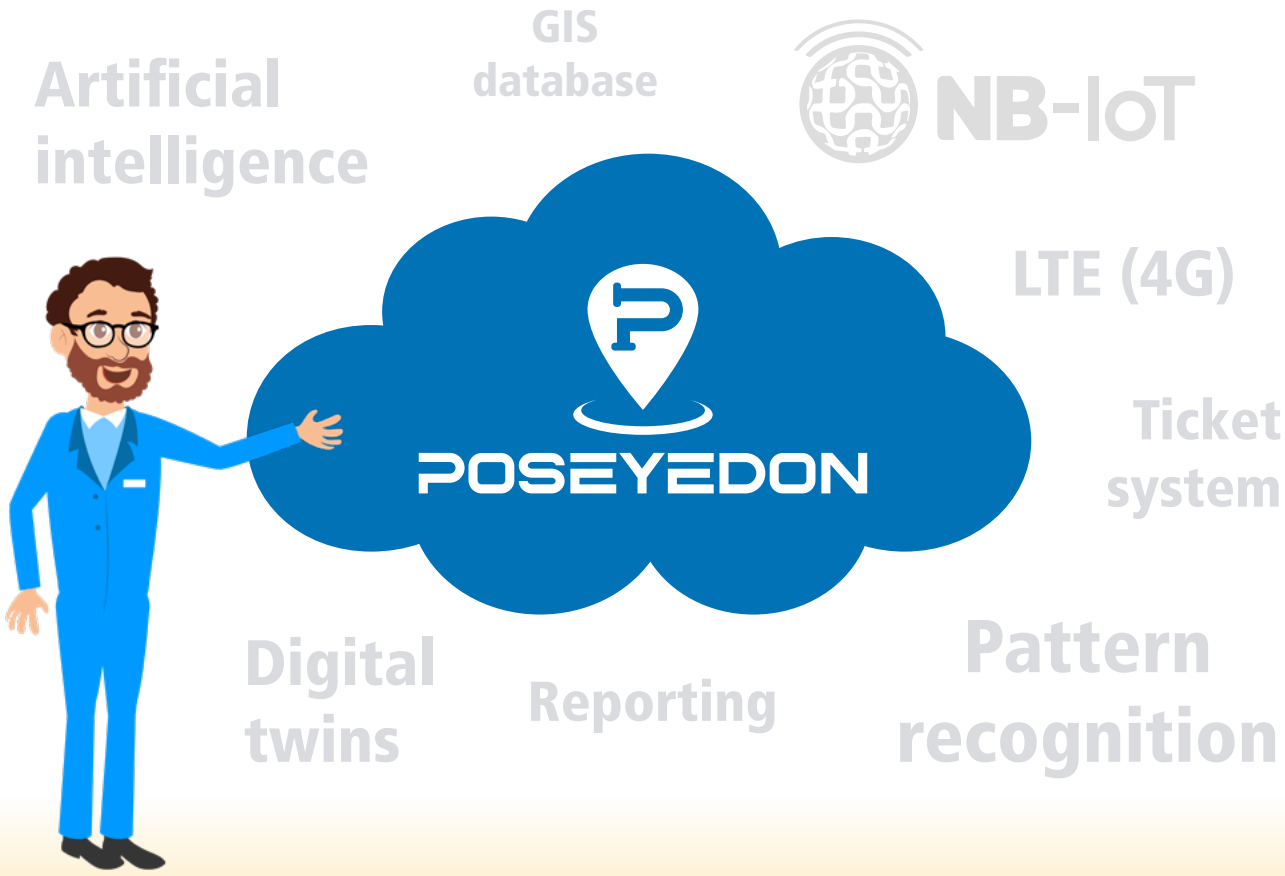
Clear, intuitive and customisable user interface.

Available everywhere

All important measurement data and notifications in real time – directly accessible via your mobile device.

Latest technology

With NarrowBand or LTE (4G) IoT technology, data are transferred to the cloud securely, quickly and reliably.



Continuous further development!

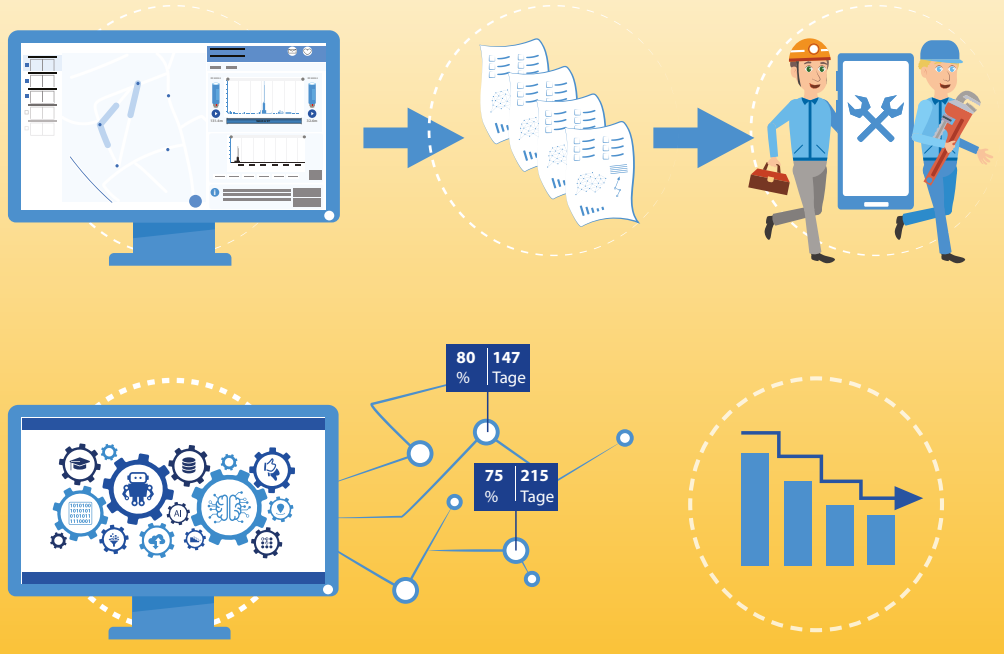
What is POSEYEDON`s approach?

POSEYEDON, SebaKMT's new database-based cloud platform, supports any connected hardware. In future, the algorithms within POSEYEDON will merge not only noise and frequency data, but also pressure, flow and temperature values, as well as any other sensors and their data.

Combined with GIS data sets, provided by the customer, a far more accurate picture of the current condition of an entire water pipe network can thus be generated.

Further functions are being developed, which deal with the use of typical and recurring patterns. For example, POSEYEDON will be able to recognise the „normal" state of measuring points equipped with acoustic noise loggers. During the first days after installation, POSEYEDON learns the typical noise and frequency values of each measuring point and independently adapts the alarm thresholds used for leak detection. This procedure primarily serves to prevent so-called „false positives". Thus, false alarms and the associated working time for further investigations can be avoided and saved.

If leaks are detected by the POSEYEDON monitoring system, there will be an integrated ticketing system that allows the user to generate a trackable leak ticket directly from the cloud. Employees, commissioned leak locators or so-called Find&Fix teams will be provided with all relevant information regarding the leak via email or directly within the POSEYEDON app, in order to check the suspected leak or repair it directly. In order to let POSEYEDON continue to learn with each deployment, it will be possible to report back each ticket created from the field, positively or negatively, to store comments or short reports, or even to store images of the environment and the leak itself in the ticket. A human-machine interface is thus created. POSEYEDON can then relate these evaluations to the existing measured values and should thus recognise typical patterns that generate a continuous improvement of the leak probability evaluation.



What does POSEYEDON cover?

NOISE AND FREQUENCY MONITORING

Transfer noise and frequency data directly to the cloud to pinpoint the exact location of the leak and also detect smaller leaks before costly, large leaks occur.

Supported temporarily and permanently installed noise level loggers:
GT-3-NB-IoT & GT-3-1 TRANSMITTER // SEBALOG N-3-NETWORK

PRESSURE MONITORING

With permanent pressure logging, you can monitor current conditions, changes and incidents.

Supported temporary and permanent pressure loggers:
SEBALOG P-3 // SEBALOG P-3-MINI // SEBALOG D-3

FLOW MONITORING & TEMPERATURE DISPLAY

Innovative ultrasonic technology for calculating upstream and downstream flow. Flow monitoring is crucial for loss reduction by

- balancing consumption
- Display of areas with lower flow
- Immediate report of loss

Supported permanently installed flow measurement systems:
SEBAFLOW // SEBAFLOW-BAT // SEBALOG D-3

POSEYEDON is open for external hardware and various databases.

POSEYEDON in detail

DASHBOARD WITH HEATMAP

The dashboard adapts to the devices used by the customer and displays all measuring points with exceeded alarm thresholds in clear areas. These can be alarms such as:

Leak probability – measuring points that show an increased combination of noise and frequency.
Flow – measuring points that no longer reach the defined minimum value by night.
Pressure – measuring points exceeding or falling below specified pressure alarm thresholds.

LEAK PROBABILITY

Just fade in „Leak probability". The dashboard will only show you measuring points with the highest leak probability. Take care of the most important leaks first. Export the relevant data directly from the dashboard, check the results on site and quickly fix one leak after the other.

AUTOMATIC CORRELATION

The correlation function (for time-synchronised devices such as GSM box and GT-3-S transmitter) is calculated automatically by POSEYEDON in the background. As soon as several noise recordings are available, POSEYEDON correlates them and displays the calculated leak position within the MapView for the respective day. In future, the remote correlation will be supported by artificial intelligence (AI). Thus, even non-time-synchronised noise logger systems such as the GT-3-1 or GT-3-NB-IoT will make it possible to narrow down the potential leak position to a few metres.

BATTERY LEVEL

Even the best noise, pressure, data or flow loggers need fresh batteries at some point. Don't worry – your dashboard shows you early, which measuring points you should consider. This allows you to plan maintenance and repair measures in advance.

RADIO SIGNAL STRENGTH

Unfortunately, a strong and widespread radio network is not always given. Therefore, have the system show you which measuring points you might be able to improve.
Yellow: „The signal could be better, but it is still sufficient."
Red: „The signal is borderline! Try moving the antenna positions, install amplifier antennas or change manhole covers if necessary."
We are happy to support you in improving your network!

DEFINING MEASURING POINTS

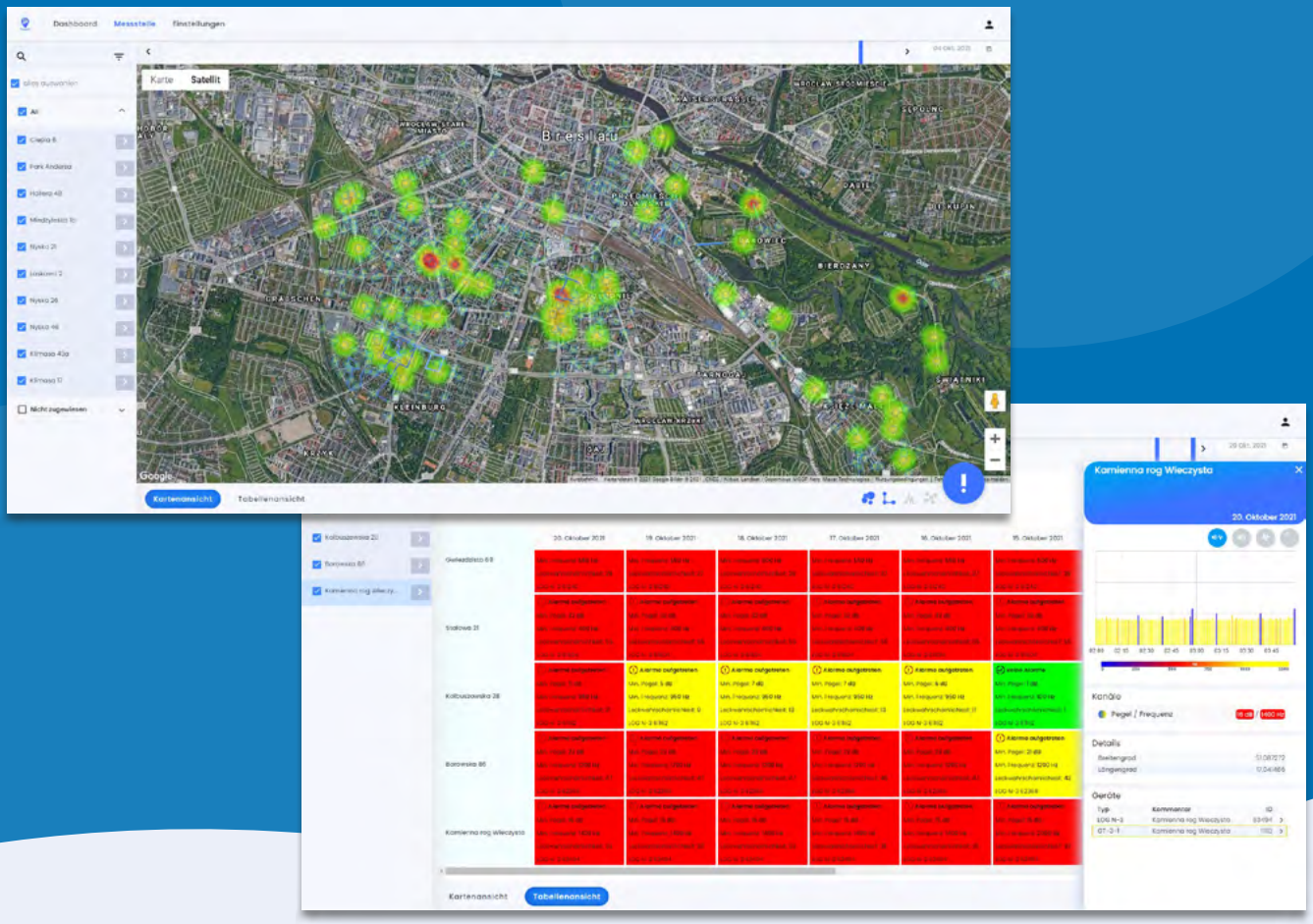
The more measuring points are created and the more different measured values are generated and transmitted, the more important good organisation becomes. It may seem like a triviality, but it facilitates cooperation between teams enormously. Assign or change measuring point designations easily and quickly.

MAP VIEW

Whether map or satellite view – the map functions can be used to the same extent.

EXPORT FUNCTION

Filter your dashboard according to your needs and export exactly what you get displayed!



Identifying areas of interest through the heat map
The map view allows you to get an overview of all areas of interest in seconds by using the POSEYEDON heatmap function. The special feature, however, is that the heat map shows not only areas of interest in terms of leak probability, but also device data such as Rssi quality, battery status and outstanding sound files. All this is easily selectable via the new custom marker switcher.

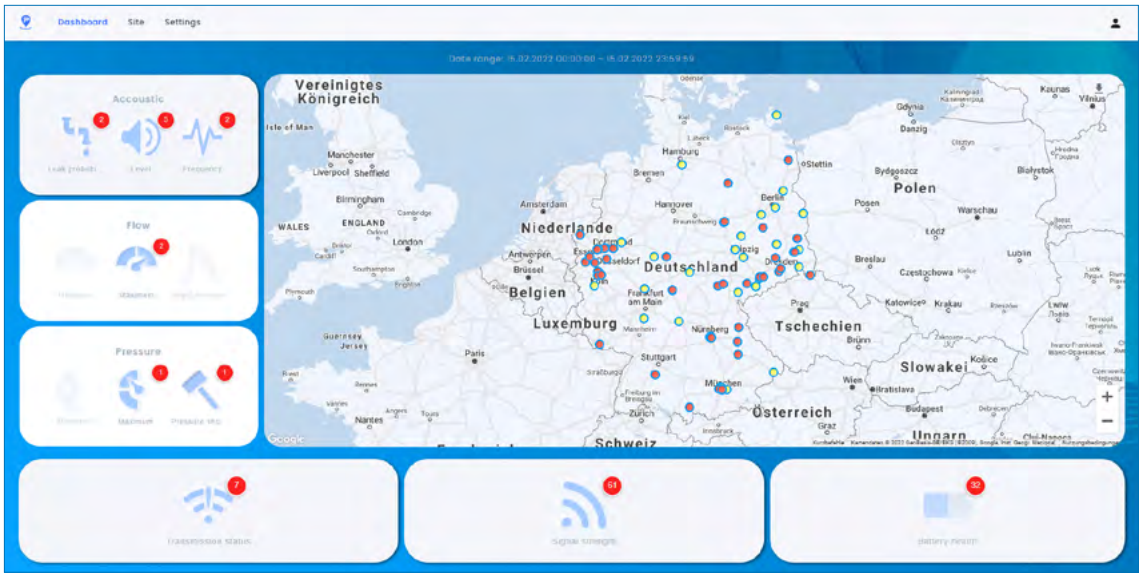
Pipe data import & manual drawing
Simplified import process of pipe network information based on .kml or .shape files, by simple drag&drop. Embedding such data sets enables POSEYEDON to learn faster and to make statements about leaks and areas-of-interest as precisely as possible. Of course, the handling of manual drawing has also been revised. No matter whether radii, different pipe parameters or materials have to be drawn – with POSEYEDON it can be done online and easily.

Simple creation of device groups via drag&drop
The NB-IoT transmitters are the first SebaKMT devices that are already factory-equipped with embedded roaming SIM and pre-programmed with Ready2Go default settings, ready in your POSEYEDON customer account. Before, during or after installation on site, all units from the clearly arranged unit pool can be easily combined into groups by drag&drop.

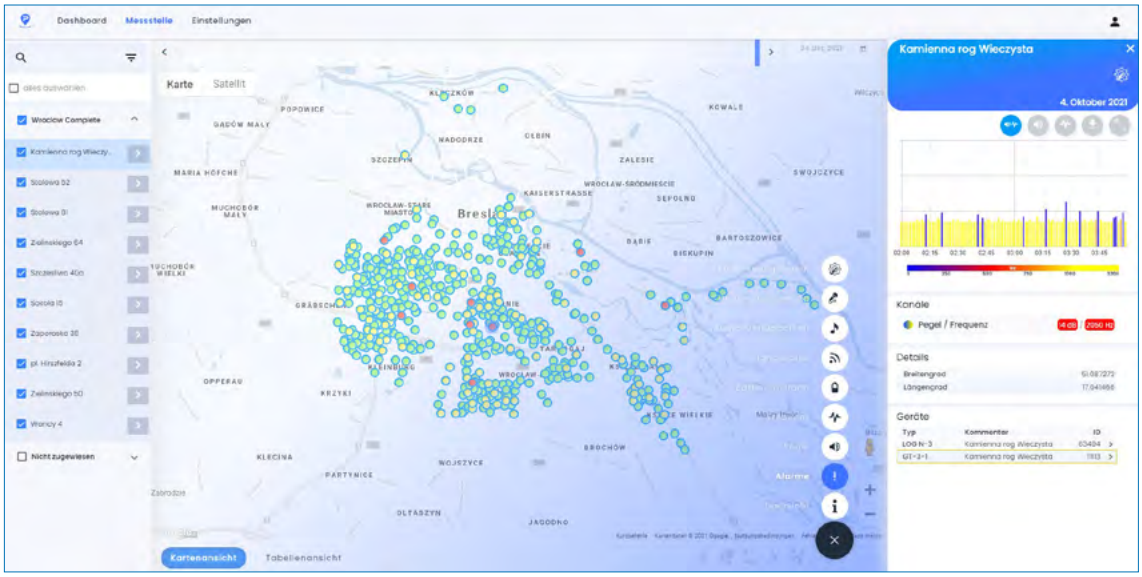
Different data representations
It is not enough to generate data, it must also be visualised and made processable in various ways. One possibility is to create different views of the same data sets.

POSEYEDON offers a map view, a table view and also a continuous display of the measured data in the form of a graph. Here, it is of course important to derive reports, determine leak times and also track device values.

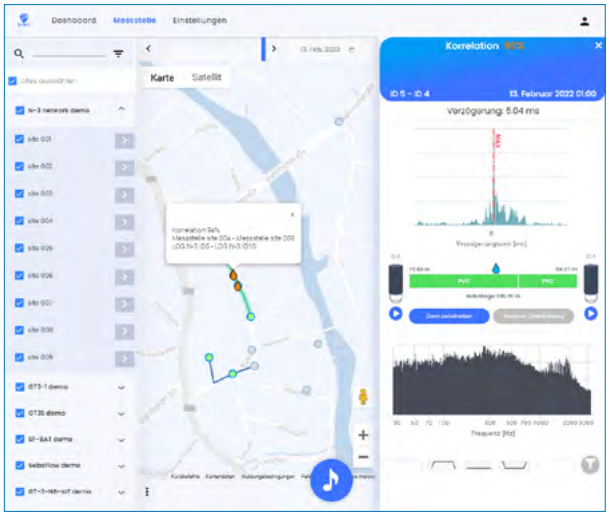
DASHBOARD



MEASURING POINTS



CORRELATION



FLOW

GOOGLE STREET VIEW

In addition to the POSEYEDON functions listed, there will be other AI-based innovations at SebaKMT in the future. AR or MR, i.e. augmented reality or mixed reality approaches are also conceivable and are already being developed. For example, by combining the GIS data stored in POSEYEDON and the use of the smartphone camera, the course of the pipelines can be superimposed on the real image. Even localised leaks can thus be visualised digitally. The SebaKMT product management team is happy to offer interested users and customers the opportunity to drive this development forward together in order to realise the possibilities offered by this digital development as successfully as possible and tailored to the requirements of the water industry. Terms such as artificial intelligence, pattern recognition or digital twins no longer belong in the drawer of science fiction.

Digitalisation and the application of future possibilities from the field of artificial intelligence will be a fundamental building block for SebaKMT, enabling it to support customers economically and efficiently in the fight against water losses.

You to not ONLY want pure leak detection and digital network monitoring?

You would like statements on:

Water quality, water turbidity, nitrate content or conductivity?

No problem!

Reliable planning for the future. POSEYEDON is openly designed for external hardware and various interfaces. Feel free to contact us!

We support customer-specific further developments and active co-design at all times.

Request a pilot project now!
→ dev@sebakmt.com

POSEYEDON

Keep an eye on your water network

POSEYEDON

The cloud solution for leak detection and asset management that helps you minimise water losses!

- All live data and evaluations under control anytime and anywhere
- Easy-to-understand and clear user interface
- Reliable, fast, secure and energy-efficient data transmission
- Automatic online correlation
- Continuous further development (e.g. pattern recognition)

Scan the QR code and watch the POSEYEDON explanatory video

www.poseyedon.com

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