TAKING DIGITISATION TO THE NEXT LEVEL

By broadening their wireless IoT portfolio, Kathrein Solutions wants to build on previous successes as a partner for digitisation projects and sustainably establish business and solutions in new markets and sectors.

RFID & Wireless IoT Global on-site at Kathrein Solutions talking to Jürgen Walter (left to right), Head of Solutions and COO of the Kathrein Group, Martin Dobler, CTO, Kathrein Solutions, and Thomas Brunner, Managing Director, Kathrein Solutions.

Digitisation progresses at a fast pace: Not a day passes without multiple newspaper headlines focusing on digitisation projects. This internationally-visible market development matches exactly with the new orientation of Kathrein's RFID branch that was initiated more than two years ago. With the acquisition of noFilis, Kathrein Solutions created an IoT solution provider that can realise single-source digitisation projects. *RFID & Wireless IoT Global* talked to the management about targets and benefits in the field of IoT. Jürgen Walter, Head of Solutions and COO of the Kathrein Group, wants to build on previous successes as well as to create and sustainably establish business in new markets and fields. Thomas Brunner, Managing Director of Kathrein Solutions, underpins these goals by focusing on the development and integration of IoT solutions for global vertical markets. At the centre of attention are solutions for vehicle identification and healthcare applications. The CrossTalk IoT software adds to the hardware portfolio. In the interview, Martin Dobler, CTO of Kathrein Solutions, illustrates why flexibility and scalability of modular platforms are the key to future-proof digitisation applications.

Digitisation is speeding ahead

Digital and contactless technologies and applications form the basis for future-proof processes in many industries and sectors. This understanding is becoming reality to an increasing degree and with increasing speed. "The dynamics within our customers are impressive," Thomas Brunner says and he elaborates: "Across the companies, the implementation speed is almost a paradigm shift. In recent years, globally-operating groups pushed forward their digital transformations. Today, there is hardly any difference between them and medium-sized enterprises. Still, it is the automotive industry initiating new technologies and solutions as an early adopter. Yet there is currently activity in almost all industries on a similarly high level."

The deciders decide – fast and consistently

For Thomas Brunner, who realised a first UHF RFID project for a customer from the container logistics field at Kathrein in 2007, today's projects are implemented at a significantly higher speed. "For more than eleven years, we have been involved in the digitisation of supply chain processes, in RFID, tracking and tracing, as well as visualisation of processes. In the past, two to three years passed before a discussion with a prospective customer was turned into a project that then led to a rollout. It is very different today: The companies are now aware of the big benefits of digitisation and make quick decisions including a prompt release of budgets. Today, we can realise an average of eight out of ten inquiries," says Thomas Brunner.

Lighting up the last "dark spots" of the supply chain

Not only are decisions being made faster, but also interest in new technologies is increasing. Thus, the last "dark spots" in the supply chain are becoming transparent. "It is clearly a trend that companies are not only deploying more UHF RFID solutions, but are also implementing real time location systems. In the past, these systems were only – almost grudgingly – used if there was no other solution possible. And even if deployed, the systems were usually proprietary. Today, it is almost assumed that different technologies will be combined and integrated into the backend system. What matters to the companies are the results. The technology is incidental," states Thomas Brunner

"Vehicle identification serves as the perfect example to illustrate the opportunities of IoT. The interaction of identification technology, software platform, and cloud computing enables entirely new services without having to rebuild an existing infrastructure. Not only do the operators of car parks, car washes, and toll systems benefit from this, but also the end customers – the drivers themselves. Convenience is increased. It is no longer required to leave the car or to manually pay for services."

Jürgen Walter
Head of Solutions and COO of the Kathrein Group

and explains: "A good example of greater interconnection in terms of consistent supply chain transparency is automotive manufacturers. The first OEMs have now started to install RFID systems for goods tracking directly in their suppliers' factories. They are connected to the OEM's ERP system via mobile phone network."

Digitisation allows communication without detours

Digitisation is the instrument for logistics and industry to make information processes concrete, as Thomas Brunner describes: "An electronic shipping notice sent from the supplier to the manufacturer is nothing new. This has already been done for decades. The sending of an electronic notice does not imply that a part is leaving the supplier's factory at that exact moment. There might sometimes be a day in between. The real innovation is that now the manufacturer knows reliably when a part really leaves the supplier's outgoing goods department. This allows them to close the last remaining information gaps in the supply chain."

End to end solutions are the key to success

Kathrein Solutions being able to meet the high requirements of fast project realisation is also due to the acquisition of noFilis, says Brunner. He regards the single source end to end solutions that are now possible as the winning formula:

2018 stands for a paradigm shift in IoT project implementations: For more than eleven years, we have been involved in the digitisation of supply chain processes, in RFID, tracking and tracing, as well as visualisation of processes. Previously it took two to three years from discussing a project with a prospective customer until the rollout. Some were never realised. It is very different today: The companies are now aware of the large benefits of digitisation and make quick decisions including a prompt release of budgets. Today, we can realise an average of eight out of ten inquiries."

Thomas Brunner
Managing Director, Kathrein Solutions

"We had already realised numerous projects in cooperation with noFilis based on their sophisticated IoT platform CrossTalk before acquiring them. However, only since the merger have we been able to act on the market as a whole package provider to the IT departments of our customers. Companies no longer need to think about how to connect innovative technological solutions to their ERP system. As Kathrein Solutions, we can cover all aspects: hardware and software as well as consulting and integration. There is no need to bring subcontractors on board as the implementation is mainly done via our proven partner network."

New technologies change markets

The ability to develop new technologies and to organise innovation cycles within the company is, in the eyes of Brunner, the key factor for market success. "New technologies lead to new business models and change existing price levels. This is how they influence the motivation of companies to realise projects at an increased speed," says Thomas Brunner and also applies this to his own company: "A technology company which, for example, has been successfully active in automating industrial companies for twenty years does not automatically have the guarantee that it will also succeed over the next twenty years. There are competitors continuously pushing onto the market who also provide innovative solutions. The successful company is the one whose team also internally implements and lives the innovation cycles – from development, to sales, to integration."

The world outside of automation

In the eyes of Martin Dobler, industrial process automation develops in parallel to the "pure" automation technology that is happening mainly on the fieldbus level. In this environment, RFID is only one sensor among many. This is where the CTO identifies opportunities for solutions by Kathrein Solutions: "In the scope of digital transformation, it becomes obvious that more and more logistical applications influence production processes. It is therefore apparent that a mere focus on the production line with regard to the automation technology is no longer sufficient. Outside of the fully-automated world in particular, producing companies are in need of solutions that we have in our portfolio."

Technology and process know-how brought together

Jürgen Walter, Head of Solutions and COO of the Kathrein Group, regards the Kathrein Solutions business unit as well-prepared to stay a decisive player on the market even in the global future: "Our goal is to provide IoT solutions that are superior to others on the market due to our technological know-how and knowledge of our customers' needs. The second aspect is global expansion. We clearly want to act internationally. In Germany, we are partnered with numerous companies from the automotive industry including world-leading suppliers and manufacturers. To support these companies globally is what we must do and what we aim to do with our own teams in Asia, North and South America."

The right decisions implemented correctly

Looking back, Jürgen Walter is very satisfied with the development of the IoT business up until this point. "The good numbers of the Kathrein Solutions business unit impressively demonstrate that we made the right decisions in the past. The IoT business currently shows the highest growth rate of all Kathrein business units. The acquisition of noFilis was an important step, yet, we laid the foundations for this success more than ten years ago. One has to note what position Kathrein achieved in the fields of logistics and industry but also in current focus sectors such as vehicle identification or healthcare due to this."

Kathrein IoT solutions in vertical markets

Special IoT solutions for hospitals

In the future, Kathrein Solutions plans to target the healthcare sector with a special emphasis on hospitals. Thomas Brunner is convinced that Kathrein's IoT portfolio is ideally suited to the requirements in the hospital environment: "On the hardware side, we develop and offer innovative UHF RFID and RTLS products. Providing both technology worlds and having CrossTalk as the perfect platform that fits into the network of a hospital site like a glove, we are optimally positioned here. In hospital projects, we face requirements that are comparable to what we already know from industrial processes. In addition to this, it is also an international topic – in countries like France and the UK, the investment volume spent on technologies for process digitisation in hospitals is currently also very high. This also has an effect on the realisation speed. We can underpin our portfolio aimed at the healthcare sector with the first successful rollouts."

Reducing germ loads in hospitals

Meeting hygiene requirements is a permanent important topic for hospitals. Kathrein Solutions addressed this with a partner. The aim is to establish IoT solutions that allow easier compliance with the stipulations, as Thomas Brunner describes: "We found a partner located close to Chemnitz who deals in systems to reduce germ loads in hospitals. The focus of our cooperation is on the sterile areas of a hospital. There, employees are instructed to change clothes at least once a day. Via smartphone or pager message, an employee is informed about an upcoming change of clothes. They enter a changing room that is fitted with identification technology. RFID chips in the clothes make sure the employee can only leave the room when they are actually wearing the clothes allocated to them. In some countries, there is already legislation stipulating this. Our technology can meet these requirements."

Vehicle identification – an RFID hot topic

To capture vehicles via RFID windshield labels or via RFID transponders that are integrated into the number plate does not require highly complicated technology. What makes the topic of RFID vehicle identification into one of the current

"Companies rightly expect not to automatically need new software or a software upgrade for every new technology they integrate. Today's IoT platforms need to be flexible to the extent that any imaginable identification technology and the captured data can be equally integrated into the backend system and visualised. Also, customers should not have to bother with interfaces. With CrossTalk, we can ensure the flexibility required. Today RFID, tomorrow RTLS, and the day after tomorrow LPWAN – our IoT platform can cover all this."

Martin Dobler
CTO, Kathrein Solutions

hot topics is new services and business models. These are based on a new generation of RFID chips with innovative security features, Jürgen Walter explains: "Vehicle identification serves as the perfect example to illustrate the opportunities of IoT. The interaction of identification technology, software platform, and cloud computing enables entirely new services without having to rebuild existing infrastructures. Not only do the operators of car parks, car washes, and toll systems benefit from this, but also the end customers – the drivers themselves. Convenience is increased. It is no longer required to leave the car or to manually pay for services. The security features including the 128-bit encryption of the latest generation of UCODE DNA UHF RFID chip by NXP in combination with high performance RFID hardware and CrossTalk by Kathrein make this possible. The data encryption on the chip and in the communication between reader and backend system certified by credit card companies allows the integration of secure and contactless paying methods. This is a major step for digitised mobility of future applications."