

engage

MARCH 2021

IN THE SPOTLIGHT

**DIGITAL GRID solutions -
empower the grid of the future**

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SHAPING THE FUTURE

**A cutting-edge project for a smart
and digital future in Iceland**

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Editorial

Dear Team,

Let me begin by wishing you all a successful and healthy 2021. I am sure you have started the new year with great hope and rejoice that 2020 is behind us.

Looking back at 2020, you will probably agree that no other year has so radically changed our lives, from business and personal perspectives. There are so many moments that remind us of how much energy and efforts we invested into adjusting our processes and moving forward with clear priorities. Given the challenging and unexpected macroeconomic environment, we are pleased to have delivered strong results.

We started the new year with positive vibes and finally see a promising future ahead of us.

On the business side, we can be very proud of what we have achieved. We have managed to successfully overcome one of the most difficult challenges - ensuring business continuity in a any given situation. Even today many of our employees still work from home using digital tools and are in contact with colleagues remotely. This has been a big change for people and for the company, but we have introduced and managed it very successfully.

Our whole team in production has done an amazing job too. They showed their skills and ability and did much more than could be asked of them. Working with a mask on your face and maintaining a personal distance is no easy task.

What does 2021 hold for us? We started with a lot of orders, which is great, but at the same time challenging as we perceive a shortage of key components, especially microprocessors, in the global electronic components market. In addition, delays in material delivery are extending our lead time. However, I firmly believe that we will overcome this challenge, as our operations team has done an excellent job of preparing themselves.

We are also seeing some new changes in technology and huge new challenges for the R&D department. We can say that this is an extremely exciting time for engineers.

In terms of global expansion, we are already reaping the fruits of our work over the last few years. Business in the Indian market and in the countries of Latin America is growing, and we are expanding our presence in the markets of Egypt, Africa and Middle East while maintaining and even strengthening our position in the European markets.

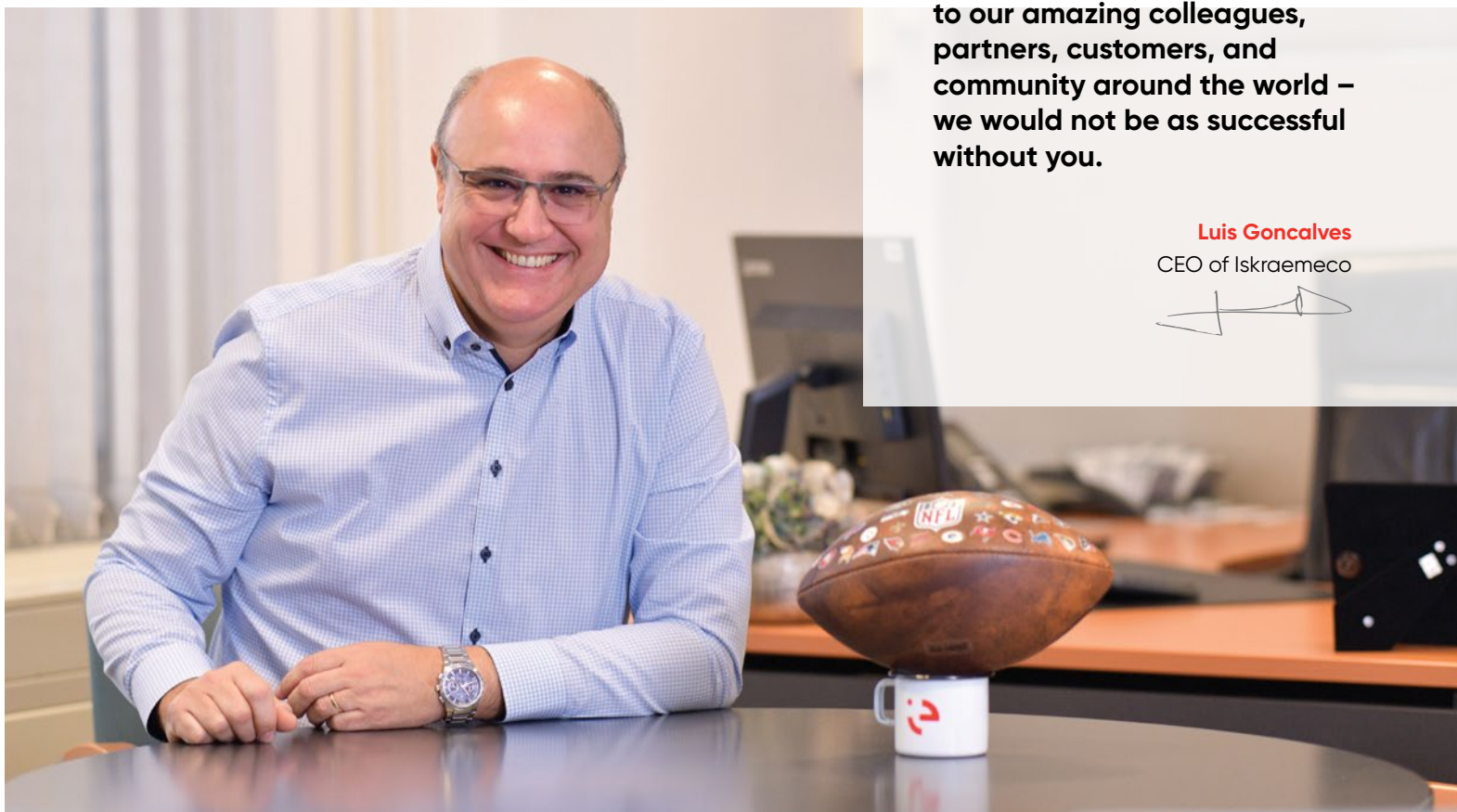
I would like to emphasize that we are facing another step on the road of transformation and new changes in the business environment. Let us accept all challenges as opportunities and create a successful year 2021!



Thank you for your continued support and collaboration, and a special acknowledgement to our amazing colleagues, partners, customers, and community around the world – we would not be as successful without you.

Luis Goncalves

CEO of Iskraemeco



Frédéric Abbal appointed as Member of the Board of Directors of the Iskraemeco Group

In the pursuit of digital transformation, people development and sustainable business environment to create opportunities for a profitable growth and development of future-proof solutions, we are proud to announce that Frédéric Abbal has joined the Board of Directors in the Iskraemeco Group.

Frederic, together with other members of the Board, will help to steer Iskraemeco towards global leadership in smart infrastructure solutions and towards becoming the solution provider of choice for our customers. Frédéric has joined Elsewedy Electric Group as Chief Operating Officer in August 2020. He is recognized as a global leader in the energy sector and is responsible for driving strategic transformation and execution of the Group's growth, as well as defining operational and cost efficiencies within the Group. His vast experience makes his contribution to Iskraemeco and Elsewedy Electric pivotal in the strategic direction of the Group.



"Iskraemeco has operated in two centuries, progressing from the 20th to the 21st century, using different kinds of technologies, moving from blackinduction-type meters to digital and now smart meters with metering software. This is the best proof that the company has been capable of adapting and transitioning from the mechanical and electromechanical technology to the digital landscape. That is why, I believe that Iskraemeco is one of the levers, one of the key pillars of the digital transformation. Employees have to be proud to be part of a company that has established a name for itself all over Africa, Middle East and Europe."

Frédéric Abbal





New final assembly and laboratory in Argentina

Iskraemeco s.r.l. continues with its operations in the LATAM region, expanding the scope of its commercial activity to include productive processes such as final assembly and testing in its own laboratory of all the MT174, MT880-M, ME152-1 and AM550 meters marketed in Argentina.

With this initiative, Iskraemeco LATAM will be able to improve the delivery times of its meters. The objective is to allow our customers to request orders with deliveries within 30 days after receipt. This offer is unique in the regional market.

Through a flexible and optimized inventory management strategy with pre-configured meters, local operations will be able to configure each delivery batch by customers and models in much shorter time than now. Reducing the number of variants of our products improves costs and eliminates shipping delays or additional air freight costs.

For this project, Iskraemeco s.r.l. has already rented a space in the Technological District of the City of Buenos Aires where a laboratory will be set up in accordance with the ISO 17025 standards, a warehouse for products and an area for customers who visit us to carry out inspections.

The aim is to have the on-site operations up and running in June 2021, which will allow us to guarantee the sales targets of the second half of the year with a better delivery times for our customers. This first phase will then allow an expansion of operation to other cross-border markets such as Paraguay, Chile, Uruguay, and Bolivia.

Another significant project ahead – Iskraemeco's smart meter solutions in the UAE

The Federal Electricity and Water company (FEWA) in the United Arab Emirates has signed a contract with Elsewedy Electric UAE, to provide Iskraemeco's smart metering solution covering almost their entire network, for a period of 5 years.

The new smart meter project will enable FEWA to explore various smart communication options, improve services to FEWA's consumers and establish remote control over the network to improve network efficiency. Iskraemeco will assist FEWA in integrating the metering devices with the utility's back-end systems.

Competition for the project was fierce, but Iskraemeco's experience in the UAE and GCC markets, and Elewedy Electric's reputation, worked in our favor.



Smart electricity and water meters in Il Monte Galala, Egypt

Iskraemeco is delighted to announce the signing of the contract for the smart metering solution; with Tatweer Misr, Egypt's leading real estate developer. Smart electricity and water meters will be delivered over a four year period.

The investor was so impressed with Iskraemeco's solution implemented in Fouka Bay that he decided to use our products and services in his new project Il Monte Galala Ain El Sokhna.

Iskraemeco will install and maintain Il Monte Galala with smart electricity and water meters and its own head-end software system, SEP2W. The smart meters equipped with SEP2W are an extremely powerful tool for the automatic collection and processing of smart metering data, enabling the investors to optimize the system's operating costs and providing them with comprehensive end-to-end network security through the use of the state-of-the-art methods.

The water and energy meters installed at Il Monte Galala neighborhood will efficiently measure and bill water and energy consumption, as well as monitor and analyze the data. By simplifying and the improving billing processes and accuracy, it will have a positive impact on the quality of service for users.

Iskraemeco at the Bled Strategic Forum

The Bled Strategic Forum is one of the most important international events in Slovenia. The forum has become one of the leading conferences in the region, providing a platform for exchanging of opinions about modern society and its future.

The forum is intended for dialogue between statesmen, politicians, businessmen and professionals searching for answers regarding strategic challenges of the future.

The purpose of the forum is to bring together participants from various fields, with different knowledge and thinking. As well as to encourage them to exchange ideas and find innovative solutions to current and future challenges.

The conference offered many interesting insights into sustainability transformation in Slovenia and Europe.

Iskraemeco also attended the circular change conference and shared sustainability practices.



We learn most, when we share our knowledge with others

Recently, Mojca Markizeti, Head of sustainability and regulatory affairs was a guest speaker at a business training event organized by Ljubljana University Incubator, as part of EIT's Raw Materials Hub (European Institute of Innovation & Technology).

The training was held at the Faculty of Economics and was mainly aimed at science graduates and start-ups, who have an innovative idea that they want to turn into a successful business story. Mojca spoke about Iskraemeco's activities, opportunities and challenges related to sustainable manufacturing of products, focusing on material-related issues.

Iskraemeco is aware that sharing knowledge and experience with others, also gives us the opportunity to deepen our own knowledge. This event was no different, as the audience consisted of representatives from a company involved in the high-quality recycling of non-ferrous metals, which we have been researching for several years.

Iskraemeco co-creates the Slovenian Development Strategy

We live in a time when business, politics and society in general are aware of the impact our decisions and actions have on the lives of future generations. Iskraemeco was invited to present its views and strategy at two major economic and political gatherings.

The main theme of the business conference at the Bled Strategic Forum was the transition to a low-carbon economy. Representatives from the Ministry of Environment and Spatial Planning, Deloitte consultancy, and Iskraemeco representing the business community discussed important future steps and ways to achieve climate goals. Mojca Markizeti, Head of sustainability and regulatory affairs spoke about the importance of decarbonization and improving energy efficiency. She mentioned that comprehensive technological solutions are one of the key factors for better energy efficiency. Energy production and consumption are responsible for more than 75% of the EU's greenhouse gas emissions. Therefore, energy efficiency will play a crucial role in reducing the carbon footprint by 55% by 2030.



Iskraemeco among more than 160 signatories calling on the EU and Member States to be more climate ambitious

In September 2020, the directors of 164 European companies and investors, including Iskraemeco, called on their governments' Prime Ministers and European Commission to set more ambitious targets to reduce carbon emissions by 2030.

The call to action was issued to European decision-makers to avoid severe consequences of the climate change and ensure a sustainable, competitive economic recovery. In terms of reducing greenhouse gas emissions, they wish to:

- support the ambitions being pursued in European Green Deal,
- put forward robust recovery plans that will enable the green investments needed to achieve climate neutrality,
- agree detailed targets to reduce domestic greenhouse gas emissions by at least 55% by 2030 and other related goals,
- enforce strong environmental laws and accelerate the passage of revised laws.

Iskraemeco receives the AAA Creditworthiness Rating Excellence Certificate

Iskraemeco has once again received Bisnode's AAA Creditworthiness Rating Excellence Certificate. This internationally recognized certificate is only awarded to companies that manage to maintain the highest creditworthiness rating, AAA, for three consecutive years.

By qualifying for the AAA Creditworthiness Rating Certificate, Iskraemeco is among the top 1.6 per cent of legal entities in Slovenia. This international recognition is awarded by the credit rating company Bisnode, which has a long-standing tradition in awarding creditworthiness rating excellence in 12 European countries.

The certificate is awarded only to legal entities that meet the highest business ethics standards and have, over a period of time, demonstrated above-average performance in terms of payment, behavior, reliability of delivery, as well as quality of products and services. As the holder of the AAA Creditworthiness Rating Excellence Certificate, Iskraemeco consistently achieves above-average results and meets the stringent criteria that forecasts the security and success of its business over the next 12 months.



Iskraemeco Sarajevo – setting up a local production of AM550 smart meters

In the second half of November 2020, Iskraemeco together with our partner company, Iskraemeco Sarajevo, set up a new production line for AM550 smart meters.

The implementation of a new production line was originally planned for March 2020, but had to be postponed due to the global COVID-19 situation. Iskraemeco has an extensive experience with relocating production lines to alternative locations, but until now, we have never had to face so many complex challenges. All the preparatory work that did not require our physical presence on site was done remotely. Using various software tools, we installed a new production server and computer and successfully arranged further connections with the plant in Kranj. The new production facility was equipped with new equipment and the existing one was upgraded. We also tested the machines and trained employees who would be working with the new equipment. After the upgrade, the Iskraemeco Sarajevo production facility now manufactures AM550 single-phase and three-phase smart meters with integrated G3-PLC or GPRS modules. They will continue to produce household meters ME162 and MT174, as well as the previous generations of ME381 and MT381 meters, which will be phased out in due course. All meters are manufactured for the Bosnian Herzegovinian market.

A part of coaching people is to show them the direction to follow, while give them room to grow and take the responsibility

Interview with Dieter Brunner, former CEO of Iskraemeco

Expertise and leadership play a major role when it comes to managing an organization. We interviewed Dieter Brunner, a former CEO of Iskraemeco, to get a glimpse at leadership in general and into his role and experience at Iskraemeco. His thorough understanding of the industry, his experience and knowledge were driving the company towards a solution provider. During almost 12 years with Iskraemeco, Dieter has made a great impact on the company and has laid solid foundations for company's continued growth.



Let's start with a few slightly more personal questions. How would a person close to you describe you in a few words?

I think they would say I am open, honest, helpful, trying to understand the opposite side, and that I never give up.

Who or what has shaped you into the person you are today? Do you have any role models?

What has shaped me most as a person is my childhood and family background. When looking at the business side, I was always more interested in what was exciting and interesting rather than what was safe or earned more money. As a child, I was always fascinated by technology, which has made me lean towards the technical side.

I never had any role models, but many people and companies that crossed my path at various stages in my career have shaped me. I am always willing to learn and look at things from different angles as it helps you understand better, rather than just jumping to conclusions. Also, you have to keep asking yourself: am I doing the right thing, have I taken the right approach?

Career-wise, I held several positions that allowed me to grow in the technical and business sense. It has been a learning process in terms of working with many different people and at various levels of business engagement.

As a child, did you have a dream about what you wanted to achieve in life?

Surprisingly, I didn't. Life has made me into who I am today, there were no specific plans nor approaches. I never thought that one day I would be a CEO. This has been coming up along the way. I truly believe in doing what you enjoy, and I did exactly that. Work with passion and the rest followed.

Why did you decide to join Iskraemeco?

In 2008, I received the first call from Eng. Ahmed Elsewedy and we briefly discussed the state of the business. At first, it sounded challenging, however, more analysis had to be done to examine the situation closely, which ended up with me flying to Cairo, meeting the people, aligning their views with mine, and attending three workshops. After the second one, I thought it was challenging, but worth giving a try and while working on it, I finally decided to join the team.

However, I have not regretted the decision at all even though it was demanding for a while. With many successful strategies we have managed to get the company back on track.

Is there a milestone, or a few, that you would like to expose through Iskraemeco's journey?

There are several, but the most important one was regaining the customers' trust. One of the most important factors was to attract customers back to Iskraemeco, and we did that by listening carefully to their needs and developing the right approach to meet their expectations. Although, we went through a difficult time, we survived and became a force to be reckoned with.

Slowly, we gained the respect of the market, which is the biggest achievement for survival of the company. We successfully started many projects and won important SMM projects in 2014 with the Fair Meter. In the period between 2009 and 2015, we strengthened our project management position, which was a huge step.

Yet, not only did we gain the customers back, but we won the trust of suppliers and employees as well. You have to be open to critical questions and make the changes that are necessary. The company only works when everyone puts in their 100%, but

we can only work with that commitment if we understand where we are going, believe in it, support each other, and know how to do the job. Then you see that the employees have shifted their mindset to "Let's keep on moving forward, this is great, and we will win this business", which was enormous achievement.

What was the greatest disappointment along the path, and did anything good come out of it?

Disappointments always revolve around the question, 'what went wrong'? Was it your own unfulfilled expectations? You need to analyze that and fix it so you do not make the same mistake again.

Every successful company goes through disappointments at some point, it's a part of the learning process. For instance, in 2012 and 2013 we lost a major tender despite offering full support and the best meters. We met all the necessary requirements and we were looking forward to the next steps. However, in a matter of two days, everything turned upside down when the client changed his mind at the last minute. In the end it was a political decision. Yet, the moral of the story is to learn the lesson and move on. Indeed, we had invested lots of hard work, dedication, resources, and time. However, with our next big tenders we were more careful. We analyzed every aspect to avoid the mistakes we had made in the past.

I always say "If you fall on your face 100 times, you just have to get up that one more time." Disappointments can hurt for a while, but they make you stronger. It's just business, after all, so learn from it and move on.



What was the best part of your job?

The best part of my job was seeing progress of the company, knowing that we were headed in the right direction, and observing how the agreed plans can be executed greatly. Once a customer sent me a message saying: "Dieter, we can see the factory booming" and "There are so many improvements in the past year that I did not think was possible". Those were the things that kept me focused on achieving even more.

Your interest in people stands out, is there a specific leadership style you follow?

Being open, honest and direct. The company is not a democracy, everyone has the right to speak their mind, to question and challenge, but in the end, a decision must be taken. That is why I have always listened to people. However, in the end I made the decision which was the best for the company. What I do not like is when things just sit in space. Check what was wrong and make the change. In the end, you need to decide and move towards your goal. A part

of coaching people is to point them in the right direction, but also give them room to grow and take the ownership.

I worked in the US and there you must always be busy and on the run. I have a different approach, more people centered. I think that the difference between Iskraemeco and other companies is the people, not the way we make meters nor the technology we use. You can copy technology; any company can do this. It is much more important what impact you have on other companies, customers, suppliers, families.

Yet, in order to achieve this, you have to plan your actions carefully and execute your plan accordingly.

Moving swiftly to the future, what do you wish and envision for Iskraemeco?

I see Iskraemeco growing in the IoT business as a full solution provider, with great technology and honoring its commitments. When you look onwards at what will be happening in Europe 30 years from now, we can see CO2 free emissions growing, and we are in a great position with

energy solutions and technology. I also see Iskraemeco at the top. Yet, when looking at Iskraemeco as a whole, I am very proud that I have been a part of it and see it flourishing even more.

What would be your best advice to the employees?

Remember your work progress over the years but remember there are no limits, to achieve even more. Enjoy what you do, ask questions, be critical and push forward. What helps is working together towards a common goal in a good working atmosphere. Other than the technological advancement, the atmosphere in Iskraemeco is wonderful. You have people that are willing to make a difference and strive for greatness. Being a part of the team is important; you get better results when you work together. Do not envy each other, help each other. Where we are today is because of our team. I want employees to look back at their careers path with the thought, "I have been a part of this story and I'm proud of it". Simply put, be patient and do your best.



Innovative.

DIGITAL GRID solutions - empower the grid of the future

Digital grids have recently transformed the business model of the whole energy sector and redefined relationships between its key players. This change is the result of the transition from a centralized network to one capable of managing the increasing complexity of electricity supply in the IoT world.





Iskraemeco's Digital grid solutions are perfect fit for the challenges facing the distribution and grid sectors. Our knowledge and expertise fuel our development of end-to-end solutions that are comprehensively adapted to meet and exceed your specific requirements.

ISKRAEMECO'S DIGITAL GRID SOLUTIONS

A digital grid is an energy distribution network connected through an array of devices such as smart meters and sensors. It facilitates bilateral digital communication between all participants in the network. Digital grids are thus elite systems for monitoring, analysing, controlling, and communicating within supply chains to streamline resource consumption and spending, and maximize reliability, transparency, and oversight.

Iskraemeco's Digital grid solutions are perfectly tailored to the challenges facing the

distribution and grid sectors. As industry insiders, we keenly understand the major pain points. Our knowledge and expertise fuel our development of end-to-end solutions that are comprehensively adapted to meet and exceed your specific needs. Our goal is to provide you with the tools and information you need to make precise choices about efficient energy use.

BENEFITS FOR DISTRIBUTION AND GRID COMPANIES

Iskraemeco's digital grid solutions optimize energy efficiency and fortify the power supply and diversity of primary energy by:

- Modernizing MV/LV stations
- Quickly adapting to changes in transmission lines
- Improving power quality management, network balances, and TCO
- Cutting energy losses
- Reducing power down outage times, and ensuring power supply reliability
- Changing energy flows in the grids, and
- Lowering CO₂ footprints.

Let's start a project together

We are always happy to customize components and systems to meet your specific needs, solve your challenges, and offer you the very best solution and support.

Would you like to learn more? Contact us. We will be thrilled to help you design and implement a customized, comprehensive solution.



WE ARE EMPOWERED TO DELIVER OUR CORE SOLUTION PORTFOLIO

✔️ **Outage Management Solution**

To minimize losses and power outages, our solution offers near real-time information about network conditions, like alarms, extraordinary events, and other status reports, from as many points as possible (households, feeders, and transformer stations) to distribution and grid personnel.

✔️ **Balancing Solution**

To balance electricity, distribution and grid operators need to monitor an array of network status indicators for operators. Iskraemeco meters feature the edge-computing oriented indicators and all data from meters are then transmitted to the upper system. Analysing such indicators helps improve the grid balance and therefore cut total operational costs.

✔️ **Feeder Control Solution**

Iskraemeco's Feeder Control solution identifies potentially dangerous grid sections and avoids emergencies at peak load times and facilitates input-output interactions at the meter level, combined with analytics at the system level. Customers can track and monitor data on their dashboard.

✔️ **Telecontrol options**

Telecontrol refers to the connection of devices spread out over a wide area that can be monitored and controlled via a central control system. To reliably control and monitor them, we offer grid companies secure and cost-effective access to all telecontrol equipment.

SOLUTION ARCHITECTURE

Iskraemeco's Digital Grid solution is designed for interaction between tailor-made components and services to meet tomorrow's needs:

- **Hardware:**
 - **Smart meters and communication devices installed at all points** of the grid network, from generation to consumption
- **Software:**
 - **Head End Service** for smart metering, alarms and event reporting
 - **Meter Data Management service** for analytics
- **Services** for solution implementation

SECURITY IS OUR PRIORITY

We are continually integrating and upgrading multilevel end-to-end security across its entire communication chain, focusing the entire organization's attention and resources on this important issue.

We deliver a complete, hack-proof metering and data environment, along with a key management system forming the heart of Iskraemeco's security infrastructure.

A SUSTAINABLE WORLD FOR FUTURE GENERATIONS

By knowing and understanding technologies, market demands, and global challenges, we are shaping our Digital Grid Solutions to help grid companies operate more safely and more profitably. At the same time, we enable them to fulfil their responsibility to reduce their CO₂ footprint by using energy as efficiently as possible. Our Digital Grid solutions are one of the areas where we can and do forge a better world, by simply improving energy efficiency.



Innovation through cooperation with an aggregation trading platform

The innovative spirit of our team is the driving force of progress and an essential element of our business development. Innovation and the generation of ideas are vital components of Iskraemeco's corporate culture and support long-term vision, strategic thinking, and competitive advantage. Collaboration within the team and with our partners, external experts and stakeholders is our ticket to a successful implementation of our ideas, helping us bring new and improved products and solutions to life.

TOGETHER WITH OUR PARTNERS, WE HAVE INTRODUCED AN AGGREGATION TRADING PLATFORM FOR THE PURPOSE OF FLEXIBLE MANAGEMENT

In cooperation with Borzen and nine Slovenian companies, Iskraemeco has established one of six pilot/demonstration environments developed under operation 'Smart Devices, Models and Platforms in the Active Network Project' (PAKT),

co-funded by the Republic of Slovenia and the European Regional Development Fund.

The aggregation trading platform is an environment where agility providers offer a flexible collection and market participants (transmission and system operators) that need agility to balance their portfolios and reduce deviations from their market plans.

The platform was established to demonstrate and test the operation of the novel approach to trading in electricity markets. It connects end users who are able to modify their power consumption with grid operators and other market participants who want to balance or optimize their product portfolio. We are referring here to optimal grid utilization and optimal power generation.

The benefits of the platform for its users:

- Enables bidding and controls power generation and supply,
- Enables the submission of bids with the prices and quantities for a predefined period of time,
- Verifies the energy bids with a price calculation algorithm,
- Supports the use of geo-positioning devices to manage bids according to the location of the capacity and the requirements of grid operator,
- Enables monitoring of the grid status,
- Allows end-users/generators monitor power supply and consumption data.

The platform also connects metering devices and supports transmission of collected data that can later be used in other processes. An electricity meter is an important data source for the functioning of the platform, as it generates and transmits grid status data in real-time.



Iskraemeco's experts applied their expertise and experience to enable the delivery of real-time grid data. For this purpose, our AM550 meter was equipped with an additional communication channel that uses the Z-Wave data transmission protocol. Z-Wave operates independently of the standard communication channel required for the AMI network and is capable of transmitting selected data to the aggregation trading platform with a period of 1s. Taking advantage of the modular design of the AM550 meter, we replaced the I1 or P1 module via Z-Wave module connected to the aggregation trading platform with a dedicated Z-Wave – Ethernet interface

from the home Internet network. As a counterbalance, we offered the participating customers an Android application that allowed them to monitor certain parameters of their electricity connection (current power, monthly consumption in kWh, costs).

As part of the PAKT actions we also developed, demonstrated and piloted the so-called 'Digital Meter' under IEC61850 protocol, where the meter uses the mentioned protocol and Ethernet network to connect to digital transformers; the project also included the development of the NB-IoT communication module (i.e. AC150-A7). We also built a pilot network of 75 meters,

in which we compared the performance characteristics of different communication protocols under identical conditions (G3-PLC, GPRS, UMTS, LTE Cat-1, LTE Cat-M1 and NB-IoT). In total, we participated in and successfully completed three of the five objectives of the operation.

Collaborating with other companies in the field of innovation is always a good opportunity to gain new insights and perspectives. Successful completion of joint projects and collaboration between partners is becoming an important part of our digital future.



Iskraemeco's experts leveraged their expertise and experience to enable the delivery of real-time grid data. The platform also connects metering devices and supports transmission of collected data that can later be used in other processes. An electricity meter is an important data source for the functioning of the platform, as it generates and transmits grid status data in real-time.

Building a smart factory to optimize processes and productivity

The wave of Fourth Industrial Revolution is gaining attention among manufacturers.

Manufacturing has always been about rapid decision making, constant change and data.

Technology is having a profound impact on the way factories operate today by making the process of manufacturing intelligent and dynamic. In an effort to meet its customers' increasing expectations for faster delivery times, customized products, and transparency Iskraemeco has adopted many digital technologies.

ISKRAEMECO'S APPROACH TO DESIGNING A SMART FACTORY

Implementing a smart factory concept in Iskraemeco requires a step-by-step methodological approach to make the best decisions. The main idea is to use artificial intelligence to improve the physical manufacturing process. It helps us to learn, adapt, and meet customer and market needs but also to improve cost efficiency, thus guaranteeing high quality products. Here we highlight just a few of the most important steps.

Introducing the lean concept and ensuring information transparency is one of the most important steps. The benefits of such an approach are identifying weaknesses

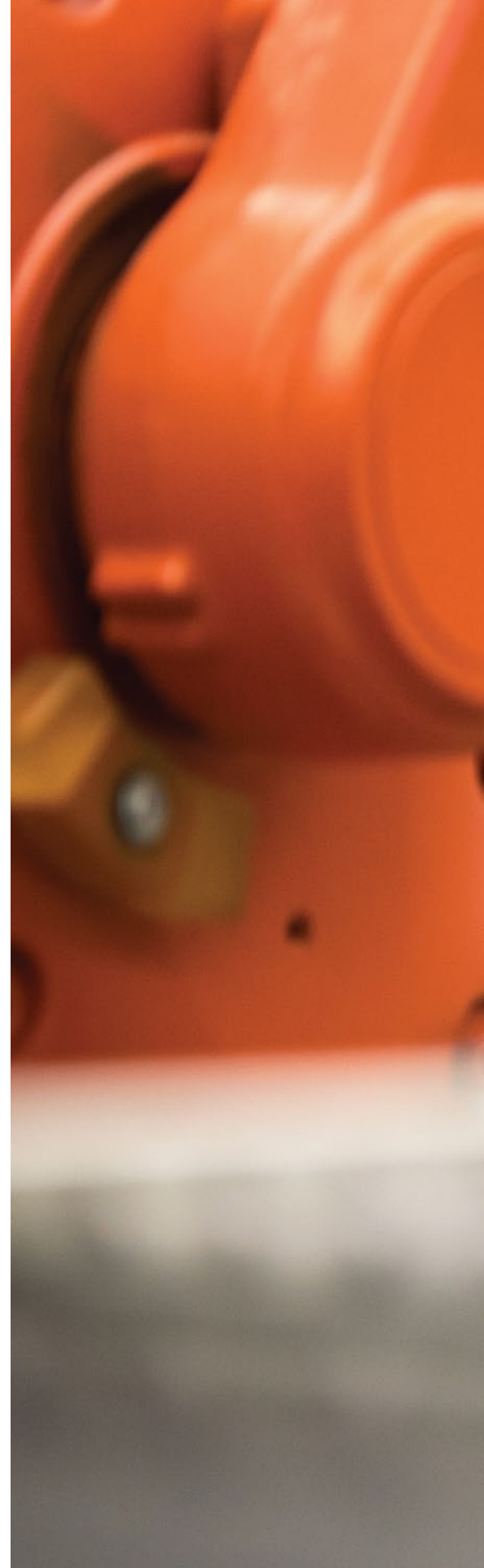
and taking immediate action to eliminate them, as well as reducing inventories and lead times and increasing productivity.

The main benefits of investing in a smart factory are also safer, more efficient, and reliable processes. **Automation of production and logistics** enables us to improve quality of our products and further ensure workplace safety.

The use of artificial intelligence in the factory creates a dynamic production environment, that gives us the desired results - reducing costs while improving quality and reliability. To establish **simulation and modeling**, we plan to introduce digital twins and automated production planning which will provide ROI and increase machine utilization.

In today's business environment, **data exchange** is at the heart of any smart factory concept, including ours. The structure of Iskraemeco's smart factory today consist of a combination of production, information, and communication technologies, as well as an integration across the production supply chain connected through an IoT platform. The IoT platform also enables the connection of machines, sensors, devices, and employees across the entire production process. The biggest advantage is ensuring data credibility, real-time data and to enabling predictive maintenance.

As Iskraemeco's smart factory evolves, so do the roles that employees take on. Through the pre-qualification process and training, people are slowly taking on more complex roles.





The smart factory gives us predictive maintenance, flexible and cost-effective production. It is also more adaptable for customization and can operate efficiently while remaining flexible. The smart factory strategy is a new way for us to stand out in a competitive and dynamic market as we leverage digital innovations to improve production efficiency.

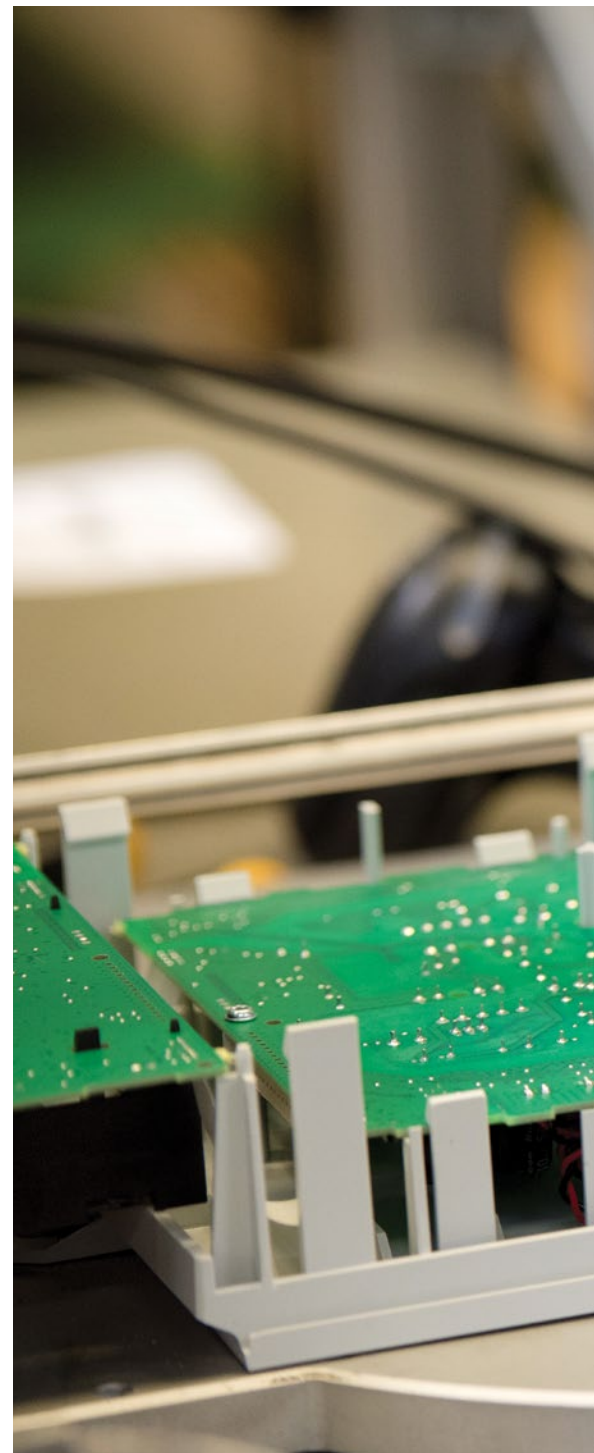
Successful completion of the complex project aimed to merge production lines delivers outstanding process improvements

Reallocating production lines and improving the working environment at our Kranj manufacturing facility was one of the largest projects of 2020, and we are proud to have successfully completed it with the help and dedication of our employees. Their extensive experience and well managed activities were crucial.

In 2019, planning, coordination and optimization work began followed by preparations for the move. The first lines were moved in early July, most of the relocation activities took place during the summer holidays and the relocation of lines was largely completed in September and October. "We are pleased that employees from across the company were actively involved in the preparation and implementation of the project," said implementation managers from the Technology department, adding: "Our shop-floor activities will continue into the future as production requires continuous improvements, such as better lighting, HVAC upgrades, investments in automation of production-technical and logistics processes, and the like."


In addition to completing the project on time, we are also proud of the fact that no injuries or damage occurred despite the demanding process of moving lines from upper floors and nearly all of the machinery. Once the move was safely completed, we were able to return to work smoothly and with unnecessary delays.

The fundamental goal of the relocation was to consolidate all production lines at one location and to optimize the logistical processes between the individual production departments, warehouses, and the shipping of finished goods. The manufacturing processes, which were previously spread across several locations, were responsible for high logistical losses with long lead times, unnecessary transport of material and semi-products, and poor communication among employees. By redefining the processes, we have eliminated these losses and laid the foundations for further optimizations in 2021. Those include robotization of the automated assembly lines for the AM550 family meters and further iterations of the platform, direct packaging of meters manufactured on the lines, robotic PCB testing and linking PCB assembly to finish product manufacturing for the purpose of optimizing planning and continuously reducing WIP. The ultimate goal is to connect the machines to minimize the distances and inventory levels between the different steps of an operation based on digitalization and process automation.



Our goal is to arrange the workplaces and processes that ensure a safe and healthy working environment for all employees. Recently, there has been an increasing emphasis on ergonomics and the challenges it presents. New workplaces are designed to allow both standing and sitting work, and the desks at some workplaces are height adjustable. In future, all optimization measures will be carried out with the health and safety of our employees in mind.

We are grateful to all employees who committed to the project. They have contributed to the success of merging and connecting all production processes in one place, which will be the foundation of our market competitiveness in the future.



Reallocating production lines and improving the work environment at our inhouse manufacturing facility was one of the largest projects of 2020, and we are proud to have successfully completed it with the help and dedication of our employees.

Data moves science, but stories and games move cultures

ISKRAEMECO AND KLAPPIR WITH GREEN PENGUIN MADE IT AT TOP 3 GLOBAL CLIMATHON FINALISTS

By combining knowledge and a thorough understanding of sustainable solutions, Iskraemeco and Klappir have found a way to tackle global environmental challenges and engage residents and local businesses to co-create a carbon-neutral city.

The solution is based on the use of smart digital technologies and analytics through gamification to achieve digital and sustainable education for children and a significantly reduce the city's carbon footprint. The partnership developed the best idea from Climathon Ljubljana's – Green Penguin, which was later nominated for the Global Climathon Awards. We are immensely proud that Green Penguin was selected as one of the TOP 3 most transformative ideas of 2020 out of more than 100 ideas from around the world. We are especially honored that our idea won the popular vote. This will be a great reference on the way to realization.

Throughout history, cities have been a major engine of change and innovation. Yet today, they have to play one of the most important roles in the fight against climate crisis. They are adopting multiple solutions to mitigate the risks and achieve carbon neutrality.

The City of Ljubljana and CER – Partnership for a Sustainable Economy organized the “Ljubljana Climathon”, a hackathon to search for bold ideas to tackle global environmental challenges.

The event took place under the umbrella of Global Climathon, in 145 cities, and lasted for 72 hours. In Ljubljana, seven creative teams put their heads together to each

come up with an idea for further implementation and nomination to the Climathon Global Awards.

The partnership between Iskraemeco and the Icelandic company Klappir addressed the challenge defined by the City of Ljubljana of “decarbonization through digitalization of buildings and engagement of residents”.



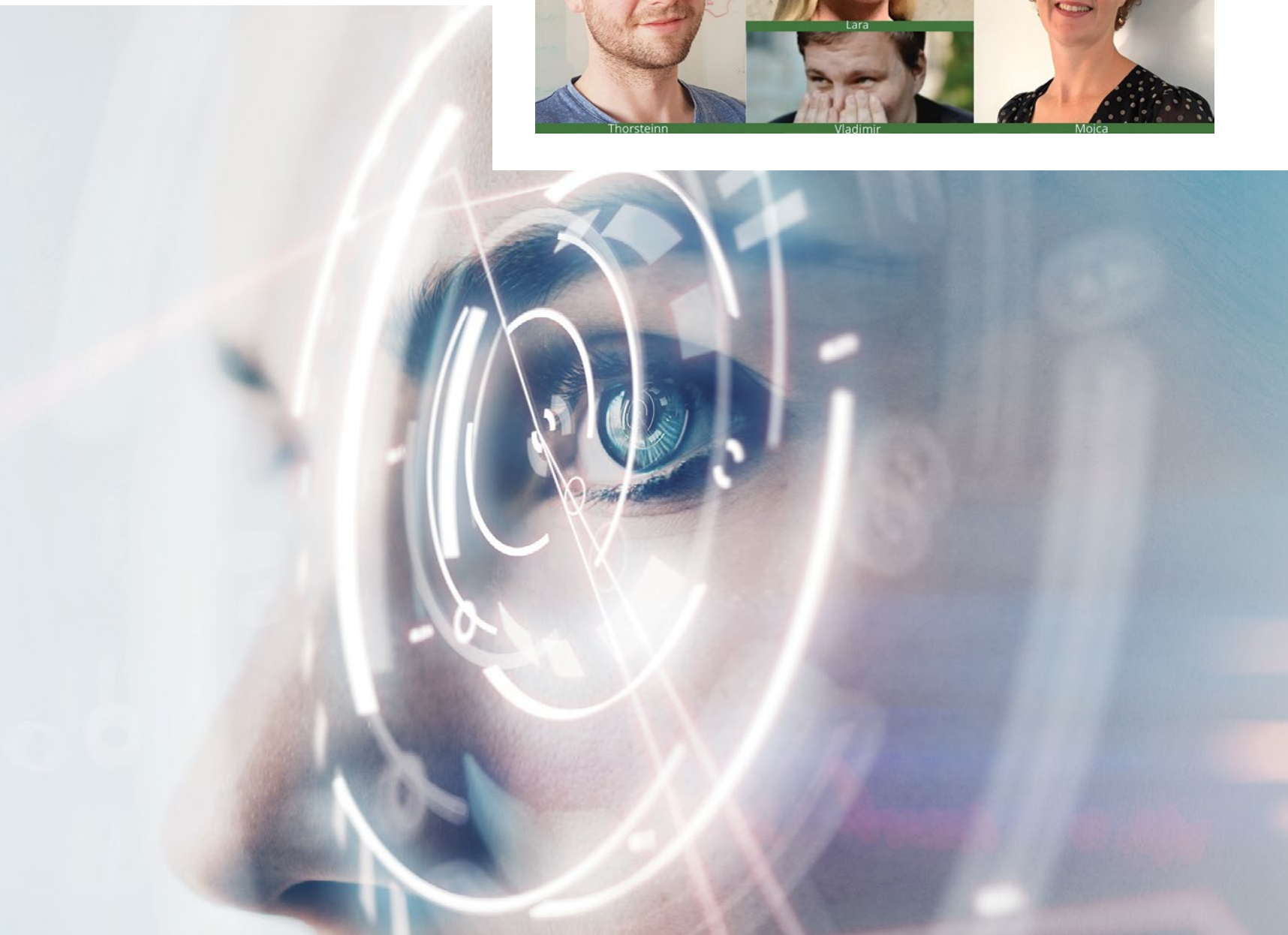
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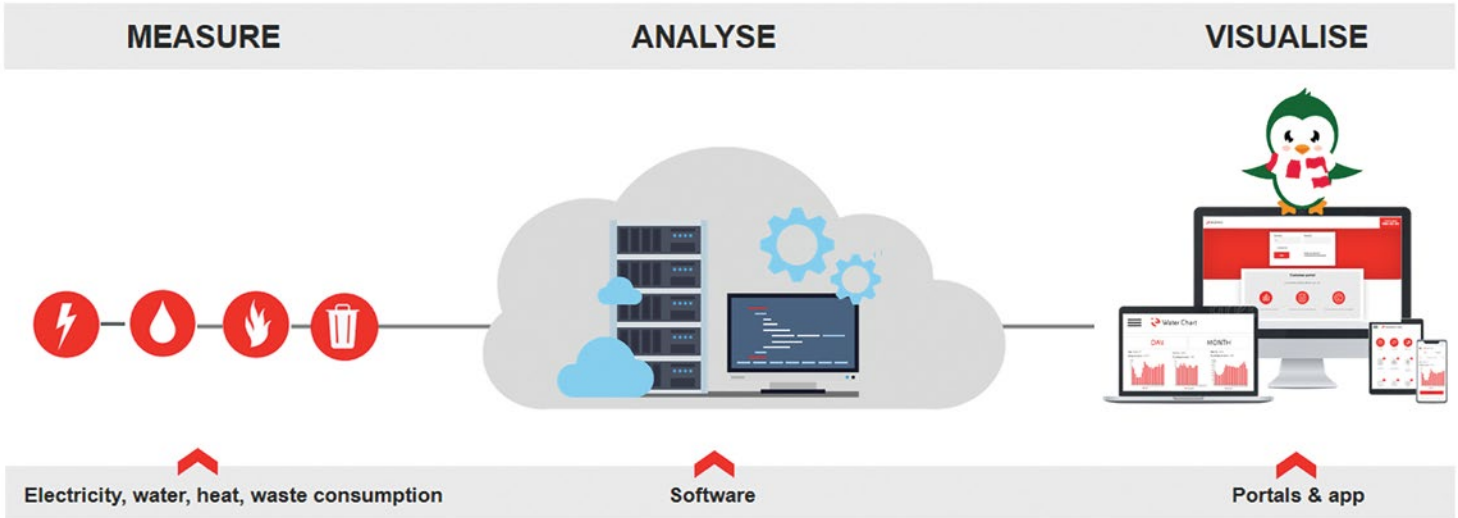
KLAPPIR

The development of the idea began with consideration and thorough analysis of the needs of the city, residents, and other stakeholders. How can residents and businesses optimize and reduce the city's consumption and CO₂ emissions? How can we generate interest in becoming more energy efficient and environmentally conscious? How would you encourage individuals to change their habits?

After 72 hours of brainstorming, researching, calculating, and testing the concept, the idea Green Penguin was born. The solution is based on using smart digital technologies through gamification to achieve environmental and digital literacy among school children whilst significantly reducing carbon footprint in the city.



SOLUTION ARCHITECTURE



The solution's mission: by obtaining real-time resource and consumption data, schools compete to reduce their carbon footprint by changing their behaviour, and the CO₂ is converted into unmelted ice and rescued penguins.

Green Penguin turns children into lifelong stewards of our planet. The benefits are for now and for generations to come!

The implementation of the Green Penguin idea brings social, economic, and environmental benefits to multiple stakeholders: the municipality, residents, and businesses.

Social benefits

These types of socially and politically charged projects are very important for municipalities that want to engage citizens, improve quality of life, change behaviors, and take steps towards a carbon-neutral city. The wider community benefits are teaching children both digital

and environmental literacy. Awareness raising and education are of great importance, as is the momentum of engagement of a large mass of residents.

Environmental benefits

Once the solution is implemented, we will see a reduction in electricity, water, heat, and gas consumption, as well as reduced waste emissions, which will contribute to a lower carbon footprint and efficiency improvements.

Financial benefits

The municipality receives accurate reports, and consumption profiles for various public buildings in advance, which help it identify the areas for improvement and potential savings.

The best part of the idea is that the approach can be applied to all city infrastructure as well as to hotels, shopping malls and other public buildings. It could be expanded into a cross city an international competition. Ljubljana and Reykjavik are both excited about the idea.

With these impacts and benefits presented in the pitch, the multidisciplinary jury chose Green Penguin as the winning team of Climathon Ljubljana, and highlighted other strong features of the idea:

- achieve the Global sustainable development goals with a focus on sustainable cities and communities.
- to be innovative, bold and practical at the same time, bringing benefits at all levels.
- to consider the advantages of the city of Ljubljana and the fact that the idea can actually be implemented.
- to present an idea that can be further developed and is synchronized with the strategies of the city and the EU.

In the process of idea validation with various stakeholders, cities, schools, teachers, businesses, associations and NGOs, Green Penguin received a lot of positive feedbacks, so the team decided to apply for the **Nordic Smart City Challenge, a consortium of many cities and governments of the Nordic Region looking, for smart, digital and sustainable solutions**

for their cities. The challenge was flooded with applications, but Green Penguin was so charming and got selected among three finalists, which is another great success for the team. The team from both companies did an amazing job, combining deep knowledge and skills, high motivation, and commitment to find solutions for a better, safer world with a no-box approach.

The goal is that in 2021 Green Penguin idea becomes a reality.

We start with children and aim for the whole society, and isn't that what we need, a global change?

Remember, data moves science, but stories and games move cultures!



Green Penguin is an amazing story. It fits with our strategy of having sustainable solutions for our customers but it also fits with our approach that as a company we need to be able to serve our communities with the right solutions that will also help them meet the challenging goals of climate crisis. Great accomplishment and teamwork! We are all excited and proud!

Luis Goncalves
CEO of Iskraemeco

The Green Penguin project is a great idea, developed and implemented by a great team. This creative idea is related to our sustainability strategy that we follow as a company and is important for younger generations – we can educate them and work with them to understand the potential of digital tools for energy efficiency. The idea is not only great for the European environment but can be used all over the world. We are very proud of our innovative team!

Bahaa Abdullah
CFO of Iskraemeco



Digital security promotes company growth

Businesses are continually exposed to threats that may cause considerable business damage or negatively impact their reputation. To prevent this, companies need to ensure a high level of information security by adopting robust information security policies that deter potential attackers from attempting to hack the system and steal data.

With an effective security strategy in place that covers risk analysis of company's business processes and defines adequate measures, the company can protect itself against losses. Protecting data and information systems is an ongoing process which keeps up with the latest developments and sets up effective measures to protect data and information from disclosure, destruction, or unauthorized access.

MINIMIZING INFORMATION SECURITY RISKS THROUGH EMPLOYEE TRAINING

Developing digital security literacy, awareness and competencies is one of the key measures to reduce information security risks in Iskraemeco. By implementing the process based on the tested methodology of ISO 27001 and other good practices, we can present to the employees the theoretical and practical examples of threats to which we are exposed as employees or as an international company in a straightforward and efficient manner. People are one of Iskraemeco's core values, and by implementing training processes, we can help protect our business and support personal security awareness of our employees.

Since information security is based on three pillars, namely people, processes, and technology, we will focus in more detail on the pillar that experts have long described as the weakest one – people. As a curiosity, in 2020 and during the COVID-19 pandemic, we have recorded a considerable increase in the social engineering attacks (e.g. phishing) on end users, further reinforcing the need to provide a robust process for developing information security literacy in professional environment.

Cybersecurity literacy of employees is a process which was enhanced last year with several relevant new elements that will strengthen the overall awareness of employees with regards to these issues.

Onboarding seminar for new employees in the field of information security

The onboarding seminar for new employees is conducted for all overhead employees and students working for Iskraemeco. The employees learn about the basics of information security, trends and threats and obligations. Most of the training focuses on raising the employee's awareness of the importance of safeguarding information in their daily work.

Information security e-training

As part of our continuous improvement process, we introduced mandatory e-training for employees last year. E-training consisted of a theoretical and practical part and was specifically designed to enable employees to react appropriately when confronted with a cybersecurity challenge in their work environment.

Testing information security resilience prior to attack

Threat detection and response testing is one of the main tools of raising the awareness of employees. We use practical cases to simulate malicious campaigns and monitor the response of employees to build their maturity in detecting digital security threats to which they are exposed.

Information security portal

By setting up our own information security portal, we provide employees with easy access to all security policies, educational material, important security information, and news in one place.

People are the key pillar of digital transformation

Iskraemeco's adherence to the strict information security standards started in 2016, when the company acquired the ISO 27001:2013 international certificate for the information security management system (ISMS), where we strive for progress through continuous improvement.

The goal of developing literacy is to reach a high level of cybersecurity maturity among employees and make sure they embrace the concept as one of the key pillars on Iskraemeco's digital transformation journey. Apart from that, our high level of information security maturity and upgraded literacy process helps us reduce the risks of reputation damage with existing and potential business partners.



Smart city, better life



Today, cities are changing, evolving and growing at a tremendous pace. There are countless opportunities and challenges for urbanization and digitization that can contribute to the sustainable development of cities around the world and a higher quality of life.

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.

Some quick facts from the Report of the Mission Board for climate-neutral and smart Cities, European Commission, September 2020:

- ✓ It is estimated that by 2050, two-thirds of the world's population will live in cities. Given the exponential growth, the world population will have grown to around 10 billion by then.
- ✓ In Europe, 85 percent of people will live in cities by 2050.
- ✓ This will inevitably lead to an expansion of existing urban areas and the need to create new ones.
- ✓ Cities cover about 3 percent of the Earth's land area, but consume more than 75 percent of all natural resources available to the whole world and produce about 72 percent of all global greenhouse gas emissions.
- ✓ Cities are also the crucible where decarbonization strategies for energy, transportation, buildings, and even industry and agriculture coexist and intersect.
- ✓ As the density of uses and infrastructure is higher in cities, there is also a higher potential for cross-sector integration and complex infrastructures such as smart grids.
- ✓ The implementation of the EU's target of a 40 percent greenhouse gas reduction by 2030 was made even more ambitious in 2020, calling for a 55 percent reduction by 2030 and carbon neutrality by 2050.

"Cities are doing the most when it comes to climate action, but in general no one is doing enough. As a society, we are entering a decade where we will make it or break it. The most important thing is innovation and the role of digital technologies."

The past decade has seen tremendous development in terms of technological change, connectivity and global communication. The unstoppable development of technology has managed to open new avenues for innovation, solutions and services, all of which are grouped under the term Smart Cities. Smart Cities aim to "provide their residents with the highest quality of urban life while protecting the environment and securing the future for generations to come."

There is no escaping technology - it touches us all. It changes our lives, the way we work, our habits and, most importantly, when it is complemented with knowledge, values and synergies between all stakeholders in the value chain. Technology is a valuable tool in addressing global challenges and risks.

ADDED VALUE FOR CITIZENS

Smart city solutions provide opportunities for digitizing the city, deploying advanced smart city infrastructure, enhancing the quality of life by improving the safety of people and infrastructure, optimizing resource consumption, increasing sustainable water use, and minimizing emissions.

Iskraemeco's Smart City solution is an ecosystem of state-of-the-art solutions that connects all vertical and horizontal ecosystems with various stakeholders such as residents, societies, local utilities, municipalities and businesses.

Our Smart City projects, which introduce innovative technological 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.

TAKING AN ACTION TO KEEP IT GREEN, KEEN AND SUSTAINABLE

We live in a world where nature provides resources and essential elements for survival such as air, water and food. We are beginning to understand our responsibility to help communities act and live sustainably within the limits of nature. When connecting smart home, smart grid and smart city solutions, we can achieve many sustainability goals.

The existing technologies and solutions we are developing with our partners now and planning for the future all need to address the biggest global challenges, such as decarbonization and water scarcity.

The energy sector is committed to play a leading role in the investments needed to become carbon neutral well before 2050.

Yet, the fundamental question remains – how will this happen? It has been a fact for some time that energy efficiency can be significantly improved by building a smart grid, an energy management system, integrating smart homes and digitizing industry. Based on legislation, EU countries have increasingly installed smart meters over the last 20 years (the target was set at 80 percent of smart metering points by 2020), with energy efficiency and a reduction in carbon footprint also among the targets. Firstly, countries are falling short of the expected volumes and secondly, most of the data provided is far from being used for any of the smart energy management functions that would lead to improved energy efficiency. However, the potential is there

– grid efficiency can be improved from 3 percent to 10 percent and even –more, depending on the country’s baseline.

To continue the illustration of untapped energy decarbonization opportunities, let’s break down emissions by source into three main groups: Buildings, Industry, and Transportation.

Buildings are now responsible for 40 percent of final energy consumption, including electricity. They are also responsible for 34 percent of total greenhouse gas emissions in the EU. However, buildings can be decarbonized and their energy performance can be improved through a range of solutions. One way to achieve this is to share energy consumption data with end-users and provide them with advanced applications that allow them to optimize their energy consumption based on data from meters. There are few countries in Europe that have done this, but only one has made it mandatory – the UK.

In many mass pilot projects over the years the UK has proven that end users can achieve a 9 percent reduction in energy consumption, provided they know and use their energy consumption data. Some countries would argue that end users are not interested in managing their energy consumption. However, this contradicts the result of the recent Eurobarometer survey. According to this, a total of 93 percent of EU 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.

Industry is responsible for 25 percent of final energy consumption and around 20 percent of total greenhouse gas emissions. In this respect, significant emission reductions in the industrial sector are needed to contribute to climate neutrality by 2050 and to achieve the goal of zero-pollution. This requires technologies to be tested and deployed at scale within the 2030 time-frame, taking into account the investment cycles in industry.

According to Bahaa Abdullah, Iskraemeco’s CFO, a lot can be done to set an example for the industry: “In the last five years, Iskraemeco has reduced its carbon footprint per product by 70 percent, largely due to smart circular design and energy-efficient lean manufacturing.”

Road transport, the last of the major sources of carbon footprint sources is responsible for 20 percent of carbon footprint emissions. What is even more important for cities is the dangerous pollution from ultra-fine particles caused by traffic. We all see e-mobility as the main problem solver; however, vehicle batteries are charged with energy from fossil fuels and the multiplication of e-vehicles in the grid disproportionately increases consumption and destabilizes energy management. In this situation, accurate data with analysis and evolved solutions can achieve positive results in terms of energy efficiency, looking at it from many different angles, such as the end user, the community or the grid.

Fully aware of the growing importance of sustainable solutions, Iskraemeco has integrated sustainability into its corporate strategy and processes.

To support future challenges, we have developed a portfolio of Smart Solutions for a better city: Smart City, Digital Grid, Smart Water and Energy IoT.



Leading-edge.

A cutting-edge project for a smart and digital future in Iceland

Iskraemeco, one of the leading smart metering solution providers, and Veitur, the largest utility company in Iceland servicing primarily the south-west part of the country, have signed a contract for a cutting-edge smart metering solution. The solution will facilitate Veitur to transform its electricity, heat and water networks into a smart and sustainable grid that will be prepared for future technologies and challenges.





Smart and
digital future in
Iceland

Iceland is one of the front-runners when it comes to utilizing renewable resources for electricity and heat. Iskraemeco's solution will enable Veitur to achieve greater efficiency of its operations through digitalization and to develop its services towards a smarter future. The project is a piece of a puzzle in Iceland's strategy to become carbon neutral by the year 2040. Reykjavik, the capital of Iceland, is already one of the world's most sustainable cities but seeks to reduce its carbon emissions even further. Iskraemeco's sustainability results and low CO₂ footprint per product were important elements recognized by Veitur. By delivering an integrated solution of electricity, heat and water meters based on NB-IoT and wireless-Mbus communication, Iskraemeco is set to support Iceland's ambitions regarding sustainability.

Iskraemeco's energy IoT solution was designed in line with Veitur's rigorous tender requirements to minimize the total cost of ownership. Its goal is to deliver innovative solutions to enable remote management of metering points and manage services across Veitur's service area. The modularity of Iskraemeco's meters gives Veitur invaluable flexibility in its smart metering deployments and enables a simple exchange of communications modules, which is one of the basic components of smart and future-proof investments. When the solution is deployed, customers will be able to manage their energy consumption better and improve their energy efficiency.

Iskraemeco's solution consists of a software solution, NB-IoT communication, and electricity meters combined with heat and water meters supplied by Diehl Metering. The NB-IoT communication uses the telecommunication services provided by Vodafone Iceland.

The first smart meter solution deliveries are planned early next year and will be followed by a mass rollout in the period from 2022 to 2025.

1. Commitment to a smart and digital future.
2. Increased sustainability.
3. Development of an integrated solution connecting electricity, heat and water meters.
4. Efficient and smart customer services.
5. Long-term partnership.

One of the expectations of Veitur was to team up with a partner that would not only be able to deliver a solution but would also set up a platform for future development. Iskraemeco and all involved partners were able to offer Veitur a sustainable solution ready to utilize future smart city, digital grid and e-mobility.



"We are honored to earn the opportunity to supply our new Energy IoT solution to this remarkable project, especially because it is based on sustainability and the principles that we as a company have embedded in our future strategy. Our goal is to provide our customer Veitur a future-proof, safe, secure, reliable and sustainable solution to support them in mastering their digital transformation journey. We are excited to build a strong partnership with Veitur and looking forward to creating many success stories in the future."

Luis Goncalves
CEO of Iskraemeco





“We believe Iskraemeco is the perfect partner on Veitur’s journey towards a digital and smart future. Iskraemeco’s solution scored the highest in our tender process and Iskraemeco has demonstrated a convincing roadmap on its capability to develop the solution even further. We are looking forward to this journey.”

Gestur Pétursson
CEO of Veitur

ICELAND “THE LAND OF FIRE AND ICE” WHERE CULTURE OF SUSTAINABILITY IS EMBEDDED IN MANY ASPECTS OF LIFE

At a time when climate change requires from countries around the world to implement sustainable energy solutions, Iceland presents a unique situation. Today, nearly 100 percent of the electricity consumed by this small country with population of 330,000 is generated from renewable sources. In addition, 9 out of 10 households are heated directly with geothermal energy. The story of Iceland’s transition from fossil fuels is an inspiration to many countries looking for ways to increase their share of energy from renewable sources. Their natural predisposition towards energy efficiency is excellent; however, the country was not satisfied with that. They

decided that sustainability would play a strong role in the development of their infrastructure by demanding high environmental standards, high transparency in material use, optimized solutions, life cycle outcomes of solutions, high commitment to labor standards and transparency through the multi-layered supply chains of their suppliers.

Understandably, the people of Iceland have developed an enviable ethical orientation towards sustainability, most likely due to the rapid changes they are witnessing in their natural environment, as one of the country’s most important strategic resources. It is worth mentioning that sustainability is part of the national curriculum and one of the fundamental pillars of education, and that climate change is an integral part of the national education plan. Therefore, Iceland can be considered a role model for the whole world in this area.

The natural environment is extremely important for Iceland due to its hydropower

and geothermal reserves as well as its pristine wilderness and amazing landscape, which attracts thousands of tourists to the country every year. Glaciers cover up to 11 percent of Iceland’s surface, yet if the global trend continues, they will soon disappear, and the country would lose an enormous source of energy-hydropower. Glacier rivers are fed by the seasonal melting of glaciers, flowing from mountains into the sea and strengthening Iceland’s water sources. In recent years, it has become apparent that glaciers are unable to restore their size and ice areas during the winter. In 2019, Iceland lost its first glacier. To mark the occasion there was a memorial service was organized and a plaque was unveiled on the mountain with the inscription ‘A letter to the future’: “Okjokull is the first Icelandic glacier to lose its status as a glacier. In the next 200 years all our glaciers are expected to follow the same path. This monument is to acknowledge that we know what is happening and what needs to be done. Only you know if we did it”.



The modularity of Iskraemeco meters gives utilities invaluable flexibility in its smart metering deployments and enables a simple exchange of communications modules, which is one of the basic components of smart and future-proof investments.

The message with the inscription is clear: Iceland's strategy is to achieve carbon neutrality by 2040. This is the reason why the tender requirements for sustainability were almost on the verge of impossible in terms of resource use, use of recycled materials, optimized life cycles of solutions, product recycling rates, and other requirements.

At Iskraemeco, we are proud that we were able to meet the requirements and that we are committed to further improvements.

We see that Iskraemeco's sustainability strategy, efforts and achievements are respected by our customers. Additionally, the integrated systems help our customers to better manage their resources, improve their energy efficiency and reduce their carbon footprint. Reykjavik is already considered as most sustainable city in the world and aims to improve even further. Together with our partners in the Veitur project, Iskraemeco can make an important contribution to help the Icelandic community to achieve its climate goals.

For us, this project is a milestone and an extraordinary story that can inspire other countries, electricity distribution companies, utilities and governments. It is the right way to achieve the EU's Green Deal objectives and meet global climate goals. At Iskraemeco, we are proud to be part of this story and look forward to becoming part of many similar stories around the world.



BEHIND EVERY SUCCESSFUL PROJECT IS A DEDICATED TEAM

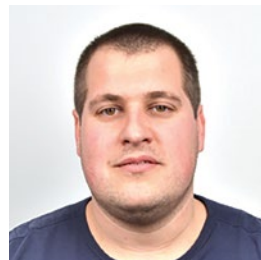
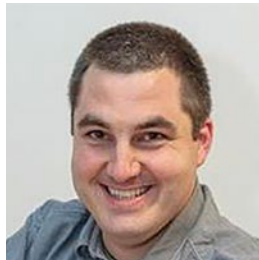
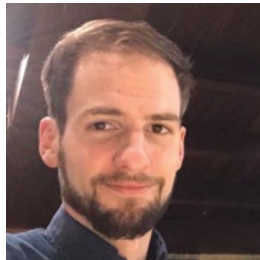
Iskraemeco would not be able to complete so many state-of-the-art projects without its dedicated employees who think outside of the box and tirelessly search for the best solution to meet our customers' needs. We are proud that the team spirit and dedication of the Iskraemeco team has once again been rewarded with advanced project for Veitur, one of Iceland's largest utilities, where we have combined our expertise and experience for Iceland's smart and digital future.

"Preparing a winning bid is never the work of one individual, but the success of the entire team," said project manager Igor Kajzer. The efforts of the 10-member core team, who worked full time on the project were complemented by the contributions of many other Iskraemeco experts who were approached with requests for information and support. He added: "Such complex projects cannot be delivered successfully by individuals, but only by closely connected teams overcoming potential disagreements and work together to find

the best solution for the customer. I am extremely proud to be able to lead such a team."

All team members agreed that the collaboration was amazing and that this was also the reason for winning the project. Mateja Resman Novak added that as a member of the bidding team for Veitur project, she got the opportunity to fully experience the "new reality", as all meetings were held remotely. "As we gathered information to prepare a bid for services, we thoroughly reviewed our internal processes and identified several improvements that have positively impacted our efficiency and competitiveness. It was a pleasure to work with the extremely professional Icelandic team and I am confident that we all learned a lot from each other. As a member of Iskraemeco's best team, I look forward to the implementation and delivery of the proposed solution to the customer. Gregor Velepec is also looking forward to further collaboration with his colleagues. "Participating in the preparation of the project for Veitur was certainly a mind-expanding experience. I am grateful to the whole team for their contribution and cooperation that led us to a successful project completion. Or should we better say - to the new beginning?", concludes Anže Mikulič.

Our team





Interview with Jakob Sigurður Friðriksson
Veitur's Business Development Manager

Implementing successful, exciting, and innovative projects with our customers for breakthrough improvements in the energy sector

Iskraemeco and Veitur have combined their knowledge in a cutting-edge project for the smart and digital future of Iceland. We are proud to start a great long-term cooperation with a partner with whom we can jointly develop tailored solutions that meet their requirements and build future-proof business.

Veitur strives to develop and operate cost-effective utility systems that follow the principle of sustainable use of resources, minimal environmental impact and outstanding customer service. Its vision is to become an outstanding know-how company and a service provider that builds the foundations for enhancing the quality of life and functioning of the community.



In an interview, Jakob Sigurður Friðriksson, Business Development Manager at Veitur, explained the benefits of the project and cooperation between Veitur and Iskraemeco.

What was the reason behind your decision to start transforming Veitur's electricity network with a comprehensive and flexible smart metering solution?

The advanced metering infrastructure (AMI) project is considered a major stepping-stone on Veitur's path towards a smart future. Veitur's objective is to complete the digital transformation of its

business, while keeping the focus on the environment, sustainability and securing financial gains, to name just a few highlights.

Veitur supports the transition from fossil fuel powered vehicles to electric vehicles (EV's) by putting in place a proper infrastructure and management. The increase in electricity demand by EV's will be managed to ensure the most efficient use of the existing capacities in the networks. Data from the AMI system will be of great support.

Increased customer awareness also plays an important role in Veitur's decision. Customers will have access to extremely detailed information on energy consumption, which will help them to better understand their own user profiles and take appropriate actions to optimize their energy consumption.

The last piece of the puzzle is that the decision to implement AMI was based on a cost benefit analysis (CBA) for a project which clearly showed a positive financial outcome. It should be noted that there are no legal obligations in Iceland for electricity network operators to implement smart meters, therefore, the decision was based purely on comparison of benefits and costs. However, Veitur expects a legislation for AMI systems to be adopted within a few years.

Why did you decide to focus on an integrated solution, connecting electricity, heat, and water meters?

In order to make the most of the advantages of the AMI system we needed an integrated solution for different utilities. This is especially true for heat and electricity, as water is not measured in residential installations. Most installations in Veitur's service area have both heat and electricity meters installed and acquiring data from the entire meter population is essential to realise the benefits from the AMI system. In addition, setting up an integrated platform for different utilities is very cost-effective.

The sustainability aspect is often seen as just 'words on a piece of paper'. What are the main benefits for your company and country?

Electricity and heat production in Iceland are purely obtained from renewable resources, geothermal and hydropower. Although, renewable resources must be exploited in a sustainable manner. As mentioned earlier, the AMI system will enable Veitur and its customers to monitor the energy consumption and take appropriate actions to optimize energy consumption. This is essential if we are to protect the natural resources and ensure efficient and rational use. The situation is similar in distribution systems, where the focus is on efficient use of the existing infrastructure and digitalisation of the day-to-day operations to ensure efficiency, while maintaining a high quality of supply to our customers.

What was the reason you chose Iskraemeco and its Energy IoT solution?

Simply, because Iskraemeco and your subcontractors submitted the best bid. The request for a tender that Veiture wrote, received considerable attention in the market. Qualified bidders submitted bids that were evaluated by Veitur in categories such as Life Cycle Cost, Company Capability, Technical Solutions and QHSE. Iskraemeco's solution received the overall highest score.

Iskraemeco's technical solution includes NB-IoT technology for the communication between the head-end system and the meters. Iskraemeco was able to offer a relatively new technology with advanced functionalities at competitive prices. We favoured direct communication to all metering points in its evaluation, and Iskraemeco could provide such infrastructure, both for all electricity meters but also for stand-alone heat and water meters.

What are the biggest benefits of smart metering that you already noticed, or you are still expecting to see?

The AMI system will help Veitur meet future business challenges and realize potential opportunities. A few important benefits have already been mentioned in terms of environment and sustainable development. From the business perspective, Veitur's expects significant savings at operations level and customer service while improving level of service and network performance. There is huge potential to consider how to use the power quality data obtained from the meters to better plan network preventive maintenance and prioritise tasks. We will also be able to better understand and change consumption profiles during peaks, which will allow us to postpone new investments in network infrastructure to a later date, and some may not even be necessary.

What impact does the project have on electricity supply system in Iceland?

The AMI system will have a substantial impact on the electricity market and will increase the competition. To list just a few main points:

- a) The process of changing the electricity supplier will be simpler and faster.
- b) Suppliers will be able to develop time-of-use tariffs for their customers, tailored to their production capabilities and/or wholesale contracts.
- c) New companies will find it easier to enter the electricity market.
- d) Meter data could assist in customising supplier's energy saving programs.

How are smart products and technologies transforming your business?

The data from all the sensors Veitur has already installed and will install in the future, is transforming the business to a much more data driven operation than ever before. Decisions are much more based on actual data, whereas they used to be traditional.

What do you think is the most important change currently taking place in our industry?

Changes in organisational culture running in parallel with the digital transformation. Data has become a key building block in everything Veitur does and it is generating additional possibilities to optimise the operation, helping the business to

make investment decisions and giving a far clearer view on the performance of the system as a whole.

Finally, could you briefly describe your partnership with Iskraemeco?

At Veitur, we are looking forward to a fruitful cooperation with Iskraemeco on the AMI project. A lot will happen in the up coming years, but our plan is clear and there is a positive attitude and enthusiasm in the air from all stakeholders. The pilot project is planned for the end of 2021, and in June 2022 we will start the mass rollout of metres with the completion deadline set for the end of 2024. The project teams are getting to know each other, through digital media, since travelling is restricted because of Covid-19. Hopefully, the teams will be able to soon meet face to face, which will surely benefit the project.

So far, Veitur has already had the opportunity to experience the excellence of Iskraemeco's team, which consists of exceptional professionals. We are confident that delivered solutions and products will also ensure top quality levels.





Sustainable.

Iskraemeco makes a bold entrance in Belgium by transforming its grid with an Energy IoT solution

"I am very proud that Arewal and Iskraemeco have come together for this innovative Energy IoT project. Iskraemeco has always had a strong footprint in the Belgium market and it is good to be present again with such a project that shows the capabilities we have built as Iskraemeco. Together with the customer we analyzed the needs and requirements and were able to offer them a solution that will transform their electricity network into a sustainable network, ready for future challenges. From this partnership with Arewal, we trust to expand with further Energy solutions in the rest of the Benelux market!"

Patrick Testers

Managing Director of Iskraemeco Benelux



Iskraemeco, one of the leading smart metering solution providers, and Arewal, a grid-operator servicing the area in the south-east of Brussels, Belgium, have joined forces to transform Arewal's electricity network with a complete flexible smart metering solution that manages big data and incorporates new Energy IoT technologies that meet sustainable requirements.

The astonishing solution delivered by Iskraemeco brings new Energy IoT technologies to Belgium's grid operator Arewal to facilitate sustainable and smart transitions of its electricity network. Iskraemeco combines select components of its cutting-edge solution providing smart meters based on NB-IoT communication and a HES and MDM software platform.

Iskraemeco has always been one of the main suppliers of electricity meters to the Belgian market. With the earliest deliveries of Iskraemeco products taking place in 1975, large quantities of electromechanical meters have found their way to different grid operators in Belgium. Recently, Iskraemeco has been working on the next exciting phase of this collaboration – introduction of new, smart, and sustainable Energy IoT technologies that will further improve Belgium's network. After testing these solutions for the past two years, Iskraemeco has now found the perfect integration solution that meets Arewal detailed requirements in terms of:

- Total cost of ownership
- Flexibility and scalability towards the future
- Improving grid efficiency

In this project Iskraemeco combines several components of its Energy IoT solution: electricity meters, NB-IoT communication, software platform, and Meter2Cash platform provided by its Norwegian partner Greenbird Utilihive. In the future, Arewal will be able to integrate water meters or any M-Bus device and Iskraemeco will provide delivery, maintenance, and support services. The implementation and integration will start at the beginning of 2021, with the major rollout to be finalized by the end of 2024.

Cooperation and teamwork were of great importance in this project, since the delivered solution includes advanced technologies that will play an important role in the future network environment. The long-term partnership between both companies is a guarantee of further improvements that will follow the initial smart meter rollout. The newly integrated solution will enable customers to manage their resources better, improve energy efficiency, and lower their CO₂ footprint.

With this first Energy IoT project in the Benelux region, Iskraemeco is strengthening its foothold in the market with a sustainable solution that is designed to meet the future needs and demands of smart city, digital grid, and e-mobility.



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Transforming electricity grid in Abu Dhabi

The LTPA project is all about modernizing the network through a long-awaited journey with The department of Energy (DOE) in Abu Dhabi Emirate in the UAE. ADDC - Abu Dhabi Distribution Company and AADC - Al Ain Distribution Company have created a joint committee for the 2-year procurement process to purchase the most advanced smart metering devices, to upgrade their electrical network.



The path of electricity grid modernization in Abu Dhabi started in 2006 as a request for transformation to smart metering. The meters installed then were of an older generation, without integrated communications modules, and are now requiring a significant upgrade. Now, we are in for the second roll out of smart meters, which will pave the way for the transmission to the IoT world.

ADDC started a new journey of grid development and renewal in 2016 and since then Iskraemeco Middle East FZE has become their innovative partner. Iskraemeco Middle East FZE has been able to meet their requirements mainly in terms of features, functions. To match the exact requirements, a greater batch of top-notch products was provided. Yet, the competition in the UAE is aggressive but fair with clear criteria for qualification of products and services. UAE utilities put quality first in their choice of suppliers and partners. First, we needed to have our products approved by a higher authority called DOE - Department of Energy (previously named ADWEA). In the early steps, strict regulations were needed to check and test the equipment.

The latest contracts successfully show the network's tendency for renewal, which leads to a thorough transformation towards a smart metering infrastructure. The smart meters we delivered will be connected to the SEP2W head-end system platform installed at ADDC. To ensure a smooth functioning and installation, we are running tasks to upgrade the system to support all the network equipment. The project may be demanding yet we always manage to find a way to overcome any challenges

that arise. Also, this the first initiative where both utilities joined forces to effectively respond to market demands.

Iskraemeco provides the latest technology of certified modular smart meters. Currently, both utilities are planning to purchase communication technology and our smart modular meters with 3G modules and 4G upgrades offer them exactly what they need. Our meters are designed to operate for at least 15 years and have successfully passed accelerated ageing tests. Customers see a lot of added value in the investment, which is reflected in the long life of the devices and the fact that with modular meters, the cost of changing technology is lower, as only the communication module needs to be replaced. In this way, we were able to extend the life of the meters in the field compared to previous generations, when the device lifespan was linked to communication technology, which usually changed every 5 to 7 years. Other benefits are lower total cost of ownership, separate cost of replacing communication module, cost of delivery, making this solution far more financially and economically attractive for grid utilities.

This is what the utilities expect, and what we strive to grant them. The biggest value for ADDC and AADC is not only receiving the best presentation of pre-sales and technical activities how to best utilize presented solution or product features. Astonishing advantage is that once a meter is installed, it does not require additional maintenance. There are no additional costs and no major technical or mechanical challenges that would lead to an energy loss. Moreover, our local Gulf-based team offers utilities superior customer service complemented by continuous and all-round on-site support.



Thanks to the bold strategy for Abu Dhabi, innovative approach, quality products and our very dedicated and agile team, Iskraemeco is today the number one supplier of smart energy solutions in the region.



Continuous success of conquering the Croatian market through smart metering implementations

"It is a great milestone for Iskraemeco and a great pleasure to have been working closely with HEP ODS for years and to make this journey an even greater success. We are determined to turn our plans into reality – to supply Croatia with our quality smart meters in the upcoming future."

Roman Dolinar
Area Sales Manager at Iskraemeco



Croatia continues its grid renovation and modernization efforts relying on Iskraemeco for smart devices, AM550 meters, AC750 concentrators and the advanced software SEP2W head-end system. The successful distribution managed by HEP ODS (Hrvatska Elektroprivreda - Operator distribucijskog sustava d.o.o.) ensures a successful optimization, delivery, and compliance with market needs.

The modernization of the Croatian electricity distribution system was just the beginning of what is now considered a successful and continuous path. It started by following market and customer requirements, which led to the selection of Iskraemeco's smart devices, AM550 meters and AC750 concentrators. HEP ODS started the smart grid transformation in 2016 by integrating the SEP2W head-end system for meter data collection and processing into the utility's IT infrastructure. With this step, the utility was able to improve its billing services and minimize system costs. Optimized metering processes enable better monitoring of metering data and allow HEP ODS to perform demand response.

Iskraemeco's next-generation smart devices offer distinctive benefits, including an innovative platform that enables seamless integration of next-generation smart metering functions into the smart grid. The platform is optimized for smart residential and mid-size commercial environments and ensures maximum flexibility. It also lowers the utilities' operational costs significantly. HEP ODS chose Iskraemeco's smart meters with G3-PLC and GSM/GPRS/LTE communication since they are the most suitable solution for the existing environment.

After the meters were approved and accepted, we were able to deliver the products to the customer in just two months. Our customer was impressed by our top-notch quality, fast delivery times and high-level security. All these values are deeply rooted in the Croatian market and it is an amazing achievement and an honor to have earned all this respect and trust.

This huge achievement has left us motivated and eager to grow, which means we will keep providing and equipping the Croatian network with our smart meters in the future. The impressive transition to the smart metering infrastructure will continue to have a positive effect on the country electricity supply.



Iskraemeco's next-generation smart devices offer striking benefits, including an innovative platform that enables seamless integration of next-generation smart metering functions into the smart grid.

Iskraemeco's Smart Water solutions for Kranj Water Utility

Iskraemeco is proud to announce that we have signed a 5-year contract with Kranj Water Utility for the supply of smart water meters for remote reading with communication modules wM-Bus, LoRaWAN and NB-IoT.



Kranj Water Utility made a big step further with a new remarkable milestone using a new water metering system – one of the most advanced Smart Water Solution in the region.

The project will contribute to the improvement of existing water infrastructure and supply system, reduce cost & improve metering accuracy.

Iskraemeco Smart Water Solution accelerates the implementation of efficient water management, enhances customer experience and improves operational processes.

To enable remote readings the following water metering and communication technologies will be used:

- Smart water meters types: Volumetric, Woltmann and Ultrasonic
- Fixed communication: NB-IoT and LoRaWAN
- Walk-by/Drive-by communication: wM-BUS 868MHz OMS

Apart from smart water meters with communication, Iskraemeco has offered a modern end-to-end SaaS software solution for Fixed and for Drive-by/Walk-by, with advanced reporting functionalities and user-friendly data displays and analyses.

The project will be a benchmark for Water infrastructure upgrades initiatives in the whole region and be a great example of excellent cooperation between the local business and utilities.

Every drop of water is precious for the planet and for the future life as we know it. Water demand is increasing as the population grows.

Iskraemeco Smart Water Solutions address the most important challenges facing water utilities:

- Digitization and improvement of water supply system management.
- Efficient measurement, precise calculation of water consumption and calculation of water balances.
- Non-Revenue Water (NRW).
- Utilities customers' awareness and service improvement.

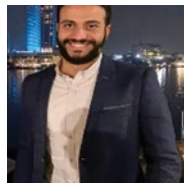
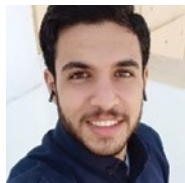
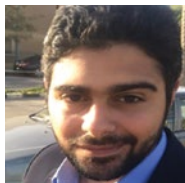
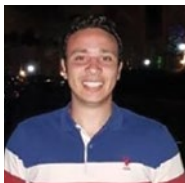
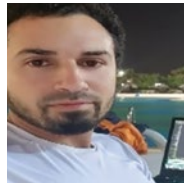
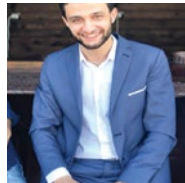
Benefits from the solution implementation:

- Digitization and improvement of water supply system management.
- Accurate metering in all water sources, end consumption points, and district metering areas (DMA).
- Efficient measurement, precise calculation of water consumption, and calculation of water balances.
- Non-Revenue Water (NRW) reduction
 - Detection of leakages from pipelines in metering zones (DMA) – **reducing real losses.**
 - Detection of meter under-registrations, data-handling errors, theft of water – **reducing apparent losses.**

Iskraemeco together with Elsewedy Electric strikes another deal with the SCDC



Our team





Iskraemeco, a subsidiary of Elsewedy Electric, has moved closer to becoming a staple in the Egyptian market by securing another deal with South Cairo Distribution Company (SCDC) in support of the country's ambitions in modernizing their electricity grid. SCDC is one of Egypt's largest utilities and plans to integrate Iskraemeco's smart pre-payment meters into its network in the upcoming decades.

For years, the Egyptian market has been raising the bar and setting standards for the advancement and modernization of its electricity distribution network. Iskraemeco has offered an extraordinary Smart Prepayment solution fully suited to SCDC's requirements. We are honored to earn the GIS certificate for all the security and e-payment certificates in the Egyptian market and being granted an international certificate for our prepayment meters. After the meters were approved and accepted, we managed to deliver the first batch of top-notch smart prepayment meters to the customer in just three months. This quick delivery has created considerable added value for the customer in terms of amazing quality, fast delivery times, massive support from our team, high-level security.

Iskraemeco's smart prepayment solution integrates a vending system with powerful AMI infrastructure. This comprehensive service facilitates a range of functions including remote prepayment, meter reading, and remote control. Using advanced communication and metering technologies, Iskraemeco's smart prepayment solution measures, detects, collects, manages, and analyzes energy data automatically thereby providing valuable insights to SCDC. It serves as a qualified, reliable, and secure electrical service for customers wishing to allocate their resources more reasonably, reduce the loss of energy, and lower costs.

Winning this project regardless of the fierce competition, our outstanding professionals have managed to push towards reaching our goal. We are now moving on to the next step, thinking ahead towards the future of the company. Bettering our customer satisfaction will always be a priority. To that aim, the benefits of our smart meters include modernizing the network in South Cairo and delivering real-time metering data to customers to enhance their engagement in energy consumption and production. Consumer data can be utilized to influence grid conditions, end-user energy consumption, and generation behaviors. All these values are deepened and engraved in the Egyptian market as a result of trust they place in us as a company. It's an amazing achievement and we feel privileged to have earned such respect and trust.



Iskraemeco's smart prepayment solution integrates a vending system with a powerful AMI infrastructure. This comprehensive service facilitates a range of functions including remote prepayment, meter reading, and remote control.

Iskraemeco as part of Elsewedy Electric



Elsewedy Electric, a pioneer of energy management and efficiency, creates sustainable projects in energy and infrastructure that enable businesses, communities, and regions to thrive. The hallmarks of their approach are holistic, start-to-finish solutions with an unwavering commitment to excellence.

ABOUT ELSEWEDY ELECTRIC

Elsewedy Electric is a conglomerate that specializes in infrastructure, products, and solutions. It has five divisions: Wire & Cable, Electrical Products, Engineering & Contracting, Smart Infrastructure, and Infrastructure Investments. Elsewedy Electric started the journey back in 1938 and has been growing ever since to become what it is now, the biggest infrastructure solution provider in the Middle East and Africa. Its growth has been based on sound financials and a commitment to hiring talented individuals. Behind the success is 15,000 professionals located in 45 countries using the latest technologies to design and engineer a vast product portfolio and unmatched services.

Elsewedy Electric strives to deliver top-quality products and services that meet customers' expectations while adding value to the communities they serve. As a part of its commitment to sustainability, it has established green energy and smart metering projects across Africa, the Middle East and Eastern Europe. Its vision is to become a worldwide leader in delivering energy, services, and value. A vital part of Elsewedy Electric's mission is ensuring that the communities where they operate, develop and flourish.

Iskraemeco is part of Elsewedy Electric's Smart Infrastructure – Energy management pillar

Elsewedy Electric's energy management solutions help utilities increase their revenue and streamline their operations, hence improving their technical and financial performance.

Iskraemeco's portfolio makes Elsewedy Electric one of the world's leading manufacturers of smart energy solutions. Our residential, commercial and industrial energy measuring devices provide real-time data that enables utility companies to manage energy use, anticipate demand and optimize costs, while helping consumers to act more sustainably and significantly lower their energy bills.

With smart meters and grids, customers can predict all future needs for efficient energy management, having access to the latest digitalized solutions based on IoT, data lakes, and smart cities. With Iskraemeco solutions, our customers will be able to excel in their business with the ultimate balance between performance, efficiency, and reliability.

Graduate Development Program

Graduate Development Program - GDP! A ground-breaking 12-month program designed for fresh graduates and early talents which will jump-start career at the speed of light.

For decades, Elsewedy Electric has believed that education and development are the cornerstones of a strong and prosperous economy and competitive workforce. The company's success was essentially achieved by the passion and capabilities of our people and will always be built through our internal pool of talents... young talents!

Beam is our Human Development brand! At Elsewedy Electric we don't do normal Human Resources we do Human Development, through which we help our talents learn and fast track their career.

We used to have many great programs for graduates and early talent in each company at Elsewedy Electric. This year our CEO decided that we need to leverage on this practice and start an organization wide program to allow various development opportunities for our talents. So, we launched the GDP.

The Graduate Development Program is designed to get the early talent experienced across various functions in different businesses with different tailored plans considering years of experience. Our selected talent will receive:

- Intensive formal training courses
- Dedicated coaching experience from one of our experienced and talented business leaders
- Cross functional job rotations to get their hands-on practical experience across our businesses.

- Upon final assessment, the GDP employee will join Elsewedy Electric subsidiaries world-wide as a full-time employee.

The GDP runs across the Elsewedy Electric Group and its manufacturing facilities worldwide. We select graduates up to 2 years of experience with unique competencies, behaviors and mental capabilities from all types of majors. Can you imagine that we screened 6,950 applications in less than a month to select just 27 talents, accounting for a conversion rate of less than 0.4%?

On the other hand, our candidates are lucky! Lucky to join a team of well-rounded and highly professional people and lucky because they are not hired to fill a job or a vacancy, but they are selected among thousands of applications to be part of our future growth and expansion plan.

The second cohort is the process of stepping into the light.



Caring for mental health in the workplace is a responsibility

Apart from personality factors and the social environment, work is one of the most important areas where individuals can grow and realize their potentials. Also, we spend a large part of our lives at work. The workplace can be an important

protective factor of a stable mental health, so it is vital that the employer endeavors to promote wellbeing in the workplace. Only satisfied employees will be able to contribute to the company's success.

In order to prevent the negative consequences of stress on mental health and to promote the quality of life and wellbeing at home and work, people should also receive information about how to recognize and mitigate the symptoms of it. At Iskraemeco, we regularly communicate with our employees about the negative impact of stress, organize various stress management workshops and seminars for all employees, we publish articles and news to build personal health awareness. We have even established a Health Promotion Commission, which with its actions spreads the understanding of caring for one's own health and promotes a healthy lifestyle.

STAYING MENTALLY WELL

We are daily faced with different challenges. Life can be exciting and fun, or we can



end up feeling overwhelmed, worried, helpless, de-energized or desperate. Health is not just an absence of illness but rather a state of a perfect physical, mental and social wellbeing. Mental health is an integral part of our health or, better so, there is no health without mental health. Staying mentally well is key to having a long and healthy life.

Mental health is defined as a state of wellbeing in which an individual realizes his or her own abilities and potential. Mental health problems can occur at any stage of life and no individual is immune. Most mental disorders have their onset between the age of 18 and 30. The most common mental health issues of the modern era include stress disorders, anxiety, and depression. We have to remember that most of these issues can be effectively treated.



Yet, in order to proceed it's important that we can express our emotions rather than bottling them up. We should be careful, however, to express our feelings (e.g. anger or sadness) in a way that is not upsetting or hurtful for ourselves and/or others. Another way to improve our wellbeing is to take up activities that make us feel good, develop our abilities, be kinder to ourselves, care for our physical health, socialize with people who fill us with positive energy, and try to resolve rather than avoid conflict.

HOW CAN EMPLOYEES NOURISH AND IMPROVE THEIR MENTAL HEALTH?

- Learn to recognize stress and deal with it on a physical, mental, emotional, and behavioral level. Focus on resolving problems within your sphere of impact and accept the causes of stress that are beyond your control.
- Change the way you look at a stressful situation and withdraw from a situation if you cannot resolve it. Your self-esteem should not be derived from external validation.
- Make the plan of work as you go along and set priorities.
- Have breaks during work and use them to make a few exercises or relaxation techniques (rapid breathing, abdominal breathing, visualization, etc.).
- Be mindful, i.e. fully aware of your sensations, body and breathing, alertly observant.
- Learn to praise and reward yourself for your achievements. Appreciate your work.
- Have regular and healthy meals, drink plenty of water, do stretching exercises for a few minutes every hour, once per day engage in a 30-minute physical exercise that increases your breathing, make sure you get enough sleep and free time.

- If you cannot help yourself, seek assistance from a medical doctor, psychologist, psychotherapist, or another person you trust.

STRESS IS THE RESPONSE OF THE ORGANISM TO A POTENTIALLY THREATENING FACTOR

Stress may occur because of different factors (events, situations, persons, objects, etc.) called stressors. Stressors can be external (e.g. smoking, alcohol, pollution, loss of employment) or internal (e.g. disease, allergies, sadness, anger).

Stressors are different for each of us. They depend on the individual's personality, experience, and circumstances in which they find themselves. A certain level of stress is necessary for us to function. It may develop into a severe health issue when you get exposed to many stressful situations frequently or for too long.

SYMPTOMS OF STRESS

Physical symptoms:

- Increased heart rate, shortness of breath
- Headaches, dizziness
- Nausea, vomiting, digestion issues
- Trouble sleeping
- Tremor and shaking
- Loss of libido, impotence
- Allergies, rash or acne

Emotional symptoms:

- Forgetfulness
- Loss of sense of humor
- Agitation, nervousness
- Depression
- Irritation
- Confusion, absentmindedness
- Overeating
- Over smoking

STRESS PREVENTION AND TREATMENT

The symptoms are often identified during medical examinations or when stress leads to problems that are threatening to human health and life. These six steps will help you easily manage stress that appears in your life:

01

Expect and plan!

Try to predict the stress factors that can affect your life and prepare for them. Every morning or at the start of the new week think about what lays ahead and plan how to deal with stress factors.

02

Limit the impact of stressors!

Minor stress factors such as the morning rush hour, an important meeting at work, or a quarrel with your spouse may affect all spheres of life (for example, when we 'bring' a bad day at the office home with us). Put stressors in their place: do not allow a work problem to destroy your relationships at home, or vice versa. When a strong stressor is profoundly affecting one area of your life, work to preserve and strengthen other areas!



03

React calmly!

By reacting to a stressful situation with an immediate action or emotional response, you will become a victim of stress. A strong stress response will eventually weaken your immune system. If we respond calmly, we can maintain our inner balance and make more time to consciously decide how to deal with the problem.

04

Establish control over your body!

It is crucial that you stop the stress response as soon as possible: calm down your breathing and relax muscle tension.

05

Slow down and grow your inner strength!

Stressful situations force us to act to remove or avoid stress. Instead of that, use relaxation techniques to calm your body and spirit. When you are fully focused on your breathing and relaxation in your muscles, your attention will automatically focus inwards. This is the source of your strength.

06

Think positive!

When under stress, we often lose perspective of what is important and possible. The situation may be negative but look to find something good in it. Never lose sight of your goals.



NEXT GENERATION SOFTWARE PLATFORM.

BY ISKRAEMECO

A powerful and adaptable intelligent software platform designed to manage the utility's system. Iskraemeco's next generation platform will shape future-proof energy environments.

Flexibility, security, and system customization are a few of the features that will enable energy companies to manage their data efficiently.

COMING
SOON

// BRINGING INTELLIGENCE TO ENERGY

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