engage

NOVEMBER 2021

Contents

Editorial

Dear Team,

Throughout the year, there have been a lot of highlights and a few lowlights, but what matters is the motivation and eagerness to succeed. Iskraemeco teams all over the globe have managed to align themselves, clearly showing they can overcome any challenge.

I would describe Iskraemeco as a strong, fierce tree, firmly rooted in the ground for years, and will soon be turning 77. Moving up the trunk, there are well-connected subsidiaries that work together to grow our branches and connect with our partners, all in order to deliver to our valuable customers excellent quality and fruitful connections, which we will continue to nurture for a long time to come.

Iskraemeco, like the rest of the industry, has faced shortages of key electronic components this year. Yet, thanks to the dedication of our internal task force and innovative approaches, we have been able to find alternative suppliers and solutions that support our goal to deliver and satisfy our customers. In this way, we have even managed to expand our presence in new markets.

Offering diverse solutions to our valued customers is one of the key foundations of Iskraemeco's long-term expansion plan. We managed to expand our product portfolio by launching a new eIoT platform and new brand - Symbiot, our innovative software suite. In addition, we have established a new global Technology Design Center to steer the global developments of new smart solutions.

This year, we have continued the transformation and modernization journey in all of our subsidiaries. We have moved closer to Industry 4.0 by implementing a unified manufacturing system and ensuring full traceability of our products. We have invested in automated production lines while maintaining a strong financial position, and we have topped it all off by proudly received several awards for trustworthiness, sustainability, and innovation.

Iskraemeco is committed to maintaining and improving its high-quality capabilities by investing in our people, cutting-edge technologies, smart solutions and automation for the current and future market trends.

"To all our valued customers, partners and colleagues worldwide, thank you for making Iskraemeco better every day! We are honored to collaborate with each and every one of you."

Bahaa Abdullah
Chief Financial Officer of Iskraemeco

Iskraemeco's Global Utility Day was a success

Nina Merše

The underlying theme of the virtual event was Driving the Change with IoT Technology in the Energy Industry.

Iskraemeco Global Utility Day was organized for Iskraemeco's business partners, customers and other stakeholders who were given an exclusive insight into the latest and improved Iskraemeco products and software. Apart from Iskraemeco experts, at the event we also hosted speakers from various fields of expertise.

After some introductory remarks, Luis Goncalves, the CEO of Iskraemeco, opened the event with a keynote speech on how digital disruption spurs innovation and the delivery of future-proof solutions tailored to our customers' needs.

The event continued with Klemen Belec, who moderated the round table and spoke to his guests about global trends in emerging technologies and the impact of the Internet of Things on the energy sector as a whole. He was joined by Andrej Kos (University of Ljubljana), Andrej Krajčević (Telekom), Martin Idsinga (Alliander) and Marcel Neu (Stedin). In an interesting debate, they concluded and agreed that a connectivity failure will lead to an energy supply failure, so the first question for companies in the energy sector should be to choose the right mobile technologies.

Afterwards, Iskraemeco experts Simon Oblak, Boris Babič and Aleš Glavina presented the new Iskrameco Energy IoT solution. The solution is based on three pillars – the new generation of Iskraemeco meters, newly designed Iskraemeco software suit Symbiot and a portfolio of services supporting the Energy IoT solution. During the event, our experts also answered several questions from the participants.

Finally, several projects where Iskraemeco solutions are implemented were presented by our business partners Roland Schwarzentruber (GWF, Switzerland) and Maarten Hektor (Involtum, Netherlands).

If you missed the Iskraemeco Global Utility Day you can still feel like part of Iskraemeco exclusive event by listening to the event recording at our webpage or by scanning the QR code.

During the development of our silver award-winning innovation, 17 Iskraemeco employees were part of the core team. Their efforts and dedication, as well as the support of all employees, contributed to this overall project success.

We won a regional silver award for innovation!

Nina Merše

Iskraemeco has won a silver award for the eIoT Modular Platform! The eIoT modular platform is an innovative software platform for energy smart grids with state-of-the-art modular technology and operational design.

The Gorenjska Regional Chamber of Commerce, along with the Supporters of Innovation and in partnership with the Ministry of Economic Development and Technology and the public agency Spirit Slovenia, awarded the best innovations in the region. Over 70 nominated innovators, 11 registered innovation projects and 10 companies participated in the awarded innovation projects.

Silver Iskraemeco's Modular Platform eIoT

Based on the modular architecture, Iskraemeco's eIoT modular platform with embedded electricity metering software, is ready to support advanced Energy IoT solutions in the smart digital network and help creating smart cities with sustainability in mind.

The new series meters we are launching are based on the modular eIoT platform, under which the energy meter operating system – eMOS – was developed. It combines operating system technology and meter software development and enables new, more efficient functionalities related to the challenges of modern power distribution (such as grid control, more efficient fault management, better energy efficiency, higher data security, prediction of energy consumption trends, lower operating costs, possibility of organic and technological growth of power distribution – gradual replacement and upgrade of power supplies). The platform enables efficient connectivity across a wide range of technologies with all network elements (meters, sensors...).

Iskraemeco's new Technology Design Center for managing future technology trends

Smilja Dolgan Paternoster

Iskraemeco is taking the next step in becoming a technology and knowledge leader in the industry. In order to steer the development of new solutions and services for various business segments, and to align core development activities globally, we are introducing a Technology Design Center in Slovenia with strategic hubs in Egypt and India.

Technology Design Center – new, innovative ways of doing business

The Technology Design Center was established to strategically manage future technology trends focused on leaner and more agile design processes, innovation and creativity. Our goal is to bring together diverse ideas and perspectives and to focus on key development activities around the world. We will be able to pool the best resources in a more efficient way and align these functions across all Iskraemeco hubs around the world. Foundamentally, our aim is to promote the use of new energy technologies that play an important role in translating the results of the new solutions and services approach into changes in the energy system. By focusing on future technology trends, we are laying the foundation for a smart city by leveraging digital grids, metering systems in eMobility, data management, smart water and Energy IoT.

"With the creation of Iskraemeco's Technology Design Center, we are merging human and artificial intelligence to solve some of the most challenging organizational and technological problems,

global challenges and fundamental changes in daily life," said Luis Goncalves, CEO of Iskraemeco. "We will tap into the wellspring of innovation and creativity to design future-proof solutions and services by leveraging the most transformative technologies."

"Digitalization is transforming many industries and the way modern technologies can be used to create value, serve customers, optimize processes and capture new market opportunities. At Iskraemeco, we are taking the next step to become a technology and knowledge leader in the energy industry. I am proud that with the launch of the Technology Design Center we can bundle various activities to strategically manage future technology trends and accelerate the digital innovation process in the company," said Aleš Potočnik, our new Director of the Technology Design Center.

Both design and technology are hugely important in today's business world. They are logical, creative and practical, and giving Iskraemeco employees the opportunity to apply what they have learned so far and use their innovative skills, talent and entrepreneurial spirit in unique ways.

We can proudly say that this is the first Technology Design Center in Slovenia, which is a great moment for all of us!

Our young talent team wins IEDC competition

Manca Ramovš Kovačič and Alenka Bizilj Kavrečič

A team of our employees from five different work areas won a national award at the IEDC Business Challenge competition!

Teams from different companies participated at the competition and solved a complex business case. The innovative strength of the Iskraemeco team, their ability to argue with facts in front of a jury, and the cohesion of their team earned them the victory. As a prize, the team also received participation in a one-day training course worth 9,000€, which will enable them to further develop their knowledge and business breadth.

By winning the competition, the team has qualified for the international competition, which will take place in November. There they will compete with winning teams from companies in Bulgaria, Croatia, Macedonia, Romania and Serbia.

Our company strives to motivate its young talents to win the competition organized by IEDC and constantly supports a strong culture that promotes the same beliefs among employees to achieve great results and contribute to the company's overall success.

"We are so proud to have such talented young people on board with us, as receiving such an award is truly a milestone!"

Luis Goncalves
Chief Executive Officer

"The team has proven to define the word diversity, coming from different professional backgrounds and still managed to achieve such a great success!"

Bahaa Abdullah
Chief Financial Officer

Robotics and digitalization of production processes to maintain and support local production

Nejc Gorinšek

Automation, robotics and the related digitalization of production processes have recently taken an significant role in sustaining and supporting local production plants.

They enable companies to set up efficient manufacturing processes with a high degree of adaptability. Another key factor driving the automated process robotics is high repeatability, which has a major impact on the quality of products. Positive practice shows that quite frequently robots are the components of a process that ensure the required consistency and accuracy in the execution of a task according to the applicable standards.

Iskraemeco is determined to continue automating its manufacturing process and is planning two new investment projects this year. "The steadily increasing number of robots in use requires close collaboration between our suppliers and Iskraemeco as a user of robotic applications. In this regard, it is essential that top-level interdisciplinary expertise, innovation and experience of the stakeholders are fully integrated in every robotics project," said Nejc Gorinšek, Head of Manufacturing Engineering at Iskraemeco.

The transfer of knowledge from science to practice is of key importance for the progress and development of the industry and its people. The constant changes in the market require all the stakeholders to be flexible, responsive and always ready to learn. With this in mind, the company has started courses and workshops to help its employees make smooth transition into robotic manufacturing setups. Together with the Kranj School Center, we organized trainings in robotics theory and practice. The activities were carried out as part of the MUNERA 3 project, funded by the European Social Fund and the Slovenian Ministry of Education, Science and Sport.

Initially, participants got acquainted with different types of robots and robotic applications in manufacturing processes, which are intended to make work easier for people and minimize their workload due to repetitive, physically demanding and tedious tasks. Where a high level of repeatability and standardization is required, robots

Iskraemeco in cooperation with

ŠOLSKI CENTER KRANJ ZA POKLICE PRIHODNOSTI

are better at delivering consistent quality. Quality is at the heart of our long-term customer care policy and product quality assurance efforts, which help Iskraemeco retain and secure its position in the volatile market and attract new customers in the future.

Having completed the practical part of the training, engineers were able to put their knowledge into practice and get some hands-on robot manipulation experience. At first, both the theoretical and practical sessions took place at the Kranj School Center, but in later stages the activities also extended to robots used in our manufacturing process. We hope that the training will help the team to eliminate any production bottlenecks and constraints more effectively and quickly.

The principal of the Vocational College of the Kranj School Centrr, Lidija Grmek Zupanc, MSc, expressed her pleasure because "the transfer of knowledge from the college to the industry and back creates added value for all the parties involved. Cooperation is particularly important when it comes to integrating good practice into the functioning of a company and into the learning processes. We would like to continue this collaboration in the future both in the area of providing practical training for our students, in addressing various theoretical and practical issues in students' final thesis, and offering exchange programs for foreign students and lecturers."

"

"On this occasion, we would like to express our gratitude to the representatives of the Kranj School Center, especially the principal Lidija Grmek Zupanc, the organizer of the training Katarina Jagič and the lecturer Domen Kepic for their excellent organization and valuable help in the implementation of the training."

Iskraemeco team

Launch of the Data2050 project

Vladimir Milošević

We are proud to announce the launch of the Data2050 project, operating under our Data2050 LLC (d.o.o.). Data2050 is an incubation and acceleration program of Iskraemeco and Elsewedy Electric, aimed at diversifying the portfolio of both companies in the areas of metering, energy, e-mobility and IoT with a focus on services.

The mission of the Data2050 project is to identify new ideas, accelerate their implementation, and collaborate with projects, companies, in the fields of IoT technology, e-mobility, and other innovative data areas within Iskraemeco and Elsewedy Electric ecosystems and beyond. Mentors and resources from Iskraemeco are involved in the project, and external experts will join depending on the needs of the project.

Through projects and mentoring, Data2050 will provide opportunities to scale up and in turn provide participants with new technologies, other project opportunities, company shares and talent that we believe will accelerate the diversification of Iskraemeco and Elsewedy Electric.

Currently, we are in contact with more than 50 companies, and we have already started project collaboration with two of them. Vladimir Milošević, Head of incubator and accelerator at Iskraemeco: "Iskraemeco has established itself as a region's leading electric meter manufacturer and solutions provider. After the initial onboarding, I am amazed by the amount of knowledge and experience we have. We managed to stay on top of a very competitive market by thinking ahead – and the way forward is to diversify our portfolio of products and more importantly our services to cover the rapidly growing segments and offer turn-key solutions to customers. Data2050 will help us do this. By identifying, analyzing and onboarding innovative companies and teams, I believe we have found the best way to diversify safely and quickly. It is foolish to think that small, agile companies can thrive when directly absorbed into a large enterprise ecosystem. Also, it is unwise to expect that simply by providing funding to these companies, they will successfully scale up. That is why Data2050 will diversify in a different way. By utilizing what Iskraemeco has most to offer – knowledge, experience, market presence and the existing portfolio – we will attract and grow the best companies that are the best fit for us through projects first. That is way they can stay agile, we can test them and maybe even grow our funnel right away."

If you think there are companies, projects, teams or individuals with interesting solutions, concepts or ideas, please contact us at vlado@data2050.com.

We look forward to future challenges.

Iskraemeco is ambassador of the Slovenian National Campaign for Green, Creative and Smart Economy

Alenka Bizilj Kavrečič

We are very pleased to announce that Iskraemeco has been selected as Ambassador of Slovenian National Campaign "I FEEL SLOVENIA. GREEN. CREATIVE. SMART." through which Spirit Slovenia, the public agency for entrepreneurship, internationalization, foreign investments and technology, will promote the Slovenian economy on the global competitive market.

Iskraemeco and our smart, energy-efficient and sustainable solutions have been recognized as one of the driving forces of the Slovenian economy and will be included in a campaign of innovative and sustainable companies whose breakthrough solutions support the story of a green, creative and smart Slovenian business environment.

Through the state-branded communication campaign, Spirit aims to help raise Slovenia's profile as a technologically developed, creative and green country, build its positive image, and highlight investment opportunities and opportunities for economic cooperation.

Iskraemeco and the Faculty of Electrical Engineering deepen and broaden their cooperation

Nina Merše

Long-term and stable cooperation between Iskraemeco and the Faculty of Electrical Engineering, at the University of Ljubljana, is crucial for the research and development of cutting-edge technologies, for the development of knowledge and talent, and for the impact of young innovative students on changes in the environment and society.

Prof. Dr. Gregor Dolinar, Dean of the Faculty of Electrical Engineering, and the heads of the laboratories participated in a working meeting with the representatives of Iskraemeco to discuss the possibilities of deepening and broadening the cooperation between the company and the Faculty. "The meeting was very productive; we identified several points of contact between Iskraemeco and the Faculty and agreed on several concrete forms of cooperation," said **Prof. Dr. Gregor Dolinar, Dean of Faculty of the Electrical Engineering**, at the University of Ljubljana. "Iskraemeco's Green Penguin project, which addresses the challenges of sustainable development, has great potential. We have also found some common ground in the areas of Iskraemeco product development and testing, energy management, smart cities, augmented and virtual reality, education as well as training. We will meet again in the fall at the Faculty of Electrical Engineering, and we are all looking forward to it." The Faculty of Electrical Engineering and Iskraemeco have reviewed the priority areas for future collaboration and set the action plan.

Marko Mišmaš, Director of Research and Development at Iskraemeco, said, "The Faculty of Electrical Engineering in Ljubljana and Iskraemeco are long-standing partners in research and development activities and together they have carried out many successful projects that are part of Iskraemeco's current portfolio. At the meeting, we laid the foundations for further cooperation based on joint R&D projects that will generate innovative ideas to improve and increase the added value of our future solutions."

Maks Prokop, Director of Law, Compliance and Human Resources at Iskraemeco, pointed out the importance of career opportunities for students, "Cooperation with the Faculty of Electrical Engineering is very important for our company, as most of our engineers are graduates of the Faculty. As in the past, we would like to continue to welcome the students of the Faculty as scholars and take the opportunity to offer exciting career opportunities to young professionals."

The participants of the meeting

Bahaa Abdullah
Chief Financial Officer, Iskraemeco

Peter Kobal
Director of Smart Energy & Water
Solutions, Iskraemeco

Mojca Markizeti
Head of Sustainability and Regulatory
Affairs, Iskraemeco

Luis Goncalves
Chief Executive Officer, Iskraemeco

Maks Prokop
Director of Law, Compliance and
Human Resources, Iskraemeco

Marko Mišmaš
Director of Research and Development,
Iskraemeco

Prof. Dr. Gregor Dolinar
Dean of Faculty of the Electrical
Engineering Ljubljana

Prof. Dr. Andrej Kos
Head of the Telecommunications
Laboratory, Faculty of Electrical
Engineering Ljubljana

Prof. Dr. Boštjan Blažič
Deputy Head of the Laboratory for
Electrical Networks and Devices, Faculty
of Electrical Engineering Ljubljana

Energy IoT solutions - Data leading to a better life

Simon Oblak and Nina Merše

Iskraemeco's Energy IoT solutions are a future-proof, secure, reliable and sustainable solution to support energy companies master their digital transformation. IoT is the next wave of device connectivity to improve business models. Iskraemeco's solutions use a powerful multi-layer technology that enables provisioning, management, and automation of connected devices within the IoT landscape.

Our Energy IoT platform consist of a set of ready-to-use features that streamline rapid application development by ensuring scalability and cross-device compatibility. We are addressing energy companies and consumers by utilizing a vast amount of generated data and enhancing data processing.

The new solution transforms electricity, heat and water networks into a smart and sustainable grid that is prepared for future technologies and challenges while achieving greater efficiency through digitalization.

With our fully integratable software suite SYMBIOT we can cover data exchange with connected field devices and provide integration interfaces to our customers' enterprise systems. Symbiot includes a wide range of features and offers numerous benefits, the most important of which are customizability, future-readiness, and powerful integration.

SOLUTION ARCHITECTURE AND COMPONENTS

Energy IoT is a complete solution that facilitates deployment of complex, large-scale smart metering projects. The solution components divided into three main groups are horizontally and vertically scalable in order to accommodate the growing data volume resulting from rapid installation of devices during a roll-out.

Hardware

Field devices (electricity meters, multi-utility meters, and sensors), communication devices (supporting various communication technologies), gateways and sensors.

Software

Symbiot - Head-end system (HES) with an external key-management system (KMS), and meter-data management (MDM) functionalities for offering meter data collection, online tariff adjustment, quality of supply and power quality, customer engagement, integration.

Services

A full set of services for planning, deployment, and after-sales activities (support services, trainings, managed services, maintenance).

LET'S START A PROJECT TOGETHER

Iskraemeco's Energy IoT goes even further introducing a variety of valuable features to the hardware and application layers. It offers components for front-end and analytics, on-device data processing, and cloud-based deployment. Contact us and we will find the best solution for your specific requirements.

ADDRESSING THE CHALLENGES FACING THE ENERGY INDUSTRY

The Energy IoT solutions combine two groups of individual solutions. The **standard advanced metering infrastructure (AMI)** functionalities include all the features needed for billing and device management. **Advanced eIoT** use cases extend the data exchange featured in the standard AMI use cases and bring additional value to the stakeholders. After extensive consultation with our partners and customers worldwide, we have identified the top five challenges currently facing the energy industry, and have adapted our latest solutions accordingly.

Modernizing communication

New mobile technologies offer numerous new opportunities for improved communication. As GPRS communication is gradually being phased out, old communication modules may have to be retrofitted to the new communication technology, such as LTE. Iskraemeco is committed to help its customers transition to new communication technologies. Modular eIoT meters allow quick and cost-effective changes and upgrade, so that our customers can stay up-to-date with the latest technology, and maintain the highest possible level of communication performance and end-to-end security.

Multi-utility solution

Multi-utility systems, in most cases, require separate metering systems for electricity, water, heat and gas, each with their own associated costs. Our integrated multi-utility solution unifies these systems wherever possible. Our system allows the measuring, billing, and management of gas, water, and heating devices to be integrated into the existing end-to-end electricity metering solution thus dramatically reducing the cost of running separate systems for each utility.

Improved investment planning

As electricity consumption continues to rise, so does the importance of grid planning. Most current grid systems simply do not yield adequate data for the proper investment planning into low-voltage infrastructure. Our latest solutions are able to gather and stream more data than ever before, identifying and analysing load trends, peak values, averages, and anomalies. This means our customers can closely monitor their grids and make accurate predictions about maintenance and investment needs.

Data for flexible energy markets

The digitalization of the energy market is bringing with it the emergence of entirely new kinds of energy businesses, such as flexibility operators and aggregators, with much higher demands on data exchange. Our latest systems have been designed with these increased requirements in mind. We now offer near real-time information from low-voltage end points, meaning our solution essentially acts as an information broker for various energy suppliers.

Power-quality monitoring

The use of distributed and renewable energy resources will double in the next few years, as the world seeks to become less dependent on traditional energy resources. But existing systems typically provide inadequate insight into the power quality of the low-voltage grid. With the power quality module of our eIoT meters and the communications architecture that supports them, our customers can now obtain near real-time power quality data from the low-voltage network, enabling better integration of distributed (DER) and renewable (REW) resources into the grid.

SYMBIOT - Future intelligence for today's business

Aleš Glavina and Smilja Dolgan Paternoster

Symbiot is an adaptive, intelligent software suite that enables simple, highly secure, and automated management of any business, based on real-time data processing.

Symbiot is the new generation and the concept of an intelligent software suite that enables easy, highly secure and automated management of any utility based on real-time data processing. The future is here, giving us intelligent tools to make our everyday business and social lives convenient and sustainable without sacrificing security and efficiency.

SYMBI⊙T

POWERED BY ISKRAEMECO

ASTONISHING BENEFITS OFFERED

Powerful, future-forming, innovative and customizable are just a few words that describe Symbiot.

Symbiot offers amazing improvements to the entire utility system – energy, water, or gas distribution – by effectively processing a large amount of data and connecting to it in real time. The software suite contributes to grid stability and lowers total cost of ownership by improving control over consumption, faults and errors.

SYMBIOT

POWERED BY ISKRAEMECO

MEET SYMBIOT

Symbiot is the new Iskraemeco's brand and a result of the company's software development tradition of continuously evolving software products. Now we have launched our own IoT platform with an extended app portfolio.

Symbiot provides utilities with an innovative software suite that ensures efficient data management. Symbiot enables the building and easy management of smart utility environments in any domain, from simple smart home connections to complex utility grids.

In order to stay connected, we have a recorded webinar that covers the key elements of Symbiot, a walkthrough of the platform and much more.

Agility

Nowadays, it is necessary to form a complex IoT foundation for a smart environment, such as smart cities or communities. A solid, secure, and long-lasting suite can be deployed quickly and managed easily to ensure a successful implementation. The agility is demonstrated by the fact that Symbiot connects seamlessly and achieves full functionality regardless of what kind of system is set up or what type of meters are deployed in the utility system.

It is our duty to offer a solution that meets current and arising future requirements, which may vary from system expansions, changes in legislation and/or operational requirements.

Flexbility

Symbiot is an extremely flexible solution with service-based design that fully supports the optimization of your processes across the entire company.

The modular nature of the suite allows each system to be fully customized by using the modules required. This not only minimizes system costs, but also the time and effort required by employees. A flexible licensing model supports processes and can be expanded as needed.

Security

High quality authentication and encryption methods ensure secure data transmission between the meter and Symbiot's app using the Key Management System and PKI infrastructure. In addition, end-to-end security is guaranteed through the use of advanced, standards-based security methods.

EFFICIENCY OF DATA PROCESSING

Efficient real time monitoring achieved through increased control of consumption, outages and faults within the utility systems, real-time connectivity and data processing facilitate daily operations and considerably reduce costs for each connected user. Due to constant technological changes and evolving customer needs, Symbiot's software is designed to develop new features faster and maintain existing ones without impacting business processes.

The software suite is designed to serve changing business environments quickly, efficiently, and with robust reliability over time. Symbiot is interoperable and can collect and process data from any device directly or through a mobile app operated by utility staff. By aligning with business processes, we improve the overall user experience and deliver results.

SUSTAINABILITY AS A PRIORITY

With sustainability ingrained in Iskraemeco's DNA, the software platform has been designed to enable utilities to manage energy for the 21st century while solving the global challenge of decarbonization. Thus, Symbiot's energy efficiency features support lower consumption, enable rapid response to disruptions, and promote green energy.

Meeting customer needs with various Packages

Symbiot works as a software suite, where particular apps solve specific tasks. The most robust ones are SymbiotHES, a backbone of the entire system, and SymbiotMDM, the brain of the system. All other apps play their specific roles in vending, billing or field support.

SymbiotHES

Focuses on collecting data from multiple sources, meter agnostic approach with the ability to handle any competitive device (electricity, water, gas, heat).

SymbiotMDM

Provides functionalities to analyze data from multiple sources (multiple HES systems) and prepares it for other higher-level systems (ERP, billing, customer portal). Provides validation, aggregation, estimation and prediction at consumption level.

SymbiotFieldAssist

The solution simplifies field work and provides field operators with a clear overview of the tasks they need to complete on a daily basis. The solution enables centralized management and an overview of job orders and user permissions. The application runs on an Android smartphone or tablet. It also enables drive-by/walk-by solutions for battery-powered meter data collection.

VERSATILITY OF OUR SOLUTIONS

When a challenge arises, at Iskraemeco we work to find a solution for our valued customers. By combining the Symbiot suite with meters for water, gas, electricity, and heat, and integrating with upper layers we can provide unique solutions for specific segments of utility services. The platform is built on expert knowledge and guided by a clear vision of the future, making any challenge a success.

NEW IE.X - Next generation eIoT meter

Boris Babič, Nouran Bahaa and Nina Merše

Iskraemeco has entered the world of IoT in the energy industry with the new Intelligent Energy meters – IE.X. With an innovative eIoT modular platform, the IE.X series enables seamless integration of next generation smart metering functions into the smart grid environment.

The IE.X series consist of reliable and versatile metering devices that offer numerous applications in power generation, transmission, distribution and consumption. The series is based on an eIoT modular platform which offers utilities maximum flexibility ranging from hardware to software and various communication modules. The IE.X will shape the future of metering business in the IoT landscape.

THE eIoT METERING PLATFORM

The eIoT modular platform is a foundation for the new generation of electricity meters and is designed for smart grids with an excellent modular technology and operational design.

The platform is based on modular architecture, has a significant impact on the future of metering systems and supports all current Energy IoT solutions in the smart digital grid environment and the development of smart cities with a focus on sustainable development.

Products based on the eIoT modular platform contain embedded Iskraemeco's Measuring Operating System (eMOS), which monitors and maintains the functionality and metrology of the hardware while also providing a platform for applications that integrate our products into a wider energy IoT system by combining an operating system technology and software development for meters. This enables efficient new functionalities related to modern electricity distribution challenges, thereby gaining insights into network control, fault detection management, better energy efficiency, higher data security, forecasting energy consumption trends, lower operating costs and the possibility of organic and technological growth of electricity distribution (e.g. gradual replacement and upgrade of the network).
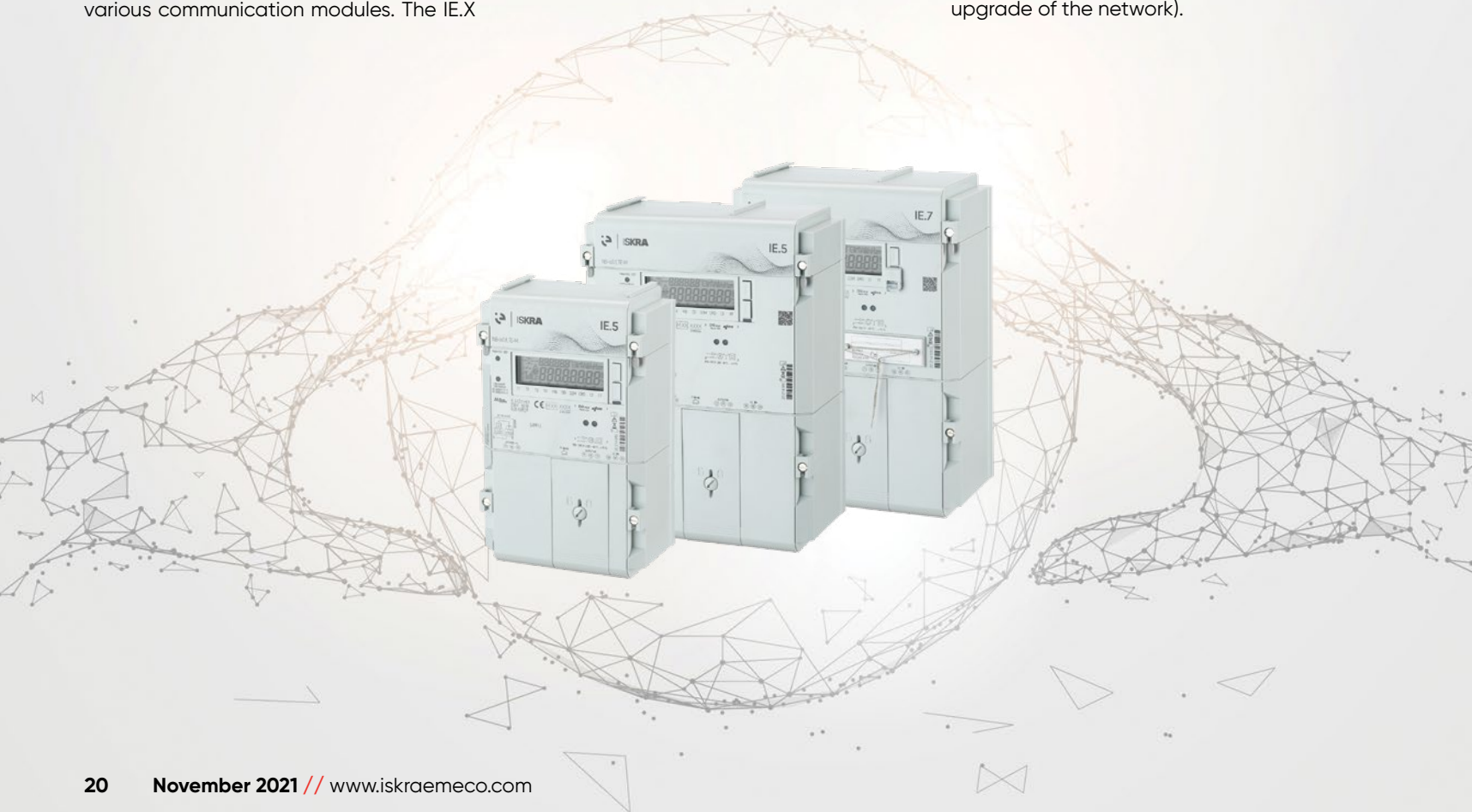
ASTONISHING BENEFITS

All IE.X meters have been designed with **flexibility** in mind, ensuring that we are always able to meet the ever-changing demands of a fast-moving sector. Our new eIoT platform tailors our products and services to meet the individual needs of each customer. Our product portfolio also caters to requirements at every possible scale, from simple residential meters all the way up to advanced, industrial scale measuring systems, and everything in between. New developments in communication, special requirements for distributed generation (e.g. photovoltaics, electric vehicles, wind turbines) require specific modifications and upgrades. That is why IE.X has been developed using a highly flexible modular approach applied on the smart meters` hardware and software layers.

Scalability is ensured by easily adding new functionalities to quickly react to market needs. This is done through the architecture of the platform which allows us to deliver products with specific features that can be easily scaled for various applications. These are puzzled perfectly together to serve the RSA, RSM, and ICG segments with a scalable hardware and an embedded software architecture (eMOS).

Sustainability is integrated in Iskraemeco's DNA and our portfolio, placing higher demands on continuous improvement with each meter generation. Thereby, product footprint is one of the main drivers in product development i.e. design, new technology introduction. IE.X is characterized by low power consumption and a design that impacts the overall cost of the meters along with optimized logistics services. The meter is made of recyclable material, making it easy to dismantle at the end of its life cycle.

Throughout the product optimization process, a positive impact on the total cost of ownership and carbon footprints has led to a 40% reduction in the consumption. We have achieved this success primarily by reducing the energy consumption of our products by 32% and the number of electronic components used in their manufacture by 35%. A key statistic worth highlighting is that we have managed to reduce our carbon footprint by 80% since 2013, and are continuing to strive for further improvements in all areas.

The modular design approach behind all of our products means that communication technology can be changed or upgraded in the field without the need to replace the entire meter. **Connectivity** therefore provides huge savings in time and resources, and ensures that our meters are a secure, future-proof investment that will keep pace with ever-evolving technology. We already support the latest communication technologies through M2M connectivity – such as NB-IoT, CAT-M and LTE-M – and offer full backward compatibility with 2G, 3G, and 4G. The IE.X meters are also capable of sub-metering water, heat and gas meters, and we have expanded our range of inputs and outputs to reflect their increasing importance for load management.
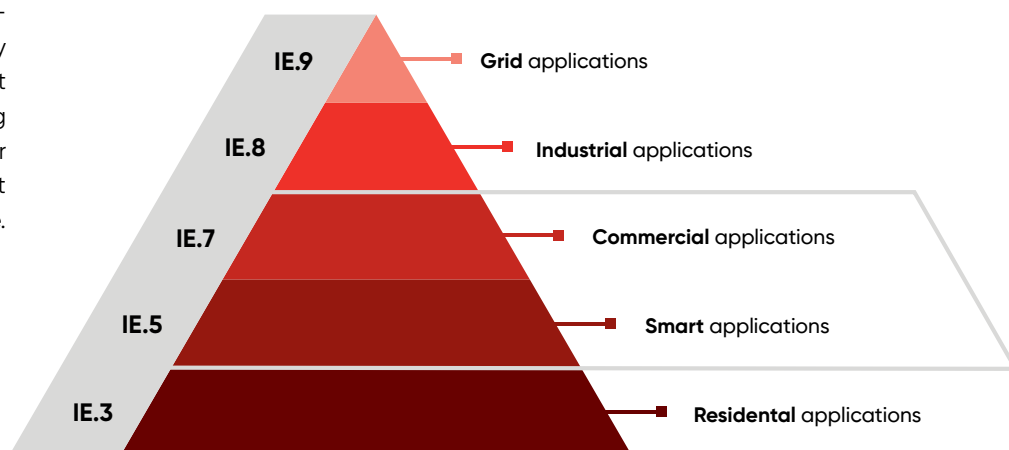
Smart metering devices must fully comply with the security requirements of European and national legislation.

Our meters have always offered robust **security**. There are two levels at which the security is guaranteed: physical and logical.

In terms of physical security, our devices are protected by various seals and detection systems. For logical security, we implement the latest authentication and encryption mechanisms. In addition to obtaining recognized standards in our industry such as DLMS/COSEM, IDIS, G3-PLC, our products also include innovative features such as key generations, encryption, and various certificates (DLMS Suite 0, 1, and 2).

THE IE.X PRODUCT PORTFOLIO

With the new portfolio, we will be able to manage a wider range of one- and three-phase meters, ranging from simple to complex segments. The pyramid below shows a wide range of applications, starting from the simple RSA meters to smart meters incorporating the advanced communication technologies. The industrial segment has an advanced measuring system and an extended set of IO's. The meters already available in the market are IE.5 (for smart applications) and IE.7 (for commercial applications), both equipped with an integrated breaker, and pre-installed with the latest communication technologies.

- IE.9 — **Grid** applications
- IE.8 — **Industrial** applications
- IE.7 — **Commercial** applications
- IE.5 — **Smart** applications
- IE.3 — **Residental** applications

Introducing Iskraemeco's new bulk ultrasonic water meter – ISKRASONIC

Mariia Iglova Andreuzzi, Gregor Velepec and Anže Mikulič

The new ISKRASONIC water meter is a real data provider for decision-making based on reliable information from water networks.

Iskraemeco's Smart Water Solutions address the most important challenges of modern water utilities:

- Digitization and improvement of water supply management system.

- Efficient measurement, precise calculation of water consumption and water balances.

- Detection of non-revenue water (NRW).

- Utilities customers' awareness and service improvement.

We have chosen a holistic approach to tackling these pain points of modern utilities. To ensure sustainable technical and financial operation of water utilities, we offer a variety of technological components and services.

The solution package combines an array of coordinated smart water meters and advanced sensors through communications up to data management and software services for metering, billing, customer engagement, and network optimization.

Recently we have added a bulk/industrial water meter to our portfolio: ISKRASONIC – a bulk ultrasonic water meter.

○ ○ ○

Measure every drop. Optimize your water network to provide a crucial contribution to water conservation and sustainability.

Quick facts about ISKRASONIC

- **PRODUCT APPLICATION:** water networks (bulk, commercial and industrial applications)

- **PRODUCT MEDIUM:** cold water (medium temperature up to 50°C)

- **PRODUCT FUNCTIONALITY:** precise measuring and reliable data transmission

- **SIZES (DN):** bulk/industrial water meter with the following diameters: 50–200 DN

- **COMMUNICATION OPTIONS:** NB-IoT, wM-Bus, LoRaWAN

- **CERTIFICATIONS/APPROVALS:** MID 2014/32/EU, ACS, WRAS, BELGAQUA, CE MARKING

ISKRASONIC is an ideal solution for bulk metering, commercial and industrial applications. It is designed for metering and billing of water consumption in main water supply channels or specific zones or district metered areas (DMA).

When used in combination with other water meters and sensors from our portfolio (residential meters, sub-meters), ISKRASONIC enables utilities to capture the complete picture of their water networks, which is crucial for water balances calculation and non-revenue water management.

The smart water meter offers water utilities limitless flexibility as it supports simple and hustle-free data integration into the existing systems and easy installation. It is a robust, wear-resistant water meter, without any mirrors or other mechanical moving parts, which guarantees long-term operation with over 12 years of battery life.

ISKRASONIC uses a wide range of communication technologies, e.g. LoRaWAN, NB-IoT, wM-Bus.

Our new water meters are MID 2014/32/EU certified and are therefore compliant with ISO 4064. They hold CE marking and are approved for potable water use (sanitary approvals ACS, WRAS, BELGAQUA).

MAIN BENEFITS

Technical

- 12+ years battery life. Easy data integration into existing and future systems.

- Cost savings on frequent water meters replacements.

- Easy installation process in any position.

- Robust and long-term solution due to the lack of mirrors and other mechanical moving parts that helps to eliminate measuring deviations caused by sand, dust or other particles.

- A wide range of connectivity options: LoRaWAN, NB-IoT, wM-Bus.

Functional

- Providing accurate and precise water measurement, billing, monitoring and leakage detection data via remote reading.

- Preventing severe damages and leakages by providing valuable information about network events and anomalies.
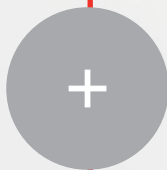
ISKRASONIC and Iskraemeco's other cutting-edge water meters (multi-jet, volumetric, ultrasonic and woltmann) are the foundation of our smart water management solution. They are equipped with advanced communication capabilities for remote metering, creating a fully automated system infrastructure for the water management.

It is a safe investment for improving the water network infrastructure, offering remote metering functionalities:

- Precise measurements, monitoring, billing and active leakage detection due to ultrasonic measurement technology.

- Automatic meter reading - AMR (Walk-by/Drive-by – wM-Bus) increases operational efficiency by wireless measuring water consumption data. There is no need to check each device manually, thereby eliminating meter reading errors manually.

   Using Walk-by/Drive-by data collection enables remote reading directly from the vehicle or sidewalk.

- Advanced Meter Infrastructure - AMI (Fixed meter reading – LoRaWAN, NB-IoT).

   Data reading is performed over a public or private LoRaWAN network and telecommunication networks (NB-IoT). Both technologies have advantages for specific areas of application.

   The fixed meter reading using LoRaWAN or NB-IoT networks allows the remote meter management, bringing the following advantages:

   - automatic remote water meters readings,

   - higher frequency of data collection (e.g. once every 2 hours),

   - transmission of measurement data to backend systems is done several times a day, which allows quicker detection of issues in the water network or at the consumer side (alarms),

   - higher accuracy and security of data transfer,

   - possibility to predict consumption and make forecasts on daily/weekly basis,

   - predictive maintenance - better organization of the working process (a smaller team is needed to manage water meters).

The LoRaWAN and NB-IoT networks are designed to support endless use cases ranging from smart metering, smart water management, water efficiency, and water balances. Iskraemeco is committed to enabling networks for utilities, municipalities, technology startups, and industry partners to develop and introduce new IoT solutions. We also offer network management, support and services for companies looking to build their own private network.

Using our comprehensive smart water meter solution, water utilities can make quick decisions on reducing their costs, accurately measure water usage across all sources, and reduce non-revenue water.

Crafted smart metering solutions to strengthen the digital grid in Africa

Ahmed Anwar, Nouran Bahaa and Ihab Mokhles

Across the African region, utilities and municipalities are experiencing technical and non-technical losses for a variety of reasons. These range from regular power outages, theft and fraud to inadequate energy management, which characterize the energy industry in this region.

Furthermore, as utilities have challenges with improper billing and revenue loss, efficient customer service seems increasingly difficult to achieve. To overcome these challenges, smart metering method have come into play, which offer efficiency and effectiveness. Although Iskraemeco already had a strong presence in the African market, the company has managed to take a bold step into the new Industrial and Commercial (IC) sector, to unify, transform and modernize the region's market with solution tailored to meet concerns.

AN INNOVATIVE SOLUTION FOR EVERY CHALLENGE

Iskraemeco's Digital Grid solutions address the major challenges facing modern power generators, transmission and distribution system operators. They provide solutions against fraud, faster predictions for outages, and improve overall energy management.

The solution process begins with the installation of our smart meters and their communication modules. The data is then transferred to our innovative SYMBIOT software suite, which includes a Head-End and Meter Data Management system. To manage and store a large amount of metering information, the data is transferred to the central AMI application system. This required data is then extracted to provide utilities with deep insights into the operation of the network and the energy balance. This enables operators to identify inefficiencies in the grid, track unbilled consumption and identify potentially dangerous sections of the grid to avoid emergencies at peak load times.

Iskraemeco is entering this new IC segment with its high-precision multifunction meter, the MT880.

WHY DOES THE MT880 OFFER A UNIQUE VARIETY OF FUNCTIONALITIES?

The MT880 is smart, modular ICG meter, which features a hot-swappable communication module with a push functionality. The meter offers a variety of benefits, including detailed monitoring and effective network management, and also supports multiple alarms on inputs and outputs.

PLANS FOR THE FUTURE

Iskraemeco plans to continue modernizing and developing smart solutions to provide excellent energy management to the African market. The solutions are already operational. In addition, we are proud to announce that we will reveling two major pilot projects in the next edition. Stay tuned and keep an eye out!

Below is a list of some top-notch use cases, which, with eight innovative solutions, are implemented in our projects.

1 Real-time alarm monitoring

Real-time alarm monitoring is achieved in the MT880 meter whereby alarms are sent immediately to the centralized system (Symbiot) where appropriate actions are then taken based on the severity of the alarm. These actions include:

- Sending an email describing the alarm.

- A pop-up message on the system with a description of the alarm.

- Sending a text message to the customer.

- Triggering a specific action, such as disconnecting the power supply.

2 Outage management

The system is notified within minutes in the case of a power failure by using the last gasp function in the MT880 meter. Whenever the voltage drops, the meter sends a message to the software suite. This is done via the MT880 meter, which stores the alarm and immediately forwards it to Symbiot. The software suite can then initiate corrective action in a number of ways: via email, as a pop-up message on the suite, as a text message to the customer, or as a trigger for a specific action, such as disconnecting the supply.

3 Transformer protection

Overloads can occur in the distribution transformers, which cause an increase in temperature that leads to a burn in the system. This can easily be prevented if SCADAs and control systems are in place to monitor the loads. However, if such systems have not yet been implemented, what is the alternative? Iskraemeco presents the first tailormade solution to overcome this challenge, through transformer protection!

The process works as follows. When the temperature of a transformer reaches a certain threshold, the heat sensor sends an alarm to Symbiot. The software suite then sends a command to an external contactor to disconnect. When the transformer temperature reaches the standard temperature again, Symbiot sends another command to close the contactor.

4 Tamper protection

Tampering is one of the biggest challenges today, which can be prevented by tamper protection. Tampering includes alarms that occur on a meter itself or alarms that meters can register in the surroundings. One of these alarms that occurs outside the meter is opening of the enclosure door, which can be accomplished through the alarm input feature of this meter. A limit switch can be connected to the alarm input of the meter

so that when an intrusion occurs, it records the event and immediately sends an alarm to Symbiot. It then sends a command to disconnect the meter's relay and stores it as an alarm. In addition, it is also possible to program the meter to connect and disconnect.

5 Prepayment

This function is applied to our system in cases of a Flat Tariff. The process begins when the meter is charged with a credit that is converted to KWh by Iskraemeco's software suite – Symbiot – and stores the total amount in the initial balance attribute. The software suite periodically decreases the total consumption of the meter from the value of the initial balance and stores the result in the total balance attribute. After reaching a predefined threshold, Symbiot sends an alarm to the customer via email/ text message. After reaching a balance of zero, the software suite sends a command to the contactor to disconnect the supply. The software suite ensures that the supply to critical loads cannot be disconnected from critical loads without prior notice from the suite.

In cases of a Time of Use (TOU) tariff or a step tariff, Iskraemeco's system is integrated with a billing software that is responsible for the calculation.

6 Demand side management

Demand side management is the process of adjusting load instead of power station output, which allows utilities to reduce electricity demand during peak periods. In return, this reduces costs by eliminating the need for peaking power plants. The MT880 meter has a 5A bistable relay that can control an external contactor or circuit breaker to control the load as follows:

- On-demand through communication interfaces (remotely).
- Through a tariffication program (TOD).
- Through register monitoring (define a limit value for power/current).

7 Detection of losses or loss calculation

With Iskraemeco's smart meters and real-time data monitoring of the system, data can be collected and analyzed to determine the technical and non-technical losses in the grid. Symbiot allows you to compare the data from the meters at the start and end of the transmission line or feeder. If the difference is above a predetermined threshold, the suite signals an abnormal loss in that feeder or transmission line.

8 Cascading functionality

In terms of substations, a cascading server is a functionality that allows the meter to act as a gateway to other meters. There are up to 31 slave meters that can be connected to only one master meter, which is the MT880. The use of the cascading function has an obvious impact on reducing the overall cost of the solution, as only the master meter needs to be equipped with a communication module.

Customer-focused businesses

Mateja Novak Resman

Companies should always put customers at the center of everything they do, because all activities should be focused on a single goal: satisfied customers. To ensure smooth interaction with customers or their representatives, it is extremely important to get proper feedback to understand what impact our activities have on customers.

At Iskraemeco, the Professional Services department resolves the issues that customers face on a daily basis when running the system with the Iskraemeco solution or any part of the solution. Every case reported from the market is considered valuable feedback, which deserves our full attention. It helps us to understand what we should pay attention to in the next development or launch of a new product, for example, perhaps the documentation is not sufficient and leads to many customer questions, or it is not user-friendly, which means a mismatch between customer expectations and realization (their expectations were not met), which would require improved definition from the outset (understanding customers' needs). All the information the Professional Services department receives is shared with other departments in the company to improve future results.

An important aspect of feedback is how satisfied customers are with the resolution of the reported issues. To gain insight into customers' perceptions of the Iskraemeco team's activities, information is collected through various surveys, one of which is customer satisfaction survey. As part of the project work within Iskraemeco's Talent Academy program, a short questionnaire has been created and implemented to measure the satisfaction with closing a reported case and a closed claim.

Each time the proposed solution for the reported case is accepted by the client, the case is officially closed and the sending of the short questionnaire is automatically triggered by the system. The results are displayed in our Business Intelligence so that it is possible to track how many surveys (out of the ones sent) were answered and what the results were. Based on the information gathered, measures can be taken to improve our management of reported cases and interaction with customers.

Measuring and analyzing customer feedback should not only be considered as one of the requirements of the ISO standard, but also as a continuous task that helps Iskraemeco to improve on a daily basis.
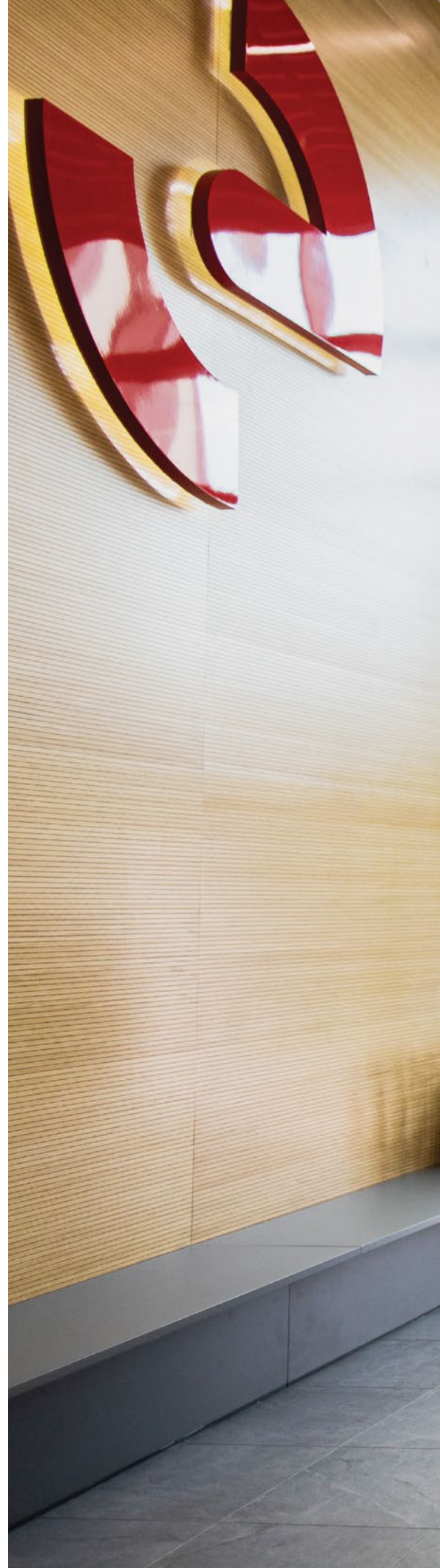
Green Penguin project is ranked among TOP3 finalist of European Enterprise Promotion Award 2021

Lara Šarabon Štojs

Iskraemeco is the winner of the national European Enterprise Promotion Award (EEPA), organized by the European Commission and Slovenian Agency SPIRIT. Our Green Penguin was the best project in the category "Supporting the sustainable transition".

The project was also selected by the EC jury among the finalists of the Europe-wide competition, where Green Penguin was representing Slovenia. Among all European national winners, we ranked among the top three finalists. The final winner of the competition will be published by mid-November and we are hoping for the best.

The Green Penguin project has a positive impact on the environment and society. It combines smart technologies and gamification to promote environmental and digital literacy, starting with the younger generation and gradually expanding to all age groups, businesses and urban infrastructure. The project is particularly interesting because its activities encourage people to personally contribute to reducing their carbon footprint and developing new habits.

Since winning the Ljubljana Climathon and being among the TOP 3 most transformative ideas at the international Climathon, we have been developing the project further.

We have put a lot of effort and work into it, so we are planning pilot projects in Kranj, Ljubljana and Reykyavik soon. In the meantime, we continue developing and validating the idea and applying for European tenders and funding mechanisms, as it is in our interest to use EU funding for green and digital innovations to get additional start-up investment.
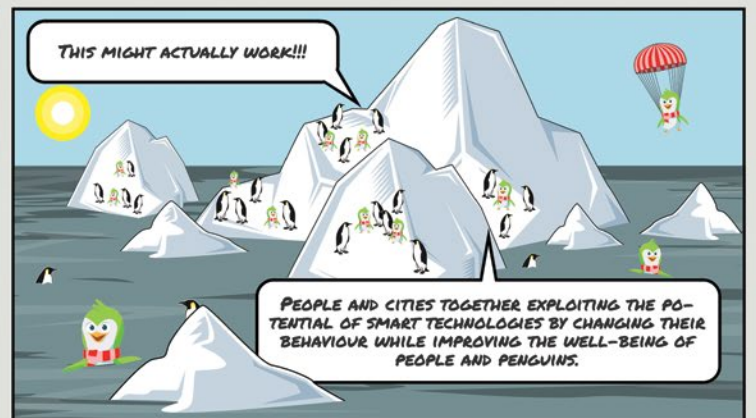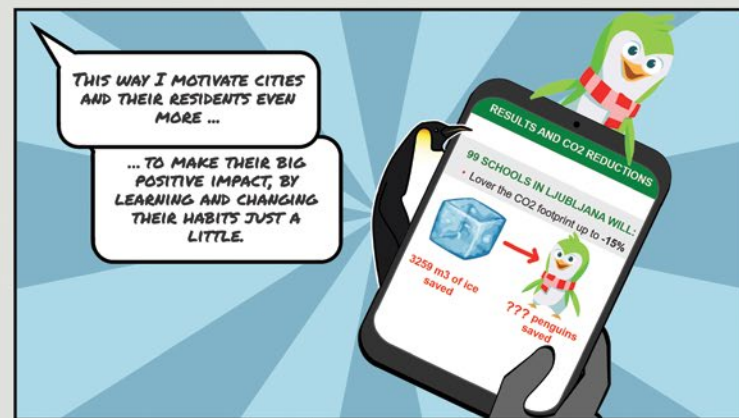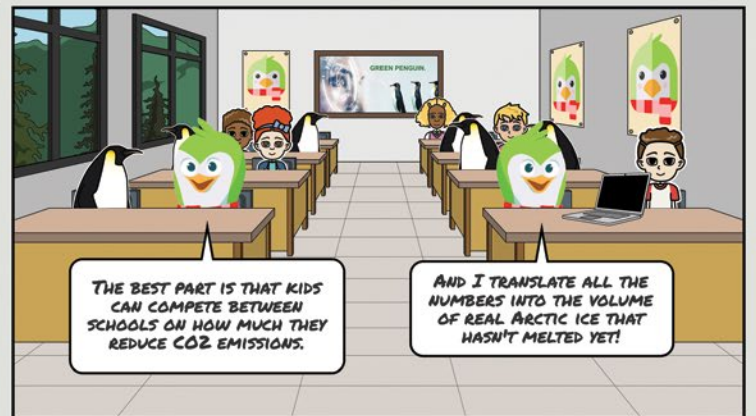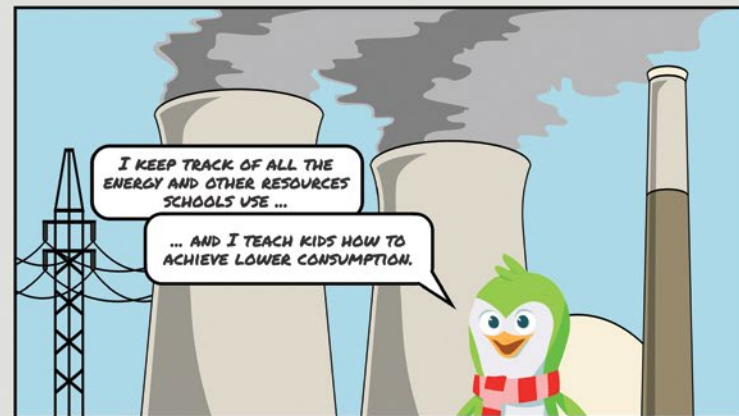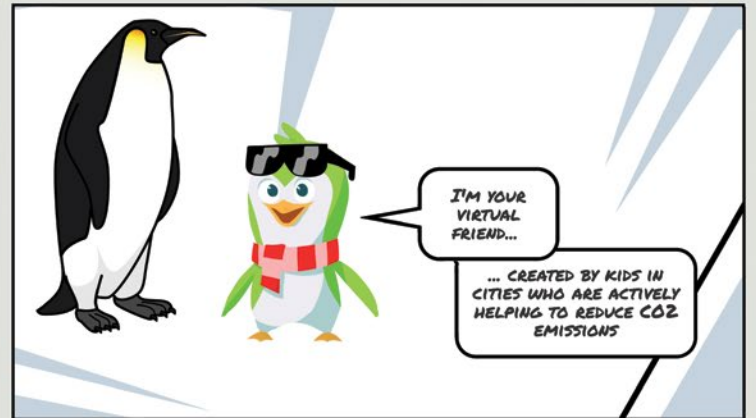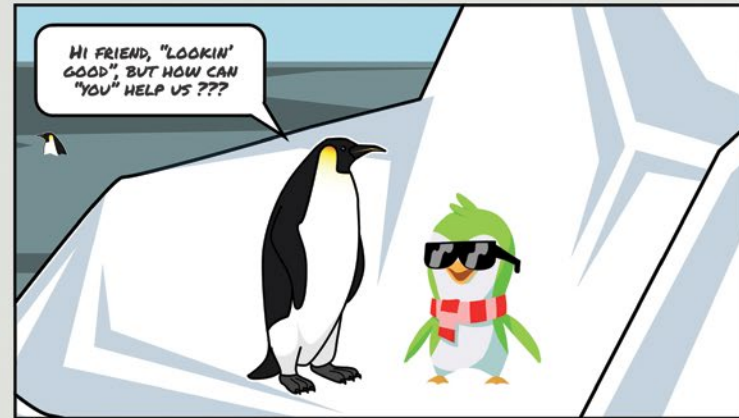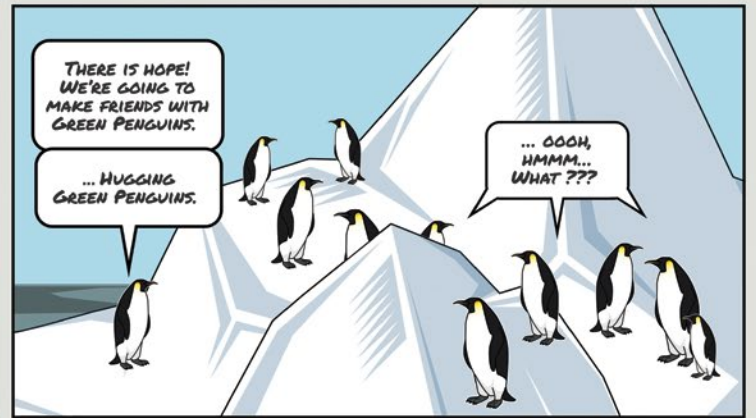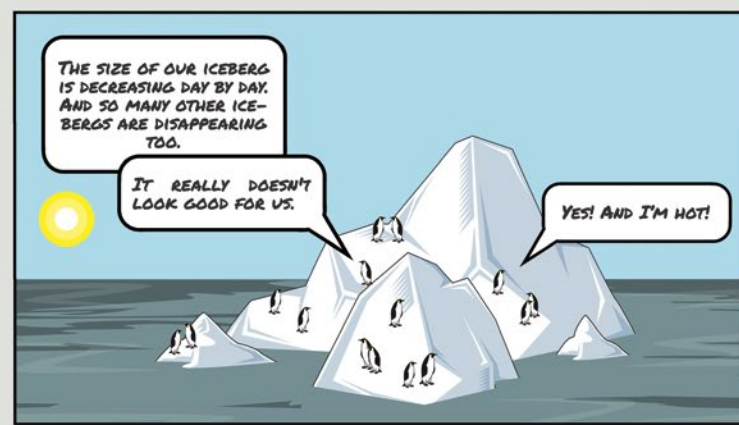
We do climate solutions, what about you?

Mojca Markizeti

Digitalized solutions combining smart home, smart grid and smart city with energy IoT solutions.

Energy demand represents more than 75% of the European Union greenhouse gas emissions. "How can we achieve climate neutrality by 2050 and reduce CO2 emissions by 55% by 2030?", is an equation in which cities play an important role.

Throughout history, cities have been a key driver of change and innovation. Today, they must play one of the most important roles in the fight against the climate crisis by adopting multiple solutions to mitigate risks and achieve carbon neutrality. Cities are changing, evolving and growing at a rapid pace. It is estimated that two thirds of the world's population, i.e. about 8.5 billion people, will live in cities by 2050. In Europe, 85% of people will live in cities by 2050. Cities cover about 3% of the Earth's surface, but consume more than 75% of all natural resources available to the whole world and produce about 72% of all global greenhouse gas emissions.

Overall 93% of European Union citizens consider climate change to be a serious problem and a clear majority of the EU population would like to see increased action against climate change (cf. Eurobarometer). There are countless opportunities and challenges for urbanization and digitalization that can contribute to the sustainable development of cities around the world to ensure a higher quality of life. As the density of users and infrastructure is higher in cities, there is also a greater potential for cross-sector integration and complex infrastructures such

as smart grids. If we combine smart home, smart grid and smart city with energy IoT solutions, we can achieve multiple sustainability goals and cities can actively fight the climate crisis. As a society, we are entering a decade where we will make it or break it. The time to act is now.

SMART CITY INFRASTRUCTURE
Smart City concept is one of the best tools to mitigate existing climate and other challenges of the city. We are creating an ecosystem that works in the best interest of infrastructure, communities and people. Iskraemeco combines physical and digital products, diverse solutions, services, technologies and available data to provide innovative solutions aimed at sustainable development and efficient use of energy and water.

DIGITAL GRID
Iskraemeco is developing tools and end-to-end Digital Grid solutions that solve customers' biggest challenges by leveraging the power of information. Our company helps distribution and grid companies build a future-proof business, support a future-proof community and realize energy efficiency potential. We are empowering the grid of the future.

SMART METERING
In the age of IoT, Iskraemeco's solutions offer a comprehensive range of remote monitoring and alerting capabilities as well as powerful data analytics tools that allow organizations to optimize their electricity, water, gas, or heat consumption and demand in real time.
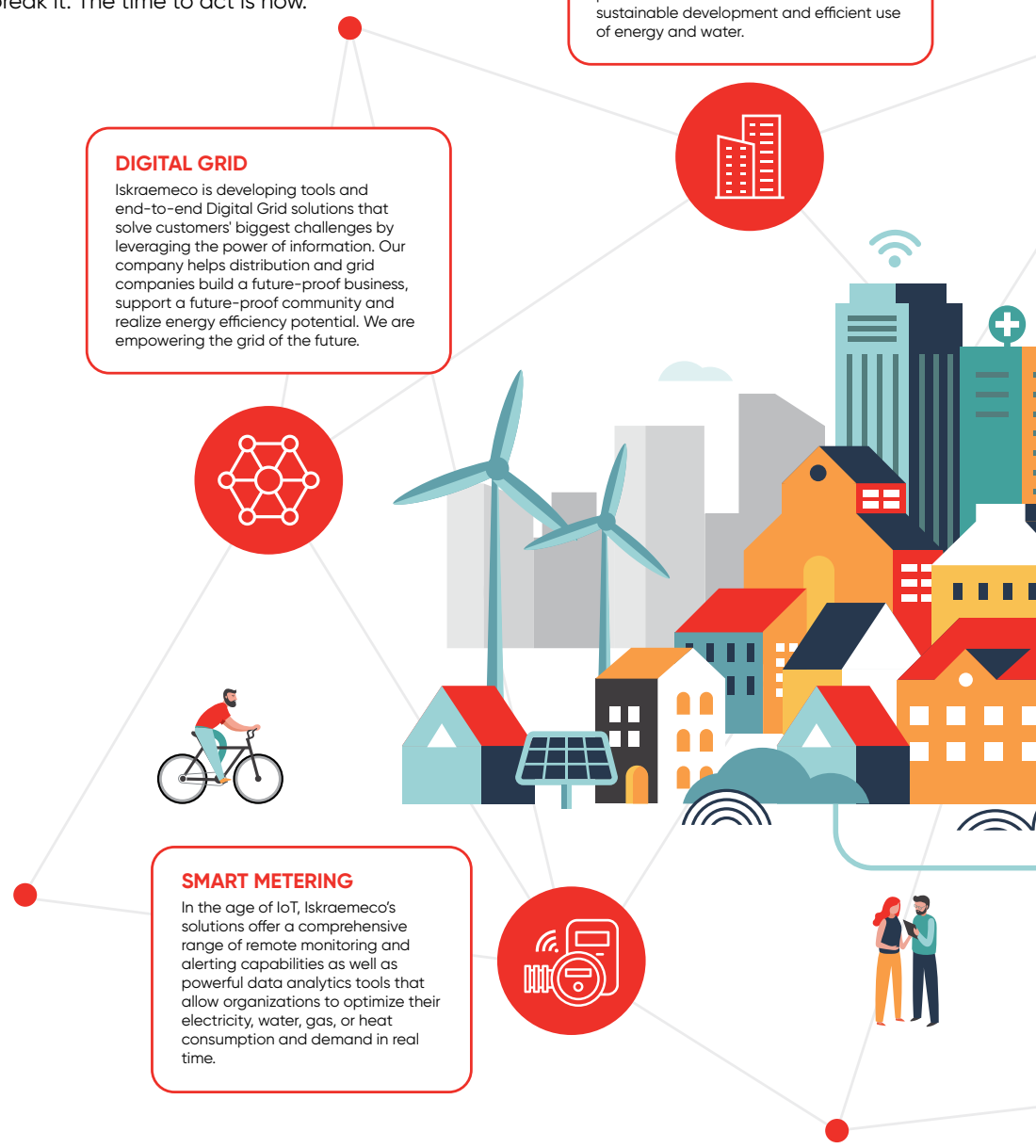
Iskraemeco's Smart City is an ecosystem of solutions that connect all vertical and horizontal ecosystems with various stakeholders such as residents, societies, local utilities, municipalities and businesses. Our Smart City projects, which introduce innovative technical solutions, set a benchmark for 'smart city' initiatives across the region and are a great example of excellent collaboration between local business and public administration, benefiting both municipalities and citizens.

DATA MANAGEMENT

Iskraemecos' "future intelligence for today's business" offers a range of powerful, customizable and future-proof software platforms to build, adapt and manage any utility system. The adaptable intelligent software platform enables easy, highly secure and automated management of the energy and water business. The platform is scalable, flexible and enables the development and management of various smart infrastructures.

ISKRAEMECO PROVIDES CLIMATE SOLUTIONS

ENERGY IoT

"Data leading to a better life!" Iskraemeco Energy IoT solutions leverage powerful multi-layer technology that supports the deployment, management and automation of connected devices in the IoT. The Energy IoT platform consists of ready-to-use features that streamline fast application development by ensuring scalability and cross-device compatibility.

eMOBILITY

Introducing e-vehicle does not help cities much, but adding intelligent and flexible energy charging is. Improving vehicle efficiency goes hand in hand with improving grid efficiency and these combined efforts lead to greatly reduced energy demand and sustainability, with much lower GhG emissions.

SCHOOL

SMART WATER

Iskraemeco takes a holistic approach, providing innovative metering technologies, software and services that improve the environmental, technical and financial operations of water utilities by providing the total metering and data environment that enables rapid responses.

GREEN PENGUIN

"Technology moves science, but stories and games move cultures! Let's play 'Green Penguin'!" We use smart digital technologies and gamification to achieve environmental and digital literacy, starting with schoolchildren and expanding to all residents with the goal of achieving a substantial reduction in the city's carbon footprint.

Creating a culture of quality in the company

Gregor Kita

Quality is one of the most important aspects in our lives and part of our daily routine. Whenever we buy purchase a car or lawn mower for our homes, buy household cleaning products, or visit a restaurant, we have become accustomed to quality standards. We can quickly identify what is quality, and what is not, and what meets our expectations, without thinking about it or measuring those feelings.

The perception of quality not only focuses on the product or service itself, but rather on the entire experience. You probably know such cases, when you own a quality product, like a car, but the service is extremely poor? So, every time when it's time for a regular service, you feel a pang of annoyance?

Therefore, the perception of quality in our business is important, from the very first process to the last. The customer, the product and the solutions are the focus, but other processes are equally important if we want to keep our customers satisfied. It is no coincidence that Iskraemeco is actively and systematically involved in processes, and measures quality in every process or sub-process in the company. The phrase 'quality is like blood flowing through the body' perfectly describes the building of a culture within the company. Our 'Niagara Flow project' does just that – it describes processes that use the most advanced ARIS tool. In this modern digital environment, processes co-exist, interact with each other, turn inputs into outputs, manage risk, and measure performance using KPIs. Most importantly, we always ask ourselves what benefits our customers will derive from these processes.

For us it is no longer enough that you get a great metering device that is accurate,

robust and reliable. What counts is rather your overall customer experience with Iskraemeco. It might sound very complicated, but is it really? Not at all! We put ourselves in the shoes of a customer. What does he expect from a vendor? Friendliness, professionalism, responsiveness, advice, a quote, proposals, solutions, a sense of security, evidence, transparency, sensitivity, accuracy, understanding, delivery and quick problem solving.

Therefore, at Iskraemeco we started measuring the performance of all processes that come in contact with our customers. We want to know how the customers, who are at the heart of our processes, see us. They are the reason that we do business today and will continue to do business in the future. It is important that we have a genuine relationship with our customers, that we inspire them with our products and solutions, and that our processes and mindset stays ahead of the competition.

Every company should be aware of its limitations, missed opportunities and mistakes, but only in the context of the opportunity and the responsibility to seize those opportunities and not repeat mistakes.

Gregor Kita, Head of Quality at Iskraemeco shared his view on the role of quality in different business processes: "From experience, we can say that respect for our customers, whom we serve well with our products and services, is a great asset. Our self-confidence has a solid foundation, which at the same time compels us to become even better. Customers notice this quickly, not only in terms of developing and supporting new technologies, adding new functionalities and developing new services, but they also quickly notice the improved processes in our communication through the sales phase, product management, as well as improved ordering process and increased expertise in implementing solutions. Customers are

becoming especially sensitive to responsiveness, performance and competency in problem solving. However, how can we know if we are merely good, very good or great in the eyes of our customers? What if they see us as only average, or even below average? The answer lies in asking them for an honest assessment of our work. The moment we put customers at the center of our processes, they also become our employer and thus their evaluation of our work becomes crucial and utmost importance.

I am pleased to say that Iskraemeco has already recognized this mindset and started to put it into practice. We have also started measuring customer satisfaction in case management for the first time, and the results are excellent. For us it is mandatory to know what our customers think about the processes, how we can improve further and how we can become an invaluable partner to them in the future, by involving them even more in our processes."

Global Operations

John Arnold

To meet increasing customer expectations for faster delivery times, product customization and transparency, Iskraemeco has implemented digital technologies worldwide to support the change process in terms of communication, standardization and flexibility.

By localizing production, we are close to where it is needed, we develop the regions and their people, and we mitigate risks to mission-critical infrastructure.

For over 75 years, we have been proudly producing electricity meters, starting from our headquarters in Slovenia. We have transitioned from mechanical to electronic meters and have now added water meters to our growing portfolio. With a capacity of 12 million meters per year and a production and storage area of approximately 75,000 square meters, we have increased our production footprint and extended our manufacturing presence from Slovenia to Egypt, India, Malaysia and Argentina. We are also proud to work with strategic partners who complement our own Printed Circuit Board Assembly (PCBA) supply of up to 15 million components per day, supporting both security of supply and volatility of demand.

Iskraemeco has incrementally improved its operations through automation, digitalization, supply chain alignment, demand consolidation and lean manufacturing. Our production presence is growing, and we have now started to work on further factory start-ups in Tanzania, Nigeria, Zambia and Russia with an intention to supply local markets under our 'Local Content Supply Strategy'.

FIVE KEY INITIATIVES

We are focusing on the following five key initiatives which form the basis of our Group-wide manufacturing strategy.

1 Automation

Iskraemeco focuses on repeatable processes that help our production workforce to perform their daily tasks, complementing our ongoing pursuit of service, quality and efficiency. One of the main principles by which we implement automation in production is 'Automation, where it serves the people and the process', which means we believe in gradual automation in parallel with development of employees to ensure they can take on more demanding work positions.

2 Digitalization

Digitalization is an important part of our process for optimization and performance feed-back aimed at delivering the best possible quality, efficiency and service. Real-time data is transformed into clear predictive insights that improve our global production capabilities and service to our customers. To meet the customers' increasing expectations for faster delivery times, product customization, and transparency, Iskraemeco has implemented digital technologies globally to support the change process in terms of communication, standardization, and flexibility.

3 Supply chain alignment and global demand consolidation

We focus on leveraging the Group's global demand to ensure that our supply chain is mature enough to meet demand while optimizing inventory. Aligning supply arrangements with each facility is critical to ensure there is a clear common purpose and that a local service is provided that is appropriate to the relevant cultures and languages.

4 Lean Manufacturing Group-wide standard – standardize and localize

The introduction of the lean concept is one of the most important steps. Over the years we have developed a simple method of eliminating process waste through Kaizen workshops. This has empowered all our employees to drive continuous improvement across the Group, not only enhancing processes within the company, but also providing our customers with quality solutions that meet their requirements.

5 Sustainability in production and supply

The implementation of our environmental standards is well underway. Our aim is to minimize waste, energy consumption and emissions, and increase product recycling in all our fac-tories. We are also working to further digitize our supply chain to ensure full transparency in material sourcing as well as fair labor conditions, and are looking at ways to measure the lifecycle waste of our material suppliers.

RECENT ACTIVITIES

Focusing on global flexibility, growth and supply continuity is key to building a global manufacturing network that can withstand the rapid changes in the world marketplace, provide opportunities and offer competitive advantages to customers in solving their challenges. Expansion provides our company with greater opportunities for market growth and diversification. We are proud to attract new talent pools that offer unique advantages in terms of higher productivity, diverse educational backgrounds and, most importantly, improved innovation performance within the company.

In addition to major changes at our production premises in Slovenia, we have increased the production capacity at our plant in Egypt, India, Malaysia and Argentina to meet projected demand.

Further automation in Slovenia

During 2020, our facility in Slovenia underwent significant consolidation moving PCBA closer to the final assembly line to allow for further flexibility and demand alignment. This year we have complemented the new layout with additional automation to relieve our valuable operators from such tedious work. Our plan is to continue to expand automation in testing and packaging units in the near future and divert all of our valuable resources to support our strategic growth plans.

New set up of final assembly and certification in Argentina

Significant progress has been made on the final assembly unit in Argentina. Our main objective was to set up final assembly and certification. The meter completion and approval certification stations are expected to be completed in Q4. This new setup will allow us to convert vanilla box-built products into customized end products significantly reducing lead times compared to the time needed to ship custom certified products from our other manufacturing facilities. This is further evidence of our commitment to serving local demand through local service and local production.

Additional capacity and water meters in Egypt

Our factory in Egypt was built in 2009. It is located in the Pyramids Industrial West Park industrial zone about 30 km from Cairo on the 8-lane main road to the Suez Canal. In addition to the production of Printed Circuit Board Assembly (PCBA) and the final assembly of residential stand-alone meters (RSA), our factory also manufactures plastic parts and performs the final assembly of water and electricity meters under license. Our Egyptian subsidiary is headquarted in Cairo (Elsewedy building, New Cairo), where development, sales, finance and management are located. We employ more than 350 people in Egypt, most of them in the factory (production, planning, purchasing, IT).

A new smart meter assembly line was installed at our factory in Egypt in mid-July 2021. The project started in the second half of last year and is aligned with our strategy to manufacture and supply smart meters for Egypt, Africa and Middle East markets. Due to our standardized manufacturing approach, we can also support all other regions with a full range of smart meter products if required.

We also plan to expand our production of water meters. With new automated test benches, we expect our capacity to increase to one million water meters per year by Q1 2022. We have been manufacturing mechanical prepaid water meters for some time, but are now also focusing on smart water meters, using various LPWA communication technologies and the ultrasonic principle of water flow measurement.

Indian factory is now established and producing meters

After the successful launch of our new local products ME260 and MT260, our company based in Mysore, India has now officially started production. Iskrameco India Private Limited, part of the Iskraemeco group, was established in October 2019. The factory in Mysore was set up near the local PCBA facility on the same site. The factory has obtained all statutory approvals including ISO 9001, 14001, 45000, 27001 and 17025 (NABL) certificates.

Setting up such a business comes with certain challenges, but our team overcomes all obstacles with their immense knowledge. With mass production starting in

September, we can now move on to the next chapter and are well positioned to meet the market needs in 2022 and beyond.

Malaysia begins smart meter production

Established on March 18, 1996, Iskraemeco (M) Sdn Bhd is today a joint venture company between Proficient Series Sdn Bhd of Malaysia and Iskraemeco d.d of Slovenia. The company is capable of producing both single-phase and three-phase residential stand-alone meters.

This year we have equipped our facility to support the production of smart meters. We will begin producing smart meters in the next quarter.

SEMICONDUCTOR SUPPLY CHALLENGES

Despite some warning signs in 2020, many manufacturers were caught off guard by material shortages. Unfortunately, we were not immune. Global demand for electronic devices and e-mobility has skyrocketed while supply has been constrained. Many companies from around the world reported a production halt due to material shortages. However, we managed to stay active as we only experienced a slight reduction during this time. We managed to secure the working capital needed to weather the crisis, but the reality of material shortages has caught up with us and seems more pressing for the second half of 2021 and the beginning of 2022. In light of this forecast, we have adjusted and prepared by

investing significantly in additional working capital and preparing our supply for the supply of certain high-risk components in 2022 and 2023. Our new product, IE.5, was launched in early Q4 2021 and is structured to eliminate mono-sourcing, providing us with a broader range of supply options and flexibility.

Although we are constantly trying to stay one step ahead, we cannot become complacent and must focus on all likely risks. With this in mind, we have established a global Supply Task Force Team focused on sourcing scarce materials. In establishing the task force team, we have paid particular attention to the day-to-day challenges in the supply chain and respond immediately to new facts that, if ignored, could have a negative impact on production and supply.

Working closely with our employees, partners and customers, we are managing through this difficult period and are already seeing improvements. We believe that with additional working capital and a secure, well-prepared supply chain, the commitment and support of our supply partners and our global supply chain team, we will be better positioned and ready to face the challenges ahead.

Digital transformation

Robi Zorman and Anže Zaletel

Digital transformation is the integration of technology into all areas of business that changes the way a company operates and increases the value a company provides to its customers.

At the heart of digital transformation is the desire to better serve customers and provide more flexible service offerings. It enables companies to consolidate and automate business processes, increase operational efficiency, and speed up the process.

The key guiding principle behind Iskraemeco's digital transformation has been to improve the employee and customer experience and enable customers to access their service and support in the way they prefer. By keeping everything as digital as possible, Iskraemeco is able to respond much faster and more accurately to our customers' needs.

Over the past year, Iskraemeco has been able to digitalize its services both internally and externally. The company has integrated a sophisticated CRM system that allows our customers to track their post-sales activities and check their status whenever they want. Iskraemeco has transformed its ERP system and integrated multiple IoT sensors to determine the stage of the customer's order. The company is involved in many pioneering sustainability projects that have been successfully implemented in its PLM system, where the entire supply chain is transparent and where Iskraemeco can influence potential improvements in carbon denaturalization throughout the process.

When businesses are deciding to undergo digital transformation and implement new solutions and processes, it is crucial to ensure that the digital transformation process also includes the security aspects of confidentiality, integrity and availability of information and operating systems, as well as products and services.

As an organization certified to ISO 27001:2013, Iskraemeco has incorporated information security aspects into its digital transformation process. It is of key importance that the security controls in place do not hinder or impede the performance of the organization; to achieve that, the company needs to adopt such security tools and processes that promote digital transformation rather than holding it back.

Through its process of continuous improvements and annual recertification procedures, Iskraemeco consistently demonstrates that it has internalized information security and incorporated it into its corporate values.
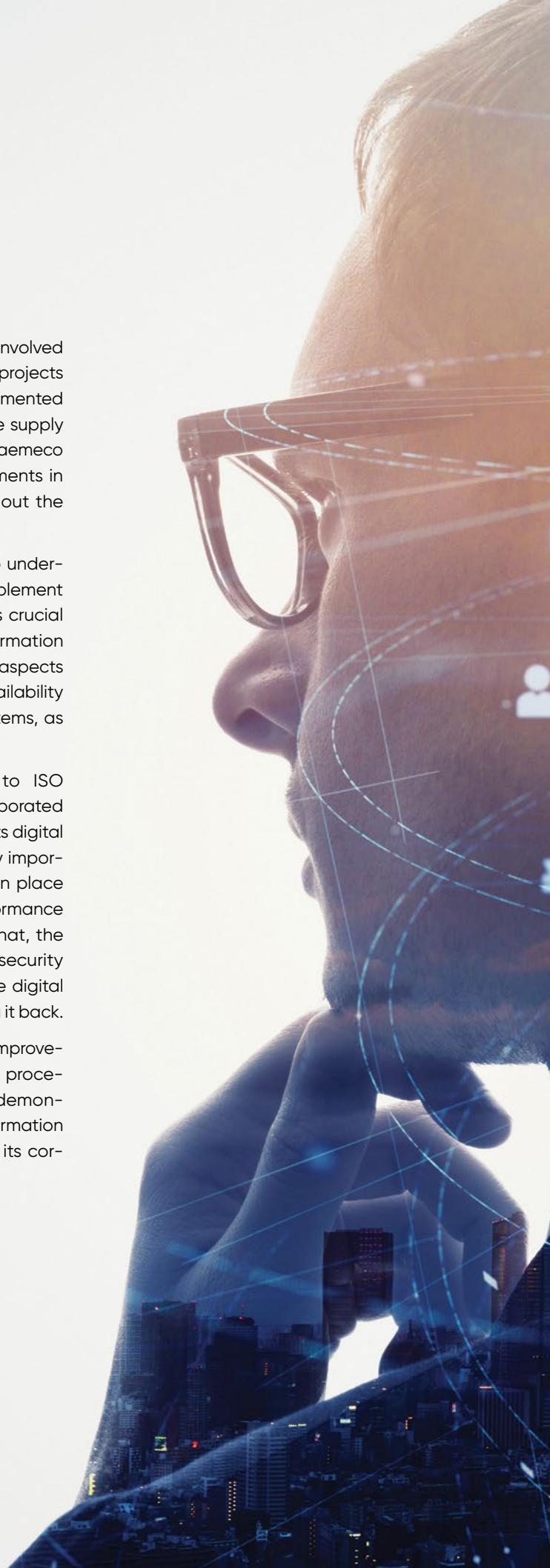
Developing new MDM functionalities

Marko Plevel

Iskraemeco is a system solution provider and is also becoming key technology and knowledge leader. An important part of any end-to-end solution is also Meter Data Management, or MDM. The current software portfolio already includes several modules, but there is a need to further develop certain functionality for important customer projects.

To upgrade the system functionalities, a strategic decision was taken to pool the best resources and bring on board the development team in India.

A new dedicated MDM team at Iskraemeco India is part of the newly formed global Technology Design Center Team that will manage the global development of new solutions and services. The onboarding activities have already been completed with the support of the team in Kranj, and the experts in Kolkata are slowly taking over the development of our new MDM. The IT department has enabled safe and secure connectivity with Kranj. Both teams, in Kranj and in India, are using the same development environment, sharing the code

repository and the build process. The new development project, managed by the project office in Kranj, has already started.

The product strategy includes two phases. The first phase is the adaptation of the existing build, while the second involves a major upgrade that includes the changes in the architecture. The first phase is already in progress. Implementation is underway and release is planned for Q3/2021.

By joining forces, we have succeeded in expanding Iskraemeco's global technical and design capabilities, which we believe will lead to an improved company portfolio and new business opportunities.

The largest LATAM order delivered to the Paraguayan utility ANDE

Luciano Gonzalez and Alenka Bizilj Kavrečič
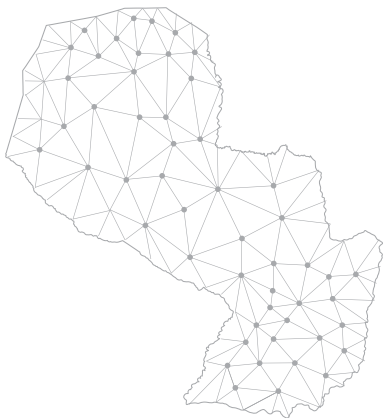
Iskraemeco has recently completed one of its most important meter deliveries in the LATAM region. With the commitment of all departments in our value chain, we have achieved a major milestone: the delivery of MT174 meters to ANDE (Administration Nacional de Electricidad) in Paraguay in a single shipment.

The promised delivery dates were met thanks to the efforts, dedication, cooperation and unconditional commitment of the purchasing, production and logistics teams from Slovenia and Egypt. The MT174 meters isa premium product with advanced features for residential segments. Their flexible communication allows ANDE to support on site meter reading solutions and easily integrate a large number of endpoints into the list of digitally managed end-users.

The representatives of ANDE were eager to visit our production facility in Kranj to traditionally receive the devices, but their visit was postponed due to the current Covid-19 situation. However, this did not stop us from supporting them with the implementation. Our quality and production departments, with the invaluable support of IT, managed to set up a virtual laboratory for remote reception (FAT) of the meters. They have recorded and even filmed the reception process for at least 10 working days. An impressive achievement indeed!

The blockage of the Suez Channel severely affected our shipments and almost jeopardized the transport of the cargo from our factory to Paraguay. However, our logistics team reacted swiftly, successfully mastered a seemingly impossible situation and loaded the last necessary containers and holds onto one of the last ships that could pass through the canal, thus avoiding delivery delays.

The project is not only the largest delivery to the LATAM region, but also a great reminder of what can be achieved with teamwork.

Mastering the new sales reality at Iskraemeco

Franc Kuhar and Nouran Bahaa

Imagine the scene: you see someone at the airport with carry-on luggage only, dressed only formally. You might even hear statements such as "The jet lag wasn't so bad this time, the trip was worth it." What is your first thought? Surely this isa sales professional travelling across the globe in order to meet customers. Remember when that was normal? Now the world has changed, forcing salespeople to take innovative approaches while pursuing new business opportunities and maintaining relationships with existing customers.

Traditional face-to-face communication has diminished due to the global crisis and pandemic, and other sales perspectives and approaches have been introduced. So, when you envision the future of sales, will in-person communication, distance selling, or a combination of both, be the favored option?

DIVING INTO THE WORLD OF SALES

Iskraemeco's sales world has been influenced and changed by the contemporary environment, which has accelerated the use of tactics in virtual selling. The fact is the world has changed for both our partners and customers, which has resulted in all of us having to deal with remote working, fluctuating budgets and increasing control over the buying process. Two channels stand out when it comes to interacting and closing deals – video and live chat – while in person meetings and related sales activities have drastically decreased.

Iskraemeco's sales teams around the world are constantly looking for new ways to address the market. They keep track of the ever-changing technological trends and consider economic instability and the impact of the global pandemic on business. Maintaining the quality, speed and agility of our responses is critical, since it allows us to demonstrate to our consumers how much we value collaboration. The pandemic may have forced us to rethink the way we do business, but even before, Iskraemeco had been continuously building outstanding relationships with its customers.

NOURISHING OUR CUSTOMER RELATIONS

Building and maintaining customer relationships has always been Iskraemeco's top priority. Such strengthened relationships make it much easier for the sales team to overcome any challenges and ensure great experiences, trust and long-term commitment. Just as any company understands the importance of long-term investment and commitment, we at Iskraemeco value this concept and implement it to the greatest extent. As we have customers all over the world, it is crucial for us to ensure that remote selling is done in the right way. In terms of production processes and meeting demand, Iskraemeco always demonstrates to the market that the company is proactive and constantly strives for improvements.

Regardless of the crisis, Iskraemeco has continuously improved its products, solutions and services. These improvements have ranged from development phase to introducing new products to the portfolio and much more. Therefore, remaining proactive and memorable continues to be the company's main focus in order to stay in touch with its valued customers.

KEEPING ENGAGEMENT HIGH

These days, it is easy to get distracted by all the meetings being held online. That is why it is important for us to keep engagement high by delivering short and direct messages. The focus of our meetings is always on solving our clients' needs by understanding the problems and developing a concrete plan based on that. When it comes to existing customers, we always strive to maintain the positive experience of previous personal contact by preparing various demonstrations. When it comes to new customers, we believe it is best to approach them, listen to them, understand them, answer their primary concerns, and familiarize them with Iskraemeco's products, services and capabilities in general.

Across all industries, virtual meetings, community calls and online conferencing are becoming the new norm, because they are more effective today than ever before. As a company, Iskraemeco has also embraced the new ways of effectively communicating product and solution updates to different markets through online and interactive live events. All the content provided is current, to the point and tailored to specific needs. Furthermore, the information provided can be followed up at a later date. This gives customers exactly what they need to connect with the relevant professionals and gain the experience and information they need. Iskraemeco believes that the key to successful communication with existing and potential customers is to challenge the ordinary, innovate and be proactive in the marketplace. Iskraemeco is committed to the digital world, whilst also maintaining a strong desire to meet our customers in person.

WHAT DOES THE FUTURE HOLD FOR US?

When you look at what is happening now in the context of long-term trends, it is easy to see change as a turning point rather than a disruption. Iskraemeco is already on the path to more efficient, digital and decentralized processes. Recent events have merely accelerated the timeline.

We can say with confidence that years of cultivating and deepening relationships with our customers have paid off. For decades, Iskraemeco has succeeded in enhancing the customer experience through a versatile, flexible and innovative approach by offering customized products and solutions to our valued customers. Regardless of the new norm resulting from the pandemic, Iskraemeo has always managed to find creative ways to connect with its customers.

Going forward we envision a hybrid approach. It has proven to be effective, but, personal contact with our customers will always be a priority for Iskraemeco. We value your trust in us and look forward to working with you and continuing our fruitful cooperation in the future.

Interview with Roland Schwarzentruber

Head of Smart Metering, GWF

Smilja Dolgan Paternoster and Nina Merše

Swiss utilities are gradually integrating smart meters into their infrastructure, and active engagement in the Swiss energy sector is part of Iskraemeco's strategic plan. Our partners play an important role in our successful performance in the Swiss market. We have conducted an interview with our partner Roland Schwarzentruber.

How is the Swiss energy market developing and what are the current needs?

The Energy Act adopted by the Swiss government in May 2017 and the Energy Strategy 2050 are intended to lead to a reduction in energy consumption and an increase in energy efficiency. Renewable energies are promoted and the construction of new nuclear power plants is prohibited. The existing Swiss nuclear power plants may continue to operate if they are safe and economical. Switzerland is the electricity hub of Europe. The country has 41 cross-border connections with neighboring countries. Not only is its central location the reason for its important role, but also its hydroelectric power. Today, around 10% of the electricity exchanged between the 34 European countries flows through Switzerland. Digitalization is increasingly permeating the business world and, as explained above, impacting all stages of the value chain. The expansion of renewable energies is also accompanied by the need for intelligent electricity distribution networks (smart grids). With modern information and communication technologies that enable intelligent control of electricity generation, consumption and storage, the irregular electricity production from renewable energy sources, for example, can be better balanced with electricity demand. The replacement of conventional electricity meters with smart meters is an important prerequisite for smart grids.

What do businesses need in order to successfully implement an IoT solution?

One of the most important factors is an end-to-end supported solution. The main challenges for building and operating an IoT solution usually lie outside the core business of the companies applying it. Since the IoT components must flow into a broad spectrum of IT and communication technologies, such as mobile networks, cloud computing, analysis tools, protocols or machine learning, technologies must interact and be well aligned (platform architecture). So many topics come together that it is a challenge to keep everything in view and offer a consistently functioning solution.

The final benefit is crucial for a company when deciding to implement a specific solution. What was the added value of the Iskraemeco solution for your business, and ultimately for your end users?

Working with Iskraemeco has enabled GWF to offer all types of meters, which makes us one of the largest suppliers of metering technologies in the energy sector in Switzerland. This allows us to offer our customers professional advice when it comes to metering for electricity, water, gas or heat. Iskraemeco's portfolio meets our expectations, combining system environment with communication technology and measuring devices.

What challenges did you face when implementing the IoT solution in metering?

The biggest challenge we faced was connectivity. According to the OECD Overview, Switzerland has the best broadband network, as utilities and telecom operations are working together in the Rollout of Fiber to the Home. We also have a very good

and modern mobile network that offers the required technologies, such as LTE-M, NB-IoT or LoRa, nationwide. Since most meters in Switzerland are installed underground, it is a challenge to achieve this via mobile radio. Without connectivity, there is no IoT solution!

Of course, the appropriate software tools and interfaces are also required to implement an IoT solution, but with the right specialists, this is not a hurdle.

Are NB-IoT and LTE-M technologies the right technologies for Swiss customers?

Yes, we believe there is a big potential for Low Power-WAN Technologies in Switzerland. LTE-M and NB-IoT will certainly play a role in this.

Which one has a higher potential for the future?

That is a difficult question that could be discussed for a long time. I think it cannot be answered generically. There will be requirements and use cases in which LTE-M makes more sense than NB-IoT, or vice versa. For example, if we connect a water meter via IoT, we have completely different requirements than with smart meters. The water meter is not permanently connected to a power supply, so communication must be powered by a battery. If LTE-M is used, a communication solution that is powered by a battery is not the right solution. This is just one of many examples.

If you could offer one piece of advice, what would you say to a company looking to deploy our solution?

I would advise the company to use standardized and flexible products, as is the case with Iskraemeco. On the one hand, it is crucial that there are flexible solutions

in terms of communication technology, as with the AM550 smart meter. The smart meter can be used with 4G or CAT-M1/NB-IoT. It is particularly pleasing that a module is available that supports CAT-M1 and NB-IoT. This makes it easier and enables switching between the two technologies during operation. Secondly, it is crucial that a flexible platform is used that supports the different use cases and provides suitable interfaces to enable an end-to-end solution. For us, the Iskraemeco software head-end system offers these possibilities and thus brings corresponding added value to the customer.

How important is the partnership to you?

Partnerships are very important in our company. GWF offers services and products in the three areas of supply, building technology and large flow measurement. We operate in an exciting, but also very complex, environment, in which we depend on good partnerships. Only by working with a good partner are we in a position to offer professional solutions in the various areas.

What are the good things about working with Iskraemeco and where can you see room for improvement?

The most important criterion in a partnership is mutual trust and respect. Due to the existing cooperation, we have been able to build up a very good partnership with our colleagues from Iskraemeco and have a good network at our disposal. In addition, we have access to smart metering specialists who support us in our challenges. There is still some room for improvement, but we are on the right track.

Improving energy efficiency and reliability of distribution networks in Egypt – combining the efforts of Iskraemeco teams to participate in the project secured by Elsewedy Electric

Alenka Bizilj Kavrečič, Andrej Kosi and Heba Farouk

Elsewedy Electric, in consortium with Toyota Tsusho, has signed a new EPC contract with North Cairo Electricity Distribution Company (NCEDC) for the modernization and digitalization of the electricity distribution network in North Cairo through the installation of 500,000 smart meters, a distribution management system, advanced metering infrastructure and remote-control unit, and smart ring interconnection panels with renovation works for Helmya.

Elsewedy Electric's scope of work includes engineering, procurement and installation of all components of the project. The advanced metering infrastructure and smart meters will be delivered together.

Electricity demand in Egypt has skyrocketed in recent years, and additional power generation has only gradually matched demand. In this situation, the Egyptian government has a strong interest in energy efficiency and improving electricity distribution, in addition to strengthening electricity supply and primary energy diversity.

We have responded to Cairo's challenge through a harmonious collaboration between Elsewedy Electric and the group sister companies. Digitalization is driven by Iskraemeco, who has been working closely with Elsewedy Electric T&D to complement the portfolio of mega EPC projects by developing a world-class, customized solution to meet the current and future needs of the rapidly developing city of Cairo.

Iskraemeco has participated in this major project by designing and developing a solution to provide the advanced metering infrastructure with the following components:

- Intelligent Energy IoT Iskraemeco electronic single and three phase meters (IE.5 and IE.7), with G3-PLC or GPRS/3G/4G communication modems.

- Data Concentrator AC750 for connectivity between the head-end system and smart electricity meters, designed with exchangeable communication modules.

- Symbiot Software Suite

- Complete communication system for remote data reading and transmission from smart meters to the head-end system.

- Integration of the IoT solution with various systems to ensure smooth and secure data transmission.

- Security solution that includes multiple levels and types of security.

- Complete IT hardware infrastructure for the AMI system.

- Installation and commissioning of the first delivery of 50,000 meters.

- 5-year contract for operation and maintenance.

IMPROVEMENT OF ENERGY EFFICIENCY AND RELIABILITY

The implementation of the project will help modernize the electricity infrastructure in Cairo to increase the efficiency and reliability of the power supply and mitigate electricity theft and losses, thus contributing to the reduction of thermal emissions and carbon dioxide in the air and improving the quality of the grid.

It is expected that the modernization of Cairo's electricity grid will have a huge impact on customers, mainly through:

- Reduced losses in electric energy

- Significantly higher energy efficiency

- Improved power efficiency of the grid

- Optimized operation of the equipment and devices

- Reduced costs of operating and maintaining the distribution networks

- Improved network reliability and quality of energy supply

- Reduced heat emissions and carbon dioxide emissions

The benefits of the new deployment of smart metering in Cairo are colossal, not only for the North Cairo Electricity Distribution Company, but also for the economy and citizens of Cairo.

JOINT EFFORTS OF AN INTERNATIONAL TEAM

The advanced metering solution is the result of dedicated teams. They all worked together to ensure a diverse mix of knowledge and experience. The combined efforts of both teams resulted in a superior solution for an entirely new segment of the Egyptian market.

Digitizing transportation: making Egypt's roads smarter

Roadways are key to a thriving economy and critical to the future of any nation. Cities are facing mounting pressures to cope with the quick urbaniza¬tion or respond to a slower traffic flow, reduce pollution, and help improve safety. Digitization is not limited to energy solutions.

ELSEWEDY ELECTRIC

Elsewedy Electric's traffic management systems will make even roads, bridges and tunnels across Egypt smarter.

Elsewedy Electric's subsidiary Elsewedy Technology started the implementation of a new engineering, procurement, and construction (EPC) contract with the Egyptian Government valued at USD 90 million for a smart highway traffic information system (TIS). The project will be completed in 18 months. The TIS for highways in Egypt includes a traffic management system and toll collec¬tion system, in addition to the main control rooms in the New Administrative Capital, which is owned and operated by the Ad¬ministrative Capital For Urban Development (ACUD).

The new smart road technology helps city planners and governments address the challenges of urbanization and stream-line traffic, whilst also lowering fuel consumption and pollution and significantly improving safety. The roads will be fitted with a network of sensors and wireless devices that provide real-time traffic and weather information to drivers, enabling them to make better decisions and improving road safety and traffic efficiency in the process. The first phase of the project will cover six important highways measuring a total of 1,079 km. The solutions provided by Elsewedy Electric will take your regular Google Maps traffic information to a whole new level, predicting congestions, helping improve road conditions, and even respond to emergencies before they occur.

ISKRAEMECO IS BRINGING ITS INNOVATION AND VERSATILE SOLUTIONS TO ENLIT EUROPE 2021.

Iskraemeco will strike a scene by introducing its new product series, as well as the latest technology enhancements, to its extraordinary new software platform.

Our top-tier experts with decades of experience will gladly share their knowledge in Milan at the most important event in the industry – ENLIT EUROPE 2021.

Our slogan is "Bringing Intelligence to Energy" and our booth at Enlit will highlight not only the intelligence of our solutions, but also our agility and flexibility through real-world examples, continuous product improvements, and superior quality.

This year our Enlit Europe stand is not just a booth; it is THE BOOTH for anyone who wants to see the world of energy IoT through Iskraemeco's eyes and solutions.

Don't miss out the opportunity to enjoy the live event, demos and valuable information!

Join the Iskraemeco team from November 30th to December 2nd in Milan, Italy (Hall 8, booth D10) to find out how we are driving the change with IoT technology in the energy industry.

We look forward to seeing you there!

Take a look into the Iskraemeco booth:

- **A next generation energy IoT meter series - IE.X** with excellent modular technologies and operational design. It will introduce numerous power generation, transmission, distribution, and consumption applications into the eIoT world.

- **SYMBIOT** is a revolutionary intelligent software suite that is equipped to bring the intelligence of the future to today's businesses.

- **Water meter solutions** with a high degree of flexibility.

- A complete range of **eIoT** offerings and versatile solutions.

- **Green Penguin**, our future-proof project to improve the world through sustainable actions.

- **E-mobility** and the way forward.

- Interested to know what **DATA2050** is?

- **Live demo presentations** and a lot more.

You asked for it and we have delivered, and now we are ready to show you our innovativeness!

iskraemeco
BY ELSEWEDY ELECTRIC

Enlit Europe

// BRINGING INTELLIGENCE TO ENERGY