

From Monitoring to Change:

How Data Helps Us to Reduce Our Energy Consumption

AN INTERVIEW WITH

LARS BANGEMANN

Senior Manager Construction Maintenance
& Repair, DOUGLAS Group

DR. GEORG RIEGEL

CEO, deZem GmbH



When ventilation systems run at night even though no one is in the store, energy is wasted – often without anyone noticing. This is exactly where smart meters come in: They reveal what was previously hidden. Instead of relying on estimates or bills, smart meters provide accurate data in real time – laying the foundation for real change.

Smart meters have become a key technology in the energy transition, both politically and economically. They create transparency, enable immediate control, and help save energy where it is actually consumed. With the widespread installation of smart meters in all DOUGLAS Group owned stores, detailed consumption data from the entire store network is now available for the first time.

The smart meter project is part of our strategy to systematically reduce environmental impact. The greatest leverage for our own operations lies in the energy consumption of stores and offices. Our goal is to reduce total energy consumption by 20 percent by 2030 compared to the financial year 2023/24 – supported by our energy policy and data-driven decisions.

In a joint interview, Lars Bangemann (Senior Manager Construction Maintenance & Repair, DOUGLAS Group) and Dr. Georg Riegel (CEO, deZem GmbH) explain how a comprehensive measurement infrastructure can be turned into a powerful sustainability tool – and how data-driven decisions pave the way for more efficient and climate-friendly stores.

Who is deZem?

Since 2003, deZem has been developing and delivering hardware and software to interconnect and analyze sensor data from a wide range of different sources – operating globally with projects across Europe, the Americas, and Asia. While the company originally started in the field of energy controlling, it expanded its range of products and services over the years into a comprehensive system for IoT data management. Applications now span from industrial analytics and the monitoring of plants and processes to technical facility management.

The core concept, however, remains the same: to provide a scalable platform for the collection and analysis of IoT data.



Lars and Georg, in the last financial year, you managed to equip the entire DOUGLAS and NOCIBÉ owned store network with smart meters. What were the most exciting aspects or challenges for you in rolling out the project?

Lars: The project has been exciting from the very beginning, particularly given our scale with around 1,970 stores in 22 countries. Our goal was a uniform, end-to-end solution with one partner to ensure transparency and comparability – and with deZem, we made the right choice. Coordinating all countries and teams was challenging, but thanks to strong collaboration, we completed the rollout on schedule.

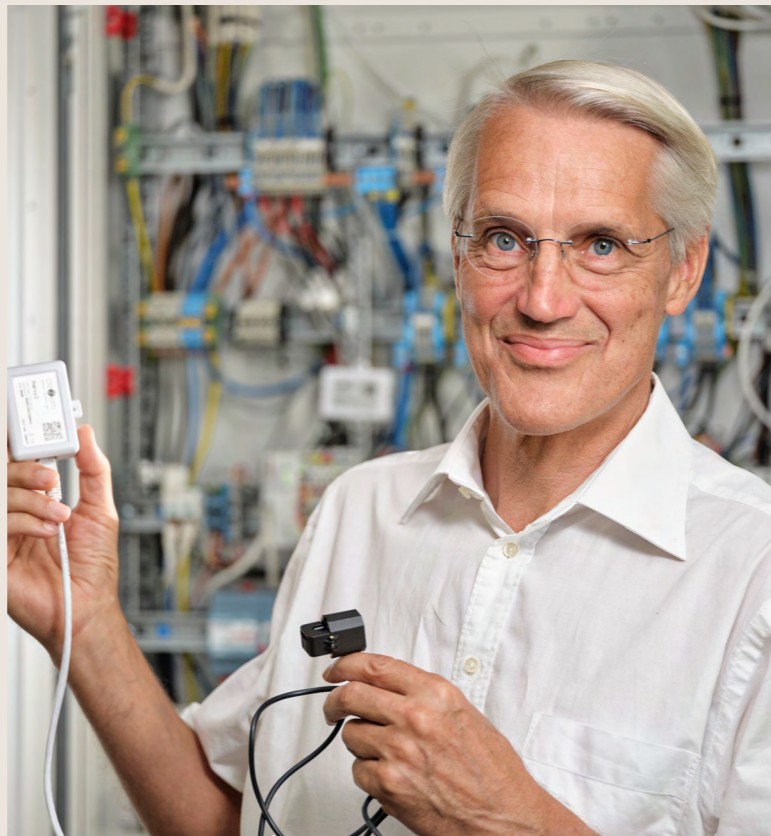
Georg: The scale of the project was an exciting challenge. Coordinating teams across multiple countries required precise planning, supported by a rollout-specific installation app that helped us stay on schedule. We also needed to avoid disruptions in the stores during business hours. For this reason, we chose a technical setup with easy-to-install sensors. Our deZem Harvy2 current sensor was the perfect fit and accelerated the rollout to six stores per team, every single day.

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Our Energy Policy is centered on improving energy efficiency and systematically reducing consumption. The updated version supports our ISO 50001 certification – an international standard for effective energy management – and fulfills CSRD requirements, reinforcing transparency and measurable progress.



LARS BANGEMANN
Senior Manager Construction Maintenance
& Repair, DOUGLAS Group

What makes your collaboration so successful?

Lars: Open and proactive communication is crucial. Challenges are solved together immediately. And a good personal relationship also plays a major role.

Georg: This mindset – supported by the high level of commitment from the area managers – significantly accelerated the project.

Georg, where does the industry stand in terms of energy management in general? How do you perceive the use of smart meters in the retail industry?

Georg: Energy management in retail is no longer a nice-to-have – it's a must-have for companies. Many still work in 'estimate mode' based on annual bills or monthly readings. This provides no insight into daily operations. Digital and efficient metering solutions are crucial for identifying potential savings. Retail now has to catch up – a sprint against legal deadlines and rising energy costs, and we have the best running shoes for the job.



Where do we, as the DOUGLAS Group, stand after the rollout?

Lars: We are proud to be one of the few retailers of our size that rely on real data instead of estimates – making our ESG work tangible and measurable. But the rollout was only the beginning: now it's time to understand the smart meter data in detail and use it to derive measures that will bring about sustainable change.

Georg: From the moment the installers set up the device in the store, we record the total energy consumption and the electricity requirements for lighting, heating, ventilation, and air conditioning every 15 minutes. From this point on, a three-step cyclical process begins: SENSE involves the continuous recording of measurement data. This is followed by CHECK – the ongoing analysis of the data. In the final step, ACT, we tap into the savings potential that we derive from the data. Already with the initial measurement data, potential for optimization in the stores becomes visible and can be acted upon in the next steps.



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LARS BANGEMANN
Senior Manager Construction Maintenance & Repair, DOUGLAS Group

What does the data mean for us in concrete terms?

Lars: Data is an essential process optimizer. It allows us to see not only current electricity consumption, but also the performance of the ventilation systems – our biggest energy lever. This enables us to control consumption more precisely, save energy, and measurably reduce our CO₂ emissions. We have already noticed that nighttime energy consumption in some stores was too high – we can respond directly here.

To what extent can the data collected from smart meters serve as a lever for larger transformation processes in the organization?

Georg: Digital transformation is more than just digitization. Our modular, manufacturer-independent system offers a wide range of advantages for different stakeholders. CO₂ and cost savings are obvious. In addition, the system provides options for extension and combination of data as required in the future,

e. g. for facility management, constructions, etc. DOUGLAS has created a powerful data pool for current and future needs.

Lars: We want to make even greater use of these advantages in the future. Our plan is to use the data in store planning to identify potential savings before a store is built. Smart meters will continue to be a key driver for data-based decisions in energy, construction, and maintenance.

With smart meters installed across all DOUGLAS and NOCIBÉ countries, we now have real-time insights into energy use, enabling immediate action to reduce waste and CO₂ emissions. Beyond cost savings, this data drives smarter decisions, improves store environments, and supports our broader sustainability goals – showing how monitoring can directly lead to meaningful change.

SENSE
collect data
continuously



ACT
experiment &
optimize

CHECK
questioning
thoroughly