

GLOBALCIRCUIT

A PUBLICATION OF THE WORLDWIDE IMELCO NETWORK

DEDICATED TO THE MEN AND WOMEN THAT ARE SERVING THE NEEDS OF THE ELECTRICAL CONSTRUCTION PROFESSIONAL ALL OVER THE WORLD

2019 ISSUE 10

MARKETING

DIGILAB 2019
IN AMSTERDAM
(SCHIPHOL)

OPPORTUNITIES

CUSTOMIZED
RECYCLING SOLUTIONS

NETWORKING

RAEC: CREATING
THE FUTURE TODAY

BUSINESS

GETTING PREPARED FOR THE EXPLOSIVE GROWTH OF MEGACITIES

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Global Circuit would love to **picture your organisation in the next issue.**

If you are interested or wish to contribute to the editorial content of the Global Circuit's next issue, please contact us at marketing@imelco-solutions.com

MEGACITIES: CHALLENGE, OPPORTUNITY & RESPONSIBILITY

By 2050, the world's population is expected to reach 9.8 billion. Nearly 70 percent, 6.7 Billion people, are projected to live in urban areas.

These so-called Megacities come with lots of challenges and opportunities. Air pollution, waste disposal, traffic congestion, crime and homelessness are huge issues to overcome.

On the other hand, imagine a city where:

- Solar panels and roof gardens are common atop buildings encouraging sustainability and small-scale farming
- Waste Collection and recycling centers are fully automated for faster and more comprehensive reuse of waste.
- Underground farming featuring soil free hydroponic plants illuminated by high efficiency LED lamps.
- Data collection devices are embedded in all new buildings and

developments to monitor and boost energy efficiency.

- Bioluminescent materials capture sunlight and illuminate infrastructure and buildings.
- Large and powerful drones, remotely programmed, transport people around the city.

While some of these features may seem like science fiction, we recognize that many of the technologies needed to support these and many other innovations already exist today and are being implemented around the world.

Whatever happens, one thing is certain: The electrotechnical industry needs to be involved in the planning and development of solutions. Our partners

already offer a sustainable portfolio for different types of usage as replacement for conventional products. Even more investments in R&D with the focus on the near future requirements are necessary. It will help us in business, but it will have even more effect for the people living in the cities.

In conclusion we will face lots of business opportunities in the coming decade which we gladly take with our respected Partner Suppliers. Together, we should be prepared to play our part in creating the right smart and sustainable offers for continuously changing needs.

Co Braber, President IMELCO



IMELCO WELCOMES ROYAL OOSTERBERG AS ITS 15TH MEMBER!

Royal Oosterberg Electrical wholesaler

Oosterberg started as a piano tuner in the city of Zutphen in the east of the Netherlands in 1893. In the following years, we always have been connected to the future through our willingness to adapt to market demands and circumstances. In the early fifties a concern was felt that the activities around pianos would cease and it was decided to completely focus on electrical devices. This turned out to be a great decision and seven other branches were opened throughout the Netherlands.

In the 1980's more store chains opened. They sold many kinds of electrical devices, a real threat for Oosterberg. This was a cause for concern and Flip Oosterberg,

4th generation Oosterberg, concluded that the best thing to do was to split the company in two; a retail shop for electrical products and one wholesale for installation products. This decision turned out quite well, especially for the installation wholesale part. In 2001 Flip took up the torch from his father and built the company as it is today.

Today

In 2018 we celebrated the company's 125th anniversary together with our employees, our suppliers and of course our customers.

As a cherry on top of this beautiful year Oosterberg received 'Predicaat Koninklijk'. Since 2018 we are Koninklijke Oosterberg, or 'Royal Oosterberg'. To receive this label the applicant organisation has to meet strict requirements.



Key figures

Nowadays, Oosterberg has 20 branches throughout the Netherlands, has one distribution centre of app. 16.000 square metres in Apeldoorn, 300 employees, more than 7000 customers, a revenue of 200 million euro's a year and is the third player in the Dutch market.

Since 2018 we have operated a new automated storage system in our warehouse: the the OSR Shuttle™: an efficient storage with a large proportion of stock in minimal space. This shuttle system has been developed and implemented by KNAPP.





Strategy, mission and vision

We are convinced that the success of Oosterberg is closely linked to the success of our customers. We do not see mutual dependence as a nuisance, but as a strength that we want to embrace and build on.

Furthermore, we want to demonstrate that large scale operation does not necessarily mean losing personal contact and flexibility. Investing in relationships is time-consuming but crucial to identifying needs and aligning our services to the requirements of the market. And this is also essential for our continued existence in the long term.

As a company we have 5 core values. These values help our stakeholders understand the fundamental beliefs of our company.

1. The friendliest in everything: We aim to help everyone in a kind, friendly way.
2. Our solution goes beyond your expectations: For us, it is important that solutions are tailor-made. "Can't" or "won't" does not exist in our vocabulary. We go the extra mile for our customers.
3. We are different than you think: We don't like to get up on a high horse, but we are a bit peculiar. For example: our CEO Flip Oosterberg

is always available to answer questions from our customers.

4. We are always here for you, 24/7: We are 24/7 available for our customers, during closing hours customers can always call us in case of a calamity.
5. We want the best for everyone: As a family company we take care of our stakeholders.

Our customers

We have a solid customer base, consisting of large, national operating installers with more than 100 employees, SME-installers and self-employed installers. Moreover, we also serve industrial end users and machine and panel instructors. We have a special division, consisting of 8 FTE, that completely focuses on industry end users.

Our traditional role as a wholesaler changes. Since 2016 we develop logistic solutions for large Dutch players in which we not only provide them with necessary materials but also coordinate logistic to third parties.

Sustainability

Sustainability is a hot topic nowadays. Oosterberg wants to contribute to a better earth and future, so we participate in several sustainability initiatives. Greenworks for example.

Greenworks is a collective term for sustainable construction and installation materials and concepts. Main goal is to establish co-operation in the construction chain between construction and installation. Training about sustainability for installers, contractors and project manager is an important part of Greenworks.

Why Imelco?

In the current highly competitive environment, it is necessary that family-owned wholesalers react effectively to rapid market changes in order to maintain a healthy position in the market. In Imelco we would find a partnership with wholesalers from all over the world to keep up with the ongoing market developments, while we are still independent.

We think that it is important to exchange information to distinguish ourselves from the global players in this market, because mid-sized family-owned businesses have a crucial role in the electrical wholesale market. With Imelco, family-owned businesses have a stronger position in the current and future market.

We believe that we can actively contribute to Imelco and be a devoted partner.

DIGITAL ACCELERATOR PROGRAM DIGILAB 2019

As a member-owned group of electrical distributors from across Europe, Australia, Russia and North America, IMELCO is a cooperative consisting of 14 regional organizations (as of today, 12 marketing groups and 2 wholesale companies) that collectively have more than 5,500 branch locations conducting €24bn in electrical sales.

IMELCO's administrative team, or "HQ," is tasked with coordinating and facilitating large projects on behalf of its members, from supporting their day-to-day business operations and negotiating group benefits to enhancing supplier relations.

In May 2019, IMELCO presented its Digital Accelerator Program consisting of two key elements:

- **Global:** we are the additional driver to accelerate the speed of the digital transformation with IMELCO Members and serve as a communication gateway for strategies of our suppliers to provide a global platform for a dialogue with the digital / e-commerce experts of the IMELCO community.
- **Local:** we are a global negotiator and facilitator to obtain solid solutions from highly-experienced service providers for the associated members and distributors.

With its lean organizational structure and commitment to efficient oversight, IMELCO made the decision to look for the best solutions to serve its varied member companies. "With the added challenge of each IMELCO group, region and especially individual wholesaler - each a private company - varying widely in terms

of their e-commerce strategies and needs," says Elena Reignier, "we realized that there is simply no one-size-fits-all solution that is a perfect fit for all our members."

In May 2019, as a part of the Digital Accelerator Program and as inaugural member service provider, DDS was introduced to the IMELCO membership as a strategic technology partner and third-party expert to help manage the exchange of critical e-commerce product content between manufacturers and wholesalers while easing and expediting the delivery of that content so those companies can remain focused on their core competencies.

"It is obvious to DDS that IMELCO is a group of independent entities and we, as HQ, cannot mandate overall changes," says Reignier, "therefore, in the first instance, it will be the task of DDS to figure out together with individual members which kind of service they may require. This process is currently in place, and by the end of the year, we will be able to give an update about the outcome.

Nonetheless, the exchange started within the IMELCO group shall be continued, and in this context, we will



Elena Reignier,
Managing Director, IMELCO

hold the first annual meeting between supplier representatives and the digital experts from the IMELCO community. Only talking to each other we will be able to find out how we can help speed up certain processes in the countries."

Monday, the 25th of November

In the morning:

Arrival of attendees + lunch, (Hotel A4 Van der Valk Schiphol, Rijksweg A4 nr. 3, NL - 2132 MA Hoofddorp - 20 min. from the airport)

In the afternoon: brainstorming / roundtable discussion "Pain points in the digital sales journey",

In the evening: joint dinner (upon invitation only).

Tuesday, the 26th of November

Digital Experts meetings,

Seven individual workshops with partner suppliers.

Approximate number of attendees expected over the two days: 40.

Wrap-up and departure

MEGACITIES ARE ON THE RISE

A century ago there were no cities in the world with more than 10 million inhabitants, now there are 33.

Cities across the globe currently occupy less than 2 percent of the Earth's land surface and house more than half of humanity yet they consume 75 percent of the planet's resources and, according to the UN, they emit almost 80 percent of global CO₂.

Megacities across the globe have differing abilities to cope with the many challenges high density populations bring, such as traffic congestion, air pollution, the provision of schools, hospitals and all the other infrastructure required, together with the reliable power needed to energize those resources. So, any focus on doing more with less needs to center on tackling the challenges of our cities to make them more energy efficient and more sustainable. Technology can help. While many are discussing ways to combat climate change and

mitigate the impact of civilization on the planet, ABB is innovating to help create a more sustainable future for our cities and industries, today.

In the EU, buildings are responsible for approximately 40 percent of energy consumption and 36 percent of CO₂ emissions. At present, almost 75 percent are energy inefficient. A combination of solutions can be applied in buildings, new and old, from thermal insulation through to sophisticated building automation and energy management systems.





Here are some examples where ABB technology has been fitted or retrofitted to buildings to improve efficiency, reduce emissions and improve quality of life.

ABB's 'Mission to Zero' ambitions are to create a carbon neutral ecosystem for industry, homes and cities. As an example of what can be achieved, ABB has created a real-life, zero emission case study, which can be used to inspire change across multiple applications around the world.

At our flagship Busch-Jaeger subsidiary in Luedenscheid, Germany, we have proven how the energy transition can sustainably succeed with digital energy management. After a two-year design and construction phase, we have launched our first carbon neutral and energy self-sufficient production site in the world, featuring a solar power plant which will deliver around 1100 MWh of climate-neutral solar power a year.

The installed technology will generate enough power to cover on sunny days 100 percent of the factory's electricity demand, which will be controlled by ABB's scalable energy management system OPTIMAX®. It will also reduce CO₂ emissions by 630 tons per year. Such power generation and energy

management systems are key to solving challenges presented by the megacities of the future, not only to ensure our offices, shopping malls, hotels, schools and industries are running optimally, but also to help ensure the reliability of power is maintained in critical infrastructure such as hospitals, sewerage plants and other utilities. The ABB Ability™ EDCS, a cloud computing-based energy management system, offers customers a very cost-effective solution to energy monitoring, analysis and asset management that contribute to cost savings and emissions reductions.

The use of Emax 2 circuit breakers, which can communicate directly with ABB Ability™ EDCS, enables the building manager to monitor, optimize, predict and control a building's electrical system. Such installations provide clear information about consumption and improvement opportunities, making cutting waste and improving energy efficiency simple. Customers usually save 30 percent in electricity costs and 40 percent operation and maintenance costs using the system and because of the "plug and play" design, installation is quick and easy and can make existing installations smart with no need to replace components, which means new and retrofitted solutions are up and running in no time.

The most successful cities of the future, mega or otherwise, will be 'smart cities' combining the best aspects of technology. In Mannheim, Germany, for example, ABB has been integral in shaping innovative projects, including development of a new energy management system focused on maintaining grid reliability, coping with load demand and ensuring maximum usage in a volatile and decentralized market.

The solution allows for integration and digitalization of multiple municipal assets, including wind power, solar photovoltaic, biomass, combined heat and power (both large-scale conventional and micro CHP), water turbines, waste water turbines, sewer-gas plants, battery storage and EV-charging infrastructure. Such technology enables lower greenhouse gas emissions through the greater use of renewables, but also maintains stability through energy storage and power management.

These are just a few examples of the pioneering technology ABB has to offer to help the megacities of the future become more sustainable.

**For more info visit
abb.com**

5G: THE 4TH INDUSTRIAL REVOLUTION

There have been 3 revolutions associated with industry: steam, electricity, and computers. Now, several of the world's leading players profess that a fourth is underway: 5G. It will impact not only upload and download speeds, but also the logistics surrounding all the associated installation projects.

“When 4G arrived, there was a noticeable speed difference when surfing on your smartphone. But 5G will be entirely different: it will change the world and will result in a lot of industrial work. Things like autonomous vehicles, smart cities, and a whole lot more will require 5G,” says Peter Schulte, Infrastructure Segment Manager at Ahlsell.

Big difference compared to 4G

5G is not just about speed (although it will mean that lag and buffering when, for example, watching a movie on Netflix will be non-existent), but also has to do with minimising delays in the signals transmitted from antennas to receivers. If the receiver is an autonomous vehicle and it receives a signal commanding it to turn, it is imperative that this happens without delay.

“If a car receives a signal to brake or turn, but there is a delay of a few hundredths of a second, the consequences

can be disastrous. This is why 5G is ideal: it is lightning fast and can handle a multitude of users in the same area without loss of quality,” explains Schulte.

A lot of work required

The 5G network will not have as long a range as 4G. It will therefore require a great many antennas, plenty of material, and, consequently, a lot of work in order to set everything up. When the time comes to start building, Ahlsell will be there to help out by providing knowledge, materials, and supplies – everything from fibre material to power supply.

The list of things Ahlsell can offer when the market opens in 2020 is extensive. The company is well-prepared owing to its experience and broad offering.

“No one else has as broad an offering as Ahlsell. We can offer passive materials in the form of fibre, ducting, and installation materials, as well as personal protective equipment and the like for those who'll be working on the installations. Plus, we have world-class logistics. You can order everything you need and have it delivered the next morning. We are also highly skilled at working with project deliveries and can offer materials from numerous players. And we can make sure it is all packaged together and delivered to you. We have more than a hundred stores across Sweden, so we're essentially everywhere,” says Schulte.

Extensive expertise

With a history spanning 140 years, Ahlsell has extensive expertise. When 5G arrives, Ahlsell is confident that its experience and expertise will make the company one of the best suppliers.

“We can supply all segments of the industry and we simplify things for our customers. And we have the breadth and expertise to make being a professional easy!” says Schulte in closing.



DIGITALIZATION BRINGS ENERGY DATA INTO THE CLOUD

With an integrated portfolio of systems, components, and digital services, Siemens supports companies from industry and infrastructure on the path towards digitalization. Electrical wholesalers also benefit from the digital transformation - thanks to an expanded range, as well as new, cloud-based business models. To connect electrical power distribution to the Internet of Things (IoT), Siemens offers new solutions designed to make the entry into digitalization especially easy for small to medium-sized companies.

Today, energy efficiency is one of the key factors in building and industrial operations – on the one hand for economic and ecological reasons, on the other hand statutory requirements call for sustainable energy management in order to reduce energy consumption. The basic prerequisite for the optimization of energy efficiency is precise knowledge of energy flows and energy consumption, which means: ongoing collection and analysis of energy-relevant data.

If we are capable of making energy flows transparent, it is also possible to lower costs and CO2 emissions and improve overall operations.

If energy data is additionally integrated into open, cloud-based IoT systems such as MindSphere and analyzed via intelligent applications, the potential for optimization can be enhanced even further.



Simple entry point into digitalization

For data acquisition, it is necessary to have communication-capable systems and devices that are able to collect data and transfer it to automation, energy management and IoT systems. If energy flows can be systematically analyzed, energy hogs can be identified, faults in the system can be detected early and downtimes can be prevented. The protection, switching and measuring devices out of the Sentron portfolio from Siemens capture electrical parameters such as power, current and voltage. This data can be directly visualized on the system, in addition to being forwarded to higher-level systems via standard protocols. The connection to the IoT can be especially easy with the new 7KN Powercenter 3000 IoT data platform.

Thanks to the intelligent data collector, power and system data on connected measuring and protection devices can be collected and transmitted, among other destinations, to the local energy management systems or directly into open, cloud-based IoT operating systems such as MindSphere. The 7KN Powercenter 3000 prepares the data and bundles it into packets, thus reducing the transfer volume.

The processing, visualization and evaluation occur using an integrated Web interface, the powermanager power monitoring software or special cloud applications. The expansion of existing power monitoring systems with a cloud connection is also easily possible at any time using the IoT data platform. In addition, powermanager power monitoring software can also be directly connected to the cloud. The software displays electrical characteristics for individual loads or complete systems in a clearly-arranged dashboard and analyzes energy consumption. Savings measures can be directly derived, and faults quickly pinpointed.

Extended services

In addition to expanding their own range of IoT-capable systems and components, switchgear manufacturers, electrical installers and electrical wholesalers can utilize cloud technologies to develop new business models.

"Digitalization will also positively change business activities and workflows among electrical wholesalers. This ranges from new communication-capable products and digital services for power distribution and energy management, through the expansion of online sales, right down to the harnessing of new business models – in sum: moving away from traditional sales and towards comprehensive and value-added services. Along this digital transformation process, we support our distribution partners with innovative, scalable solutions and comprehensive expertise."

Alexander Frisch, Siemens AG



As Head of Siemens Partner / Distributor Management, Alexander Frisch is responsible for the management of Siemens wholesale partners as of October 1, 2019. He will thus follow Joern F. Sens, who is entering retirement. In addition, the 56-year-old, holding a degree in computer science, also heads up the Executive Office of Klaus Helmrich, Member of the Managing Board of Siemens AG.

In handling his responsibilities, Alexander Frisch is able to rely on many years of sales, service and management experience, along with in-depth knowledge of Automation technologies, Information Technology and Digitalization.

Concrete practical applications, also for distributors, show the potential of cloud-based power monitoring solutions – for process and energy optimization at own locations, along with extended service options. Typical applications include advising customer in IoT-based energy management, services for predictive maintenance or optimizing energy consumption.

In MindSphere Application Centers, Siemens works together with numerous companies from different sectors of industry on new business models, digital solutions and services, as well as MindSphere applications for different industries.

For more info visit
[siemens.com/lowvoltage/digitalization](https://www.siemens.com/lowvoltage/digitalization)

HOW SMART LIGHTING IS LEADING THE WAY IN IOT ADOPTION

It's electrified, it's connected, and it's already there!

Ask anyone who works in the field of autonomous driving: certain IoT-driven projects can take longer to bring to fruition than the optimists expected.

Smart lighting, by contrast, is an IoT-driven technology that offers rapid payback and immediate results.

According to a 2018 Gartner report, smart lighting is the fourth-most mature IoT tech specialty, and one of the closest to general adoption. Navigant, too, lauds smart lighting's quick payback period and massive potential, noting in a recent report that a fully deployed smart street-lighting project can save up to 80 percent of the energy a conventional street-lighting system would use.

As the Navigant report suggests, the entry-level case for smart street lighting is usually energy efficiency. Such lighting uses high-efficacy LEDs equipped with sensors that provide optimum lighting based on pedestrian

and vehicle traffic needs. When a street is empty, lights dim—and money and resources get saved.

But while energy efficiency is a tremendous benefit of smart lighting, it's merely the tip of the spear. Just as important is smart lighting's capacity to function as what Navigant calls a "backbone network," on the basis of which a range of both outdoor and indoor IoT solutions can take shape.

Beyond illumination in the smart city

Let's start outdoors, in the smart city that the IoT is doing so much to define.

The possibilities here are startling. IoT capabilities embedded in connected light poles can help first responders by reporting gunshots that ring out on a dark street, or by sounding the alarm about a nearby building fire before a human witness has the chance to do so.

Less dramatically, sensors and other IoT devices integrated into a connected street lighting infrastructure can provide motorists with automated updates on parking space availability, potentially transforming the experience of urban driving. Sensors may also be able to detect which streets need sweeping, so that

sanitation workers can go straight to the right place—instead of making their usual gasoline-intensive rounds in heavy vehicles.



The value of smart sensor networks in gathering actionable data from the urban environment is well established. However, questions remain around which sensor types lend themselves to physical integration into connected street lighting systems and which would be more advantageously deployed as separate systems. The answer, in some cases, has to do with optimum sensing height above street level. Wind and rain sensors, for example, are best sited at 30 ft (9 m) above grade—higher than the height of standard light poles. Temperature and humidity sensors, on the other hand, perform best at a height of 4 ft to 6 ft (1 to 2 m) above grade, and may therefore lend themselves to light pole integration. The ideal sensor/street lighting combinations will become more clear as cities gain more experience with



these kinds of applications.

The question of wellness

Moving indoors, there's a strong "wellness case" for smart lighting, which can be tuned to promote alertness and comfort in different ways throughout the course of a day.

In the bedroom, smart lighting can stimulate the body's natural wake-up mechanism with tones that simulate a sunrise, and, 14 hours later, help you get ready for bed by delivering light experiences—with low light levels and suppressed blue wavelengths—that evidence shows help promote sleep. Throughout the day, IoT sensors embedded in luminaires can communicate with personal fitness devices to enhance circadian entrainment, providing a more consistent and natural lighting stimulus curve.

In the workplace, building managers can tune and angle lights to reduce glare, improve mood, and boost concentration and alertness. With anonymous occupancy and people-counting sensors, smart systems can direct higher-quality light to those areas where employees prefer to work and congregate.

Indoor positioning approaches full potential

Indoor positioning, meanwhile, is one of the most compelling projects to which lighting-enabled IoT lends itself—Gartner, in fact, considers indoor positioning the second most mature IoT technology, and capable of reaching full potential in less than two years.

Recent years have seen large-scale indoor positioning solutions focus



on warehouse locators, intra-office employee guidance, and other employee-facing applications. But as the technology achieves maturity, public-facing venues from supermarkets to hospitals to hotels to museums are seeing potential not only in the convenience and precision an indoor positioning system can provide customers and visitors, but also in the rich mine of data it collects.

What, for example, is the best way to arrange a store plan so as to funnel shoppers towards the merchandise that most needs to move? Connected sensors and cameras can tell retailers exactly that. Where does wheeled hospital equipment tend to cluster throughout a day, and what can we infer from that about patient needs? The data offer clues.

Civic leaders will also benefit from deploying standardized indoor positioning solutions in public buildings, to make navigating them and accessing services easier. Lighting-based IoT solutions, in other words, offer an effective method of (at least partially) easing perennial citizen complaints about bureaucratic services.



Electrified & already there

Lighting is a compelling platform on which to build the next generation of human-oriented services for a simple reason. Lighting is already there, everywhere where people go, and it's by definition electrified, an obvious advantage when what's at issue is the ability to power a tremendous number of connected devices. It's also generally located overhead—a convenient position from which to provide comprehensive coverage.

And enhancing the lighting infrastructure of a city, industrial complex, or store with smart lighting doesn't damage the aesthetics or functionality of the space or require a new architectural design.

The smart lighting industry is paving the way with new delivery models, including lighting-as-a-service. This approach can all but eliminate capex on smart lighting projects in favor of a subscription model that puts a trusted provider at the center of connected lighting maintenance and improvements. That should prove an attractive deal for the public sector and the private sector alike.

Some of the more dramatic IoT-driven innovations that we've been promised may be taking their time in getting here. But especially on our streets and in our workplaces, the IoT is making rapid, steady progress in improving our lives. And it's doing so in partnership with a reliable technology to which we're so accustomed that we don't even know it's there: lighting.

Jonathan Weinert, connected lighting and the IoT, Signify

First published on Signify's Interact IoT site, www.interact-lighting.com.

ACQUIRE, UNDERSTAND AND UTILIZE DATA WITH WEIDMÜLLER IIOT SOLUTIONS

Many companies already have a basic knowledge of Industrial Internet of Things applications, however they often lack the know-how to implement them independently. Data is acquired and stored, but not used further for a specific purpose. Weidmüller helps companies discover the individual potential of IIoT applications, develop needs-based solutions and successfully integrate them into existing structures, for example, to improve overall equipment effectiveness or to generate automated reports on energy consumption.

How do you want to benefit from IIoT?

The first step on the path to IIoT is to acquire data reliably. Digital data acquisition can take on various forms: sensor data via the I/O system u-remote, provision of energy data and process information via Energy Meter or PROtop power supplies or acquisition and replication of analogue signals using analogue signal converters like ACT 20C. The Weidmüller portfolio is suited for both

greenfield (constructing a completely new system) or brownfield approaches (existing systems are not IIoT ready).

The second step is to transport data reliably via the network infrastructure. For this Weidmüller offers cross-network communication at the highest security level with security routers, efficient networking of a wide range of network participants with managed and unmanaged switches and the establishment of wireless network connections for mobile end devices via Industrial WLAN.

Lastly, but most importantly, Weidmüller helps companies achieve concrete added value with data-driven, digital services. This can be in the form of individual, platform-independent services for specific applications with cloud platforms, consolidation and analysis of resource and energy usage through optimal resource management or even to generate maximum added value from data with artificial intelligence using Industrial Analytics.

No matter what your starting point is or how far you want to take IIoT, the Weidmüller solutions provide answers:

www.weidmueller.com/iiot



Weidmüller's data-driven IIoT services help you use your data to create added value.

Take the first steps towards IIoT with PROtop

Communication-capable components can record product and status-oriented data and store them in a cloud. Based on the evaluated data, new services can be established. High-performance power supply PROtop can be simply retrofitted with a communication module, making it highly future-proof and allowing for the transmission of process data to the higher-level control system. This networks the power supply to other components within the system. PROtop can be controlled remotely and is integrated into a system's condition monitoring system.

Condition monitoring allows for comprehensive process optimisation, such as reduced power consumption or the systematic planning of maintenance work. This considerably increases the functional reliability and efficiency of an extremely wide range of systems.

The benefits:

- Innovative device concept with optimum efficiency levels (up to 95.3%) for sustainable energy savings
- Outstanding peak load reserves from millisecond to second range
- High dynamic range thanks to unique DCL (dynamic current limiting) technology
- Complete data transparency through to the cloud
- Remote controllability for integration into control systems

- Compact dimensions with up to 40% space savings in the cabinet
- Variable connection options thanks to plug-in terminals, with time-saving PUSH IN connection system or traditional screw system

Compact, efficient and reliable everlasting power supply for buildings: INSTAPOWER

In building automation a lot of small distribution boards, meter cabinets and electrical distributions are used. Efficient power supply solutions like INSTAPOWER with high power density and high efficiency are in demand here.

The benefits

- Extremely compact and particularly energy-efficient
- Available in nine variants with 5 V, 12 V, 24 V and 48 V DC output voltage
- Universally applicable due to international approvals (e.g. cCSAus, Cl.1, Div. 2 and NEC Class 2)
- Flexible mounting on mounting rails or the control cabinet wall
- Fast installation with PUSH IN connection technology
- High efficiency of up to 91% and extremely low, no-load power loss of max. 0.5 W

www.weidmueller.com/power-supplies



Communication-capable PROtop (top) enables the quick provision of process data. Its retrofit possibilities make it an ideal solution for brownfield projects. With a basic depth of only 60 mm, INSTAPOWER (bottom) fits into the smallest control cabinets, while ensuring minimum energy costs. The high efficiency of up to 91% and the extremely low, no-load power loss of max. 0.5 W help keep energy costs to a minimum.

PRYSMIAN GROUP

STRENGTHENS POSITION AS GLOBAL LEADER

WITH ACQUISITION OF GENERAL CABLE

One year after integration, Prysmian Group adding value through enhanced portfolio and capabilities.

Prysmian Group's acquisition of General Cable last year led to the creation of a new, fully-integrated organization that provides the structure needed to solidify Prysmian Group's position as the global leader of the wire and cable industry. With over \$12 billion in sales, Prysmian Group has an increased global presence in over 50 countries, a broad manufacturing footprint with over 112 plants, the world's widest product and brand portfolio and the most innovative technologies developed in 25 R&D centers.

"This is an exciting time for Prysmian Group as we continue our focus on service while leveraging our expanded footprint to provide best-in-class energy and telecom solutions to our customers across the globe," said Brian Moriarty, Senior Vice President Sales and General Manager T&I at Prysmian Group.

The integration is still a work in progress, but significant strides forward have been made, especially in its distribution network in the North American market where General Cable maintained a significant presence. "Since the acquisition of General Cable last year, we have renewed our focus on improving the customer experience with clients

and strengthening relationships with our partners," continued Moriarty.

Providing the infrastructure for the shift to a smart, connected world, Prysmian Group's new position of strength reinforces its commitment to innovation, excellence and supporting its partners in new and exciting ways.

Even with the increased competition in the cable and systems industry, Prysmian Group's enlarged product portfolio, comprehensive institutional knowledge and far-reaching distribution network make it well-prepared to help its customers and partners overcome the electrical construction challenges of tomorrow.



ON THE WAY TO THE SMART CITY

Open automation platform provides the necessary flexibility



At the moment there is a lot of talk about the city of the future. The basic idea of such a Smart City is to create added value for citizens, the environment and service providers through the interaction of technology, systems and processes. With the flexible ecosystem PLCnext Technology as a platform for limitless automation, this claim can be realized.

In order to develop new business models within the city especially for the citizens, more knowledge must be collected and it must be possible to intervene more deeply in the systems. The basis for this is, for example, the networking of the sensor/actuator of a street light into the control system or a data management system such as the cloud.

This information is supplemented by data from existing control systems, apps and websites that generate large amounts of data. By including big data analyses, new insights can be gained from this data jungle, which

in turn open up still unknown technological, systemic and process-related possibilities.

The measurement of air quality in real time is an example of the possibilities of such digitalization. In interaction with the commercial enterprises, the needs of all parties involved - residents, businesses, craftsmen, customers, etc. - can then be adjusted and the traffic can be influenced accordingly.

In addition, digital monitoring of the water level in rivers is an option, so that in the event of a low water level, shipping traffic can be directed, reservoirs opened or early measures initiated



Fig. 1

before a possible flooding. Information for citizens can also be derived from this data (Fig. 1).

Developing individual approaches together

Depending on the size of the city's population, many factors that affect city life vary, so different requirements have to be implemented in each municipality. Traffic density and routing differ, as do housing and connections to shopping centres. However, there are concepts that can be considered regardless of population size. One example is the handling of street lighting.

A general distinction is made today between day, night and twilight. In addition, street lighting, traffic management systems and tunnel lighting are currently mostly managed in separate systems. With an intelligent solution, road and tunnel lighting in the traffic network environment can in future be controlled according to brightness and traffic volume. In pedestrian zones, lighting can be adapted to daylight and shop opening hours. If an event now takes place like a Sunday open for business, the lighting reacts accordingly. It is also conceivable that the lighting control is triggered by the tradespeople. However, many cities and municipalities are not in a position to make precise statements as to when this will benefit the city, trade or citizens (Fig. 2).



Fig. 3

Against this background, Phoenix Contact offers the possibility of setting up monitoring systems in addition to consulting local authorities. The relevant data can thus be made transparent cost-effectively from the sensor to the company's own Proficloud, so that the cities can better assess the advantages for those involved.

To this end, the experts check which data from the existing systems can be used. If necessary, additional sensors will be installed and their data collected via communication standards that are easy to implement, such as the LoRaWan low-power wireless network protocol. The information can then be merged and analyzed in the Proficloud. The city or municipality can then decide at which point a benefit is actually generated and which investments therefore make sense (Fig. 3).

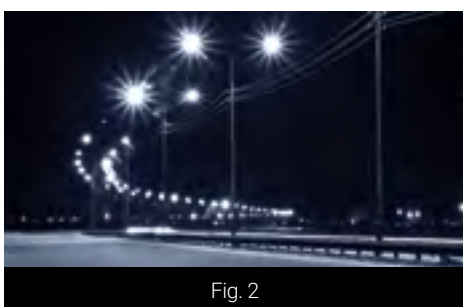


Fig. 2

Integrate existing data into the automation concept

As already mentioned, many municipalities are already using communication and telecontrol solutions connected to a control system, for example to control street lighting or traffic.

To ensure that the transition to the city of the future is as optimal as possible, this data should also be integrated into the new automation concept.

For this purpose, the open PLCnext Technology control platform from Phoenix Contact can be used, for example, to set up gateways that connect the existing infrastructure with its transmission standards - such as the IEC 60870-5-104 protocol - to the Proficloud. In addition, the current control systems can also be connected to the Proficloud, simplifying the transfer of the current automation concept into a future-oriented system. Numerous advantages - such as device management - are already available during the transition phase (Fig. 4).

A future-oriented system can also be continuously expanded. One example is street lighting. In addition to their primary function, the many installed lighting poles provide a good infrastructure to which additional sensors and actuators can be attached, which then communicate with the control system. In this way, other relevant data can be collected and additional services offered to citizens. These include, for example, an emergency sensor that is mounted on all ambulances and fire trucks or can be carried along. If, for example, a car accident occurs, the sensor ensures that the lighting at the scene of the accident is raised to maximum brightness. Alternatively, the accident report triggers appropriate actions, such as blocking the road or indicating an alternative route.



Fig. 4

Enlarged product portfolio, comprehensive institutional knowledge and far-reaching distribution network make it well-prepared to help its customers and partners overcome the electrical construction challenges of tomorrow.

Werner Pollmann, System Manager Infrastructure, Phoenix Contact Electronics GmbH, Bad Pyrmont, Germany

NEXANS CUSTOMIZED RECYCLING SOLUTIONS: YOUR CABLE WASTE HAS NEVER BEEN MORE VALUABLE!

Nexans Recycling Solutions is a service that will allow customers and partners to monetize and dispose of leftover copper and aluminum cables while contributing to the circular economy.

As the strain on resources and global waste generation continue to increase, efficient use of raw materials and state-of-the-art waste management is crucial for global sustainable development. In a few decades, metal will become increasingly scarce and recycling will become an ever more important source of metal.

In fact, even today, more than 33% of the world's aluminum and 40% of total copper production come from recycling, e.g. "urban mines". To further promote and encourage circular economy, Nexans Recycling Services is aimed at helping customers and partners manage their cable waste.

With this solution, Nexans intends to simplify disposal of any copper

or aluminum cable regardless of its origins. The new service allows installers, distributors, utilities as well as OEMs, resource companies and contractors to benefit from monetary compensation for their cable waste based on a transparent valorization process.

Nexans Recycling Services include turnkey logistics solutions: from collection of leftover and end-of-life cables from construction sites, renovation sites or dismantled installations to their transfer to Nexans' recycling facilities. In addition, Nexans Recycling Services team also provides empty containers for bulk cable waste as well as trucks for cable drums.

According to a EU directive on waste (DIRECTIVE 2008/98/EC),

since 2008, companies in Europe are legally responsible for their cable waste until they can prove it has been disposed or recycled. To address such liabilities, Nexans is committed to ensuring full traceability of the operations along the recycling process.

Also, as copper and aluminum, two core components of electrical cables, are 100% reusable, Nexans seeks to improve resource efficiency and reduce potential emissions from mining and refining processes by separating and recovering the non-ferrous metals from cable waste.

"We are happy to bring over 30 years of experience in recycling cable waste to the service of our customers," said Guy Bulet, Director of Nexans Recycling Services.

"Yet what is even more exciting is that this added-value service allows us and our customers to contribute to building a more sustainable world of tomorrow."

Nexans brings energy to life through an extensive range of advanced cabling systems, solutions and innovative services.

For over 120 years, Nexans has been providing customers with cutting-edge cabling infrastructure for power and data transmission. Today, beyond cables, the Group advises customers and designs solutions and services that maximize performance and efficiency of their projects in four main business areas: Building & Territories (including utilities, e-mobility), High

Voltage & Projects (covering offshore wind farms, submarine interconnections, land high voltage), Telecom & Data (covering data transmission, telecom networks, hyperscale data centers, LAN), and Industry & Solutions (including renewables, transportation, Oil & Gas, automation, and others).

Corporate Social Responsibility is a guiding principle of Nexans' business activities and internal practices. In 2013 Nexans became the first cable provider to create a Foundation

supporting sustainable initiatives bringing access to energy to disadvantaged communities worldwide. The Group's commitment to developing ethical, sustainable and high-quality cables also drives its active involvement within leading industry associations, including Europacable, the NEMA, ICF or CIGRE to mention a few.

Nexans employs nearly 27,000 people with industrial footprint in 34 countries and commercial activities worldwide. In 2018, the Group generated 6.5 billion euros in sales.

MERSEN SOLUTIONS FOR E-MOBILITY

Mersen offers cooling and bus bar solutions, capacitors as well as regular and hybrid fuses - a perfect combination to integrate all products in perfect harmony in order to offer to the customer a full package, pre-assembled, specifically designed, and perfectly optimized together.

The Mersen offer comprises five dedicated lines of products that serve the EV market: DC-rated fuses for battery and auxiliary circuit protection; DC pyro-based hybrid fuses for advanced battery overcurrent protection; laminated bus bar with monitoring features for battery and inverter connection; battery water cooling solutions; and capacitors (film and electrolytic).

MERSEN BATTERY PACK & ULTRA-FAST-ACTING DC FUSES

Mersen e-mobility fuse product program covers DC fuses, up to 1000VDC, the EVpack-fuse (battery pack fuse) and M-fuse (battery module fuse) that are ultra-fast-acting DC fuses designed to address specific

needs in EV/HEV and battery storage systems. With complete protection from 100VDC to 1000VDC, and up to 600A with minimum breaking capacity (MBC) of less than 3kA for perfect matching with DC contactors, these fuse families have been fully tested in DC conditions to guarantee fast and reliable protection under large fault currents.

MERSEN HYBRID PYRO FUSE

Mersen's Xp Hybrid pyro-fuse is part of the Xp series, which is based on a pyrotechnic heart associated with a fuse. It offers very fast operating times, extremely low watt losses, and high cycling performances, up to 1000VDC. Additionally it has the capability of being self-triggered through its

patented technology, which means it does not need any external power in order to operate.

SMART MONITORING BUS BAR CONNECTION FOR BATTERY PACK

The Mersen offer also includes monitoring bus bars for battery cell connection and sensing. Mersen MABB Smart Bus Bar technology offers high power connection and small signal sensing (individual cell voltage and local temperature), both embedded in a single bus bar. This results in an easy assembly process, no wiring errors, and a high resistance to both shocks and vibrations. Mersen has also released the MHi-T105 and MHi-T130 series, a new bus bar family offering a fully qualified interconnection solution up to 105°C and 130°C respectively.

Furthermore, MHi-T180 is available for testing purposes for any SiC-based EV electronics now reaching 180°C junction temperature (Tj).

ELECTROLYTIC AND FILM CAPACITORS

Thanks to its recent acquisition of FTCAP (Germany), Mersen is now able to offer EV-compliant electrolytic or film capacitors, mounted on a specific bus bar, ensuring very low inductance value and high temperature capability. This sub-assembly is "particularly suited to DC-link design in 48VDC, 400VDC, or 800VDC platform inverters and DC-DC converters.



MERSEN SOLUTIONS FOR SURGE PROTECTION

Mersen is a leading market player with innovative solutions in the field of lightning and surge protection. We design, manufacture, test and certify our products and your systems. Mersen offers a wide range of solutions along with advice and consulting services as well as after sale service.

SURGE PROTECTION FOR EV CHARGING STATIONS

Continuity of service (COS) of EV supply equipment is a key aspect for successful deployment of EVs.

By their very nature, EV installations are both sensitive (limited impulse withstand capacity) and exposed to overvoltages. Mersen's specific EVSE protection concept mitigates the risk of property damage and provides COS. Peace of mind. According to IEC 60364-7-722 any connecting point accessible to the public is considered as part of a public service and therefore shall be protected against transient overvoltages.



Surge protection for ev charging stations

EV SUPPLY EQUIPMENT

Grid. Main evse supply panel

Several EV-chargers are supplied with power from a dedicated LV main panel.

Two coordinated steps of surge protection ensure the best performance of the lightning protection system. Therefore, a SurgeTrap® T1+2 lightning current arrester is used in the panel as the first step. Mersen's POP device protects all downstream EV-chargers from temporary overvoltages.

Ev charger. Ac side of the converter

EV-chargers contain expensive and sensitive electronics. They are installed outdoors, exposed to lightning induced overvoltages ("C-High locations").

SurgeTrap® T2+3 EV is a specific EV SPD to increase the impulse withstand capacity of EVSE electronics from typical 4-6kV values up to 20kV. This ensures extreme durability.

Tested > 200x10kA. The ground connection of the EV-charger is monitored by Mersen's GMD to ensure effective operation of SPDs and other (protection) devices.

Ev charger. Network communications

Networked communications in the EV-chargers allow for data communication, especially between the EVSE and the operator/utility (billing, AMI, smart charging). Signal line surge protectors are typically required for RS485 and Ethernet communications.

SURGE PROTECTION FOR LED OUTDOOR LIGHTING

A wide range of lighting applications, by their nature and usage, make over-voltage protection particularly necessary. Good protection guarantees system operation (continuity of service), provides safety and helps protect the investment (ROI) in LED lighting equipment.



Surge protection for led outdoor lighting

COMPREHENSIVE PROTECTION

Surge protection devices (SPD) protect equipment by discharging the over-voltage to earth, thus limiting the voltage reaching the equipment (residual voltage). An effective over-voltage protection design comprises staggered protection, with stages for each of the sensitive components in the system. In this way part of the over-voltage is discharged in each protection stage until only a small residual voltage is left close to the luminaire.

Luminaire

STL is the range of compact SPDs for LED luminaires. This versatile solution supports all network configurations (TN & TT) and luminaire insulation classes (I & II). IEC 61643-11 certified. Millions

OPPORTUNITIES

of luminaires throughout Europe are protected by STL Mersen SPDs.

Pole

For DIN-rail fuseboxes (in the pole of the luminaire), the SLIM series of Surge-Trap® does also provide a special compact “fusebox” solution.

Lighting street panel

SURGE-TRAP® POP+SPD, 2 in 1 combined protection (POP+SPD) in the panel. Protection against permanent or temporary overvoltages (POP) is the perfect complement to the typical first stage protection, a type 2 SPD in the lighting panel.

SURGE PROTECTION FOR PHOTOVOLTAIC

Surge damage due to a thunderstorm is one of the most frequent causes of damage in Photovoltaic systems. Surges often cause the destruction of system parts such as modules, inverters and monitoring systems. The financial consequences can be significant.



Surge protection for photovoltaic

PHOTOVOLTAIC SUPPLY EQUIPMENT

Surge-trap® pv

Surge-Trap® is Mersen’s range of lightning and surge protection devices. It includes reliable high-end and certified solutions for string and central inverters as well as for DC and AC combiner boxes, and also for measurement and control panels. Wide range of voltage ratings up to 1500VDC, UL 1449 Certified.

Inverters and DC combiner boxes

Surge-Trap® Pluggable’s special disconnection system allows for DC-protection of central/string inverters and of combiner boxes, without requiring a back-up fuse.

The new Type 1+2 PV SPD is suitable for rooftop installations and solar farms which are fitted with external lightning air terminals, or which just require a higher discharge capacity to extend their useful lifetime.

Inverters and AC combiner boxes

Surge-Trap® covers a wide range of AC SPDs. For inverter manufacturers as well as for AC combiner boxes, the standard choice is a Type 2 SPD that meets the inverter output voltage rating.

For high output voltages and specifically for inverters where the DC side is earthed, special reinforced SPDs provide enhanced impulse withstand voltages.

Communication, measurement and control

Performance measurement and other control functions use communication wires.

Signal line SPDs protect sensitive equipment from induced overvoltages.

More info on
ep.mersen.com

ABOUT MERSEN

Global expert in electrical power and advanced materials, Mersen designs innovative solutions to address its clients’ specific needs to enable them to optimize their manufacturing performance in sectors such as energy, transportation, electronics, chemicals, pharmaceuticals and process industries.

The Electrical Power segment comprises two businesses that serve the electrical power markets: Electrical Protection and Control and Solutions for Power Management mainly for power electronics.

Mersen works with the customer to integrate the products for electrical power into the customer’s application, to make it safer and more reliable.

Electrical Protection & Control

- Overcurrent Protection
 - IEC Fuses & Fusegear
 - UL/CSA Fuses & Fusegear
- Overvoltage Protection
 - Lightning & Surge Protection
- Control
 - Low Voltage Switches
 - Fuse Switch Disconnectors
 - Metering

Solutions for Power Management

- High-speed Fuses
- DC protection for electrical vehicles and battery applications
- Cooling for power electronics
- Bus bars for power electronics
- Power Capacitors

Power Transfer for Rail Vehicles

- Earth Return Current Units
- Current Collectors
- Fuse Boxes
- Connection Boxes
- On-board Switches

**THE GROUP IS LISTED ON EURONEXT PARIS
COMPARTMENT B**

CIMCO PRODUCTS: **RELIABILITY** & **HIGH PERFORMANCE** **COMBINED**

New battery-powered hydraulic units in proven CIMCO quality

Safety: Added value which is becoming increasingly important in electrical connection solutions. The newest generation of battery-powered hydraulic crimping and cutting tools made by CIMCO-Werkzeugfabrik not only provides this advantage, but even make it possible to verify the quality of the work carried out thanks to data analysis.

Nine professional tools with special features

The new series of battery-powered hydraulic units includes four crimping and five cutting tools for a range of applications. A highlight: In contrast to standard tools, a service cycle is only required after being operated 20,000 times. An annual service is no longer required. The pressure safety system to prevent overpressure errors and the USB interface for data analysis and monitoring should also be highlighted. This provides the user with every option for recording that they have carried out their work safely.

Just crimp and cut

The small, handy design – inline or rod-shaped – of the hydraulic battery-operated crimping tool can apply up to 60 kN of force. Depending on the head, the user can select crimping inserts according to DIN 48083 part 1 up to 185 mm² (open C-shaped crimping head, CIMCO article no. 10 6650), or the standard C half

shells up to 300 mm² (crimping head with quick release, CIMCO article no. 10 6652). Here, the user has a practical battery operated cutter which makes it easy to cut Cu and Al conductors up to 25 mm \varnothing , or also steel cable up to 16 mm \varnothing (CIMCO article no. 10 6660).

Both crimping tools automatically retract after finishing crimping; all the cutting tools must be reset manually. The ergonomic design in a 2-component housing is sturdy and allows operation without tiring, thanks to its optimised centre of gravity. The tools are operated with a particularly big activation switch and can also be used safely at height due to the safety support ring for shoulder straps.

The series also includes two 130 kN pistol-shaped crimping tools for up to a diameter of 400 mm² (H-shaped head CIMCO article no. 10 6658 and C-head CIMCO article no. 10 6665).

A variety of cutting tools in this shape complete the product range: starting with a hydraulic battery operated cutter from 35 mm \varnothing , right up to 85 mm \varnothing .

All the tools have a closed, guillotine-shaped cutting head apart from the battery operated cutter up to 65 mm \varnothing with an open head.

All tools are supplied with two high performance 18 V Li-Ion rechargeable batteries. The batteries are compatible with charging system for DeWalt XR series. All tools also have a simple LED display showing battery charge, errors,

and maintenance checks, as well as an energy-saving function by switching off automatically after 10 min. (of not being used), which can be switched on again with the main switch function.

The maximum processing speed is attained by the high powered motor which is fitted with a quick stop.

An LED workplace lamp rounds off all the tools.

You can obtain comprehensive information directly from your specialist electrical wholesaler, or request the latest product information free of charge from CIMCO-Werkzeugfabrik in Remscheid. You can of course also find all the information on the Internet:

cimco-international.com



LEDVANCE PRESENTS NEW RANGE OF LED STRIPS & ACCESSORIES

New system of flexible LED strip lighting and accessories covers a wide variety of requirements for professional lighting applications

LEDVANCE is offering wholesalers a new portfolio of LED strips for an enormous range of professional lighting tasks. The LED strips are available in three different categories to cover a wide variety of requirements. In addition to the LED strips, the portfolio includes an extensive range of LED drivers, profiles for surface or recessed installation, covers and other accessories – all perfectly matched as a system solution for lighting professionals under the LEDVANCE brand.

The LED strips come in three different categories: Superior, Performance and Value. They differ above all with regard to ideal application, lifetime, IP rating, number of LEDs per meter and therefore their light output and distribution.

Available in a large number of color temperatures ranging from energizing, daylight white 6,500 kelvin to warm white 2,700 kelvin and lumen packages from 300 to 2,000 lumens per meter, the LED strips are suitable for virtually any lighting task in a modern lighting concept – including classic general lighting, ambient lighting and indirect lighting of niches and coves. All LED strips are prewired on both sides and are easy to shorten if necessary. They also all come as protected and unprotected versions, in other words with or without a silicone jacket for protection against dust and water.



3 product categories for a wide variety of requirements

The TÜV-certified strips in the Superior category are particularly suitable for demanding lighting installations in large, representative buildings. In places such as corporate offices, upmarket hotels, shopping centers and museums they offer impressive color rendering with a color rendering index (CRI) of over 90.

The 140 LEDs per meter also provide a very homogeneous light output and distribution across the entire strip length. Thanks to IP67 protection, the protected versions of the Superior products are also ideal for outdoor use in adverse conditions and dusty and damp interior spaces. With up to 60,000 hours their lifetime is extremely high. LEDVANCE provides a five-year guarantee on the strips in this category.

Also TÜV-certified, the Performance category is characterized by a very high lifetime of up to 35,000 hours and as a protected version with IP66 rating can withstand dust and jets of water. With a CRI of 80 it delivers good color rendering and is suitable for medium-sized office buildings, schools, restaurants, bars and shops. LEDVANCE offers a guarantee of three

years for the LED Performance strips. The products in the Value category are all-rounders with a very good price/performance ratio for lighting applications in the entry-level segment. They also have a CRI of 80, and come in an IP65 protected version and a lifetime of up to 20,000 hours. Thanks to these properties, they are a good choice for indoor spaces such as smaller offices, guesthouses, private premises, as well as appropriate outdoor areas.

Extensive range of accessories for easy installation and smooth operation. In the LEDVANCE LED strip system “toolbox”, installers will also find all the components they need for easy installation and smooth operation. These include LED drivers in various versions for the respective categories, with or without IP protection, and with or without dimming function.

Installers can also choose from an extensive range when it comes to profiles, including versions for different installation types – open or with a bezel, for ceiling or wall mounting. Also included in the range are a variety of feeders, connectors, end caps and mounting brackets.

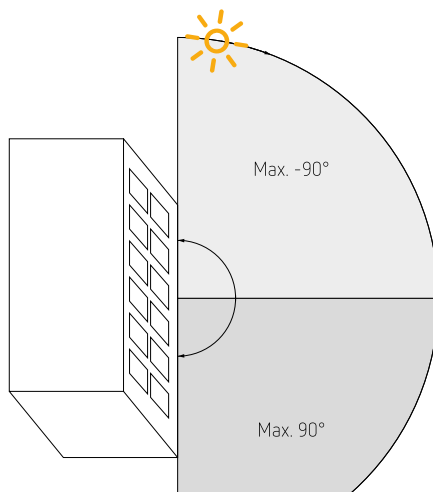
LEDVANCE provides additional support for installers with its LED strip system configurator. Once the key data of the lighting project has been entered in the configurator, it automatically generates a detailed parts list with all required components.

**The LED Strip System Configurator :
ledstrip.ledvance.online**

WEATHER-CONTROLLED BUILDING AUTOMATION BY THEBEN

With KNX-based weather stations like Meteodata from Theben, weather influences such as solar radiation, wind, temperature and rain can be used to precisely control building automation.

The Meteodata KNX weather station can bring down the blinds in an office without direct sunlight and at the same time switch on the lighting, or in the case of strong winds, move the blinds to a safe position. Up to eight building facades can be set up and these can be provided with different shading programs. The sun position at which shading will be activated can be defined for each facade.



The sun protection area is the section of the course of the sun in front of the facade where shading is required. It covers an angle of up to 180°.

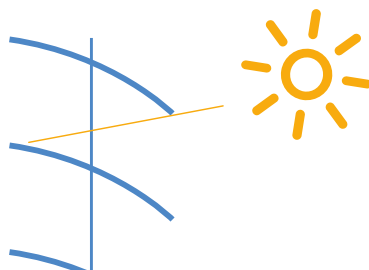


The Meteodata 140 KNX weather station

The slat angles of a blind can be continuously adjusted for maximum daylight without a glaring effect. To achieve this, all necessary data about the orientation of the facade, the position of the sun as well as the width and intervals of the blind slats can be conveniently entered.

Meteodata also helps the building automation system react quickly to moisture and rain. A heated sensor system even detects morning dew and ensures automatic retraction of delicate textile hangings.

Meteodata also offers logic channels for creating simple algorithms alongside wind, temperature, brightness and sun protection channels. The shading function for a room can only be activated in conjunction with blind actuators when the exterior temperature is above 15 °C and the room is occupied. If the room is unoccupied, the sun radiation can be used to heat the room. And vice versa, in the summer you can shade an unused meeting room to keep it cool.



The position of the slats is automatically adjusted to the course of the sun. This means maximum sunlight without the irritating glaring



The transparent housing adopts the colour of the facade and integrates seamlessly into the overall appearance of the building.

www.theben.de/meteodata-en

RAEC: CREATING THE FUTURE TODAY

Modern distribution of electric goods is not only about sales. It is a complex ecosystem, which comprises many areas and activities, including large social and innovative projects, which change the people's ideas about the quality of life and technology, change life as it is.

It combines technology, social responsibility, beauty, aesthetics, and, of course, the commercial component. The participants of the Russian Association of Electrotechnical Companies actively build their business in accordance with the concept of modern distribution. And we will tell you about this activity.



AVS-ELECTRO: MAKING LIFE E-MOBILE

“AVS-electro” is a successful company, an acknowledged leader, pioneer and the biggest distributor of electric goods for more than 20 years. What else is needed? On September 4, 2018, the second in Russia multi-brand showroom of electric cars - AVS Electro Motors Club was opened in the home city of the company, Voronezh. The first one had been successfully started by the partners of the project in Moscow

The latest models of electric cars are presented: Tesla, Nissan, BMW (in future the line will be enriched with the following brands: Mercedes-Benz and Fiat).

**Total area of the showroom: 250 sq m
The exhibition hall holds 5 cars.**

The visitors can get professional advice, have a test drive, choose one of the models in stock or to make an order for a car with individual configuration. There you also can buy chargers and original accessories, get consultation regarding the electric car use.



Gorgeous Tesla Model S

According to the data of “Avtostat” Analytic Agency, in the first half of the year 2018, the market of new electric cars in Russia grew by 79.3% compared to the same period last year. Today, about 23% of the total number of electric cars registered in the Russian Federation are registered in Moscow and the Moscow region.

The owners of electric cars can park for free in Voronezh

The owners of electric vehicles are experiencing more and more advantages of using them. With the help of the electric cars showroom AVS Electric Motors Club municipal authorities have accepted the initiative to give electric car drivers the right to park for free.



AVS Electro Motors Club – the 2nd multibrand showroom in Russia and the only in the region

Now they can leave their car in the center of Voronezh ignoring the parking meters.

Comments of the first owners:

Vladimir Ivanovich Kazakov, the owner and the first client of the electric cars showroom AVS Electric Motors Club.

I work in the field of microelectronics, this is why, as long as I can remember, I have always been interested in innovations related to this field.

The idea of travelling using an electric car was particularly appealing to me as a consumer. In my opinion, it is a perfect option for moving in a modern urban environment.

No exhaust fumes, complete absence of noise in the cabin, cost savings due to refueling with electricity, not with petrol, the prices on which are rising every day.

All these benefits are also combined with great dynamics, absolute comfort while driving and characteristics that are no worth than those of traditional vehicles.



Olga's Tesla S

Olga, the owner of Tesla Model S of the top line P100D:

Of course, to buy an electric car is a kind of experiment, and you should have enough courage to decide to take such a move. In the minds of the people of our country there is a whole bunch of stereotypes and prejudices regarding electric vehicles.

People are little informed about them and therefore they are cautious. It is clear that some time must pass before everyone will treat electric cars in the same way as cars with an internal combustion engine.



“Once, I became one of the first owners of an iPhone. At that time it seemed alien there, it was treated with suspicion and distrust. But less than ten years passed and now an iPhone is no surprise to anyone. The same is going to happen to electric cars. People will need some time to realize that electric vehicles are reliable, comfortable, eco-friendly, and affordable.

**Andrey Sukhoverkhov
 Chairman of the Board of Directors of “AVS-electro”,
 Chairman of the Board of Directors of RAEC**



Tesla Model X as the responsible choice of a modern urban family

Big pro **7 PROJECTS FOR MODERN METROPOLIS LIFE**

Group of electrotechnical companies BigPro has been on the market for more than 15 years, they are experts in the field of lighting projects and solutions and they carry out 1000 projects a year. There are thousands of projects, but we will present 7 of them, those which are most supportive to our life.

1. Religion: Moscow Cathedral Mosque

The project of lighting for Moscow Cathedral Mosque is a full-cycle lighting project, which the company deserves to be proud of. The opening ceremony was attended by the presidents of Russia, Turkey, Palestine, and delegations from Azerbaijan, Jordan, Iran, Kazakhstan, Qatar, Kuwait, and other countries. Moscow Cathedral Mosque is the main mosque in Moscow, one of the largest and tallest mosques in Russia and Europe.

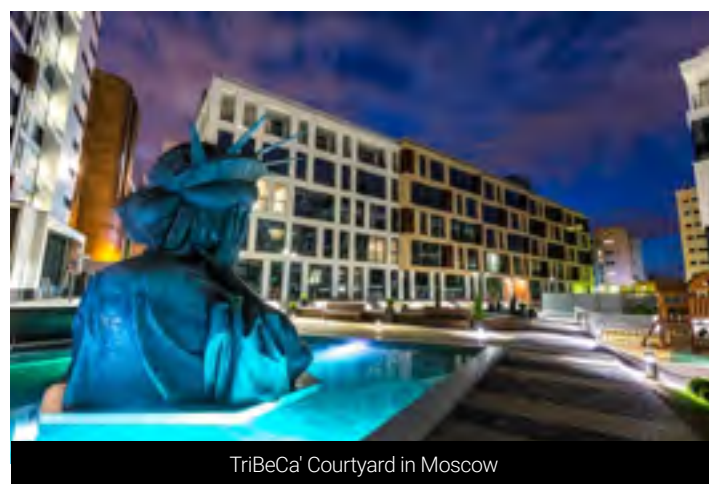


Moscow Cathedral Mosque

Art-lighting of Moscow Cathedral Mosque is based on the local and flooding techniques. The project provides not only accent lighting of architectural forms, minarets, towers, but also lighting of internal spaces and adjacent grounds of the mosque.

To achieve even illumination of the dome and facade, the installation of a specially designed 18-meter high dual-purpose high-mast carrier was required.

2. Life: Courtyard of the apartment block TriBeCa in Moscow



TriBeCa' Courtyard in Moscow

3. Commerce: Street parking lot of Globus supermarket with "smart" lighting

The task was to provide high-quality lighting for the parking lot and the surrounding area with the possibility to control lighting using modern technologies (including a mobile phone).



Parking lot of Globus supermarket

In addition to the fact that the lights are to be controlled, they are to be protected from icicle formation - special attention was paid to this parameter.

The system of lighting control allows regulating each lighter individually as well as all of them simultaneously.

Special features of the solution:

- Energy savings up to 70%
- Automated system operation with minimal human involvement
- Data transfer along the power lines through PLC protocol without installation of additional control cables
- Easy access from any internet-connected device
- High security level

4. Work: central office of “Vipservice” Holding



Office design was nominated for the Best Office Awards 2019

Project features include stage lighting designed with dimmable ANI LED lights on bus bar, controlled via DALI LINK system with the use of BEG devices. Programming and adjustment of the stages are performed via Bluetooth.

5. Sport: Open-air sports-grounds of “Letovo” school

In 2018 the lighting was designed for open-air sports-grounds for “Letovo”, residential school for talented children in Moscow.



Open-air sports-grounds of “Letovo” school

Children comfortably play sports games on the sports-grounds even in the dark, and the commission that accepted the sports-grounds noted compliance with the norms and low maintenance costs associated with the energy consumption of lighting systems supplied and adjusted by BigPro specialists.

6. New life: Perinatal center



The Perinatal center in Bryansk

It took three years to build the Perinatal center in Bryansk, which was constructed as part of the state program for the construction of perinatal centers and was inaugurated in the presence of top officials of the state by the President of the Russian Federation.

The perinatal center provides specialized medical care for high-risk newborns and pregnant women - with complicated obstetric history, risk of preterm delivery, extragenital pathology.

7. Television: Technical center Shabolovka



“Shabolovka”, Television Technical Center in Moscow

“Shabolovka” Technical Center is located in Moscow. First of all, “Shabolovka” Technical Center organizes digital channels and paths, provides the required parameters and routing of telecommunication signal; uses the technical equipment of the terrestrial segment of satellite communications, cable line structures of communication networks, etc.

THE CENTER OF GRAVITY ELEX CONVENTION 2019

June 5th, 2019 - Elex Italia has collected all suppliers of electrical materials for a convention full of contents and news. It took place at the Stahotels Grand Milan in Saronno and the title was “Il Baricentro” / “The center of gravity”. The idea was to highlight the entrancing role that Elex has as a reference point both for its associates and for other figures in the electrical materials sector.

Over 160 people took part in the event. This is an exceptional result of participations that emphasizes the importance of this annual meeting.

The whole morning was dedicated to the presentation of the numerous activities carried out by the consortium (Elex Tv, Top Model, Spesa Elettrica, ...). Great attention has been given to the presentation of two new projects:

A. "1XTUTTI" / "ONE FOR ALL":

selling out promotion that involves all the members and their stores at the same time.

B. Digitization (DAP).



The 2018 results were shared together with those of the first months of 2019. In the afternoon, the participants were involved in a brainstorming.

The game has allowed not only an amusing socialization, but also to bring out interesting and constructive ideas. The two questions the various teams had to answer were the following:

A. Digitization:

what should Elex do to improve its business in this area?

B. Consortium:

how can Elex increase its added value to suppliers?

Among the numerous inputs received, some are useful to guide the development of the consortium confirming its centrality for suppliers.



LEGRAND WINS SOCODA INNOVATION AWARD

In the field of electrical installation, Legrand is the winner of the 2nd edition of SOCODA Innovation Awards for its connected security lighting.



It is the 1st connected offer in the security lighting market, hereafter are the innovations summarized in 5 bullet points:



Connectivity



- Remote control for remote diagnosis of the BAES installation status.
- Web application for mobile media & PC.
- Mono or multi-site operation.
- at controlled cost.

Universal installation



- Compatible with existing LEGRAND mounting fixtures.
- Recovery of existing attachment points.
- Compatible with the most remote controls on the market.

Simplified installation



- Plug-in bracket with automatic terminal blocks.
- Repositionable universal pictogram.
- Non-polarized remote control line.

Increased visibility



- Activation possible, in the presence of the sector, to amplify the perception of the pictogram.
- Parametric lighting system to increase the visibility of the clearances and to reduce the evacuation time.

Respect the environment



- 100% LEDs.
- Very low consumption.
- NF Environment certified.



The presentation of the trophies on video ...

Moreover, from June 17 to July 31, an exclusive operation was carried out in the Network vis-à-vis the installers of our Members on these autonomous blocks of connected security lighting.

SOCODA'S BUSINESS MEETINGS

The 12th Socoda's Convention will take place on the 17th and 18th of March 2020 at Paris Nord II.

Every 2 years, The Socoda Group call more than 2 800 persons together (Members, Suppliers and Partners).

A reverse exhibition with the purpose to facilitate exchanges: the 200 Members are exhibitors and meet the Suppliers in order to make business.



The highlights of this new edition:
“La Quinzaine”: will start 15 days before the Convention with the best promotional offers created in order to increase profits and allow obtaining additional discounts for the Members.

initiatives / commitments in favor of 3 themes: Sustainable Development, Innovation and Digital.

And, of course, many new things to discover next March at the Convention !

« **Les Trophées SOCODA** »: The SOCODA Network will also reward its Referenced Suppliers through trophies with the aim of honoring their

convention.socoda.fr

PLEASE SAVE THE DATES for the upcoming imelco meetings

- 25.11. - 26.11.2019: **DIGILAB** in Amsterdam/Schiphol, NL
- 08.03. - 13.03.2020: **light+building** in Frankfurt (Main), DE
- 04.05. - 07.05.2020: **internal meetings, Supplier Awards and Networking Event** in Barcelona, ES
- 07.05. – 08.05.2020: **Annual Business Convention of EUEW** in Barcelona, ES
- 14.09. – 16.09.2020: **internal meetings, Suppliers-MDs meetings** in Moscow, RU
- 28.09. – 02.10.2021: **IMELCO Convention** in Dubrovnik, HR

MANY HEARTFELT THANKS TO THE TEAMS OF LEDVANCE AND OBO BETTERMANN FOR THE OUTSTANDING EVENT IN DUBROVNIK!



3RD EDITION OF THE GRUDILEC IMPULSA EVENT

Last 26th and 27th June, Madrid was home to the 3rd Edition of the Grudilec Impulsa, an event in which Grudilec, the Specialized Group in the Distribution of Electric Material, gathered more than 150 people including distributors, installers and important manufacturer companies of the electric sector.

The Spanish Distributor Group celebrated this encounter with the aim of achieving a clear goal: to clarify, through the sharing of reflections and opinions among all those present that day, the future of the sector. Thus, the tendency of the electric market in a contextual framework in which terms such as uncertainty and restlessness are regaining strength day after day.



Alberto González
Grudilec's Manager

In order to achieve this, Grudilec organised two round tables which took place during the afternoon of the first day, immediately after the warm welcoming remark offered by Alberto González, Manager of the Group.

The audience could participate in both sessions through their mobile's phones, responding to the questions

raised throughout the event by the App that Grudilec had developed exclusively for that occasion.

The first round table, moderated by Miguel Ángel Jiménez from Cuadernos de Material Eléctrico magazine, and represented by important manufacturer companies such as Aiscan, Gewiss, Hager, Ledvance, Prysmian and Schneider, was focused on the relationship between installers and distributors, purchasing process, shopping channels, digitalization and the future of the installers.

It is important to highlight the message defended during this round table by the manufacturers,

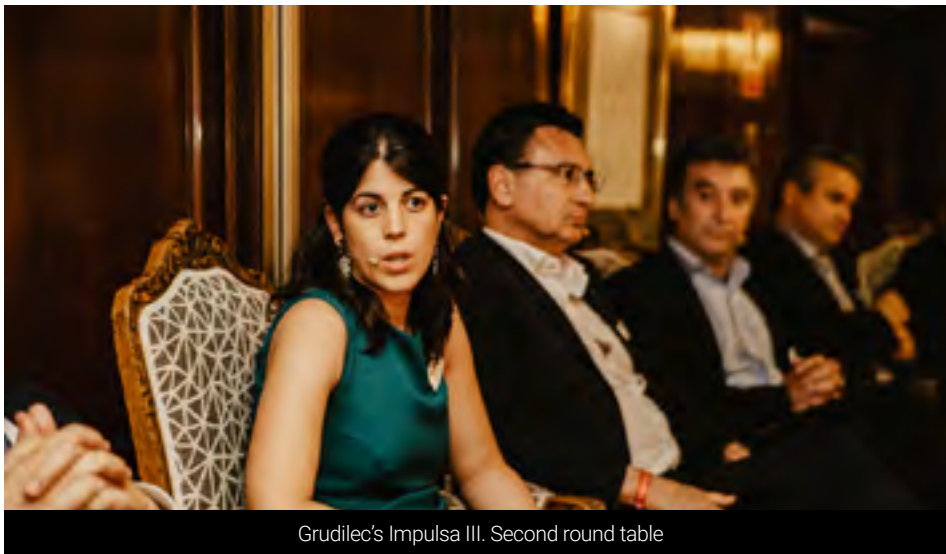
among those shared in the event: "Digitalization and the technological breakthroughs will lead the coming years and installers must adapt their businesses to this new reality as soon as possible".

Moreover, installers expressed their aim to continue betting on the direct and closed relations for doing business. Nevertheless, they recognised having found some advantages on digital media, especially, when used for searching information or for purchasing. Also, they highlighted the fact that technical assistance and product quality are the main criteria on which their purchasing decision is based.

The second round table, in which Normagrup and Simon collaborated in replacement of Ledvance and Aiscan, together with the other manufacturers mentioned above, was led by Luis García, from instaladores2.0 magazine.



Grudilec's Impulsa III. First round table



Grudilec's Impulsa III. Second round table

This session was centred on new business opportunities and the training that these require. During the debate, the speakers emphasized, among other ideas, the urgency and need for the different agents of the chain to open up and to change and to emerge in a continuous process of adaptation and development. Terms such as differentiation and specialization were mentioned on several occasions by the speakers, since they are key elements for generating value.

On the second day, Grudilec offered two interesting and enriching conferences. In the first one, called "The family enterprise and the challenge of the generational replacement", Luis Granda, professor at Loyola University, revealed the most correct and friendly way of transferring the familiar business to the next generations.

The second one, offered by Paco Pérez Valencia, also Professor at Loyola University, consisted in an emotive coaching session: "To those who love what they do". In this conference the professor not only brought out feelings and emotions, but also reminded the attendees a life lesson which can be summarised in just a few words: "We must constantly look inside us, listen to us and pursue with desire everything we want to achieve in our life".

Furthermore, in the 3rd edition of the Grudilec Impulsa event, attendees had also time for networking and for sharing pleasant moments in different entertaining activities.

The trendy restaurant Pomerania, the mythical steakhouse located in the Spanish capital, Txistu, and the restaurant Raimunda were just some

of the places where attendees could have fun together and enjoy authentic gastronomic experiences.

The event came to an end with an amazing conference called "The factor Wow" offered by Vicente Lucca. An incredible session in which the audience was completely overcome for more than an hour by astonishment and surprise.

Antonio Ruíz, Grudilec's President, close this 3rd edition with a brief speech in which, apart from expressing its sense of pride for belonging to the Group, he thanked all the collaborators and guests for their attendance and insisted on the importance of continue celebrating this event since it is a perfect opportunity for all the actors of the sector to share their market vision and strengthen their commercial links.



Antonio Ruíz.
Grudilec's President

GRUDILEC, a Management Company, was born as the result of the union of wills of different companies from the Electrical Equipment Distribution Sector: Araiz, Coto, CSI, Dis-electric, Electro Idella, EMSA, Coelca Group, Peisa Group, LCI Group, Mesur and Sumelex Group. GRUDILEC main goal is to jointly establish differentiated strategies with the aim of offering the best experience and the maximum value to its partners, customers, suppliers and employees. Currently, GRUDILEC is formed by 11 companies with a vast experience in the sector, of more than 40 years, and have 123 points of sale. With its integration in IMELCO, GRUDILEC is also part of the biggest group of distributors worldwide.

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