SMART & EASY

The customer magazine of ZENNER International

03 **2026**



YOUR STRATEGY. OUR SOLUTIONS.

How Europe is coming together thanks to digitalisation.

B. One

ZENNER



Dear readers,

There is one matter on which Europe's countries, regions, towns and cities all agree – namely that urbanisation, climate change and digitalisation are challenges we all face. Only by working together can we address these challenges successfully.

Enlit Europe 2026, which is being held in Vienna, provides an ideal opportunity for key players from all over Europe to come together and interact. Public utility companies, supply companies and local authorities gathering at this event can find solutions and share their experiences of smart city projects. ZENNER has been participating in Enlit Europe for many years now, contributing its expertise from numerous international projects.

Having set up our first foreign subsidiaries in Italy and France over 30 years ago, we are now present in around 60 locations worldwide. As an international solution provider, we are very familiar with individual countries' needs and the challenges they face. We draw on this knowledge and experience to develop solutions and products that are a perfect fit and offer benefits extending beyond national borders.

We're looking forward to coming together in Vienna to share our experiences!

Alexander Lehmann
Managing Director of ZENNER International GmbH & Co. KG

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Come and see us at

Enlit Europe 2026 in Vienna which is taking place from 10 to 12 November 2026
Exhibition stand B.h110

DIGITALISATION: EUROPE IS COMING TOGETHER

All of Europe's towns, cities and municipalities are facing new challenges resulting from urbanisation, extreme weather events, scarcity of resources, and increasing demands relating to reliable supplies of energy and water. This means flexible systems geared to specific requirements and conditions are called for. Digital solutions and wireless technologies such as LoRaWAN® (Long Range Wide Area Network) are creating the basis for capturing data efficiently, transmitting it securely and using it for a variety of applications. To date, ZENNER has over 450 smart city projects under its belt, and its customers include around a hundred towns and cities.

The clear goal for Europe's towns, cities and municipalities is to become smart and resilient. Smart resilience centres around the intelligent use of data that is made accessible and usable via sensors, platforms and IoT networks such as LoRaWAN®. Thanks to LoRaWAN®, operators can network measuring devices and sensors cost-effectively over a wide area in order to monitor critical infrastructure such as heat grids and drinking water systems. Water body levels, air quality and energy consumption can all be measured, too. Feedback loops help ensure an early response in the event of problems, and adjustments can be made automatically when necessary.

Adapt yourself – the Minol-ZENNER Group's B.One solution world

To support Europe's public utility companies, municipalities and local authorities in the transition to resilient smart cities, the Minol-ZENNER Group combines innovative technologies and digital solutions in its B.One solution world under the motto "Adapt yourself". Thanks to its modular approach, different smart meters and devices offered by the Group can be interlinked and adapted to suit the relevant conditions. What's more, the B.One label on the devices shows which components support remote reading of data, so there's no need for customers to compare technical details.

"LoRaWAN® and our B.One solution world offer a perfect foundation for building a holistic digital ecosystem step by step. Each individual use case can be set up on a tailor-made basis, depending on the specific requirement," explains Zeljko Petrina, Managing Director of ZENNER International GmbH & Co. KG. You can read more about the B.One solution world on page 6.



Smart water rollout as a Europe-wide task

The rollout of digital measurement technology provides the basis for developing extensive digital infrastructure. In this context, ZENNER offers a comprehensive portfolio of smart measurement technology for the water, heat and gas sectors. It is also continuing to develop this portfolio on an ongoing basis (you can find out more about measurement technology on page 8). The aim for the years ahead is to drive forward the smart water rollout extensively across Europe.

“We take a holistic approach to digitalising water management. As we see it, a smart water rollout goes beyond the digitalised, automated recording of measurements and also covers complementary IoT solutions that make it possible to operate networks reliably and monitor environmental data,” explains René Claussen, Head of the Measurement Systems, IoT and Digital Solutions Business Unit at ZENNER.

As a smart water solution provider offering everything from intelligent measurement technology to a data platform, ZENNER can supply all the solutions needed for a smart water rollout from a single source. This means applications can be implemented along the entire process chain – from monitoring bodies of water and their water levels to ensuring distribution in the supply network and recording consumption in buildings transparently.

Digital solutions for smart cities

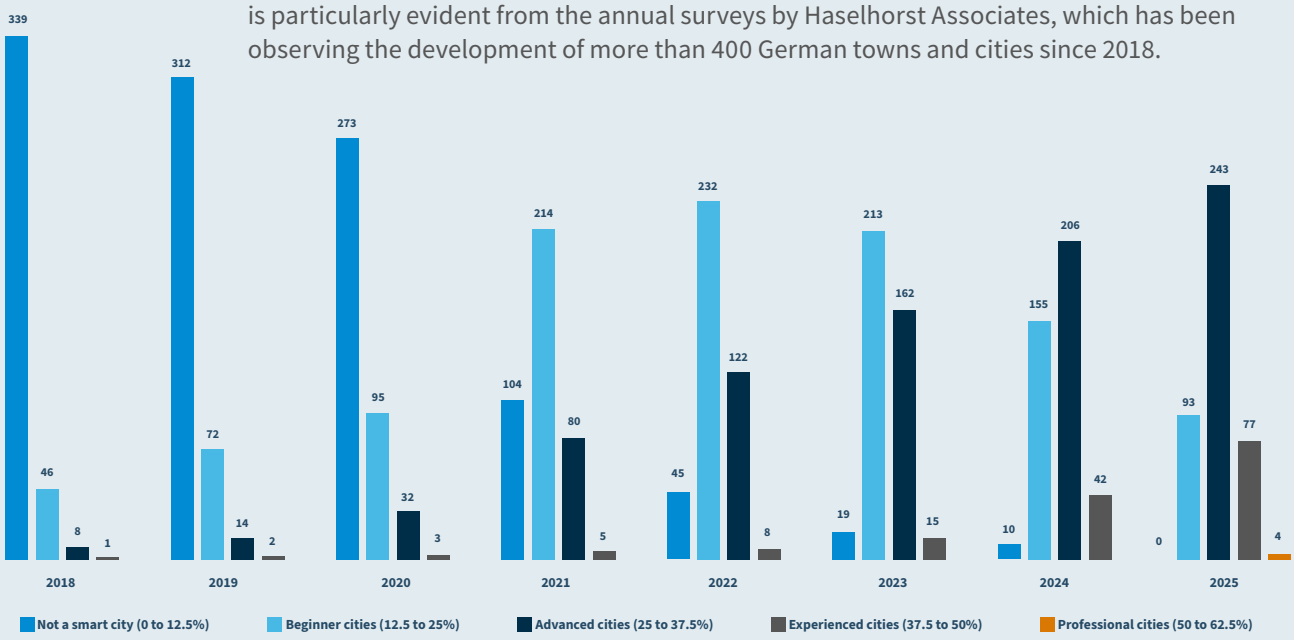
When it comes to using the recorded data for specific applications, a suitable platform is needed in addition to the wireless infrastructure. ZENNER’s B.One element suite combines data transmission via LoRaWAN® with further processing and visualisation of the data. The information can be visualised via dashboards and utilised for a variety of municipal and water management use cases. For instance, it can be used to spot leaks in a water network, to detect flooding at an early stage and to optimise energy efficiency in buildings.

WEBLINK

Further information about smart cities

DEVELOPMENT OF SMART CITIES

Germany’s towns and cities have undergone a significant transformation over the past decade, progressing from individual digitalisation projects to strategic smart city development. This is particularly evident from the annual surveys by Haselhorst Associates, which has been observing the development of more than 400 German towns and cities since 2018.



Haselhorst Associates Smart City Ranking 2025 – level of development of smart cities between 2018 and 2025

Source: Haselhorst Associates Consulting, 2025

B.ONE ELEMENT SUITE:
SOLUTION FOR SMART METERING AND SMART CITIES

By opting for ZENNER's B.One element suite, public utility companies, providers and local authorities can configure digital applications flexibly in line with their needs.

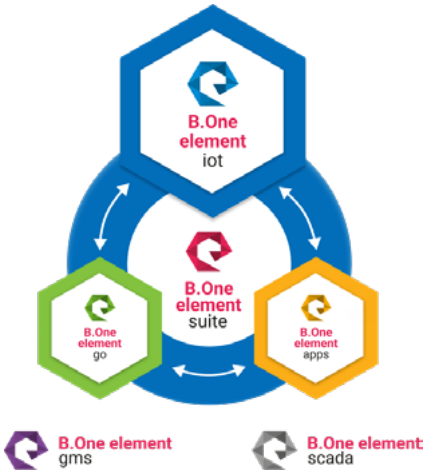
The Internet of Things (IoT) is opening up new opportunities for the digitalisation of towns, cities and municipal infrastructure. By connecting sensors and devices, wireless technologies such as LoRaWAN® are establishing the basis for numerous smart city applications.

Before data from water meters or networked sensors can be used for digital applications, it needs to be amalgamated and processed. This is exactly where ZENNER's B.One element suite comes in. It links up the individual process steps and ensures a fully digital end-to-end flow of data, from device installation and commissioning through to the final application – and all without any discontinuity. "B.One element suite is the standard solution for the Internet of Things and the digitalisation tool for buildings, smart metering and every conceivable smart city application," explains René Claussen, Head of the Measurement Systems, IoT and Digital Solutions Business Unit at ZENNER.

Components of the B.One element suite

The B.One element suite consists of several mutually compatible components that are responsible for different tasks in the digital infrastructure. The core component is ZENNER's IoT platform B.One element iot, which amalgamates data from different sources and makes it available for managing devices and visualising information.

B.One element go supports the digitalisation and documentation of installation and service processes, while B.One element apps can be used to configure customised applications on the basis of the modular principle. B.One element scada is a complete solution comprising both hardware and



software. It logs and transmits grid status data for the professional monitoring of low-voltage grids. And B.One element gms enables operators to manage LoRaWAN® gateways from different manufacturers on a centralised basis.

B.One complete

This new all-in-one metering solution is being unveiled at Enlit Europe. It will help water utility companies to make their operating processes more efficient, log consumption data on an automated basis, and detect leaks at an early stage.

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More information about B.One element suite



ADAPT YOURSELF: ACTIVELY SHAPING THE FUTURE WITH B.ONE

“There is nothing permanent except change.” This Heraclitus quote from around 2,500 years ago has never been more apt than it is today. Being able to adapt makes you resilient – and that’s exactly the idea behind our “Adapt yourself” motto. It means being flexible and having the vision and courage to address new challenges with intelligent solutions.

The demands on towns and cities, energy suppliers, property managers and industrial companies are growing at breakneck speed. Once a vision for the future, climate neutrality, resource conservation, and high living standards in urban environments have long since become an expectation. At the same time, companies and municipalities are facing ever growing challenges due to climate change, extreme weather events and increasing cost pressure. The answer to all this is adaptability – and this is exactly where the Minol-ZENNER Group comes in with its new B.One solution world.

Under the motto “Adapt yourself”, B.One creates a holistic digital ecosystem by combining innovative technologies. The aim is to help customers in various sectors – energy, real estate, industry and municipalities – respond flexibly to changes and make their processes futureproof.

Lots of solutions combined into one world

B.One is all about benefits for customers – simplifying processes, making data more transparent and providing a more reliable basis for decision-making. All this is made possible by a modular solution world combining all the relevant components – from compatible measuring devices and open radio standards such as LoRaWAN® and Wireless M-Bus to



“The B.One brand is primarily intended to provide customers with guidance in setting up their own digital ecosystems.”

Alexander Lehmann,
Managing Director of the Minol-ZENNER Group

high-performance data platforms and applications. The result is end-to-end digitalisation without any discontinuity or isolated solutions. This offers customers maximum flexibility coupled with a high level of investment security.

“Here at the Minol-ZENNER Group, we set out on our digitalisation journey more than ten years ago and have developed innovative solutions at all relevant levels, carefully coordinating them on a technological basis. The fact that we also operate one of the largest LoRaWAN® networks worldwide today speaks for itself. It is only logical that we are now bringing these together in a uniform solution environment. The B.One brand is primarily intended to provide customers with guidance in setting up their own digital ecosystems,” explains Alexander Lehmann, Managing Director of the Minol-ZENNER Group. “In this way, we’re creating the basis for resilient business models and sustainable growth,” he continues.

THE BENEFITS AT A GLANCE:

- Open standards: Futureproof technologies prevent dependencies and can be extended with ease.
- Central availability of data: All information can be retrieved and evaluated at any time.
- Customised applications: Solutions can be precisely tailored to meet specific requirements.

How B.One is benefiting every sector

Public utility companies benefit from more efficient processes and a central database for multidisciplinary applications. Municipalities can network their infrastructure intelligently and make decisions that are informed by data – for greater sustainability and better quality of life. In the real estate sector, B.One supports both transparent, digital billing for utilities and the development of smart buildings.

Ready for the transformation

With B.One, the Minol-ZENNER Group is not merely supplying technology – it is providing a holistic concept for digital resilience. Customers are given the tools that enable them to actively shape changes, instead of just responding to them.

In other words, organisations that adapt not only remain competitive – they also shape the future.

WEBLINK

B.One

SMART MEASURING DEVICES:
THE IDEAL TECHNOLOGY FOR EVERY TASK



ZENNER offers a complete portfolio of smart, futureproof technology. Here is an overview of four new products and their potential applications.









IUWS B.One ultrasonic domestic water meter	**MNKD-M domestic water meter** (available from January 2027)	**Blocker-USG4. B.One ultrasonic gas meter**	**B.One Gateway indoor 8** (available from early 2027)
The IUWS B.One water meter ensures precise recording of consumption data in the residential and domestic water sector. Boasting state-of-the-art ultrasonic technology, it provides reliable, accurate measurements and means customers can be billed on the basis of their actual consumption. One particular highlight is the parallel wireless functionality, as this enables the IUWS B.One to transmit measurement data via Wireless M-Bus and LoRaWAN® simultaneously.	The MNKD-M is an MID-compliant domestic water meter that combines truly precise measurement results with a very low bearing load and a long service life. The five-roller wet dial register with modulator disc enables electronic, reaction-free scanning and is the basis for wireless remote reading of the meter data via LoRaWAN® or wM-Bus. A combined M-Bus/pulse module will also be available.	This new gas meter will be officially unveiled at Enlit Europe. The Blocker-USG4. B.One has an integral shut-off valve that can be controlled remotely, as well as temperature and pressure compensation functionality. Thanks to data transmission via NB-IoT, it is possible to read and configure the meter and update firmware remotely.	The B.One Gateway indoor 8 is ideal for LoRa network coverage inside a building, as it is capable of receiving values from hard-to-access sensors located across several floors and in basements, without any need for extra repeaters. This device can be used for a whole host of IoT applications across various sectors. The B.One Gateway indoor 8 can integrate a very high number of end devices into the LoRaWAN® wireless system.
Click here for further information.	Click here for further information.		Click here for further information.
Good to know – all materials used for drinking water applications comply with the relevant standards and guidelines, the German Drinking Water Ordinance (TrinkwV) and the German Environment Agency's evaluation criteria (German Environment Agency (UBA) positive lists). ZENNER has already updated its own domestic water meter portfolio to meet the relevant requirements for lead-free materials.			

CONTINUED GROWTH FOR THE MINOL-ZENNER GROUP'S **LORAWAN® NETWORK**

In September 2025, the Minol-ZENNER Group achieved a major milestone when the number of devices integrated in its LoRaWAN® network hit the ten million mark. What's more, the network has continued to grow, with another two million devices added by the start of November 2026.

All around the world, LoRaWAN® has become an important basic technology for the Internet of Things. Thanks to this energy-saving wireless standard, large numbers of battery-operated sensors can be networked over great distances cost-effectively. The technology is now available in more than 160 countries. The LoRa Alliance® reported that, in 2026, the number of LoRaWAN® devices deployed globally had reached 150 million. LoRaWAN® is particularly widely used in the utility sector, in smart buildings and smart cities, in industry, agriculture and logistics, and for smart metering and asset tracking.

Growth thanks to digitalisation

There are two developments that are playing a key role in driving the growth of the Minol-ZENNER Group's network. The first is the increasing use of digital measurement technology in the housing sector. This technology is supporting the aim of making building stock climate-neutral by 2050. The second development is the progress being made in the extensive smart water rollout throughout Europe. "The digitalisation of water management is one of the reasons behind the accelerated growth of our network. In view of climate change and increasing periods of drought throughout Europe, water utility companies have begun switching their measurement technology over to devices that can be read remotely – and they've started improving the resilience of their networks, too," explains René Claussen, Head of the Measurement Systems, IoT and Digital Solutions Business Unit at ZENNER.

LoRaWAN® for smart cities

ZENNER is also actively involved in the development of smart cities. Over 100 European towns, cities,



municipalities and energy suppliers already rely on LoRaWAN® solutions from ZENNER. Areas of application range from digital recording and transmission of measurement data to municipal IoT projects. The technology can be adapted in line with different requirements to suit everything from rural communities and medium-sized towns to densely populated urban areas.

Making progress together

As an active member of the LoRa Alliance® since its early days, ZENNER continues to play a part in the development and growth of the standard. With around twelve million LoRaWAN® devices now deployed globally, ZENNER has extensive experience of developing and operating scalable IoT infrastructure. Its portfolio includes measuring devices and sensors, LoRaWAN® gateways, network infrastructure and ZENNER's specially developed B.One element suite all-in-one solution, complete with an associated IoT platform and a range of applications.

WEBLINK

Further information about LoRaWAN®

3 QUESTIONS FOR… ALPER YEGIN, CEO OF THE LORA ALLIANCE®

For the digital transformation of the energy and water industry, LoRaWAN® has become a key enabling technology. Behind this communication standard stands the LoRa Alliance®, a global non-profit organisation where companies collaborate on an open, interoperable ecosystem for the Internet of Things. ZENNER has been a member of the alliance since its early years and operates one of the world's largest LoRaWAN® networks with more than twelve million devices, with network availability in 15 countries. How LoRaWAN® is transforming the water sector, why strong partners like ZENNER matter, and where the standard is heading next – these are the topics we discussed with Alper Yegin, CEO of the LoRa Alliance®.



Mr. Yegin, why is LoRaWAN® gaining so much importance in the water sector – and how can this critical infrastructure be reliably secured at the same time?

Alper Yegin: The requirements for wireless technology in the water sector are demanding: signals must cover long distances, reach reliably from meter pits and basements to the outside, and sensors should operate for several years without battery replacement. This is exactly where LoRaWAN® comes into its own. It not only meets the classic requirements of an LPWAN – that is, a long-range, deep indoor and low power wireless technology – but it also goes far beyond it. LoRaWAN® operates in unlicensed frequency bands, allowing networks to be deployed and operated flexibly. The infrastructure remains manageable, and the sensors are economically attractive thanks to their long battery life. LoRaWAN® is also based on an open standard developed by the LoRa Alliance® and endorsed by the International Telecommunication Union (ITU). This is complemented by several open-source implementations that make it easier to get started.

The ecosystem behind it is equally important: there are more than 650 certified devices and almost 1,000 products listed on the LoRa Alliance® Marketplace – from meters and sensors to gateways and platforms. The current figures speak for themselves: around 125 million LoRaWAN® devices have already been deployed worldwide. We are seeing annual growth rates of about 25 per cent – a clear indicator of how strongly the market is embracing LoRaWAN®. In my view, this is also due to the broad range of deployment models. Almost any scenario can be supported, whether public or private networks, municipal community networks, satellite-based applications or international roaming agreements. For the water industry, this is a key advantage, because every supply area has its own specific characteristics. With LoRaWAN®, the network model can be precisely tailored to the existing infrastructure, the size of the service area and the level of digitalisation.

ZENNER brings extensive field experience to the LoRa Alliance®, with millions of connected water meters and sensors. How does this experience feed into the further development of LoRaWAN®?

ZENNER is a very special partner for us: the company not only operates one of the world's largest LoRaWAN® networks with more than twelve million devices but also brings extensive expertise in metering, sub-metering and smart city. This combination of hands-on experience and deep industry expertise is extremely valuable for the continued development of LoRaWAN®.

Accordingly, ZENNER plays a key role within the LoRa Alliance®. The company holds several strategic positions – including a seat on the Board of Directors with responsibility as Treasurer, and the chair positions of the Certification Committee, the Smart Cities and Buildings Working Group, and the Device and Solution Makers Forum. In this way, ZENNER helps shape both the strategic direction and the execution of the LoRa Alliance®.

ABOUT ALPER YEGIN

Alper Yegin is the CEO of the LoRa Alliance®, where he drives the strategic development and global adoption of LoRaWAN®. Previously, he held senior roles in the IoT and wireless industry, including as CTO of Actility, and is regarded as one of the key voices shaping the future of LoRaWAN®.

What topics is the LoRa Alliance® currently focusing on most intensively to ensure that the LoRaWAN® ecosystem continues to grow?

At present, we are driving the further development of LoRaWAN® in three main directions. First, we want to make integration into a wide range of IoT application domains even easier. Our goal is for LoRaWAN® to fit seamlessly into existing systems and processes – for example in industry, building automation or the energy sector. That is why we are working to support communication standards from these domains. These include, for instance, UI-1203, a data communication protocol for water meters, as well as OPC UA, the central communication standard for Industry 4.0 and industrial IoT applications.

Second, we are improving the plug-and-play character of the technology. Devices should be able to join the network as automatically as possible, applications should be ready for use quickly, and the effort required for commissioning in the core network should be significantly reduced. In other words, those who deploy LoRaWAN® should spend less time configuring and more time using.

The third focus is on tools that accelerate network expansion. These include solutions for walk-by and drive-by reading, which are particularly attractive in the metering environment, as well as improvements in the use of satellites. This enables us to make LoRaWAN® available even in places where traditional terrestrial networks reach their limits.

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THE SMART CITY ACTIVELY SHAPE IT NOW!

MOVE INTO NEW AREAS OF BUSINESS!

ZENNER helps you operate digital infrastructure confidently, reliably and cost-effectively. ZENNER is your ideal partner – and we have a wealth of experience from well over 450 IoT projects to draw on. We can offer you everything from measurement and system technology, telecommunications infrastructure and data services through to the application of fully comprehensive, end-to-end IoT solutions from a single source – so you can create new business models and genuine added value in the fields of smart metering, smart energy and smart cities.

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