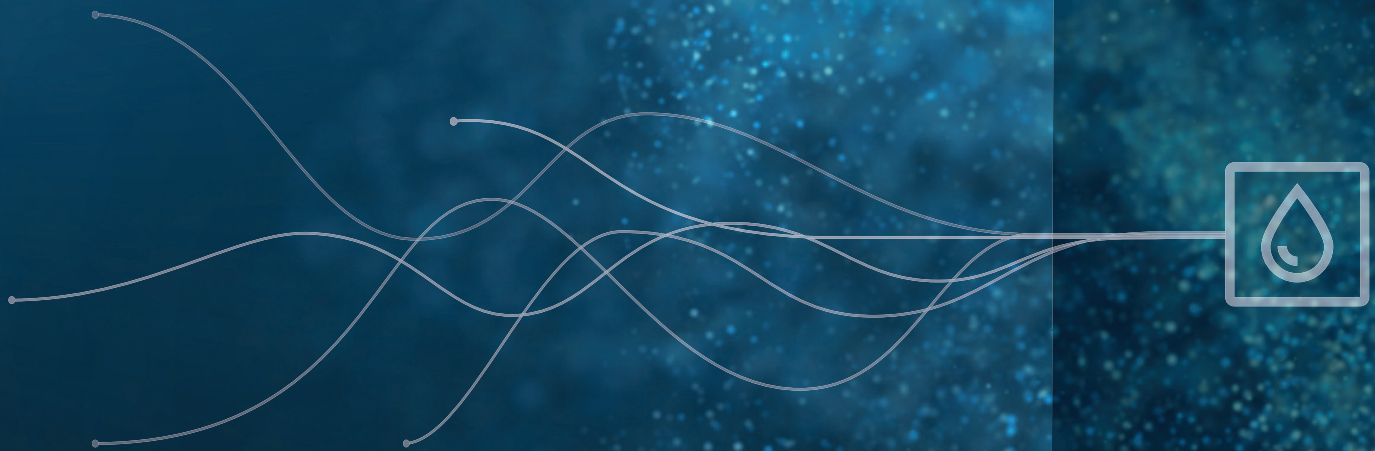


DIEHL
Metering

SMART WATER SOLUTIONS

Intelligent water management for our future



THE WATER SECTOR IS EVOLVING FAST – AND SO ARE YOUR CHALLENGES

At Diehl Metering, we have extensive experience developing and optimising water networks for a wide range of customers. Wherever you're based and however large or complex your network, we can help you overcome the obstacles.

DATA RELIABILITY

Accurate network data is essential for your business to run efficiently and for you to maintain consumer trust. If meter readings and other data are imprecise, you'll end up making poorly-informed decisions, which could negatively impact your business in the long term.

DISASTER MANAGEMENT

We live in uncertain times – and, whether it's a pandemic or extreme weather, water and energy are essential resources that people need at all times. It is therefore up to utilities to ensure that critical infrastructures fulfil their role in maintaining a continuous supply. When up against an unforeseen event, water suppliers need to quickly identify the source of a burst pipe or a leak and rapidly resolve outages.

REGULATIONS

The water industry is increasingly tightly regulated. Bodies and enforcement agencies set high standards for water quality, land use, energy management and ecological criteria. They demand accountability for water loss. And different regions call for different permits, licenses and authorisations. To fully understand this maze of regulations, you need time and expertise.

METER READINGS

The traditional method of reading water meters manually is often time-consuming and labour-intensive. What's more, it means inconveniencing customers, who have to be at home to let you in. Challenging terrain, disparate networks and harsh climatic conditions can provide further obstacles. Furthermore, manual reading is also more prone to errors, leading to inaccurate billing.

NON-REVENUE WATER

Non-Revenue Water (NRW) is any water that is produced but is not billed to the consumer. The causes? Leaks, ageing networks, poor metering accuracy, billing and metering errors and fraud. The impact of NRW on your business and the wider world can be extensive, ranging from financial and economic to humanitarian and ecological.

ENVIRONMENTAL CONCERNS

As concerns grow about climate change, it is more important than ever to manage water sustainably. Adopting a responsible attitude is essential not just for your reputation, but also for the future of your business and the communities you serve. Everyone in our industry needs to start managing water more sustainably to reduce wastage and lower the risks of pollution and water shortage.



 **\$68*** THE ESTIMATED ANNUAL COST OF WATER LOSSES WORLDWIDE



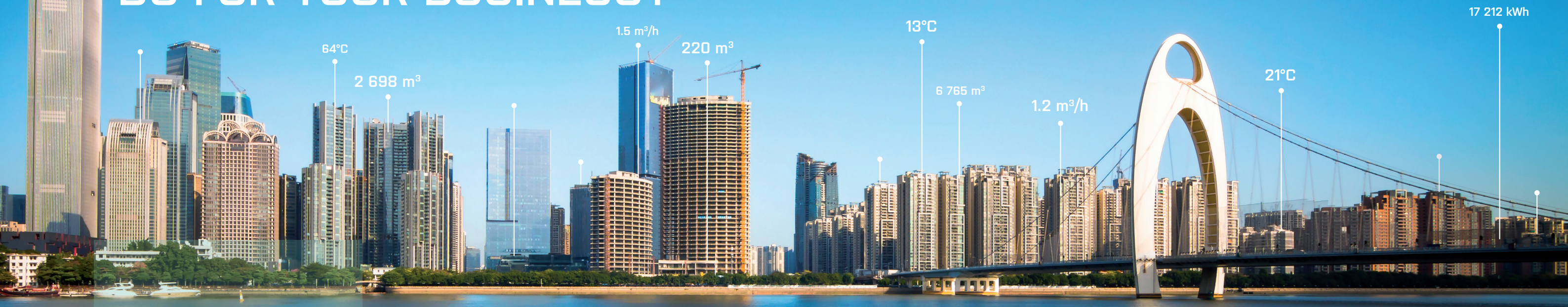
1/3 OCCURS IN DEVELOPING COUNTRIES



> 3 BILLION PEOPLE ON THE PLANET DO NOT HAVE ACCESS TO DRINKING WATER

*Liemberger and Wyatt NRW figures for 2018.

WHAT CAN DIEHL METERING DO FOR YOUR BUSINESS?



Our smart water solutions combine innovative technology with a customer-centric approach to unlock new efficiencies, transforming the way you manage your system and water network.

OPTIMISE COST SAVINGS

With our smart metering and network management solutions, you can take control of your network, empowering you to quickly identify and reduce wastage and loss. And when you save water, you save costs.

DRIVE OPERATIONAL EFFICIENCY

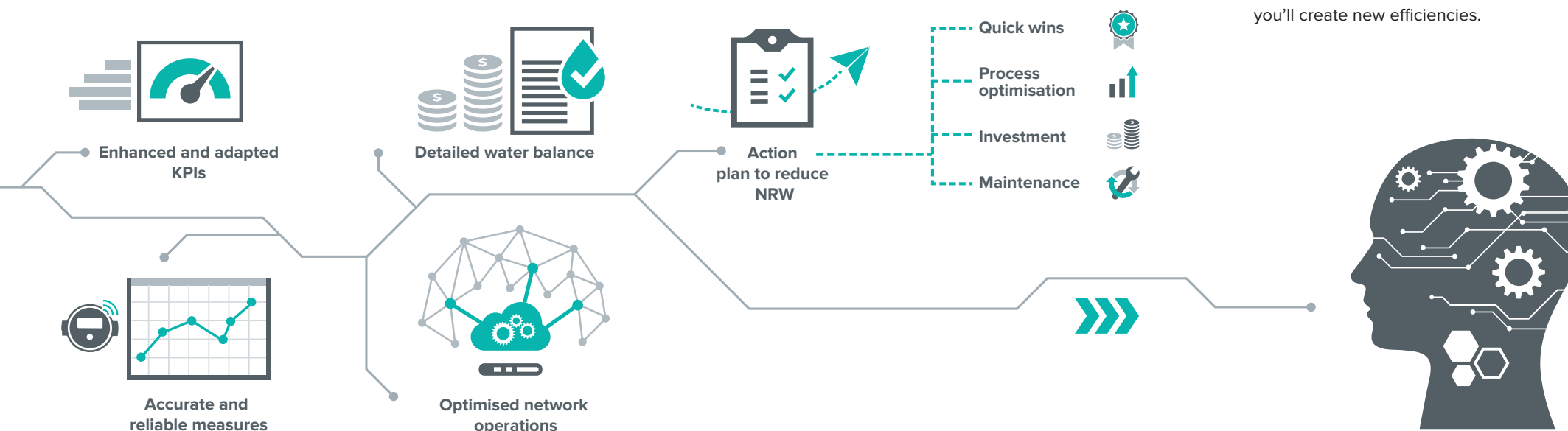
Thanks to a constant stream of data, you'll have a transparent view of your network processes. You'll be able to identify areas for improvement and respond more quickly to anomalies. And through automated reading that is easy to embed in your billing software, you'll create new efficiencies.

INCREASE REVENUE

By helping you reduce NRW in your network, our smart solutions enable you to optimise billing. You'll also open up the potential for a range of new billable services, such as automatic customer alerts or apps for customers to follow their consumption.

BOOST FLEXIBILITY

Our smart metering solutions are designed for optimal modularity and flexibility. Maybe your network is made up of several technologies or different brands? No problem. Our solutions can co-exist with multiple standards including NB-IoT and LoRaWAN. What's more, you can scale up your network whenever you like without having to replace existing equipment.



BE EMPOWERED BY DATA ANALYTICS

With our IZAR software platform, your meter data will be analysed and transformed into easy-to-understand graphics, meter map visualisation and alarms to alert you to anomalies. You'll have a clearer overview of your network, enabling you to make better-informed decisions and respond rapidly to potential problems.



GROW CUSTOMER SATISFACTION

With our smart metering solutions, customers no longer need to read their own meters or be at home for meter readings. You can take readings, on the move, remotely, and at any time. And you can rely on our fixed network solution to ensure customers are billed for exactly what they use while reducing potential damage caused by leaks. By offering the mobile app IZAR@HOME, you can even enable your customers to monitor their water usage and adjust their habits to make savings.

A sure way to keep them satisfied.

ENSURE A HEALTHY ROI

We pride ourselves on creating smart meters and system networks that are reliable. They're built to adapt to future technologies. They require minimal maintenance. And they have very low failure rates. Above all, our smart solutions make your business more efficient. All of which means you can be sure of a healthy return on investment.

FUTURE-PROOF YOUR NETWORK

When you invest in a new metering solution, you want it to last – no matter how technology standards may evolve in the future. That's why our high-performance IZAR radio system is designed to give you barrier-free access to the Internet of Things (IoT). And it's why our solutions are compatible with the Open Metering System (OMS) specification. Feel safe in the knowledge that your system is built to last, and that you can scale up at your own speed.



"Feel safe in the knowledge that your system is built to last, and that you can scale up at your own speed."

ENABLE ASSET MANAGEMENT

With our smart metering solutions, you'll have a clear understanding of where your network needs maintenance. That means you'll be better positioned to repair and upgrade assets for a safer, sustainable and more efficient network. What's more, you'll reduce the risk of costly leaks to buildings while also extending the lifetime of your network.

CONTRIBUTE TO SUSTAINABILITY

By making your processes more efficient, we help you reduce water loss and wastage, allowing you to contribute to the stability of the water supply. You'll also be able to encourage sustainable consumption habits among your customers by developing more detailed, responsible billing, as well as offering them the IZAR@HOME app so they can follow their household consumption over time.

SMART SOLUTIONS FOR EVERY SITUATION

With over 150 years of experience, we have honed the art of building smart metering solutions that make your life easier. We pride ourselves on upholding the highest quality and reliability – and on being able to customise our offer for every type of need.



DEPENDABLE METERS

Whether you're looking for a static or a mechanical meter, you can expect market-leading accuracy and robustness. Our entire range of meters features inbuilt compatibility with different technologies and is designed for the long term. For measurements and data you can rely on.

NON-REVENUE WATER

We offer NRW Management as a dedicated service. After carefully assessing your network, we'll develop a customised action plan based on automated data analytics. Through accurate measures, enhanced KPIs and a detailed water balance, you'll be empowered to control your losses and leaks, and monitor and stabilise your NRW levels. Even the most complex distribution network becomes easier to understand.

CUSTOMISED SOLUTIONS

Business challenges don't always slot into pre-built solutions. Maybe you're facing harsh climatic conditions that require extraordinary robustness? Or your system network is a collection of different sensors? At Diehl Metering, we have a track record of building bespoke solutions for our customers – no matter what your challenge.

COMMERCE & INDUSTRY

If you work in the commercial or industrial sectors, you have specific water needs. For example, flow rates often vary from very high debit to very low. That's why we offer a special service for businesses like yours, ranging from equipping you with smart meters to the full installation, maintenance and data analytics of a fixed network. We also offer personalised customer support for your sector.

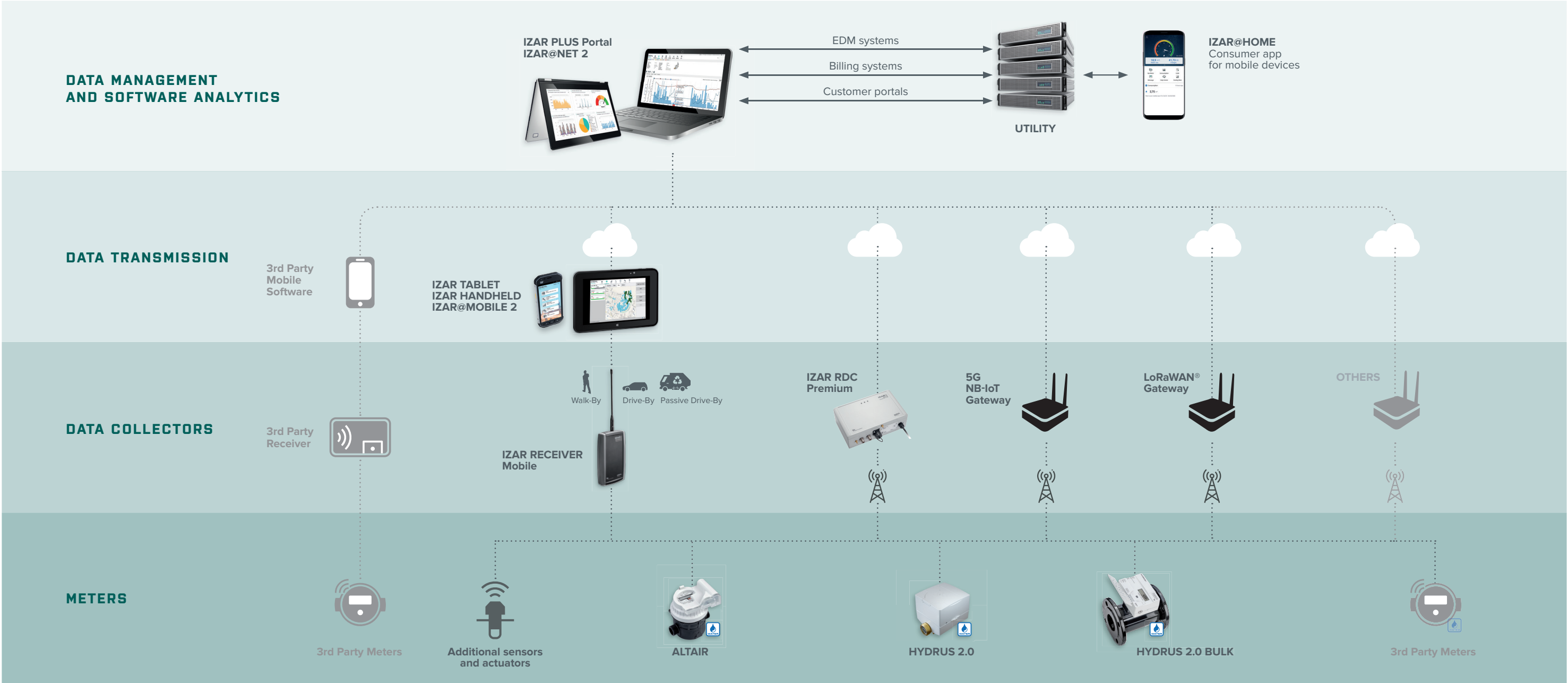
SUB-METERING

Our sub-metering offer combines smart water solutions with consulting, system installation, training and support. If you're a property manager, you'll be able to fairly and accurately bill tenants while meeting legal regulations such as the Energy Efficiency Directive from the EU. Choose from walk-by readings, or wired remote readings. You can retrieve the data whenever you like, and then export it to automatically generate bills.

AMR/AMI

With our Automatic Meter Reading (AMR) solutions, you can capture data on the go. Easy to use and flexible, our proven IZAR radio technology allows you to remotely take Walk-by mobile readings, or Drive-by readings at up to 50km/h. And if you scale up to an AMI (Advanced Metering Infrastructure) fixed network, our IZAR software platform will transform your data into up-to-the-hour insights, allowing you to be more reactive, more agile and more efficient.

IZAR : A POWERFUL SYSTEM TO CAPTURE METER DATA AND TRANSFORM IT INTO ACTIONABLE INSIGHTS



INTERNET OF THINGS

Connectivity is at the heart of our IZAR radio technology. In its early days, it was a precursor to the Internet of Things. Today, its use of the cross-sectoral Open Metering System (OMS) communication standard makes it compatible not only with a wide range of water meters, but with multiple IoT sensors and actuators. So, whether you want to integrate pressure measurements or energy readings, we can help you build a comprehensive smart equipment network.

NETWORK AS A SERVICE

With our NaaS offer, you benefit from network efficiency, reliability and security without having to invest in expensive hardware or software. We not only provide the technology for your network; our experts will also look after the day-to-day monitoring, maintenance and repair of your system. That means your network will always be up-to-date, offering you pertinent data to better address challenges like NRW and water loss. And it couldn't be easier to scale up – without major expense.

NETWORK OPTIMISATION

Through our smart metering solution, we'll help you mine a rich stream of data from your network. And then we'll help you put that data to work. From billing synchronisation and leak detection to new customer services, you'll be able to optimise your network in multiple ways.

CUSTOMER ENGAGEMENT

By offering your customers the IZAR@HOME smartphone app, you enable them to consult a wide range of metrics about their water consumption and billing. They'll be empowered to change their habits and make better choices for the planet and for their pockets – and you'll have less administrative support to manage. The app also sends out an alarm when leaks are detected – helping to limit damage to consumers' homes.

REAL-WORLD EXAMPLES


Like to know how our solutions work in practice? Here's how we support our customers on the ground to make smart metering a reality.



Jamaican water supplier National Water Commission (NWC) found the perfect technology to cope with the challenging 50°C heat and environmental conditions in the Caribbean by implementing almost 500,000 HYDRUS ultrasonic water meters. The fixed network is a step further in the process of digitalising the region's water supply and contributes to decreasing NRW levels.


"HYDRUS offers many benefits – not just for the NWC, but also for our customers. It allows us to sustainably improve our water supply and pipelines, as well as to minimise billing complaints, because the meters are guaranteed to be reliable throughout their entire life cycle."

Mark Barnett,
President of the NWC




400.000
households

More than 2 million people need water supply – but the infrastructure was outdated and water was scarce.



Temperature
up to 50°C

Water meters installed outdoors are exposed to extreme weather conditions, such as strong sun rays.



12
years of service life

HYDRUS ultrasonic meter surpasses the performance of former water meters.



The “Vodovod i Odvodnja d.o.o. Sibenik” waterworks in Sibenik, Croatia, provides drinking water to 46,332 people, with difficult terrain on the island of Kaprije making meter reading highly challenging. Through a fixed network with ultrasonic meters, the utility is now able to take readings remotely and manage its network more efficiently.

"We consciously chose Kaprije for our pilot project because it is the place with the most difficult meter reading conditions. The excellent advice and the results we obtained speak for themselves and have convinced us. We are planning to equip another five islands with a fixed network from Diehl Metering."

Frane Malenica,
Šibenik Waterworks




Read-out under the most difficult conditions

The island's infrastructure makes meter reading a challenge.



Consumption always in view

Consumption monitoring is possible at all times.



Increased reactiveness

Reduction of reaction time thanks to AMI.



ESSILOR

SEEING THE WORLD BETTER

FRANCE

A world leader in optical lens production, Essilor devised a project to save water across its 20 production plants on 3 continents. Partnering with Diehl Metering, it implemented an intelligent water consumption management solution. Within a year, the company had reduced its water usage by 50% per optical lens produced.

"Diehl Metering's solutions provide key indicators for every type of consumption. By analysing this data, we can make significant improvements to our production processes."

Philipp Cuny,
EHS Director WW Operations

CHALLENGE

- Speed up global water management programme

SOLUTION

- Fixed network
- IZAR@NET for monitoring and data analysis

BENEFITS

- Information transmitted on an hourly basis
- Accurate measurement and detailed analysis



500 million
optical lenses produced
per year

Production on this level requires
huge quantities of high-quality
water.



50%
less water use

In the space of a year, Diehl
Metering's solution helped to
halve the amount of water used
per optical lens produced.



20 production plants
on 3 continents

Diehl Metering solutions were
installed at all of ESSILOR's
production sites worldwide
in 2017.

BRK Ambiental

BRAZIL

Serving more than 15 million people, BRK Ambiental is the largest private sanitation company in Brazil. With reliable meters in short supply domestically, it partnered with Diehl Metering to install ultrasonic and volumetric meters. Thanks to reduced lead times, the company continues to grow rapidly while reducing Non-Revenue Water.

"Operational excellence is one of the key values of BRK Ambiental. That's why the company is always looking for partners and technology that can deliver the very highest quality and efficiency for all its operations."

BRK Ambiental

CHALLENGE

- Address significant problem of NRW
- Procure reliable meter supplier

SOLUTION

- Drive-by, Fixed network

BENEFITS

- Reduced lead times for new meters
- Greater data accuracy
- Reduced NRW and increased revenue



100 million Brazilians
without sewage collection

Among the challenges faced
by BRK Ambiental is the lack
of access to a sewage system
for half of all Brazilians.



Reduction of Non-Revenue
Water by 50%

Through the accuracy of
volumetrics meters.



370 K volumetric meters

The ALTAIR DN15/20 meter
adapts to restrictive
environments and features built-
in scalability for AMI solutions.

YOU'RE IN SAFE HANDS WITH DIEHL METERING

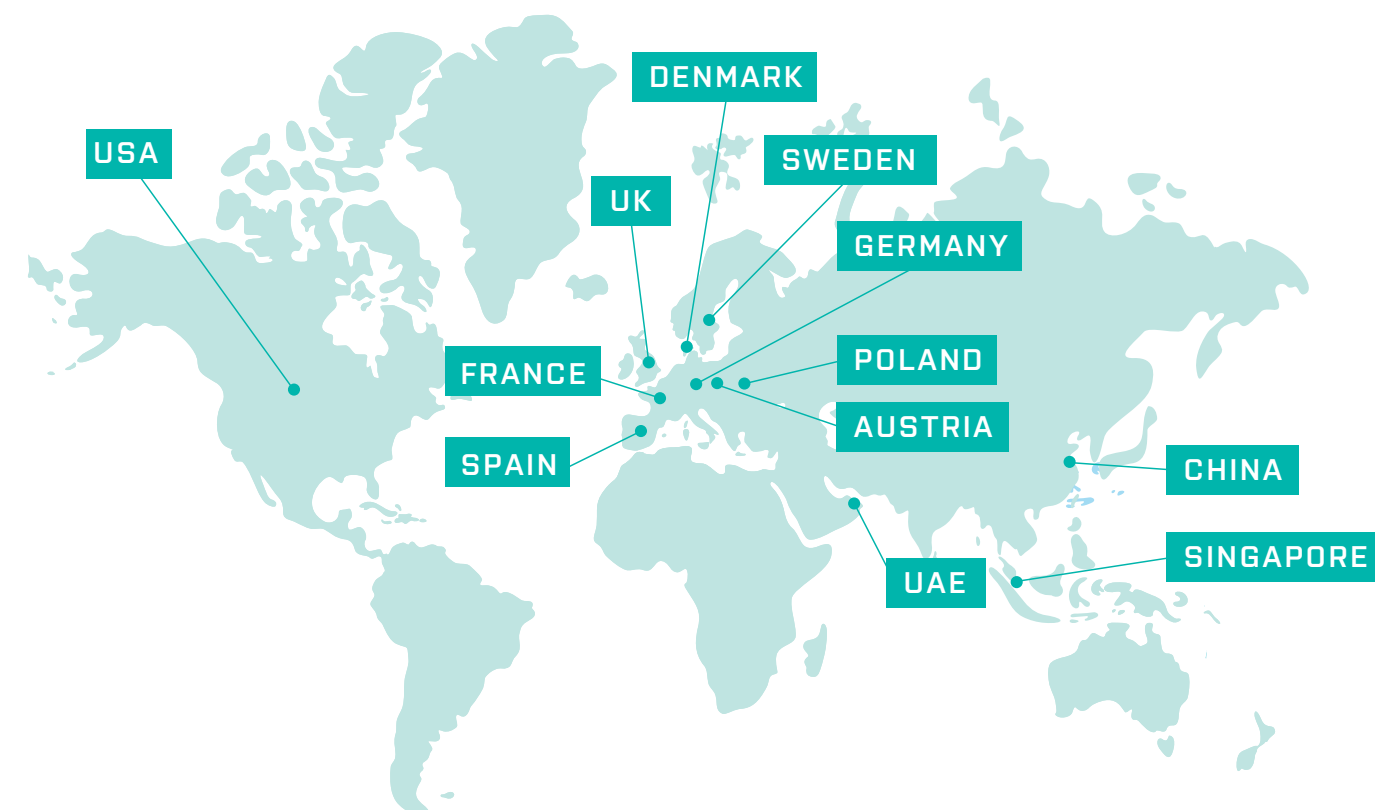
Diehl Metering is a worldwide leader in the design, manufacture and supply of smart metering solutions. With over 150 years of experience, we empower utilities and municipalities to take control of their infrastructures, bringing new efficiencies to the way they manage water, thermal energy, gas and electricity.

Our extensive range of services and solutions includes data-driven insights, IoT connectivity, Artificial Intelligence, fully-flexible software, and seamless intelligent metering. Across our solutions, we ensure strong security and compliance with regulations such as the GDPR.

As a family company based in Germany, we have a heritage of engineering precision and excellence. Today, we are proud to maintain our founding principles of quality, reliability and customer proximity. At the same time, we are constantly looking forward, proactively shaping a better future for our customers and the communities they serve. Our approach is to think global and act local, to develop our strategy with our customers and for them.

DIEHL METERING AROUND THE WORLD

Headquartered in Nuremberg, Germany, we are a family business with an international reach.



Launched at the beginning of 2019, our **Integrated Management System (IMS)** offers a single framework to ensure we maintain the same high standards all over the world. Through IMS, you can be sure that our solutions meet legal requirements and regulations in terms of the environment, metrology, ATEX, and more. In addition, we are dedicated to upholding the highest standards of health and safety worldwide.



16 LOCATIONS
WORLDWIDE



333 MILLION
TURNOVER ANNUALLY



>1,705 EMPLOYEES
WORLDWIDE



>7 MILLION
METERS/YEAR SOLD



>150 YEARS
OF EXPERIENCE,
EVER SINCE WE
BEGAN AS A FOUNDRY
IN WROCLAW IN 1862



60 MILLION*
COMMUNICATING
METERS AND RADIO MODULES
DEPLOYED WORLDWIDE

*cumulated



**SUSTAINABLE.
RESPONSIBLE.
RESPECTFUL.**

In the face of climate change, globalisation and population growth, we all need to be more responsible in the way we manage water and energy. As an industry leader, we want to set an example – and are proud to have achieved multi-site certification for ISO 14001 (Environmental Management Systems). We also regard it as our duty to help utilities and communities to be more sustainable. That's why we constantly innovate to support smart network concepts. It's why we actively help our customers to reduce CO₂ levels and water loss. And it's why we go out of our way to enable everyone to adopt a more responsible use of our planet's precious resources.



We have been awarded ISO 14001 certification for Environmental Management Systems by Quality Austria, rewarding our achievements in addressing our ecological impact at multiple sites worldwide.

Diehl Metering is committed to aligning with the United Nations' Global Compact. We believe it is our duty to uphold the UN's 10 principles covering human rights, labour, the environment and anti-corruption.

