KNX

**Smart home and building solutions.
Global. Secure. Connected.**

JOURNAL
2021

KNX GOES DIGIT@L

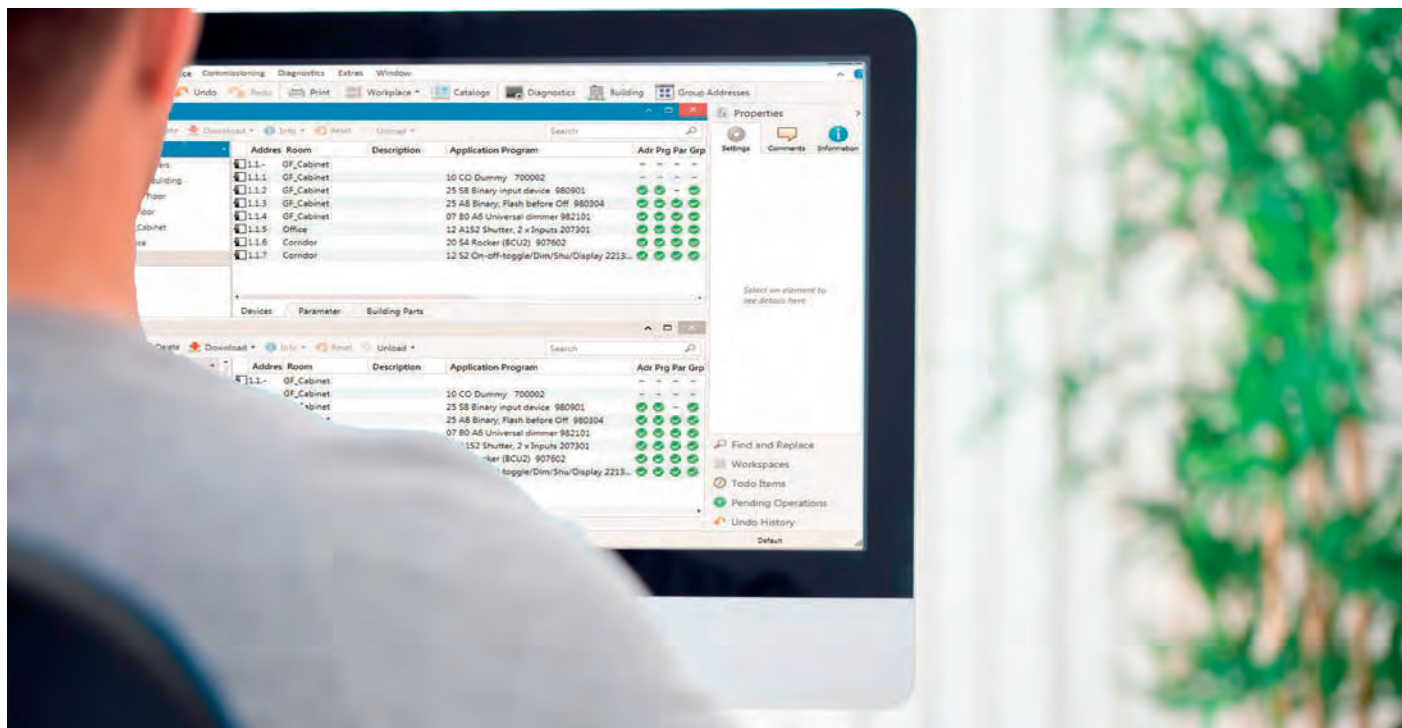**KNX IoT is taking shape**

IPBLiS: Standards joining forces

ETS6: Secure, Smart, Open

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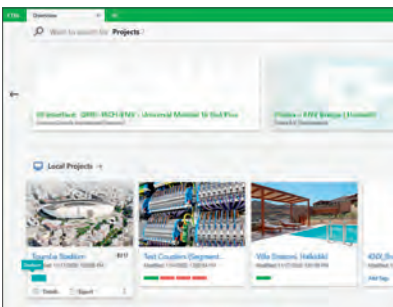| New licenses	Price	Restrictions
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Editorial

Projects | Winner KNX Awards

System

Tools

Members

Partners

Out and About

Farewell to the island

Heinz Lux
CEO, KNX Association

"Our age of fear is largely the result of trying to do today's work with yesterday's tools", as the Canadian philosopher Herbert Marshall McLuhan (1911-1980) put it. Marshall McLuhan is considered a pioneer of new media theory and the creator of the "global village" concept. That was back in 1962.

But we are only just beginning to build that global village now. Until now, we just didn't have automation technology covering all of the applications necessary to fully automate a building and enable the resulting services.

With KNX IoT, a platform is now available that makes an IP-based infrastructure the backbone of building system automation, doing away with isolated solutions. But this also means: farewell to the island and hello to a world of smart sector coupling, to smart entertainment technology, management or facility services as well as media technology, access control and alarm systems. KNX remains an interoperable world in itself that can also interact with other worlds via the REST API interface, because the digital world of IoT - the global village – requires data in a generally understandable machine-readable format. KNX delivers.

The future is digital. The method is IP. The tools are 0 and 1.
These are tools of today for the work of tomorrow.
Unlike the past: the Romans had no number 0. Why have a number for something you can't count. They also thought that the number 1 was superfluous because you can only start counting things once you have more than one of them. Aristotle even thought that the number 0 should be banned because dividing by 0 creates such a mess. But that's where he was wrong.

We, on the other hand, are right. KNX is as KNX IoT today for tomorrow. We are the future.
This quote, loosely based on Mashall McLuhan, applies to our digital age: "There are no passengers in digitalisation, everyone is part of the crew. So: all hands on deck for KNX IoT!

> **The future is digital. The method is IP. The tools are 0 and 1. These are tools of today for the work of tomorrow.**

KNX: constantly on the move

Now that the election of the KNX Executive Board in February of 2021 is drawing nearer, I took the time to look back at the accomplishments of the current Executive Board in the last five years.

If looking just at figures, the last five years have been characterized by a steady growth, with the year 2020 announcing itself as the best year ever in the long history of the Association. In this unpleasant year, KNX has been able to convince an estimated 10 % more new installers/integrators to purchase an ETS license, even compared to the record breaking year of 2019. In 2020, KNX was also able to welcome its 500th KNX member, SONY.

The figures above do not come as a surprise: with my Fellow-Board members and the KNX team in Brussels, we are constantly evaluating where KNX could be improved and what is missing to make KNX an even bigger success. In the last five years:

- we convinced the market that KNX also provides the best answers to the growing demand for cyber security in home and building automation by extending its standard with KNX Secure, drawing up system and test specifications, providing support in ETS and test tools, making sure the solution materialized in real products and bringing it to international standardization (EN 50090-3-4, EN ISO 22510).
- we worked intensively on improving the connectivity to the wealth of data that the many thousands of KNX installations store, by creating the KNX IoT 3rd Party interface (see https://schema.knx.org). This interface will revolutionize the way non-KNX clients tap into the data of KNX installations, the only home and building automation system worldwide to provide such a REST-ful manufacturer independent interface. This is the interface that will enable the realization of even more

Franz Kammerl
(Siemens) is president of the KNX Association in Brussels

services based on KNX data. We can with this rightfully claim: KNX is the home and building automation Service Enabler.

- also for the classic KNX system, we are not resting on our laurels: the KNX System Group is working on solutions that will improve the use of KNX RF in existing TP installations (Segment Coupler), make KNX RF Multi more energy efficient, bringing down the time to include KNX Secure products in installations, ….
- all the above described features will see the light in the forthcoming ETS6 generation, which is scheduled for release in the course of 2021 and in which also the UX will be improved (e. g. simplification of the licensing workflow).

In spite of all the above, my current Fellow-Board members and myself are convinced that there are still vast opportunities that we have not yet mined:

- as we have demonstrated throughout our history, KNX always builds on top: well, it is time to extend the KNX classic world with the possibility to also have KNX communication not via KNX TP, but by using other IPv6 (wireless) networks to share KNX data between devices. This is referred to as the KNX IoT Point API, which is currently under development and will also allow us unprecedented solutions, not in the least in the field of energy management. The field of energy management will play a significant role in the next years, as the EU Green Deal is expected not to be the only initiative to curb climate change.
- the KNX IoT Point API will also introduce alternative IT Cyber Security mechanisms that may be used next to KNX Secure.
- what we have started with the KNX IoT 3rd Party interface and because of the semantics we have included in that and we could also include in our product data, KNX will hold the best cards to e. g. improve the planning stage, ease the configuration of products and will become the best data provider for Building Information Modelling (BIM).

I hope the above makes one thing clear: KNX has a lot of different things to offer to a lot of different businesses. Those that want to continue extending their KNX classic offer continue to be served, those wanting to discover new horizons and use IP as communication can do so just as well. Third parties wanting to interface with KNX also become part of the KNX community. All with one single aim: improving interoperability in smart homes and buildings!

Looking forward to continuing working with the entire community on this beautiful solution, KNX!

Joining forces in the new IP-BLiS initiative

BACnet International, KNX Association, OCF, Thread Group and Zigbee Alliance work together

BACnet International, KNX Association, OCF, Thread Group and the Zigbee Alliance are working together to better align commercial buildings with users' connectivity needs and to improve the integration of smart building products. The organisations are collaborating on this new initiative: "IP Building and Lighting Standards" (IP-BLiS). Together they are promoting a secure multi-standard IP-based infrastructure as a backbone in building automation to replace the still-widespread use of siloed solutions. The operation of leading technology standards is to be harmonised, the fragmentation in smart building connectivity reduced and a broad acceptance of coexistent solutions promoted.

Silo solutions as costly barriers

Currently, there is no automation technology available that covers all of the use-cases required to fully automate a commercial building. Some individual building systems still use a wide variety of proprietary solutions that often require separate hardware-based gateways and infrastructures. This results in higher costs for planning, installation, maintenance and administration of smart building projects. In addition, synergistic opportunities over the long-term remain unused.

The future is IP

Therefore the members of IP-BLiS intend to combine light control and building management systems with IT networks by using a secure all IP-based configuration while harmonising the operation of their technical standards accordingly. This will allow data from a wide variety of building systems to be accessible via a single IP address.
There are several advantages to this approach. Hardware-based gateways become unnecessary, as various devices across some of the most diverse systems can communicate via a single secure IP connection, and it will be much easier to seamlessly integrate IoT products into existing smart buildings. Furthermore, an IP-based approach will significantly reduce effort and costs while increasing security.

Worldwide commitment to IP

IP-BLiS will enlighten the building automation market about the use of IP-based solutions, identify the security requirements that will be necessary for different regions and further influence legislation to increase adoption. Companies wishing to support the goals of IP-BLiS can participate by becoming a member in one of the participating organisations.

"The BACnet community is collaborative by nature and we welcome the opportunity to promote fully integrated building systems through IP-BLiS," said Andy McMillan, President of BACnet International. He continued, "IP-BLiS is a powerful platform for communicating the value of IP in addressing the complexity and dynamic requirements of building information and control systems."

"We are proud to be a part of IP-BLiS. This initiative is a real game changer for building automation that will further accelerate the growth of the market thanks to its added values in terms of integration, scalability and security," said Franz Kammerl, President at KNX Association International.

"Collaboration and cooperation are key to allowing the IoT to reach its full potential," said David McCall, president, Open Connectivity Foundation™. "IP-BLiS is the perfect platform for OCF and other key industry players to join forces and address the issues that face light and building automation today by removing connectivity roadblocks to create truly smart buildings."

"Thread Group is excited to be a part of such a prestigious initiative. Our low-power wireless mesh networking protocol is based on IP because it allows for so many disparate applications to work together seamlessly," said Grant Erickson, President of Thread Group. "We believe that IP-BLiS will provide a crucial standard that smart buildings need to improve interoperability and reduce costs, improving the efficiency, functionality, automation and safety of buildings such as offices, healthcare facilities, hotels and schools."

"The advent of the Internet of Things has progressively required more and more collaboration between manufacturers, ecosystems and global standards organizations to unlock the evolving potential offered by connected devices," said Tobin Richardson, President and CEO, Zigbee Alliance. "Through IP-BLiS, we're looking forward to helping facilitate more efficiencies for users across commercial settings through secure, all-IP-based standards for better lighting control and building management."

For more information, visit: https://www.ipblis.org/

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ABB

sonnen becomes the first storage manufacturer to receive KNX certification

sonnenBatterie has become the first home storage system to receive technical certification under the global KNX standard. This means that, via KNX technology, customers can integrate their photovoltaic system and sonnenBatterie (from the 8th generation onwards) Cross-sectoral energy management between electricity, heat supply and mobility enables the coordinated use of generation, consumption and storage resources in a household to optimised system efficiency.

KNX technology is the market leader in the smart home and smart energy fields and covers all aspects of energy networking in a building. Among other things, KNX makes it possible to control lighting, shutters, security systems, energy management, e-mobility, heating, ventilation, air conditioning, alarm and monitoring systems, interfaces to maintenance and building monitoring, remote control functions, audio and video control and numerous other applications all from a single control system. KNX is also the world's only open standard for controlling smart homes and smart buildings.

sonnen and KNX Association also launch a cooperation making sonnen part of a manufacturer network with more than 500 well-known suppliers worldwide. With its 8,000 certified KNX devices it represents more than 80% of the home and building automation devices sold in Europe. sonnen is the first supplier in the KNX network to offer the Home Energy Management System (HEMS) solution.

"From the very start, sonnen has relied on intelligent energy management for its sonnenBatterie to ensure an optimal supply of self-generated energy. By integrating KNX technology we can now go one step further and offer homeowners complete smart home integration. Thanks to KNX technology, the sonnenBatterie can be connected and controlled using a variety of technical applications in the home," says Hermann Schweizer, CTO of sonnen. "We are thrilled that sonnenBatterie has been awarded KNX certification and that sonnen will now be working worldwide with the KNX Association and developing new applications in the field of energy management.

"KNX combines all the advantages of smart living with the growing demands for sector coupling of heat, electricity and mobility. Thanks to the manufacturer-independent KNX IoT system, devices and services are optimally integrated into building energy management," explains Franz Kammerl, President of the KNX Association.

The advantage of KNX technology for sonnenBatterie owners is that an intelligent home can be tailor-designed according to their respective needs while, at the same time, meeting the requirements of a renewable energy supply. Homeowners can achieve even greater efficiency through highly individual settings, such as switching on consumers when they hit a pre-set level of surplus solar power production.

KNX combines heat generation with the requirements of the electricity market, builds a bridge to eMobility and also supports home care. Coupling it with a home energy management system in an intelligently networked house brings the energy transition to your doorstep and significantly reduces CO_2 emissions.

The new sonnenBatterie 10 is a modular storage system with an output of 4.6 kW. Storage capacity starts at 5.5 kWh and ranges up to 27.5 kWh. For commercial applications, the sonnenBetterie can be cascaded to up to 247.5 kWh. sonnen uses only lithium iron phosphate batteries that are free of toxic heavy metals and cobalt, which is a conflict resource. Furthermore, these batteries are considered to be particularly safe and durable thus enabling their use as part of the sonnen virtual power plant.

Smart, secure and flexible
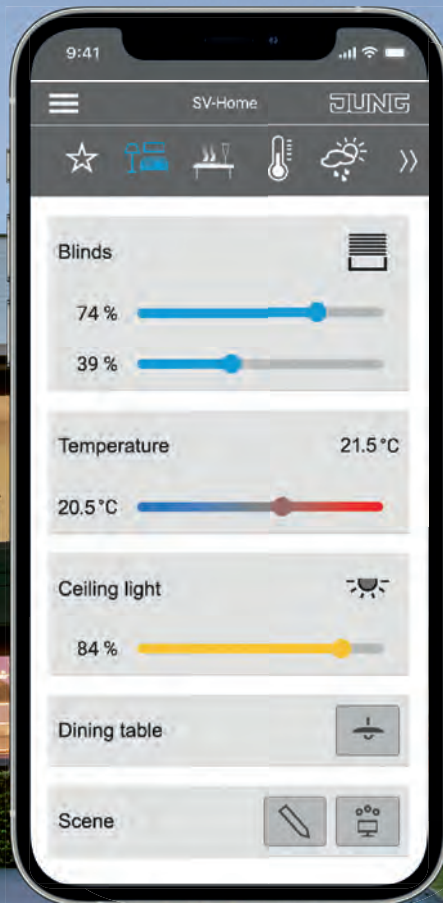
From actuators to visualisation: JUNG KNX provides encrypted building technology with a functional design.

Push-button F 10

Switch actuator, 6-gang
blinds actuator, 3-gang

LED universal dimming
actuator, 4-gang

Power supply
with IP interface

JUNG.DE/KNX-SECURE

KNX welcomes SONY as 500th member

Partnership highlights the growing popularity of KNX IoT

Sony solutions based on KNX contribute to the new era of KNX solutions driven by KNX IoT and "Services with KNX"

KNX, the worldwide standard for home and building solutions, strengthens the internationalisation of this leading technology with Sony joining the KNX community. KNX is known for its high degree of interoperability between products of different manufacturers and different application domains, and proudly welcomes Sony as the 500th member. Thanks to the growing popularity of KNX IoT and "Services with KNX", a new era for KNX begins expanding the KNX ecosystem to new dimensions with new possibilities. And more and more tech companies want to be a part of it.

Sony: "We are looking at KNX technology as a key partner for building automation"

Sony's TEOS Corporate Solutions recently expanded to include new building management features, such as heating control and automation. "Our goal is to expand functionality and data capture from workplace devices to wider building management and to offer unique solutions to our customers by combining AV, IT and building protocols. Here we are looking at KNX technology as a key partner for building

automation. So it was an important step for us to become a KNX member", says Nicolas Berg, Marketing Head at Sony Professional Solutions. Through its KNX membership, Sony and its customers will benefit from the reliability and the trust of working with the leading building management Association. Nicolas Berg: "We are able to build our reputation and advance our proposition development to bring more value to organisations that we work with."

KNX IoT: State-of-the-art technology meets outstanding products

Welcoming the 500th member is a new milestone in the history of KNX. In the last decade alone, the number of KNX members has more than doubled. "We are very proud to have Sony on board and to see that the global KNX community grows constantly. With KNX IoT as state-of-the-art technology and with the innovative spirit of important manufacturers like Sony and their outstanding products and solutions for homes and buildings, we will shape the future of the Internet of Things together", commented KNX President Franz Kammerl.

KNX Multi.Sensor range

a smart and reliable sensor series combining information on **presence**, **brightness**, **humidity**, **temperature** and **sound**; it manages effectively heating, cooling, lighting, shading control, HCL and room optimization with a flat compact design of just 8 cm diameter wide.

Plugin accessories (CO_2 sensor and VOC sensor) extend the features of the range to include monitoring of the air quality within buildings, especially as it relates to the wellness and comfort of building occupants.

Universal Fancoil Controller
TC57A01KNX

A modern controller part of interoperable room automation. Covering modern FCU 0-10V valves, fan application as well other (Terminal Units) HVAC devices.
A flexible solution: each I/Os can be programmed for different features (i.e. lights control)

building & home evolution

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Gateway OTOMO - KNX
IN00A01BLE

The two-way communication between the KNX bus and the OTOMO Bluetooth® mesh allows to introduce in KNX installations the advantages of the typical functions of an OTOMO system such as the presence detection – via Mobile App and Beacon – of a user in an environment or the opportunity to transfer information, commands, states between one system and the other.

KNX Awards 2020 goes digit@l

13th edition reinvented as an online event

On the 29th of September, the KNX Awards celebrated the smartest home and building projects realized with KNX in eight categories. This highly anticipated event held every two years and was now held for the 13th time. For the first time in their long-standing competition, the KNX Awards were celebrated as a digital event as the main highlight of the KNXperience.

Again, the record number of KNX Award applications was broken with numerous projects worldwide being handed in. Projects of all sizes in a wide scale of building types showed the true capabilities of KNX. This year, it was clear that more installers focus heavily on secure and future-proof solutions with KNX Secure and KNX IoT.

Of all the project entries, the Jury had picked out 35 nominees with impressive realized KNX projects all over the world. Each category consisted out of five nominees with a chance to win the prestigious trophy. All 35 nominees were also in the running for the People's Choice Award, where

we asked the KNX Community to vote for their favorite. Out of all nominees, eight were rewarded with a KNX Award for their excellent achievements with KNX.

Despite COVID-19, a cancelled Light + Building, confinements and travel bans, the KNX Awards still managed to bring all nominees, presenters and audience together on the 29th of September to find out who the winners were. For the first time, the winners had the chance to give an acceptance speech and summary videos were shown to summarize what made the projects stand out to be the KNX Awards winners.

A big thank you to all participants, nominees, winners and viewers! We hope you will join the competition again for the KNX Awards 2022!

The KNX Awards 2020 show as well as all individual KNX Awards winning project videos can be viewed on our You-Tube channel: *https://www.youtube.com/KNXassociation*

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SMART HOME
FOR A SELF-DETERMINED LIFE

Combining modern technology with independence

A 1970s house was completely remodelled for a Parkinson's patient in Mannheim (Germany). Thanks to smart home technology installed by Klaus Geyer Elektrotechnik, the homeowner can continue living independently in his own home, with automated control of heating, security, multimedia, garden watering, camera functions and even the toilet flush. This project won the 2020 KNX Award for International – Europe.

Project Task

The brief was to use modern technology to allow the client to stay in his home for as long, and with as little support as possible, whilst maintaining a tasteful modern interior. Control of the system was to be as easy and intuitive as possible for the home owner and visiting nurses. Control of all home, multimedia and security functions were to be made possible by an easy-to-carry RF remote control. The system also had to provide easy access to automated doors and stair elevators, movement detection and buttons for emergencies, and multimedia control in eight different zones throughout the house.

Multimedia can be enjoyed throughout the home.

Winner KNX Awards 2020
Category: International Europe

Klaus Geyer Elektrotechnik (Germany) – AAL: living longer in your own house with high tech

The solution

All technical components in the house were connected via a KNX system with a powerful Gira FacilityServer in the background as the "brain", visualising, controlling and monitoring the KNX system and also providing the interface to other non-KNX systems.

The solution includes control of DALI lighting, shading, door communication, camera surveillance, multimedia technology, as well as water treatment, heating, irrigation, robot lawn mower, filter of the outdoor pool, gate drives, full level oil tank, alarm system, access control, motorised barrier, technical alarms, room monitoring, emergency call systems and water shut-off devices. The ground floor is barrier-free and there is the option to call an emergency line at any time. Automatic sliding and revolving doors are also connected to the KNX system.

As the client's movements were bound to become slower and his dexterity deteriorate over time, operation using just an iPad did not make sense. The entire house and media technology can be therefore be controlled via a small four-channel KNX RF remote control, with which the client is comfortable. The client can switch security and building technology from his bed, with the menu displayed on the remote control or a large flat screen. Other controllers include KNX-RF radio buttons, touch panel, TV devices, iPhone or the iPad. Basic functions can also be controlled using classic switches, which the nursing staff can operate intuitively. The initiated can also operate significantly more functions, for example via an iPad, without having access to the private photo and video database.

An RF remote can control all home, multimedia and security functions.

All areas are accessible by wheelchair, including the sauna where there is LED mood lighting.

KEY PRODUCTS AND TECHNOLOGIES USED

Gira FacilityServer
Cen.Sys media server
Gira door communication with video function, Gira System 106
Gira G1
Hager radio networked smoke alarms
Hager handheld radio transmitter
Elsner full levels and monitoring sensors
Presence detectors from Gira, Eyslux and Steinel
Steinel HF motion detector
Actuators from Theben, ABB, Gira, Hager
Telenot alarm system
Camera surveillance from AXIS
KNX system devices from Weinzierl and Entertex
KNX control units from Meanwell
KNX interfaces from Zennio, Gira, ISE and ABB
GEZE door controls
Motorized locksmith from Fuhr
Cabinet drives from Haferle and Blum
Mobile operation: Gira FacilityServer app
Hager handheld remote controls
Switch range: Gira E22 flat switch
Gira E2 in public areas

PROJECT

• *Project: AAL – living longer in your own house with high tech*
• *A project by: Klaus Geyer Elektrotechnik*
• *Contact: www.klaus-geyer.de*

NOBAKHT OFFICES
WITH ENERGY EFFICIENCY

Commercial complex equipped with automation system

The Nobakht Building is a luxury commercial complex comprising six floors of offices and four underground floors of parking. It is located in Sohrevardi Street in the centre of Tehran (Iran) and was completed in 2019. The client, Mr Nadimi, commissioned KNX experts Delham Tabesh to provide the automation system for the building. This project is the winner of the 2020 KNX Awards category for Asia.

Lobby of the Nobakht Building.

KNX COMPONENTS
- *Gewiss KNX devices: KNX thermostat, KNX Presence sensor, KNX wall mounted switches, KNX relay actuators, KNX LED CVD dimming actuators, KNX IP interface, KNX-DMX hub, KNX support access control reader, KNX app interface, KNX motion sensor*
- *Gewiss access control: Proximity reader, Request exit, Proximity card*
- *Gewiss entry phone system: Outdoor station, Dual usage touch panels (entry phone and KNX control)*

PROJECT
- *Project: Nobakht Offices Tehran*
- *A project by: Delham Tabesh*
- *Contact: Mohamadreza Khademi*

Winner KNX Awards 2020
Category: International Asia

Delham Tabesh (Iran) –
Nobakht Commercial Building

Project Task

The brief was to promote energy efficiency and occupant comfort. Every aspect of the building was to be made smart; including the ability of office workers to be able to enter their workspace without touching a single button.

Solution

The company used KNX to integrate various functions including a weather station, cloud connection, DMX lighting, fan-coil control for heating and cooling, a media centre and conference room control, smart glass, public address system, lighting and presence sensors, access control, video entry system, parking management system, time attendant system, server room smart control, as well as several other features.

The solution means that there is no need for an office user to touch even one button, since the facial recognition system automatically opens their office door. On entering, a presence detector is activated and the user is provided with their ideal comfort conditions. Using data from the weather station and light sensors, the HVAC, lighting and blinds are automatically adjusted to suit the user's preferred temperature and light levels, thus meeting the brief of providing comfort alongside energy efficiency.
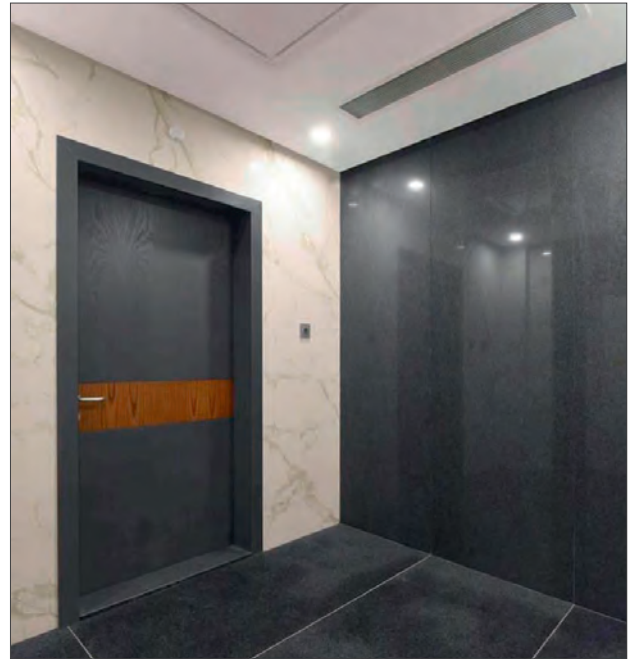

Facial recognition is used to automatically open an office door.

Installation

From the start in 2016 to the finish in 2019, everything was dealt with by a technical team. They designed the wiring plan and installed and commissioned the devices, overcoming the particular challenge of integrating the access control and time attendance systems. Since commissioning the system, they noticed that the number of KNX devices which were requesting feedback on the KNX line caused heavy traffic, but they solved this by changing the cyclical time of measured data of the sensors and feedback.

Devices inside the Nobakht building
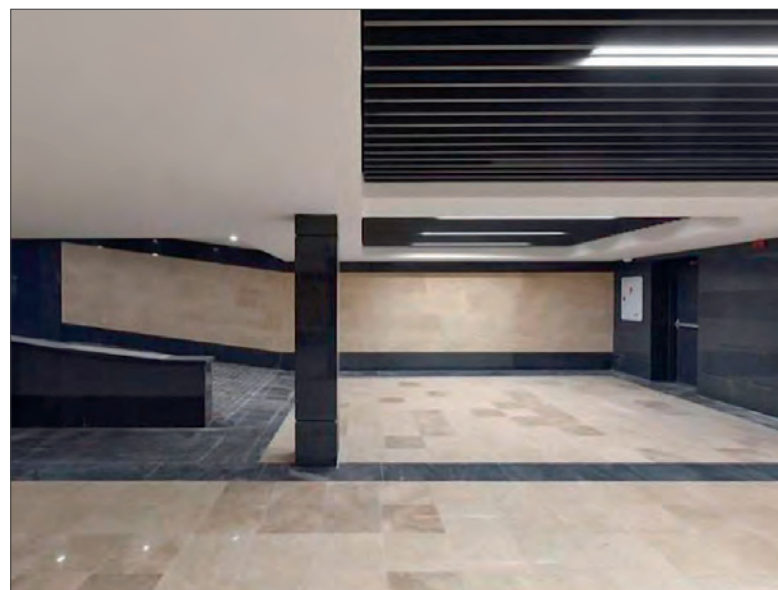
The underground car park area with presence-sensitive lighting and ventilation.

THEATRE
LIGHTING INSTALLATION

New functions for stage lighting and special effects

The Libertador San Martin Theatre, in the city of Córdoba (Argentina), was built in 1891. It has always been a major building in Argentina, and is one of the most famous in Latin America for its architecture and history. The restoration of this theatre demanded high quality materials, specific products, and cutting-edge technology in its new features and functional updates. The King and Queen of Spain inaugurated the building the summer of 2019.

During the restoration, the Government of the Province of Córdoba commissioned KNX Partner Agustín H. Abdala to provide an advanced lighting control system. KNX was used to delivers a top-of-the-market solution for lighting and technical alarm management for a large lighting crew to manage all of the performances held in this luxurious building, which operates all year long with plays from all over the world. This project is the winner of the 2020 KNX Awards category for International – Africa, America, Australia.

Project Task

The task was to provide ubiquitous control by the lighting crew of an enormous number of lights that were distributed via numerous circuits and cabinets. This included advanced and numerous lighting functions and scenes for stage lighting control using a combination of KNX and DMX for stage lighting and special effects. The system had to support remote programming, timed functions, visualisation via tablets and smart phones, operation via touch panels, display panels, switches and push buttons, emergency lighting, and a state-of-the-art fault reporting system.

Since several circuits had to be cabled using the original ducts, there was no room for other cabling or traditional dimming strategies. A solution comprising wired and wireless control and communication from server, client PCs, and mobile devices was therefore a top priority.

Solution

Using KNX, the company was able to communicate with all the cabinets using just one cable, and take full control of the dimming features, whilst adding extra benefits and features. The installation was seamlessly carried out by coordinating with all the other trades such as cabinet contractors who assembled all of the electrical items and control components; electrical staff who were in charge of wiring the whole building; and construction personnel who installed all of the lighting components.

Installation

First, the wiring, electrical and lighting works were carried out. Extremely old wiring had to be pulled out from ducts,

Winner KNX Awards 2020
Category:
International Africa, America, Australia

Agustin Abdala (Argentina) –
Historic Theatre Automation
in Córdoba, Argentina

KNX allowed a highly-complex and distributed lighting control system to be installed in a very short space of time, and has the flexibility to adapt to continuous changes.

and alterations made in order to install new cable and components. The data infrastructure also required large numbers of electrical trays and electrical installation in the building.

This demanded a lot of time and effort and was the most challenging aspect of this phase of the project, which required close liaison at all times.

Once these works were completed, the cabinets were installed all over the building. Connection took several weeks due to limited access most of the time for security and safety reasons. After everything was in place, the control system was prepared for programming, installation and setup. The most challenging part of the project involved combining all of the planned engineering and control strategy, due to the massive number of contractors and people involved in the project's development and installation. As installation progressed, other parties' challenges also became apparent due to specific characteristics of the building, and these had to be overcome as they went along. For example, extra control circuits, layout modifications to the module distribution scheme, and changes to dimming strategies and technologies in some cases.

The scenes demanded highly-precise, customised configurations, specific to theatre lighting strategies. Setting these up required many iterations during the configuration, and fine-tuning to achieve the desired results. There was a strict deadline of six months for the electricity, data and light control branches of the project to be implemented.

Operation

Since first commissioning of the system and re-training of the staff, no modifications to the installation have been required. Indeed, due to the pandemic, no intervention or expansion has been planned. The lighting control system continues to operate without any trouble. The only issue is with the poor electricity supply, which is beyond their control, but this is dealt with by technical alarms programmed into the KNX system to flag such occurrences.

The lighting operators are enjoying being able to try out possible changes to scene management, scene setup, and operational features of the platform on a daily basis. They continuously take advantage of the omnipresence of the system to try different lighting effects in an enormous layout.

KNX allowed us to successfully implement a highly-complex and distributed lighting control system that was spread across many stories of a building, in a very short space of time. It performs as one single and compact system that has the flexibility of adapting to continuous changes. The

Cabinet operation being controlled by tablet interface.

IP backbone also allowed us to merge the system with the huge data infrastructure that was installed in the building. The system provides ubiquitous access for the lighting operators through a friendly interface using different devices, and is able to respond to the different requirements of each lighting section, offering precise control as well as stable, robust and secure operation. The overall effect is professional and coordinated.

KEY PRODUCTS AND TECHNOLOGIES USED
Dimmers, switches, IP couplers, binary inputs, server computer, client computers, client mobile devices, electrical infrastructure, KNX infrastructure, network infrastructure, software services

PROJECT
• *Project: Theatre Lighting Renovation*
• *A project by: Agustin Hipólito Abdala*
• *Contact: Agustin Hipólito Abdala*
  Agu2@hotmail.com and agu007@gmail.com

SMART LIVING
IN THE E-HAUS

Presentation of the latest trends in home automation

Smart Living in the E-Haus is a 100 square meter walk-in model of a home featuring intelligently networked building technology using KNX. It is organised by the German Association of Electrical and Information Technology Trades (ZVEH) with support from around 60 partners from the electrical industry. The Smart Living E-Haus has been present for many years at trade shows such as Light + Building, IFA, IHM and regional trade fairs, and has also been featured in numerous TV, print and electronic media. It is the winner of the 2020 KNX Awards category for Publicity.

Project task and its solution

The Smart Living in the E-Haus consists of eight networked walk-in modules that represent different living or functional areas of the home. The aim is to allow visitors at a range of trade fairs to experience the latest trends in home automation first hand, based on tried and tested technology. The latest edition features innovative integration with, for example, communicative kitchen appliances, assisted living and electrical storage.

The E-Haus is designed to be as transparent as possible with glass shelves offering visitors a direct insight into the

Setting up the E-Haus.

Winner KNX Awards 2020
Category: Publicity

ZVEH (Germany) –
E-Haus

HVAC, WIFI-connected laundry, electrical storage and charging area.

Home office area showing overview of energy management on desktop.

functioning of the systems and products used. Visitors are also encouraged to experience the technology "live", so user interfaces must be robust, reliable and easy-to-operate.

KNX forms the backbone of the installation, and is connected using twisted pair (TP), RF and IP. The simple and reliable expandability of the KNX system to integrate new technologies, functions and products made it the ideal choice. Future security also plays an important role here. In conjunction with a multifunctional integration tool, that is, Eisbaer, all other systems and components were integrated into the overall functionality as required.

The focus of the latest edition of the E-Haus is on energy management, sector coupling and charging management including updated electric vehicle (EV) data connection. From photovoltaics to electricity storage, intelligent ventilation to fuel cells, even communicative kitchen appliances and active assisted living are clearly networked.

Multiroom audio is also featured, as well as door communication and video surveillance. A "cloudless" voice assistant can be used to control building services functions or scenes with simple voice commands. Manual operation can be carried out using local buttons or a simple user interface using TV or mobile device.

Other features include intelligent mirrors with touch control and Internet access, LED lighting that adjusts according to ones biorythms, and communication via a virtual keyboard that can be displayed on various surfaces.

There is also assisted living technology to allow people to stay in their own homes for longer, for example pressure-sensitive flooring that can sense a fall, motorised kitchen storage that can be moved through gesture, facial recognition for door entry, and security systems that are integrated with audio, lighting and emergency services.

Bedroom area featuring smart mirrors, multiroom audio and time-sensitive lighting.

KEY PRODUCTS AND TECHNOLOGIES USED
ABB Schweiz, Basalte, Elsner Elektronik, Siemens Schweiz, Wago Kontakttechnik, Albrecht Jung, Berker, Busch-Jaeger Elektro, Enertex, GePro Gesellschaft für Prozeßtechnik, Gira, ise Individuelle Software und Elektronik, MDT technologies, Schneider Electric c/o Merten, ProKNX SAS, Steinel, tci, Theben, Theben HTS, Weinzierl Engineering, ZF Friedrichshafen, Alexander Maier

PROJECT
• *Project: E-Haus*
• *A project by: ZVEH*
• *Contact: www.zveh.de*

RESEARCH
IN THE SMART LIVING LAB

Exploring technical opportunities
for people with disabilities

For the past ten years, the University of Applied Sciences in Vienna (Austria), has been researching and teaching in the field of smart homes and active assistive living (AAL) technologies. In May 2019, the Smart Living Lab was opened. It covers an area of 250 square meters consisting of a living area, a cooking space, a bathroom, a sleeping space and a lecture room. The aim of the lab is to find new ways to make smart homes easy to control for people with disabilities. This project is the winner of the 2020 KNX Awards category Special.

Project task

The brief was to provide an environment to allow researchers and students to use state-of-the-art smart home technology and assistive technologies for activities such as user tests with disabled people, and testing and integrating new technologies to provide enhanced usability and energy efficiency.

Various control methods have been developed for people with different types of disabilities.

Winner KNX Awards 2020
Category: Special

FH Technikum Wien (Austria) –
The "Smart Living Lab"
of "FH Technikum Wien"

Researchers at the FH Technikum Wien

Solution

At the start, the lab was equipped with typical entertainment components such as TV, radio and DVD player, as well as kitchen devices such as a smart fridge and a smart oven. The lab was then also equipped with eye trackers, lip micros and voice control, allowing disabled people to interact with tablets or PCs. KNX devices were included to control lighting, HVAC, blinds, security and safety devices and provide visualisation possibilities.

The use of many different technologies for a variety of functions is still a challenge within the lab, and whenever possible, they integrate devices by using gateways to the KNX system. The KNX standard then allows them to integrate these different functions into a single system, providing a clear user interface and control of the environment. Where no gateway to KNX exists, openHAB comes into place. It allows to perform automation tasks, timed and logical functions in a vendor- and technology- agnostic open-source way.

Installation

The ideas for the lab evolved in 2017, and the actual planning started early in 2018 based on years of experience in research and teaching AAL at the university. First, the room concept had to be completed. The aim was to have an open space that was not only suitable for lectures and presentations with up to 20 participants, but also for project work in a typical home environment. Components were then selected deliberately from many different vendors in order to demonstrate the integration possibilities of KNX.

Students then had the opportunity within their regular 5th semester courses to support the project through ETS commissioning and physical address programming. The devices were then installed by the different sponsor companies. During the test phase, the commissioning was adapted and improved, to better suit the needs of the people working there. The automated rules in particular, had to be adapted as well as user interface issues to fix the fact that too many features had initially been presented to the user. Due to the flexibility of KNX, these issues could be fixed during operation, and also upcoming IT security aspects, such as secure remote access, could be integrated at a later date.

Since the winter semester of 2019, the lab has been heavily used for teaching courses with respect to KNX and smart homes. In addition, around 30 students have already been able to use the lab within their KNX-related projects and bachelor theses. The use of KNX in the lab has also helped to support disabled clients, who have been able to test the control of the environment and help our researchers to develop suitable assistive technologies.

BENEFITS OF KNX IN THIS PROJECT

Home control functionality for people requiring assistance requires a broad range of technology that can be continually adapted. KNX is ideal for this, as it gives us the flexibility to mix and match devices from different manufacturers seamlessly, whilst also being able to integrate non-KNX devices and keep everything under the control of a clear user interface.

KEY PRODUCTS AND TECHNOLOGIES USED

- *Manufacturers: ABB, Berker, Busch-Jaeger, ekey, euro unitech, Hager, Jung, Merten, Netx Automation, Schneider Electric, Siblik, Siemens, Somfy, Theben*
- *Technology: Touch controllers with temperature, humidity and CO_2 measurement, Room controllers, Touch panels, Fingerprint scanners, Switching and blinds actuators, Presence detectors, Pushbutton interfaces, EnOcean/KNX gateway, NETxAutomation BMS, Smart meter, A1 Smart Home System, Dyson Pure Cool Tower, Fibaro wireless components such as flood or smoke sensors, universal inputs for step mats, E-Steiermark Homee system, Liebherr refrigerator, Weinzierl KNX RF/TP coupler, DALI electronic ballasts for lighting control, Bosch kitchen appliances, NUKI door opener system, RECORD automatic door opener, AV components from Yamaha, Panasonic, Sonos and Klipsch, Voice controls from Amazon (Echo, Echo Show) and Google (Home), Tablets (Android and iPad) for control, GUI integration with OpenHab, Custom GUIs or barrier-free user interfaces via AsTeRICS and AsTeRICSGrid*

PROJECT

- *Project: The Smart Living Lab*
- *A project by: University of Applied Sciences Vienna.*
- *Contact: Friedrich Praus, praus@technikum-wien.at*

GOLD LEED
CERTIFICATION FOR A NEW OFFICE

Water and waste management company with highest energy efficiency and security thanks to KNX

The administrative headquarters of Sanepar, the Brazilian water and waste management company, is a new office building located in Curitiba (Brazil). The aim of this project, which won the 2020 KNX Awards category Energy Efficiency, was to make the building as energy-efficient as possible. Arqtech Automacao, a family-owned and-operated integration business, was commissioned to provide a solution. The installation has also been awarded Gold LEED certification.

Sensors on the façades help to monitor external lighting levels.

Winner KNX Awards 2020
Category: Energy Efficiency

Arqtech Automacao (Brazil) – KNX for LEED V4 Platinum Project in Brazil: case Sanepar

Efficient control of 1600 lighting ballasts is provided.

Project task
The brief was to make the building as energy-efficient and safe as possible through sensors and automation. This included DALI lighting, PV generation monitoring, and control of blinds, shutters, HVAC, water consumption, recycling and air quality.

Solution
The building was fitted with PV to generate electricity, with pumps and motors to help with water recycling, with sensors to monitor CO_2 for air quality and renewal control, and with light sensors for continuous office dimming, including twilight sensors on the façades to monitor external lighting. A weather station was also fitted, as well as 147 presence detectors in all areas around the building, including toilet facilities.

The control system was based on KNX TP and KNX IP, and all of the different technologies were integrated into a BMS workstation SBO server. The solution provides efficient control of 1600 lighting ballasts as well as 50 % of the building's electrical sockets which are scheduled to switch off during given times for further energy savings.

There are 50 custom building scenarios, with local control through switches, and a visualisation system with a plan for every floor as well as a dashboard for monitoring energy generation and consumption, water use and recycling, and CO_2 levels.

The dashboard part of the visualisation.
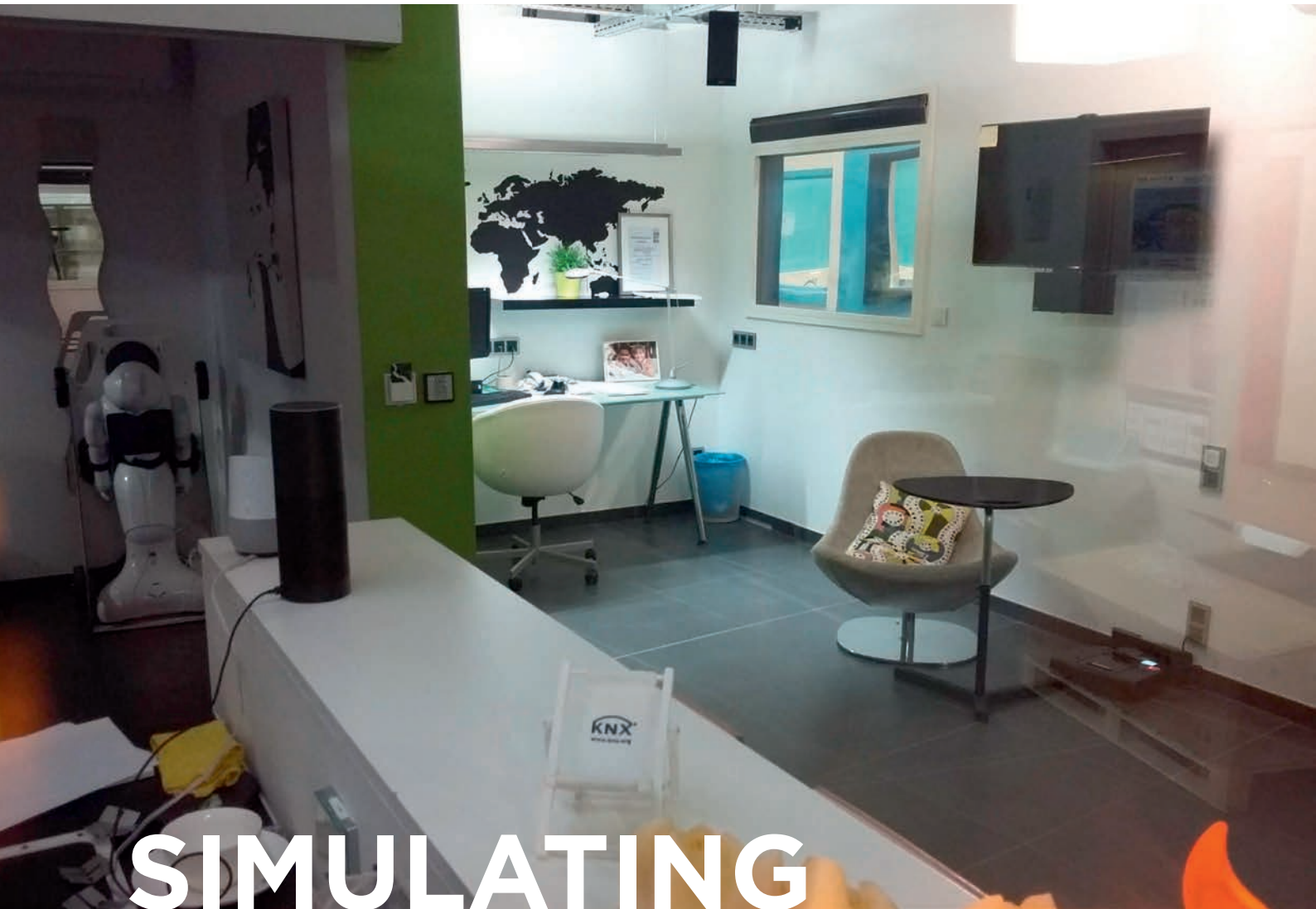
KEY PRODUCTS AND TECHNOLOGIES USED
ABB, EAE Teknoloji, Schneider Electric, Vivo Suisse Apricum, Albrecht Jung, Somfy

PROJECT
- *Project: KNX for LEED V4 Platinum Project "Sanepar"*
- *A project by: Arqtech Automacao*
- *Contact: www.arqtechautomacao.com.br*

*The administrative headquarters of Sanepar in Curitiba, Brazil.*

SIMULATING
OFF-GRID LIVING

Main focus on operating the simulation house
with self-generated energy

The Odisee University College in Ghent (Belgium), has been holding KNX in high regard for over a decade as a KNX Scientific Partner as well as providing certified training. Its 2019 project for the Energy Technology education programme was to make a house with an existing KNX installation, off-grid. This project was carried out in the home automation simulation house at the college's premises by the Professor of Energy Technology, Joachim Goeminne, and four research students, namely Andreas Schepens, Alexander De Geyter, Sam Vanpoucke and Laurent Laplace. The project is the winner of the 2020 KNX Awards category Young.
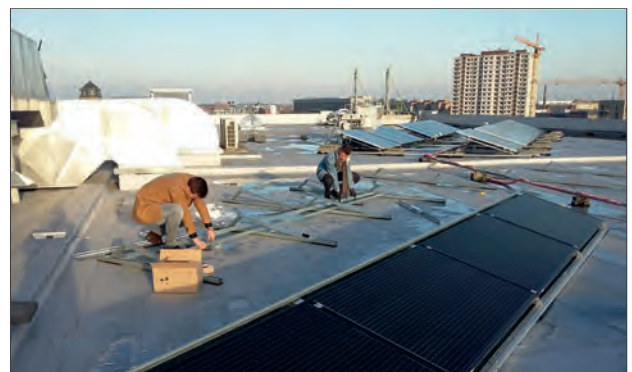
Installing the solar panels on the roof.

Winner KNX Awards 2020
Category: Young

Odisee (Belgium) –
Off-grid Smart Home

Project task

The main focus of this project was on sustainability and the aim was to make the simulation house able to run on its own generated power. New hardware and software for energy generation, monitoring and management were to be added to the existing KNX installation that includes lighting and blind control.

Solution

Solar panels were installed on the roof for energy production, and a home battery was installed for storage. To make this small house more realistic as a heavy energy user, a heat pump with two indoor units was also added. Each of these units is connected to a KNX module, which in turn, was connected to the existing KNX installation using twisted pair cabling. This makes them easy to program. A KNX module was also integrated with a smart meter in order to make data available on the bus, so that energy consumption could be monitored and optimised.

In an age when climate change and energy consumption is top of the agenda, this project shows that, using the right technology, is it possible to live off-grid and limit their impact on the environment.

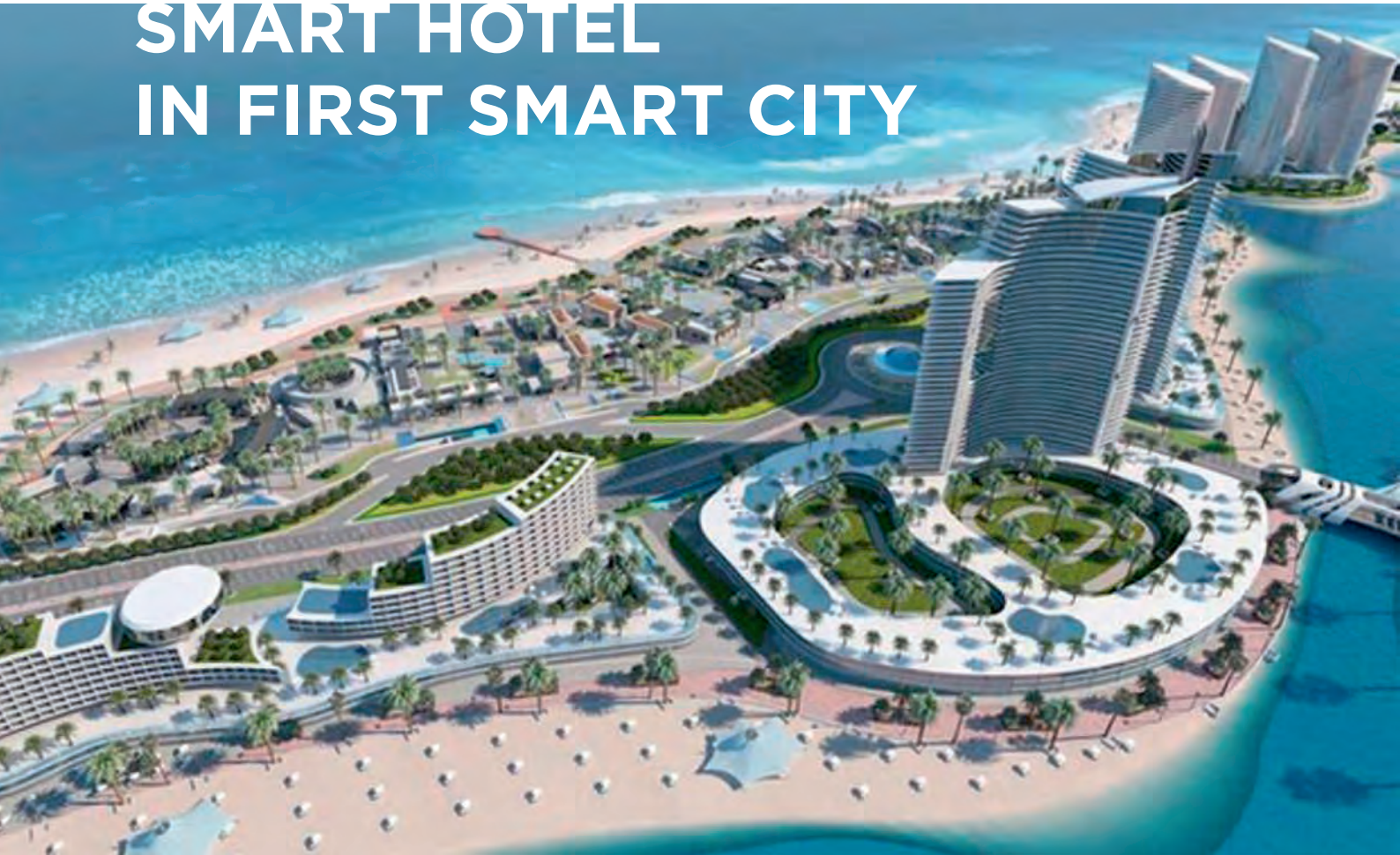### KEY PRODUCTS AND TECHNOLOGIES USED

Jung, Schneider Electric, Crestron

PROJECT

• *Project: Off-grid Smart Home*
• *A project by: Odisee University College*
• *Contact: joachim.goeminne@odisee.be*

The research team in front of the KNX cabinet and monitoring equipment.

AL-MASA
SMART HOTEL
IN FIRST SMART CITY

Hospitality and management system
for guests, business and holiday at the mediterranean sea

Al-Masa Hotel is the hub of New Alamein City, built for a population of around two million people. It is the largest hospitality hotel in Egypt and one of the largest 7-star hotels on the Mediterranean Sea. Egypt is undergoing a huge urban development programme, and New Alamein City is at the top of the Egyptian state's priorities by being the first smart city in Egypt. This project is the winner of the 2020 KNX Awards category People's Choice.

Winner KNX Awards 2020
Category: People's Choice

Egyptian for Intelligent Buildings
Smart (Egypt) – AL-Masa Downtown
New Alamein City

An RF remote can control all home, multimedia and security functions.

Project task

As the client, the Egyptian Armed Forces commissioned leading KNX specialist SMART to provide an energy-efficient system with full guest room management system and integration with KNX IoT devices throughout the development. This includes the commercial, entertainment and parking areas, as well as the streetlights and residential towers.

Solution

The requests of the owner and the consultant were many and complicated due to the enormity of the integration required between the different systems in the project. Therefore the company created a design that allows to connect KNX with the rest of the systems and also to accommodate potential future expansion.

They chose KNX because it is an open protocol system that allows to communicate with others systems in several languages, namely BACnet, Modbus, IP network and the KNX bus natively through a single twisted pair cable.

Installation

The project consists of six interconnected towers that contain a total 1500 guest rooms, residential rooms and meeting rooms. First, they used the data for each room/area to determine the suitable devices/solution for that area. Then, they made drawings and wiring diagrams for the KNX panels in coordination with the main contractor.

15,000 KNX devices were used, with a huge IP network consisting of 820 IP gateways as the backbone of the project. In addition, the EBO (EcoStruxure Building Operation) system from Schneider Electric is used as the BMS (Building Management System) interface.

The system installation took about 18 months of hard work in designing, installing, programming and integrating the KNX system with up to eight other systems.

7-star hotel with hospitality and management system for guests, business and entertainment

BENEFITS OF KNX IN THIS PROJECT

With this large number of systems that aims to service around two million people, energy saving plays a big role, and that is exactly what is offered with the KNX system. Thanks to KNX, the company kept energy consumption low and reduced CO_2 emissions.

They also offer easy integration with all other systems including the central operation centre of the city for monitoring and remotely-controlling all IoT devices. KNX also offers the flexibility to upgrade or modify operational scenarios and settings at any time.
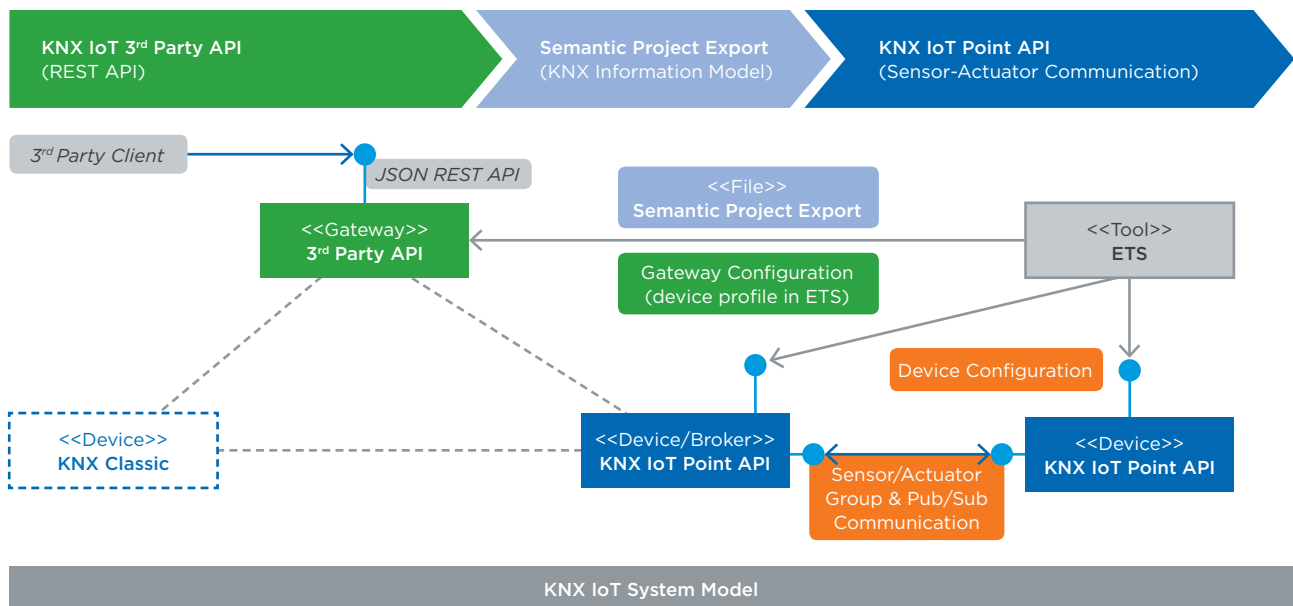
KEY PRODUCTS AND TECHNOLOGIES USED

Touchscreen wall stations
Card access door interface
Dimming
Time management
BMS interface
EBO automation servers
Different power supply devices to match different current ratings
Room applications such as lighting, HVAC and shutter control
IPTV and CCTV interface
Videlio software interface

PROJECT

• *Project: Al-Masa smart hotel*
• *A project by: SMART*
• *Contact: Tamer Hamdy, tamer.hamdy@smarteib.com*

KNX IoT is taking shape

KNX finalises its first version of its 3rd party KNX IoT API and KNX information model – full steam ahead for the KNX IoT Point API


| KNX IoT 3rd Party API (REST API) | Semantic Project Export (KNX Information Model) | KNX IoT Point API (Sensor-Actuator Communication) |

3rd Party Client → JSON REST API

<<Gateway>> 3rd Party API

<<File>> Semantic Project Export

<<Tool>> ETS

Gateway Configuration (device profile in ETS)

Device Configuration

<<Device>> KNX Classic

<<Device/Broker>> KNX IoT Point API

Sensor/Actuator Group & Pub/Sub Communication

<<Device>> KNX IoT Point API

KNX IoT System Model

- - - - *out-of-scope of KNX IoT*

As regards interoperability between products of different manufacturers, KNX has always been best in class since the day it was conceived, also thanks to the rigorous third party KNX certification scheme of products. In spite of this, mainly because of the plethora of other home and building automation solutions (be it proprietary or other protocols) and because of the widespread use of the internet, the market today requires that any system provides a well-documented way to interact with it, via mechanisms that are state-of-the art in the IT industry.

If you are wanting to tap into data from KNX installations via superordinate systems or integration platforms (linking KNX to other 3rd party non-KNX devices), you would simply expect that you would not need to learn the KNX protocol but be able to retrieve the following data – via a standardised and non-manufacturer-specific RESTful API:
- what locations (rooms) does the installation consists of?
- what functionalities (e.g. lighting, heating/cooling, sun shading, …) influence a certain location?
- what data is linked to that functionality or to that device realising the functionality and how can I read it and (if needed) change it?
- what link does this functionality have to the real/physical world?
- were is the device physically installed?

What is important for manufacturers implementing such integration platforms is that the information supplied by these KNX IoT gateways is machine readable and has rich semantics, at best the direct result of the product data used and/or work done by the installer designing and configuring the KNX installation. Hence, the rich (semantic) data should simply be supplied to the KNX IoT gateway by a specific ETS export that is more stable than the current XML format and is easier to upgrade. This enriched data should also offer the possibility to simplify the design phase of a KNX installation (easier selection of supported product functionality), possibly also constitute the basis for easier binding between different products and should document an installation over its lifetime as part of the Building Information Modelling (BIM) data.

Possibly the most important aspect is that the manufacturer would prefer to avoid having to start his development from scratch, but be able to already find software libraries that will support him in his work. For this reason, the 3rd party KNX IoT API uses JSON:API.
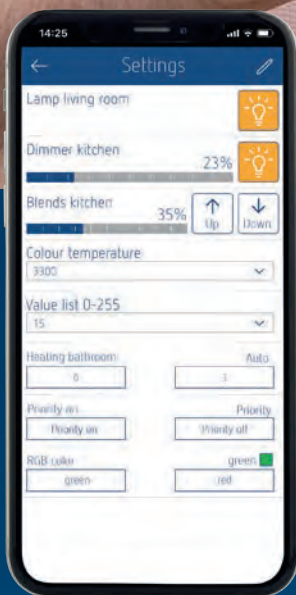
More elegance and efficiency
iON button and room controller
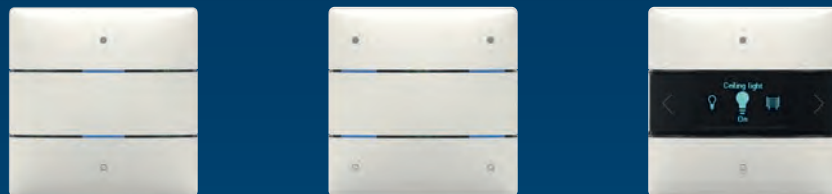
With iON, a wide range of functions in every KNX-based smart building and in the Theben LUXORliving smart home system can be controlled simply at the press of a button. All products have an integrated temperature sensor and support KNX Data Secure. iON tactile sensors are available in various versions: as 1-way (2 buttons), 2-way (4 buttons) and as a room controller with 20 programmable functions, LCD display and Bluetooth interface. The iONplay App enables convenient operation of the room controller iON 108 KNX via Bluetooth and is perfect for meeting rooms or hotel rooms.

www.theben.de/ion-en

The 3rd party API was also designed in such a way that it may support a websocket interface that enables for example direct cloud integration with bidirectional communication. Cloud applications can in this way subscribe to information on demand, minimising data transfer to cloud and costs. The websocket interface can also be used for messaging, for example, for a GUI to get notifications on modified data to be able to show changes in the system immediately.

Needless to say, the KNX IoT 3rd party KNX interface provides state-of-the-art IT security.

With the final voting of the specifications, KNX is now completing the above 3rd party interface and corresponding KNX information model, which is also accessible to non-KNX members via *https://schema.knx.org*.

As a next step and on the basis of the KNX draft specifications that are already available, KNX wants to also finalise the KNX IoT Point API specifications, a solution allowing IPv6 field level sensor / actuator (group) communication. This will allow KNX installations to be extended with devices that use other media like Thread or WiFi to exchange KNX data. As a first step, group communication would be realised via pre-configured recipients (brokers). For this, KNX plans to complete the final voting of the specifications in a year from now and plans an ETS prototype allowing configuration of security and group tables in the first KNX IoT device prototypes of manufacturers.

KNX NEWS APP

Get all the latest KNX news in your pocket anywhere you are

If you want to keep abreast of what´s happening in the world of KNX, tap into the new KNX News App! Available for any mobile iOS or Android device, the KNX News App will give you the latest news from the KNX world, including:
- news about the latest
  KNX Member products.
- news about the latest
  KNX Association tools.
- webinars and videos
  from KNX Association,
  KNX Members and others.
- details of forthcoming KNX events
  around the world.
- special deals for KNX Professionals
  offered exclusively via the app.

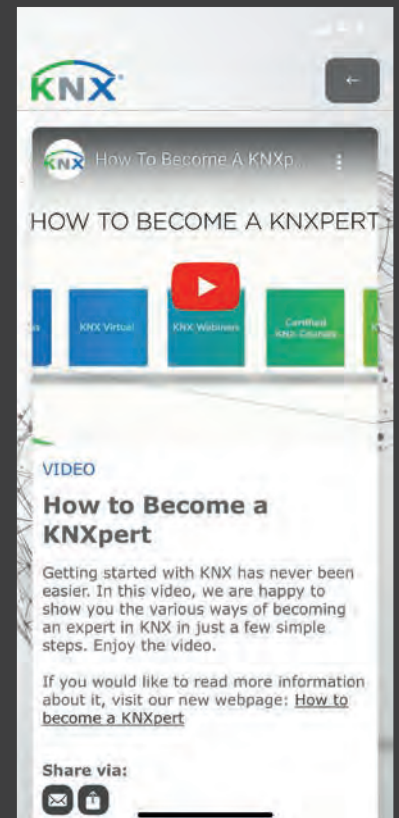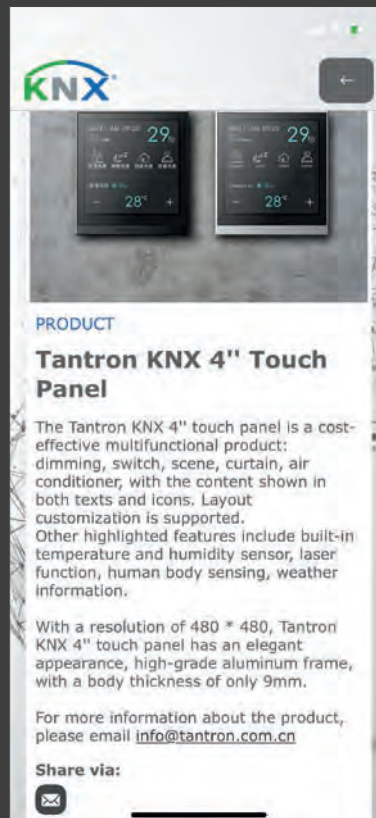**Never miss out
on important news and offers!**
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KNX Association will be pushing latest news and special offers through the app, some of which will be exclusive to the app, so make sure you download it and enjoy all the benefits right away!

Availability and cost
The KNX News App is available now, free of charge and can be downloaded via the Apple and Google stores.
For more info and download links to the KNX News App, you can visit https://news.knx.org/

PRODUCT

Tantron KNX 4'' Touch Panel

The Tantron KNX 4'' touch panel is a cost-effective multifunctional product: dimming, switch, scene, curtain, air conditioner, with the content shown in both texts and icons. Layout customization is supported.
Other highlighted features include built-in temperature and humidity sensor, laser function, human body sensing, weather information.

With a resolution of 480 * 480, Tantron KNX 4'' touch panel has an elegant appearance, high-grade aluminum frame, with a body thickness of only 9mm.

For more information about the product, please email info@tantron.com.cn

Share via:

VIDEO

How to Become a KNXpert

Getting started with KNX has never been easier. In this video, we are happy to show you the various ways of becoming an expert in KNX in just a few simple steps. Enjoy the video.

If you would like to read more information about it, visit our new webpage: How to become a KNXpert

Share via:

Here you can download the KNX News-App.

Electrical Vehicle charging and Energy Management

Integrating an eCar in a KNX installation: already a reality today
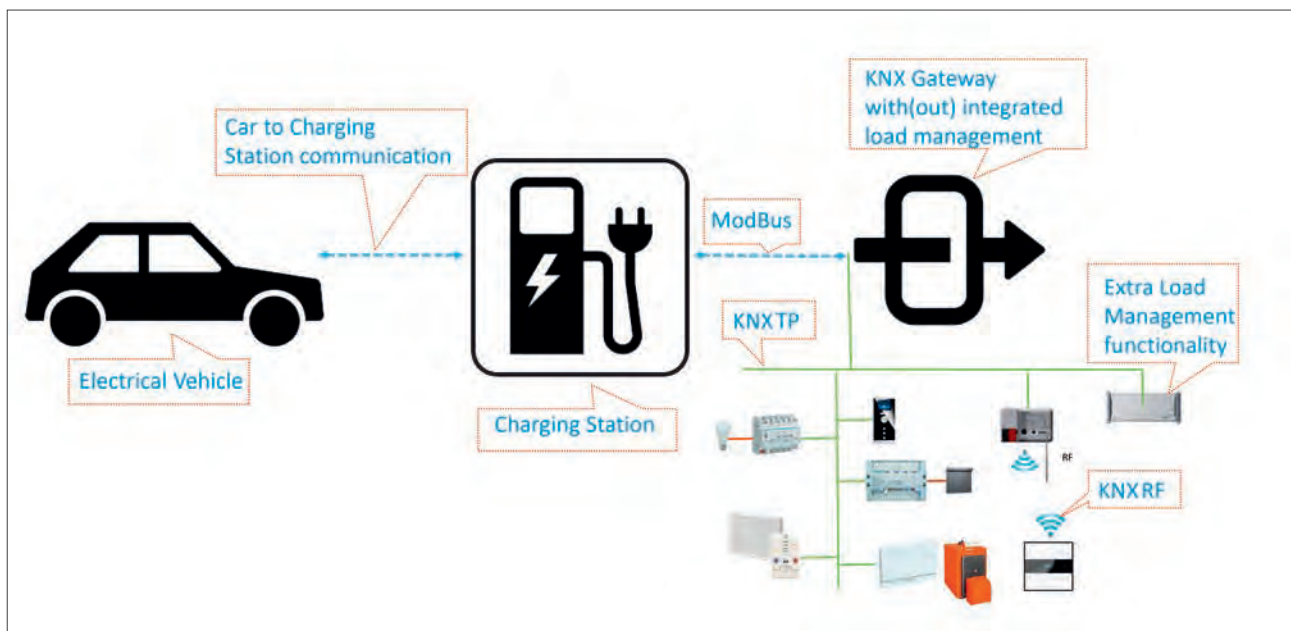
In the recent years, many countries worldwide have announced plans to phase out the use of fossil fuels for mobility and want to actually impose the use of electrical vehicles. Although these are very challenging targets, many countries are very serious about this. By 2030:
- *the Biden Administration is expected to deploy more than half a million new public charging stations in the US;*
- *the UK want to ban fossil fuel cars altogether;*
- *and with its Green Deal, the EU commission wishes to lower its emission by at least 55 % compared to 1990.*

This clearly shows that the eCar may still be a very scarce phenomenon on the road today but this is about to change dramatically. If every household has an eCar in ten years from now, a (very) energy hungry element will be added to every single home and if taking the car to work, several of these hungry elements will want to be fully charged again by the time the working hours end.
It will therefore be paramount that we make the best use of our available energy, preferably green energy rather than just tapping energy that is converted fossil fuels. The most ideal would be that what we consume can be produced entirely at the site where the charging happens

and there is still sufficient energy to also run all the rest of the applications we have in the building (lighting, heating/cooling, appliances, ...). Just as ideal would be that we can also use the storage capacity of our eCars – in addition to a stationary battery storage – to save energy when energy is abundant and to tap energy when production in the grid is low.
It is clear from the above that an intelligence will be needed in homes or buildings to manage this. Compare this to a director of an orchestra, who will make sure the strings are not overwhelmed by the brass section. Translated into technical terms: there is the need for a customer energy manager instructing the different energy consuming/producing elements in a home or building and keeping an eye on whether there is enough energy to go around.
In traditional KNX, there are already solutions on the market that allow to solve this exercise of performing load management in a home that also has a charging station. One of the KNX members is providing an interface that allows to integrate several charging stations in a KNX system. The product has an integrated Modbus RTU interface and in this way allows communication to many types of charging stations, also providing a ModBus RTU inteface.
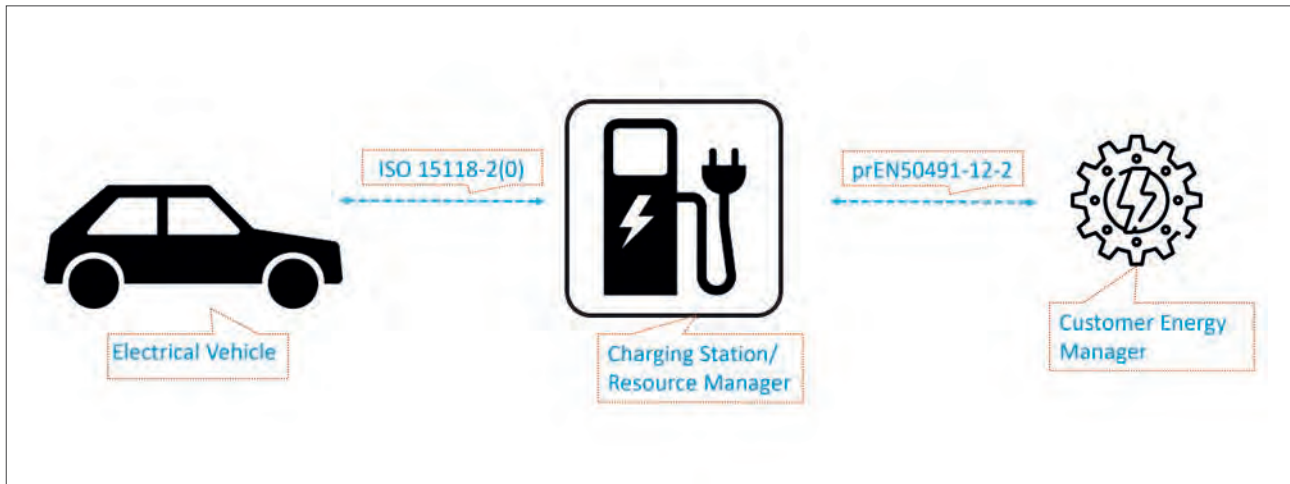
It provides amongst others the possibility to:
• view the last charge and overall energy consumption;
• the momentary loading current
• the charging start and end time
• and is also able to perform the required load management.

When wanting to realize more sophisticated energy management algorithms, the product can then also be combined with an extra KNX server or visualization software.

A further product is currently under development at another KNX member that will make the connection between a smart meter and a possible charging station. However, also in international standardization, currently there are activities that wish to solve this exercise in a technological neutral way. The prEN50491-12-2, which KNX helps to shape, abstracts all energy consumers and producers in a home or building as elements called "resource managers"(RMs). Such RMs can be a single product (e.g. a charging station), but may just as well "hide" an entire application domain (e.g. lighting control) or even an entire system (e.g. a complete KNX installation). All RMs are directed by a central intelligence, the customer energy manager (CEM). The interaction between the CEM and the RMs is defined by a number of different control strategies, which are referred to as "control types".

As for eCar charging, such a resource manager would be the charging station, as the communication between the charging station and the car is laid down in another standard, the ISO 15118-2 and upcoming part 20. This standard defines two charging strategies, the dynamic and scheduled mode, the basic difference being that:
• in the case of scheduled mode, the eCar keeps the complete control over the charging process
• in dynamic mode, the charging station acts as charging controller, once the energy demand, the departure time and other charging parameters have been exchanged between the car and the charging station.

The control types from the prEN50491-12-2 that is most ideal for the eCar charging use case in dynamic mode is without any doubt the fill rate based control type, as the eCar is in this regarded as a storage/buffer and the departure time can be modelled as the fill level target. For the scheduled mode, the power enveloped based control defined in prEN50491-12-2 seems the best option to keep the EVs power consumption over time between certain limits. Although the above concepts could for sure be realized also by means of KNX classic methods like Group Communication, it seems evident that this would better be realized in forthcoming KNX IoT devices using the KNX IoT Point API with IPv6, which allows to communicate larger data sets.
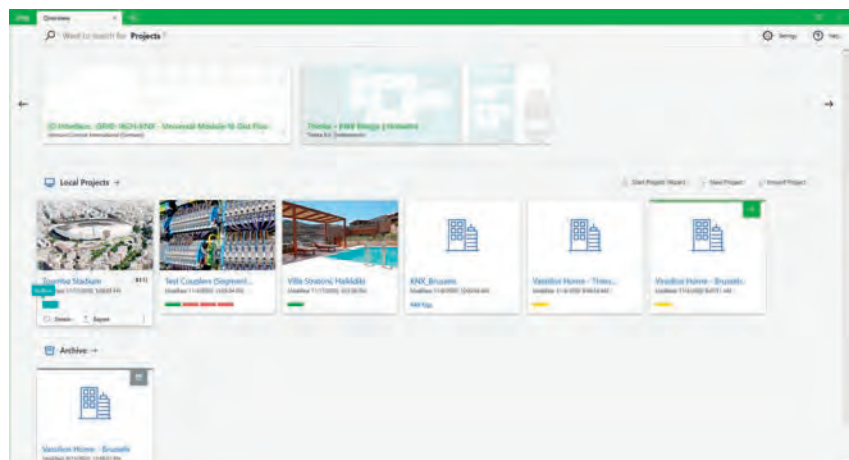
ETS6: Secure, Smart, Open

Integration of information, design and technology are key in the new tool

ETS6 Professional is coming with many changes in different domains, maintaining and further promoting the assets of KNX and ETS, which are Secure, Smart and Open. However, what is behind those slogans, and what is their real value? The answer is given below by explaining how these slogans have been considered in the implementation of ETS6 Professional.

The newly redesigned and enhanced ETS6 dashboard

Secure

Starting with Secure. ETS5 Professional was the first ETS Professional version able to deal with KNX Data and KNX IP Secure devices. With ETS6, the handling of those devices in the projects is further improved and the KNX system extensions for safer KNX installations, easier topology scaling and new generation of RF devices are brought to the spotlight. Concretely, ETS6 supports couplers with segment coupler and security proxy functionality, which brings several benefits for the system integrators, allowing them to easily extend existing projects with new devices supporting security or RF devices. In this way, their customers do not lose the investment they have already made on plain KNX devices in their existing installation. The segment coupler, which is the most anticipated KNX system extension, is one of the ETS6 highlights. So far, in the training documentation as well as in the tools, the focus when explaining the topological aspects has only been given to areas and lines for simplicity reasons. There has never been an emphasis on the line segments, which is a smaller entity within a line. However, having seen the market needs and the potential of visualising and working with segments in ETS and consequently in real projects, it was also brought to the spotlight. This means that a segment coupler is in fact an extension of a media coupler that can connect line segments together regardless of their medium type, with some constraints of course.

The next main system extension to be supported is the secure proxy. A secure proxy is again a coupler extension that allows plain devices to communicate with devices that operate securely. Therefore, these kinds of devices are a perfect solution when retrofitting existing installations with secure devices. In this way there is no need to remove all existing plain KNX devices and still have security on the newly added devices. A secure proxy handles and ensures secure communication between both sides, the plain and the secure one.

The last big system extension to be supported in ETS6 Professional, is the RF Multi, the new generation of RF devices. They come with several advantages, such as mandatory security support, easy configuration, since all the frequency settings are automatically set by ETS and of course, all the runtime capabilities that come from a product entry created with the Manufacturer Tool.

Smart

One of the major improvements is the window and panel-handling enhancement. ETS6 Professional can run in multiple window instances, making it possible to have 2 or more instances open at the same time, which can be very useful in case someone wants to check and compare data e.g. within a project or between multiple projects. Another big improvement that is being introduced with ETS6 Professional is the flexible tab handling. A tab can be maximised, which then creates a new tab within the same ETS6 instance and it can be dragged out of that instance, creating a new ETS6 instance. It can at any time be dragged and dropped back to its previous or another ETS6 instance and get embedded in that instance.

ETS6 comes with a new licensing model, which supports cloud licensing additionally to the dongle-based licensing, with the possibility to even work offline for a couple of hours, in the event there is no internet connection available. This means that issues caused by forgotten KNX dongles is something of the past. You can switch to cloud licensing from within ETS6 and continue working until the dongle is found or a new dongle arrives. Furthermore, the well-known green KNX dongles can be used to license ETS6 as well! Talking of licensing, KNX has taken the biggest licensing step ever as ETS6 connects to a user's MyKNX account to fetch any available and suitable licence for the software.

As user experience has always been a major concern of software development, ETS6 has a complete redesign of its dashboard, which focuses on the quick access and handling of projects as this is the most frequent action for an ETS user. Furthermore, a lot of additional metadata has been added, such as a project cover picture, project type, project tags, project icons and so on, which make it easier for the users to quickly find, categorise and access their projects. Furthermore, because projects do not only 'live' in the local project store, but also in the project archive, the project archive has also been enhanced. Features that may look obvious now, but were not in the past, are now available to all ETS users as standard functionality. Moving projects within the archive, synchronising projects with the archive, etc. is now possible. To approach the average user and not only the experienced ones, the use of the Project Archive as a 'Backup functionality' has been simplified. For the experienced users, the 'Extended Collaboration features' have been introduced, which allow users to work on a project with multiple people, though not at the same time.
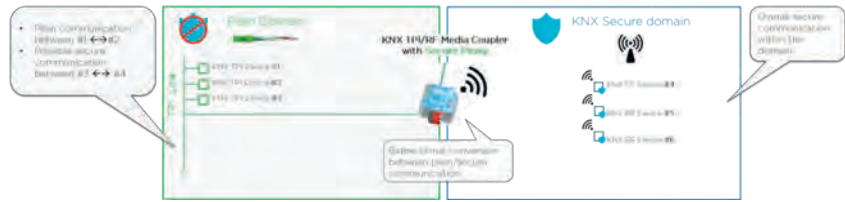
The newly redesigned and enhanced ETS6 dashboard
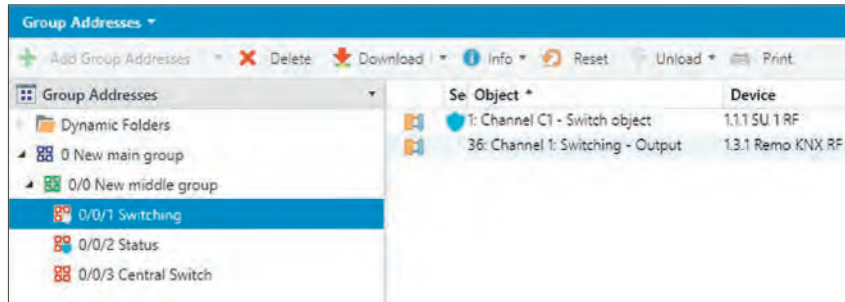
Because good user experience also includes the seamless integration of new software features and bug fixes, ETS6 embeds a prominent update notification to make all ETS users aware of a new update allowing them to download and install it whenever they are ready.

Open

KNX is open, so is its software, ETS Professional. ETS6 supports the KNX IoT system, allowing KNX installations to be even more open to the rest of the non-KNX world. With ETS6, KNX welcomes the era of IoT by extending the semantic information, which is appended to most of the project elements even today, with standardised information provided by the KNX IoT Working Group, which is a standardised solution across all our 500 KNX members. An exported IoT project has all the necessary information that needs to be passed to a KNX IoT 3rd party API, so that a KNX installation can be interoperable with any 3rd party client, which will exchange information with a home or build-

ing. For example, a weather forecast API service could inform the building about upcoming sunshine, so that the building can then self-adjust the energy consumption and switch its electricity source from the grid to the batteries of its solar panel system, since the upcoming solar energy could replace the consumed energy part.

To sum up, thanks to the KNX IoT, we can provide a standardised IoT solution, so that even more non-KNX systems and services can be seamlessly integrated with KNX installations.

Segment Coupling now possible with ETS6
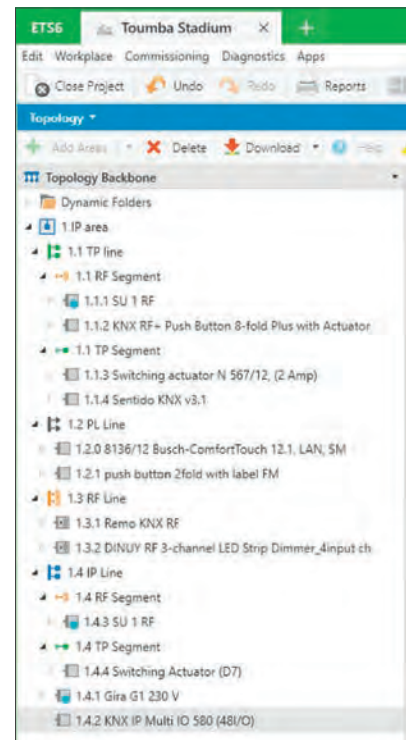
ETS Inside connects professionals and users

Building automation with KNX is a guarantee for safety, versatility and stability. With ETS Inside, the KNX Association now offers a simple and cost-effective tool for commissioning and system optimization. This makes every project a success – for professionals and users.

ETS Inside is the perfect complement in the KNX world and compatible with existing or new installations.

As a professional you use the well-known ETS Professional and provide your customers with selected parameters for further editing in ETS Inside. For simple installations, project planning directly with the cost-effective ETS Inside is a good choice.

End users benefit from the easy-to-use user interface of the ETS Inside client app for iOS, Android and Windows. Small changes to the released parameters can thus be carried out effortlessly. With the ability to integrate up to 255 KNX devi- ces, ETS Inside is perfect for smart homes and small commer- cial properties.

Another key benefit is the ability to load and edit ETS Inside projects in ETS Professional. This allows professionals and users to remain completely flexible and master any challenge together.

In order for users to be able to edit projects with ETS Inside, an ETS Inside server is required. Until now, this server had to run on a computer system. For example, a separate mini PC. This is now easier and more cost-effective with the gate- ways from BAB TECHNOLOGIE. The integrated, free server is now available to all users of the KNX visualization gateway CUBEVISION MODULE and the universal KNX IoT gateway APP MODULE.

The ETS Inside license dongle is simply connected to one of the gateways from BAB TECHNOLOGIE.

The necessary license is available at *https://my.knx.org/ shop/*. For more information about BAB TECHNOLOGIE products, please visit *https://www.bab-tec.de*.

KNX Virtual – The success goes on and beyond

New tool with improved user experience

The right temperature with KNX Virtual

The release of KNX Virtual can be considered as one of the best product launched of KNX Association. And the best about it? It is completely free of charge. Not long after its initial release, the tool spread out throughout the world and became a success-story on its own. Now, after a year of its release, KNX Association is proud to present you the latest updates to the tool, which puts a real KNX device on your Windows computer.

But First – What is KNX Virtual?

KNX Virtual is a Windows-based application simulating a KNX installation. It requires no investment in hardware (such as power supply, USB or IP interface, KNX devices) as you will work with virtual devices, commissioned by ETS. KNX Virtual allows you to get acquainted with the KNX technology by setting up a simulated KNX installation for free. This allows you to learn the basics and to gain more confidence in working with KNX before you start your first real project.

KNX Virtual represents types of KNX devices, all connected to one TP line. These KNX devices operate upon a number of 'building loads' like lamps, dimmable lamps, blinds, heating & cooling valves. It also makes it possible to experiment with more advanced building features like weather modules, alarms, scenes and even logic operations.

What is new?

The newest version of KNX Virtual contains more than 20 devices, most of them of the 4th generation (System B), divided over several views. KNX Virtual also provides advanced system-related features like logical gates, weather-related events, alarms and scenarios. This allows even skilled KNX installers to deepen their knowledge.

But of course, KNX Association focusses on everybody and should the new functions have scared you, then rest assured that there is no reason to be scared of using KNX Virtual for the first time. Absolute KNX beginners can make use of extended documentation together with readymade ETS projects, see: help.knx.org/kv. All this make the first steps absolutely fool-proof and accessible for everybody.

The most important novelty of KNX Virtual is the integration of couplers. They reside in a newly introduced 'Couplers' view. This view allows the user to experiment with the filter table of TP/TP and IP/TP couplers. The IP/TP coupler is also the possible link to a physical KNX installation, this link can be established via the IP multicast address parameter of the IP/TP coupler.

Not only can you deepen your knowledge about couplers, this novelty gives you the possibility to connect your virtual installation with a physical installation. This underlines that KNX Virtual is not just a simulation, but foremost a real device, which you now can integrate in your installation!

Multiple KNX Virtual functions

The on-board parameters make it possible to change their routing behaviour in either direction: bus traffic coming from the primary side and propagating to the secondary side, and vice versa. Both couplers can also function as repeater, which means that their filter table is not applied. A LED per direction indicates bus traffic passing through a coupler.

How can I download KNX Virtual?

You can easily download KNX Virtual via your MyKNX account. Simply go to our shop and add 'KNX virtual' to your shopping basket. You will not be charged while finishing the order and will receive an email with a link to download the tool afterwards.

For more information, visit *https://virtual.knx.org*

KNX VIRTUAL REALITY APP

Experience a virtual tour of a smart home with KNX

The KNX Virtual Reality App (KNX VR) is an exciting new way of taking a tour around a virtual smart home. By using this app in combination with any VR headset, you can experience all functions and benefits you can find in an entry-level smart home. The tour takes you through three rooms where you can discover a smart home, and find out what KNX technology can do.
The KNX VR App can be used with any iOS or Android mobile device in combination with any virtual reality headset.

End-customers will love this!
We are already convinced of how great the KNX technology is, that's why we want to share this experience with end-customers as well as professionals. You can download it and quickly appreciate the wonders of a smart home. The app demystifies how a smart home works, and reassures the customer how it can be implemented without disrupting their normal way of life. The app can also be used by professionals as a powerful marketing tool to help potential customers understand the benefits of having a smart home based on KNX.

**Virtual interaction, a simple way
to experience the benefits of a smart home**
The KNX VR App delivers a tour through a three-roomed residence. You at the entrance of the home, then move to the living room and dining room and then to the kitchen, finally leaving the home via a back-door. You interact with different applications such as light dimming and switching, shutter control, A/V control, scenes, alarm control, etc.

Get it now
The KNX VR App is available now in the Apple, Google and Huawei stores for anyone to download free of charge.

To find out **more about the virtual tour of a KNX Smart Home, you can read more here: https://vr.knx.org/ or directly download it on these QR codes.**


Here you can download the KNX Virtual Reality-App.

New ETS Apps

You can find all ETS Apps at https://my.knx.org ▸ Shop ▸ ETS Apps

Service app

INSTA Devices can be maintained comfortably using the Insta ETS Service App. It is possible to download new firmware to existing devices. In addition, older firmware versions can also be transferred to existing devices (e.g. in the case of a device exchange). The programming interface of the ETS is used for a firmware programming operation. All KNX media are supported here (TP, IP, RF).

Contact: www.insta.de
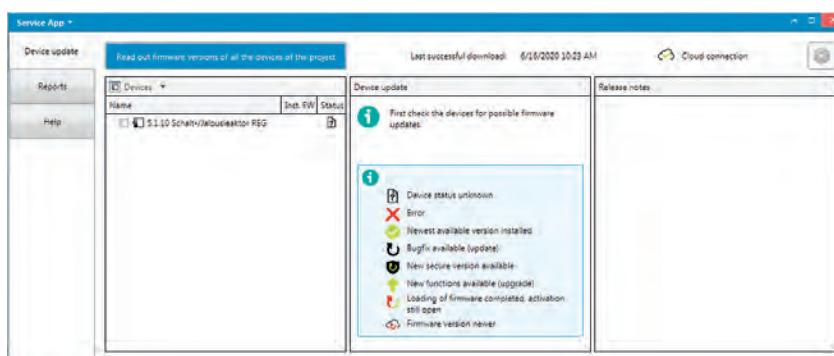
Jung KNX Secure key Loader

JUNG In order to securely integrate the scanned device certificates into the ETS, the installer transfers the JSON files created with the JUNG KNX Secure Scanner to his computer. Several files can come together there, which he archives and imports into the ETS project using the ETS app JUNG KNX Secure Key Loader. This extension is available via the MyKNX store and is bound to the ETS dongle. The installation is performed via the App menu in the main menu of ETS5 Professional.

Contact: wwww.jung.de/
contact-knx-secure

ABB Tenton®
The 3-in-1
room control device

ABB Tenton® is more than just one room control sensor. It is a 3-in-1 device and combines sensors for temperature, humidity and CO_2 in addition to room control. With these versatile functions, the building management of both commercial and residential buildings can be fully automated, while architects can rely on a wide range of design options, even in matt colors. **abb.com/knx**

ABB

New Members

(mn) medianet

GERMANY [mn] medianet is one of the most experienced and competent partners in the field of building automation and bus systems worldwide. Not many manufacturers can point to a comparably successful past in the field of building automation. In 1996 [mn] medianet started to develop its own bus system and to develop new and unique products for it. These unique products are now being made compatible to the KNX standard and thus made accessible to the large KNX community. Put your trust in [mn] medianet products because they are based on more than 20 years of experience in major international projects. The variety of original products will inspire you and will beneficially complement your KNX product portfolio. *Contact:* www.medianet-home.de

AIB Technology Co., Ltd.

THAILAND The focus of AIB Technology Co., Ltd today is a simple idea: a home that knows what to do. AIB Technology Co., Ltd is an international and multicultural team. Their co-workers are dynamics experts and passionate about industrial design, mechanical design, electronic design, innovation, and above all else automation systems, connected and smart objects. Positioning themselves as a leading Asian company in the IoT (Internet of Things) and consumer electronics, they strongly believe in interoperability between products from different manufacturers and different applications. For more than 3 years now, they have been focusing on providing state-of-the-art, innovative and high-tech products, to offer an interoperable home automation / smart building ecosystem, where all the devices can talk to each other, and work with each other. Their aim is to give a seamless experience to the end user. *Contact:* www.aib.co.th

App Tech Srl

ITALY Since 2012, App Tech srl have been developing supervision solutions ready to reduce consumption, improve safety and quality of life. App Tech's goal is to create smart solutions through high quality products and with intuitive functionality. In particular, App Tech offers its own innovative software with advanced properties that allow the company to be competitive in different areas: from the private sector to the service industry. Whatever your business structure, with their software you can have a global view via a PC, tablet or smartphone. App Tech's software is a complete and powerful product to realise home automation supervision systems for KNX and is integrated with burglar alarm systems, CCTV and sound systems. An easy-to-use product that allows the creation of visual interfaces for building control from any compatible browser or smartphone. All you need is an internet connection! *Contact:* www.apptechsrl.it

B.E.G. LUXOMAT® net

KNX®

Air Quality Sensor
WS-VOC-HVAC-KNX

Fresher air with the OCCULOG® WS-VOC-Sensor

Visit us at the B.E.G. e-Fair

VOC

Air quality (VOC)

Temperature

Air humidity

Dew point

- LED indication of air quality and humidity limit values

- Temperature controller and air quality sensor (VOC or CO_2eq) for KNX bus

- LED indication of heating and cooling

- LED indication for extension of the duration of the comfort temperature

- Potentiometer for set value adjustment

Atrel LLC

RUSSIA Atrel was founded by two engineering enthusiasts in 2019 exclusively as a company for developing innovative hardware and software solutions for building automation. It is constantly looking for innovative and unusual applications for KNX technology, always bearing in mind the current needs of the Russian market for KNX devices. They basically intend to develop KNX devices to help the users control devices that cannot currently connect directly to the KNX bus. One of their principles is that there is no room for small inconveniences in our life space, i.e. every home should be free from devices that are not controlled centrally.

Contact: www.atrel.ru

BVK Technology

TURKEY Founded in 2004, <bvk> technology is a leading ATM & site security technology provider, specialising in the development and production of smart, connected security devices and smart locks, multi-vendor, multi-tenant, web/cloud-based remote site monitoring and management software. Keyless & cardless, OTC (One Time Code), multi-factor authentication-based access management for both physical and digital access (Phygital Access) as well as smart locks are the key competencies of <bvk>. They design, manufacture and own the intellectual property of all their hardware and software products end-to-end. BVK has exported its products to over 50 countries so far and has also recently founded <bvk> technology in Austin, Texas and Den Haag in the Netherlands.

Contact: www.bvktechnology.com

CDN Smart

CHINA CDN smart is a high-end, smart home brand owned by Huizhou CDN Intelligent Technology Co., Ltd. They are a professional supplier dedicated to development and research and to providing complete smart home solutions which give their users a better quality of life. Since its establishment, the company has built a comprehensive smart home product range with seven systems, i.e. smart networks, smart panels, smart baths, lighting control systems, environmental control systems, shading control systems and security control systems. At present, the series of products and design schemes have been widely used in the construction fields of communities, villas, hotels and office buildings.

Contact: www.cdnsmart.net

Changsha Unibroad Electronic Technology Co., LTD.

CHINA Changsha Unibroad Electronic Technology Co., Ltd is committed to the research and development, production and sale of home audio systems and simple home control systems. Park sound put forward the concept of a home background music central host in 2003. It launched the digital central sound system, applied the digital network technology to home sound and launched the network music terminal. At present, the company's sales network covers all provinces and cities (except Hong Kong, Macao, Taiwan, Xinjiang and Tibet), and all villas, clubs and hotels use the backaudio family background music system. People in business, literature and art circles all choose Park sound products as music solutions for home decoration.

Contact: www.backaudio.com

GIRA

Smart Home.
Smart Building.
Smart Life.

partner.gira.com

Simple.

Whether as a Standard or Komfort variant, the compact 4-gang Gira KNX dimming actuator can be installed quickly and easily with its new DRA wiring concept. In addition to switching and dimming many types of lamps and transformers, it provides the optimal dimming experience, especially with high-voltage LEDs. It can also implement extensive scene functions and logics without using a server. Thanks to KNX Secure data secure and

Versatile.

Gira / Smart Home / Gira KNX dimming actuator

Controlium Building Technology

UNITED ARAB EMIRATES Controlium Building Technology is a specialist in electrical and digital building automation. Their HQ is in Ontario, Canada with a global presence in the UAE catering to the Middle East as well as South East Asia, Africa and New Delhi for their Indian operations. Controlium BT is empowering real estate developers, government utilities, hotel operators, facility management companies and entrepreneurs to optimise their CAPEX & OPEX in a smart building environment with technologically updated solutions and products. Controlium are a group of highly qualified technical experts with a combined working experience of over 100 years in India and the Middle East. Controlium Building Technology was incorporated in the latter half of 2019 to boost the shortcomings of having a dedicated and highly competent centre for integrated building automation in the Middle East and Africa. *Contact:* www.controliumbt.com

Creative-North-Solution GmbH

GERMANY Long-term experience, excellent understanding of technology and profound knowhow in the field of electronic development are the key features of Creative-North-Solution GmbH. They consider themselves to be a reliable partner in the development of electronic products and electronic components used for measuring, monitoring and controlling in the industrial environment. Along with their early assistance in strategic and conceptual development, they also support you in the concrete implementation of existing specifications as a development service provider. *Contact:* www.creative-north-solution.com

Dokuzbayt Bilgi Teknolojileri

TURKEY Dokuzbayt Bilgi Teknolojileri was established in Turkey in 2017 to provide innovative software solutions to meet the needs of the industry. With the principle of using the latest technologies since its establishment, it has provided software consultancy services to many important brands in Turkey and abroad. Currently, it is a fullstack software development company that serves in the fields of software architecture, software consultancy, mobile development, AR / VR applications and UI / UX design areas. They offer test consultancy services to reduce risk in software projects, produce high quality projects and provide uninterrupted customer satisfaction. They implement software and design in functional harmony and do not offer any products that do not serve their quality criteria. Their approach is to create functional, aesthetically attractive projects that work in harmony for all types of projects. *Contact:* www.dokuzbayt.com

ECS Global Wire & Cable FZCO

UNITED ARAB EMIRATES Since its inception as a distribution company in North America 35 years ago, specialising in wire and cable products and solutions, ECS Global Wire & Cable FZCO has grown to become the top international supplier of Datacom solutions with branches across the globe. Keeping up with their growth trajectory, they had their first regional expansion by establishing regional headquarters for the Middle East and Africa in Dubai. Intense customer support is a culture they practice across their enterprise and so is the pledge to stand for considered leadership and excellence. They are recognised within their industry and by customers for their supreme quality, product innovation and end-to-end solutions on the passive network infrastructure. *Contact:* www.dmeprolink.com

ESLA CONEXIONES S.L.

SPAIN As a manufacturer of special cables, ESLA CONEXIONES S.L. supplies cables for home automation, security and fire installations. They have stock for immediate delivery as well as CPR approval in the Eca class for KNX cables. They have their own brand in UTP / FTP cables category 6 – 6A – 7 manufactured in Europe by the 1st European brand, CPR approved in class Dca.

Contact: www.eslaconex.com

FAMO GmbH & Co. KG

GERMANY As a wholesaler of electrical goods, sanitary ware and steel, FAMO with its 30 locations and approx. 750 employees in the north and west of Germany has enjoyed many decades of success on the market. As a reliable partner and service provider to trade, commerce and industry, they stand for satisfied customers, good service and expert advice. *Contact:* www.famo24.de

Green Electric City

ROMANIA Through the Wireeo brand, Green Electric City has developed a series of applications for KNX systems available in Google Play. The iOS version and the cloud version will be available soon. They are also continuing the research and development of a complete series of KNX equipment that will include AI and IoT functions. Green Electric City has been active in the installation of smart home systems since 2009. During this period, several hundred projects have been installed covering residential buildings, commercial spaces, industrial buildings and hospitals. Beginning in 2018, they started the development of applications for the control of KNX systems resulting initially in the suite of Wireeo applications. Following this experience, they have concluded that many things in the KNX environment can be improved and they have made this their main goal.

Contact: www.green-electric.ro

Heston Trading(Guangzhou) Co., Ltd

CHINA Established in 2020, Heston Trading (Guangzhou) Co., Ltd is a new development company. Though Heston is new, it has a strong technical force and the team is composed of experienced doctoral and master engineers. They have strong advantages and rich experience in embedded technology, intelligent systems, radio frequency hardware research, development and communication networking technology. Their management theory: integrity, professionalism and innovation. They aim to provide the best quality and to show their sincere service attitude to every customer. *Contact:* www.hestonchina.com

KNXSIMULATOR S.L.

SPAIN KNXSimulator S.L. is a Spanish start-up which has developed an innovative and pioneering software for KNX home automation simulation. Their wide experience in the building sector and with the KNX standard and the difficulty which many worldwide sector professionals face when they have to access practical training – allowing them to include home automation in buildings – are the main reasons which led them to create a simulation tool that enables the implementation of home and building control functions to be learnt through practice, no matter where you are (online). KNXSimulator allows its users to design, wire, configure, commission and verify simulated installations, just as it is done in a real project. By doing so, they are facilitating not only the learning, but also the enhancement of previously acquired knowledge.

Contact: www.knxsimulator.com

Kordz Group Limited

CHINA - HONG KONG SPECIAL ADMINISTRATIVE REGION Founded in Australia in 2003, Kordz is committed to a high standard of practical and graceful design, partnered with superior manufacturing, delivering quality connectivity products around the world. Their attention to detail, design, precision engineering and commitment to educating the industry is why Kordz is an internationally trusted and multi-award-winning brand. *Contact:* www.kordz.com

KTS s.r.l.

ITALY KTS s.r.l. operates in the production of cables and electrical conductors, in particular in the production of cables for alarm, fire, CCTV, gate automation, home automation and telephony systems. Flexibility, which is the basis of the company's philosophy, allows them to make cables to specifications and to integrate standard production with many other types of cables. They have structured the logistics of their warehouse, succeeding in making a wide range of high rotation items available for delivery in 48/72h, thus allowing a flexibility of purchase for all customers. The products used for the insulation and sheath of cables are free from substances included in the SVHC list present in the REACH regulation compliant with directive 2002/5/95 CE, 2011/65 CE RoHS and subsequent updates. *Contact:* www.ktscables.com

Max Weishaupt GmbH

GERMANY With over 3,600 employees, the Weishaupt Group is one of the leading companies for burners, condensing technology, heat pumps, solar and building automation. The core unit is Max Weishaupt GmbH in Schwendi with its own research and development institute. The company, which was founded in 1932, has been set up as a holding company since 2009: three companies are grouped under the same roof and operate in the fields of energy technology, energy generation and energy management. Energy technology: Weishaupt offers an extensive range of products with burners and complete heating systems from condensing technology for gas and oil to solar systems and heat pumps. Energy generation: BauGrund Süd has been part of the Weishaupt Group since 2009 and carries out borehole and well drilling. Energy management: Neuberger building automation supplies intelligent building control technology.

Contact: www.weishaupt.de

MKFC (BEIJING) TECHNOLOGY LTD

CHINA MKFC (Beijing) Technology Co., Ltd is a high-tech solution provider engaged in hardware, software development and system integration based on cloud computing, artificial intelligence and Internet of Things IoT technology. The company's management team and technical team are mainly from Fortune 500 companies in Europe and America, such as SIEMENS, ABB and Honeywell, with rich experience in product development and operation management. The company is committed to the perfect combination of cloud computing, AI and IoT technology, to achieve technology landing in application scenarios through products, and to make life better through technology. **Contact:** *www.mifola.com*

Nanjing ZhongYi IoT Technology Co. Ltd

CHINA Nanjing ZhongYi IoT Technology Co. Ltd is an innovative company focusing on smart home, smart community solutions and smart community ecological construction. Through voice interaction, artificial intelligence and other advanced technologies, the company is committed to improving the living environment and quality, making life more intelligent and better. The company has the leading software and hardware R&D and design capabilities in the industry and devotes itself to building I + smart community series products and cloud platform systems, helping and realising the real estate project to become the core unit organisation of a smart city and providing end customers with a high-end lifestyle.
Contact: *www.zywulian.com*

Nanoteco

JAPAN NANOTECO was established in 2000 by members of the Morisaki-Nozaki-Uchida Laboratory; a group associated with The University of Electro-Communications (UEC) that conducts compound semiconductor research. NANOTECO is an accredited engineering trading company whose mission is to create social impact through the implementation of academic research. It has earned a reputation for its world-class product development, quality assurance, technical guidance, and grant of high-level qualifications. **Contact:** *www.nanoteco.com*

Nysa technology & solutions

INDIA The use of energy-efficient technologies is encouraged around the world and NYSA Technology & Solutions are playing their role in making a significant contribution to global climate protection. NYSA Technology & Solutions proudly announces the intelligent building control system that offers a broad range of options for optimum energy efficiency for every home. N-Bus Complete Home Automation serves as an intelligent system for electrical installation with automation and remote control making living more convenient, safe and flexible. The innovative N-Bus technology by NYSA communicates directly with KNX enabling the integration of many devices creating total flexibility and simplicity in communicating with your home environment. **Contact:** *amitnipse@gmail.com*

Optimus Doruk Elektrik Elektronik Otomasyon AS

TURKEY Optimus Doruk was established in the beginning of 2010 by merging the forces of Doruk Elektrik, which has been active in the field of panel production and electrical installation since 1997 and that of Optimus Elektronik, established in 2004 in order to build intelligent building systems. While satisfying customer demands with high quality and advanced technology in international standards, they are working to achieve a better market position. Optimus Doruk has become a leading company in the sector with its solutions, building automation systems as well as with its strong references. They have always prioritised customer satisfaction in the projects they have commissioned with a strong engineering team and they continue to provide fast and quality services.

Contact: www.optimusdoruk.com

Savesor

AUSTRALIA Savesor specialises in hotel automation solutions for both the retrofit and new-build markets, using state-of-the-art technologies to increase the energy efficiency of hotel rooms as well as the productivity of hotel staff by streamlining operating processes. Their products have been developed for the hotel industry, enabling a hotelier to retrofit a room with Savesor products in between check out and check in times, thus having no impact on revenue during installation, as rooms do not need to go out of service. Savesor typically saves hoteliers an average of up to 40% in energy costs. Savesor is known to increase guest satisfaction, which is positively reflected in online guest reviews. According to a US Environmental Protection Agency calculation, installing one Savesor Room Kit is equivalent to planting 535 trees. *Contact:* www.savesor.com

Shanghai Léwin Intelligent Technology Co., Ltd.

CHINA Shanghai Léwin Intelligent Technology Co., Ltd is a provider of smart home solution systems. Léwin makes living space and commercial space smart with leading R&D and design strength. With the framework of "artistic intelligent panel +AIoT platform + software and hardware application", Léwin realises the centralised management and control of lighting, furniture, home appliances, furniture shading, security, sensor technology and other household equipment.

Contact: www.lewin.cn

Shenzhen Nord Electric Co., Ltd.

CHINA Shenzhen Nord Electric Co., Ltd is a professional manufacturer of intelligent switch sockets, electronic door plates, RCU customer control mainframe customisation and overall intelligent control system solutions for all kinds of high-end hotels, villas, clubs and office buildings. Since its inception, the company has been committed to integrated product R&D, customisation, production, sales and services for intelligent hotels and smart homes. They are involved with project research and design for intelligent hotels, intelligent buildings and smart home system engineering and have gained a good reputation in the industry. Now the company has professional teams in design, research and development, production, sales, engineering technology and service and has obtained more than 10 national technology patents. They offer products according to specific customer requirements with flexible design as well as products that are popular with the market. *Contact:* www.nddq168.com

Shenzhen Uyesee Technology Co.,Ltd

CHINA iEAST is a leading provider of smart home audio and multizone streaming solutions which was founded in 2014. They are focused on connecting global music services and providing good services for all music fans. Their product range includes a WiFi multiroom streaming receiver, a WiFi multiroom amplifier and a WiFi and Bluetooth speaker. All iEAST products are distributed worldwide, in different channels, such as hifi, home AV, home automation, consumer electronics retail and installation etc. They have their own app for iOS and Android and support the home automation system C4 Fibaro. They will now integrate other systems such as KNX. You can use the iEAST products in your KNX system.

Contact: www.ieast.net

Simlab Sp. z o.o.

POLAND SIMLAB is a technology company focusing on facility digitalisation and development of software toolkits for AEC industry. They create intelligent models of factories, hospitals, hotels and residential buildings based on digital 3D models of scanned facilities combined with the real data from sensors installed in the building. Their main goal is to push the boundaries of smart home technology systems and intelligent digital environments based on IoT sensors, to make it more affordable and available for the masses. They want to turn your living space into a multimedia digital command centre, available on a computer monitor, tablet and even on a smartphone. SIMLAB is developing several cloud software solutions and toolkits focused on BIM, which will allow you to monitor and track changes in the facility or monitor current construction progress and improvements on the construction site. *Contact: www.simlab.pl*

Simon Electric (China) Co. LTD

CHINA Simon was established by Arturo Simon in 1916. The earliest factory was located in Olot, Catalonia, Spain. In 1972, the headquarters of Simon Group were relocated to Barcelona, which is renowned as the Flower of Europe. Simon mainly specialises in producing switches, sockets, lighting and smart home systems. Always dedicated to product innovation, Simon has developed many products with intellectual property rights and won many honours, such as Spanish Royal Outstanding Enterprise and Spain's national Product Design Award. Through a century of development, the Simon group has established production bases in countries around the world, including China, Russia, India, Mexico, Poland etc., and acquired a sales network that covers over 90 countries across four continents. *Contact: www.simon.com.cn*

Smart Building Services GmbH

SWITZERLAND Smart Building Services GmbH is a Swiss company and has been selling KNX products in the field of network technology, visualisation and building automation for 10 years. The two managing directors Peter Sperlich and Holger Eckert have decades of experience in the conception and implementation of projects with instabus / EIB / KNX. Their first KNX products are planned for 2021. *Contact: www.knxshop4u.ch*

Sonnen GmbH

GERMANY sonnen is one of the world's leading manufacturers of smart battery storage systems and a pioneer of technologies for a clean, decentralised and networked energy system. As one of the fastest growing technology companies in Germany and Europe, sonnen has already won numerous international awards. In the ranking of the Massachusetts Institute of Technology (MIT), sonnen is among the top "50 Smartest Companies 2016" along with Amazon, Facebook and Tesla. With its virtual battery, which consists of thousands of digitally networked home storage systems, sonnen offers new and highly innovative energy services for TSO's and private households. sonnen is represented with its products in numerous countries and has its own locations in Germany, Italy, Australia, the UK and USA. sonnen has already installed more than 40,000 battery storage units worldwide. *Contact: www.sonnen.de*

Sony Europe BV

UNITED KINGDOM At Sony, they have been working alongside professionals for over 50 years. It is through the experiences of working together, forging strong business partnerships that they strive to understand their customers' needs and the challenges they face. Together with their market-leading technologies and expertise, they develop bespoke solutions to enable individuals across various industries to bring their ideas forward. Collaboration and innovation are at the heart of everything they do. They are committed to making your aspirations a reality. Live Your Vision. *Contact: www.pro.sony*
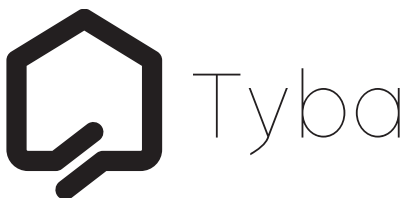
Tyba

UNITED KINGDOM Tyba Home Limited is a UK company founded in 2016. Tyba is focused on improving everyday experiences through the design of intuitive technology. Their products combine lights, climate, shade and media to provide an elegant solution for environmental control. They have recently added KNX to their extensive portfolio of control system integrations.

Contact: www.tybahome.com

WuHan Wisecreate Universe Technology Co.,Ltd

CHINA Wuhan WiseCreate Universe Technology Co., Ltd. is a comprehensive solution provider integrating design, R & D, production and service. By integrating advanced technologies such as the Internet of Things, cloud computing and big data, they provide whole-house Smart Home solutions, smart communities and wisdom Building as a total solution, this to build a whole house smart ecosystem. *Contact: ww.wisecreate.cn*

Xenon Smart Teknolojil san ve tic ltd sti

TURKEY Xenon Smart is a company that provides support solutions and technology related to high intelligent home systems. Since its inception, Xenon Smart has attracted great attention with its rapid development. Xenon Smart has focused on researching and developing its powerful technology on automation systems. The company has a high level of product and service development.

Contact: www.xenonsmart.com

Yidong (Zhuhai) Technology Co., Ltd

CHINA NVC was founded in 1998 with the ambition to become a world-class brand and an industry leader. They were the first company in the lighting sector to establish brand-specific specialist lighting outlets, supported by regional operating centres, and this strategy has been a revolutionary development for their industry and a key factor in their success. In May 2010, NVC was floated on the Hong Kong stock exchange. NVC is a market leader with recognised expertise in the manufacturing and application of innovative (LED) lighting. NVC provides their customers with comprehensive and professional smart lighting solutions. They pay close attention to the developing trends of the industry and establish strategic cooperation with many professional organisations in the lighting industry. They have successfully delivered their lighting solutions across various industry sectors.

Contact: www.nvc-international.com

KNX Secure

The new KNX Secure pages offer you all information and material about security measures, which are implemented in the KNX Standard. KNX Secure guarantees you the highest security, which is available in the market for home and building control.
https://KNXsecure.knx.org

KNX Secure Flyer

Different flyers to this topic can be downloaded from:
www.knx.org
(section downloads)

New Products

ABB RoomTouch® KNX

ABB The ABB RoomTouch® KNX display is a multi-control element for the intelligent control of rooms either in residential homes or commercial applications. With a slim 11 mm design, it features a sleek metal frame and a high-quality glass panel in white or black. The user-friendly design reduces the complexity of the device and allows all daily routines in smart living to be easily controlled by one device. All functions can be controlled by gently swiping up/down for instance to open/shut blinds. Personalised room scenes can be created, such as a movie setting, by one simple touch on the panel. The panel can also be controlled by sliding through the menu or tapping to confirm an operation like switching on the lights. ***Contact:*** *www.new.abb.com*

SoftwarePBX in conjunction with KNX and geofencing

AGFEO GMBH & CO.KG, a German manufacturer of communication systems, offers extensive KNX control and visualisation functions with its new software-based telephone system "HyperVoice". By linking to the telephone line, simple calls can control KNX objects. Due to the integrated dialler function of HyperVoice, real sequential alarm calls with optional acknowledgement are possible in addition to push messages, which are triggered by integrated KNX sensors. In conjunction with the AGFEO SmartHome app, KNX functions can also be executed via geofencing functions. ***Contact:*** *www.agfeo.de*


Aidoo KNX controller

AIRZONE Aidoo KNX is a plug&play HVAC control solution which seamlessly integrates into any project, maintaining the original thermostat's best functions and features, while at the same time maximising comfort and efficiency by communicating with the manufacturers' specific protocols. It is KNX-certified and ETS configurable as well as fully KNX interoperable. Direct connection, two-way communication, flexible unit control and customisable KNX scenes are some other important features of the product. ***Contact:*** *www.airzonecontrol.com*

KNX Secure binary input with LED output and easy-to-configure status indication

APRICUM D.O.O. TIO4-Sec is a brand-new four-fold KNX binary input with Data Secure. When Security is active, downloads to TIO4-Sec are protected and manipulation of runtime communication is made impossible. Besides push-buttons, switches and contact sensors, up to four LED for indicating status can be connected to KNX. Channels can separately be switched to LED outputs. To configure status indication, LED lighting can be controlled by clearly arranged parameters and settings. Besides setting blinking, flashing and constant lighting, brightness is continuously adjustable, can be set to fixed values, night / day operation, or control via a communication object. Suitable for potential-free contacts, TIO4-Sec is perfect for flush-mounting in wall boxes.

Contact: www.apricum.com
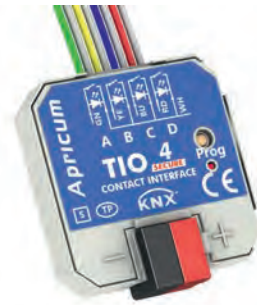
Mini KNX presence detector

AUREX INDUSTRIES INC. The new mini OS-367i-KNX presence detector consists of a motion sensor and light sensor. Designed with a flat lens, it is exposed only 8.8 mm from the ceiling after it is installed, making it almost invisible. Despite its slim size, the detector offers 9 m diameter of detection range and 360° viewing angle, plus five outputs supplied for lighting and HVAC automation control applications. For practical convenience, not only all the settings can be made via IR remote control, but the programming mode can be activated through it as well. On top of that; a unique function of teaching in ambient lux values is enabled for greater flexibility when it comes to the settings.

Contact: www.aurex.com.tw

AVE's KNX Room Controller

AVE S.P.A. Ideal for homes and hotels, AVE's KNX room controller is a high-design solution with 3.3″ OLED display and touch controls, which combines in a single device both the functions of two-zone chrono-thermostat and humidistat, as well as the control functions that are typically needed for a room: lights, shutters, scenarios, sound system and technological alarms. Thanks to an integrated humidity and temperature probe, it allows total control of the thermal zone, as well as – through an external probe – the management of a second zone. It can manage up to 6 + 6 windows, 4 + 4 scenarios and 6 + 6 lights. It's equipped with three configurable auxiliary analog inputs and available both with an aluminium or glass front plate.

Contact: www.ave.it

Perfect room climate

B.E.G. BRÜCK ELECTRONIC GMBH The companys new VOC sensor (volatile organic compounds) measures air quality, humidity and temperature. The limit values can be set individually in ETS. The respective status LED indicates the current status in colour. The integrated rotary wheel can be used for one of the three measured variables. If a temperature reduction (e. g. for nights) is stored in the system, the user can activate a follow-up time for his comfort temperature via the integrated push-button. The new VOC sensor fits into all standard 55 x 55 switch frames, an adapter for 63 x 63 frames is included.

Contact: www.beg-luxomat.com

Basalte launches new keypad

BASALTE The new Basalte flagship keypad, Fibonacci, is now shipping for KNX control systems. With an avant-garde design that is inspired by the golden ratio, Basalte again raises the bar in the integrated controls market. Just like Sentido, this new touch-sensitive keypad lets users intuitively control lights, shades, music and more. It supports single and long press actions, as well as multi-touch functions, next to an integrated RGB LED, temperature sensor and thermostat logic. Fibonacci is available in the same high-quality Basalte metal finishes. The keypad also comes with easily exchangeable, backlit labelling to clearly indicate each button's functionality. *Contact:* www.basalte.be

The new 24 channels multifunction KNX actuator for high performances and fast switching

BLUMOTIX BX-SW24 is a multifunction actuator, programmable with ETS to perform different tasks like switching loads, open and close shutters and blinds. Each output uses bistable relays with 16 A maximal load. Block terminals are wide to insert wires with a section up to 5 mm². The relays can be operated via a push-button mounted on the front of the device (with possibility of deactivation), a green LED indicates the switching status of each channel. The power supply is provided by the KNX bus through a new TPUART2 transceiver that provides better performance in terms of switching speed. The protection class of the device is IP20 and its size is 12 DIN-rail modules. *Contact:* www.blumotix.it/en

MCU-01X – flush mounted blind actuator

BMS GMBH The new blind actuator MCU-01X is designed for decentralised installation. It can be built in directly behind the push-button or in a wall duct. Additionally, the device provides four binary inputs and automatic detection of end positions and run times. Test buttons and status displays for the motor channel on the front simplify commissioning. A novelty is the integrated app control via a smartphone. The use of bistable relays grants the special feature of reacting on bus failure. By this the blinds still can be put into a safe position. *Contact:* www.bms-solutions.de

## More energy efficiency with Busch-tenton®

BUSCH-JAEGER Busch-tenton® was developed to improve energy efficiency in small to medium-sized functional buildings by up to 30 percent. Integrated into the KNX standard, it is a powerful and flexible alternative for the control of heating, ventilation and air conditioning systems. Also possible: convenient control of room functions such as lighting or shading. Busch-tenton® is characterised by clear design and easy operation. Both surface-mounted and flush-mounted installation is possible. Busch-tenton® can be equipped with a room temperature controller and a CO_2/humidity sensor. The surface is available in white, black or aluminium silver. *Contact:* www.busch-jaeger.de

CAREL KNX serial card

CAREL KNX serial card is part of the range of optional cards for pCO, c.pCO, CAREL solutions for managing HVAC/R applications and systems. The card acts as a gateway between a network operating according to the KNX protocol and the Modbus RTU protocol, supported directly by the firmware on pCO controller, the operating system on the c.pCO controller and the firmware on the e-dro-fan controller. The flexibility of the KNX option board extends Carel's expansion portfolio, making it easy to integrate a supervised solution in a few simple steps (available in Carel KSA). *Contact:* www.carel.com
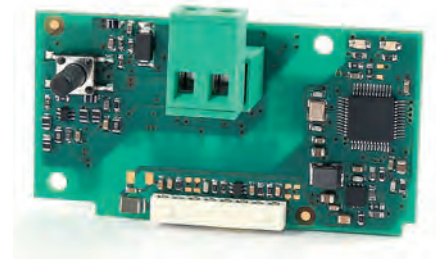
Bobcat 10" Android wall panel

COMFORTCLICK Bobcat is a 10" Android wall panel running ComfortClick's bOS app that enables the visualisation of KNX and many other systems. The smart building control is carried out via the touchscreen or voice using Alexa and Google Assistant. Bobcat comes with a black or white metal frame and can be used as a central controlling unit, intercom, or a smart switch. You can also install your own Android apps. Combined with ComfortClick servers, Bobcat becomes the central controlling unit that can be used by guests in hotels to request room services, by employees to control the climate in offices, or by homeowners to control their smart home. In a nutshell – it is an affordable and simple solution for any smart building project. *Contact:* www.comfortclick.com

Unlimited compatibility

DIALOGIC SYSTEMS The latest version of the HomeCockpit touch panel has been completely revised – optimised for all GIRA Control 9/19 flush-mounted appliance boxes, it can be easily installed in existing flush-mounted boxes. Further compatibility is ensured by the latest embedded browser version, which allows any KNX visualisation and the interference-free display of HD surveillance cameras as as well as starting third-party applications directly from the browser. And the new graphic logic editor ensures the best connectivity to almost all bus systems – e. g. for controlling your photovoltaic system or individual interactions with your KNX system. *Contact:* www.home-cockpit.de

Switch and dimming mix actuators

DINUY S.A. launches a new and innovative range of DIN rail-mounted actuators which incorporate channels for switching, blinds and fan coil control, as well as RLC+LED or PWM dimming channels. Three devices comprise this new range: IR KNT 042 (four Switch + two RLC+LED Dimming), IR KNT 084 (eight Switch + four RLC+LED Dimming) and IR KNT 044 (four Switch + four RGBW Dimming). The switch outputs can be parameterised for switching or shading functions, as well as fancoil control. In addition, they are complemented by 12 or 23 analog or digital inputs, with the chance of lengthening the cable of the binary inputs up to 200 metres. Manual control of its outputs is possible thanks to the keypad on the cover. *Contact:* www.dinuy.com

DIVUS KNX IQ – KNX stand-alone panel

DIVUS GMBH DIVUS KNX IQ is a cost-effective, wall-mounted 8″ (20.32 cm) building touch panel for visualisation purposes. It is available with and without a KNX interface. The KNX IQ panel can be installed wherever the mounting box has a larger diameter than 53 mm and is smaller than 215 x 135 mm. The KNX IQ is ideal for flats, media rooms, presentation rooms, restaurants and company buildings. As a wall-mounted device, it can be installed in many existing boxes (retrofit) and only protrudes slightly out of the wall. The new touch panel from DIVUS is particularly elegant and adapts effortlessly to your interior design.

Contact: www.divus.eu/en

New fully customisable KNX touch switches

E-CONTROLS introduces the e-Touch Flexi and e-Touch Panel touch switches for lighting and blind control applications, including different LED to light up any status signal and a temperature and humidity sensor for climate control. The push-buttons are fully customisable with icons, texts and pictures using the e-Touch Creator web application. The product range consist of seven different models available in different colours, from one button with five touch zones up to six buttons with 18 touch zones. Every touch button can be configured as a single button or can be combined with a second button for dimming and blind control, but also includes the switch, toggle, scenes and send value functions.

Contact: www.e-controls.es/en

TC57A01KNX – Universal fan coil controller 0 – 10 V

EELECTRON SPA TC57A01KNX is a DIN-rail KNX actuator for fancoil unit control. It has 3 x 0 – 10 V outputs and 3×16 A relays. Two 0 – 10 V outputs are dedicated to proportional valve management, while variable speed management can be carried out with the third 0 – 10 V output or with the three relays on board. If relays aren't used for speeds, they can activate lights or loads. An input is available for reading 0 – 10 V or 4 – 20 mA signals to interface external probes for temperature, humidity, CO_2 etc.; the third 0 – 10 V output can also be configured in this mode, as input. There are five digital inputs for dry contacts to connect buttons, window contacts, alarms; two inputs can be connected to NTC temperature probes. The logic inside can manage a two/four pipe fancoil with an internal two-stage PI algorithm.

Contact: www.eelectron.com/en

Delégo: Home Automation System

EKINEX SPA Delégo is a system for the automation and control of KNX standard systems, operated through mobile devices, PCs and the Delégo touchscreen and wall-mounted panels. Based on a web server connected to the Ekinex cloud, Delégo is a versatile solution, suitable for the control of lighting, climate, motorisation and energy and can be integrated with multimedia systems, video surveillance, video entry and intrusion detection. The Delégo app provides multi-user and multi-plant access using secure technology. The voice-bridging service integrated in the server also allows control via voice commands given to Amazon and Google assistants.

Contact: www.ekinex.com/en

20VENTI series

EKINEX SPA New, essential, with strong distinctive features, 20VENTI is destined to become an icon of Ekinex style. The multiple functions highlighted by the customisable buttons and the technical features guaranteed by the KNX standard make 20VENTI the ideal solution for the contemporary smart home. With its countless combinations and variants (plastic, metal and Fenix NTM), 20VENTI is the answer to all current and future needs. Available in four/eight or five/ten keys with RGB LED for each backlit key, freely programmable and customisable with icons or symbols, it integrates a temperature and proximity sensor and has a thermostat function. *Contact: www.ekinex.com/en*

Central Unit and Beginner Set

ELSNER ELEKTRONIK GMBH CasaConnect KNX can do more than classic home automation. It offers internet access, app, remote maintenance and security functions – cloud-free! Integrated loudspeakers reproduce the sound of web content. CasaConnect KNX has 80 channels for drives, ventilation and lighting with extensive automatic functions. There are also 120 channels for control/display elements and 15 for temperature control. Scenes, presence simulation and alarm functions including email notification are set up on the touch display. CasaConnect KNX is also available as a set with typical KNX devices for a house or an apartment. The sets are pre-configured, ETS is not required for setup. *Contact: www.elsner-elektronik.de/en*

IP66 touch panel Fabro KNX

ELSNER ELEKTRONIK GMBH The Fabro KNX operating and display panel is suitable for harsh environments and outdoor use. A robust aluminium housing protects the seven-inch real glass display. The eight touch areas per display page are made extra large for easy operation. Each surface can be used as a button or display. There are over 40 symbols to choose from, next to which a value or a colour is displayed. In this way, objects from 1 bit (switching) to 14 bytes (texts) can be transmitted. This gives the user up to 40 input and output options on five pages. The application provides eight calculators for data conversion and eight "AND" and "OR" logic gates each. Up to six alarm events are defined in the alarm module. *Contact: www.elsner-elektronik.de/en*

Movicon.NExT

EMERSON AUTOMATION SOLUTIONS – PROGEA SRL offers modern machine automation software – from HMI and SCADA to plant analytics Movicon.NExT 4.0 is Emerson's new industrial software platform, offering an innovative and flexible machine automation solution for Windows/Linux HMI projects, SCADA supervisory systems and efficient plant analytics essential to digital transformation. The software offers automation engineers easier access to modular solutions for supervision, HMI, control, historian, plant and industrial analyses. Built-in energy monitoring and overall equipment effectiveness features provide end users with immediate cost-saving solutions. *Contact: www.progea.com*

KNX DUAL PowerSupply 1280

ENERTEX BAYERN GMBH The KNX DUAL PowerSupply 1280 provides two separate KNX power supplies with 1280 mA and 320 mA, as well as a further 30 V DC auxiliary supply with 320 mA. A separate short-circuit protection for each output ensures a high degree of reliability. Combined with the Enertex KNX TP Secure coupler, two physically separated lines for indoor and outdoor use can be realised very efficiently with the power supply. In addition, the device offers all the functions of its proven predecessors: display with indication of current and voltage on the lines, diagnostic functions, remote bus reset function, timer function and timers with astro functions. *Contact:* www.enertex.de

Type 78.2K – 640 mA KNX power supply

FINDER S.P.A. The new 640 mA KNX power supply Type 78.2K ensures the highest reliability of your KNX system. In a KNX line, the power supply is one of the most important components that allows the correct working of all the devices inside it. If the power supply goes down, all the devices in that line go down as well. This is the reason why the KNX power supply has to be highly reliable. The Finder 78.2K is the best choice to get the safest and most secure way to supply every KNX device, avoiding critical faults and keeping the line stable.

Contact: www.findernet.com/en

Easykon for KNX

FREEDOMPRO presents Easykon for KNX. This "bridge" module makes every system built with standard KNX technology immediately compatible with the Apple HomeKit protocol and with the Google and Amazon Alexa smart home platforms. Easykon is also compatible with IFTTT, a platform that allows you to create intelligent, useful and powerful automation functions in a few seconds. Now thanks to Easykon, the KNX standard easily integrates more than 600 services and devices. With Easykon, you can control up to 149 devices of 21 different types. The installation is very simple, it requires only an Ethernet connection, a KNX cable and a power supply (12 / 24 V AC / DC). **Contact:** www.freedompro.eu

KNX switching and blind actuators

GIRA GIERSIEPEN GMBH & CO. KG For the first time, Gira is offering the new KNX actuators in a "Standard" and a "Komfort" version. The former is suitable for buildings with a Gira X1 and for systems in which several actuators are required for basic functions. A fast start-up and a low price per channel are among its advantages. The "Komfort" version offers a maximum degree of functionality and flexibility. The scope of functions allows many tasks to be performed in the actuator itself, which reduces the bus load. Even complex functions are performed by the actuator. All new Gira actuators are available in three designs: 6/3-fold, 16/8-fold and 24/12-fold. *Contact:* www.partner.gira.com

KNX button

GIRA GIERSIEPEN GMBH & CO. KG The Gira KNX button can be operated like a conventional push button switch – so that switching, for example of lights or lightscenes, is much easier than with a push button sensor. This is an advantage, especially for older people. Characteristic bus functions can be implemented with the Gira KNX button. It is available in a 1-fold and 2-fold design for two to four functions. All versions are equipped with status LED. The Gira KNX button is operated in the same way as a switch by applying pressure to the top and bottom of the button – unlike push-button sensors, whose operating points are located on the right and left side of the button. **Contact:** *www.partner.gira.com*

KNX Smart Touch Z10

GUANGZHOU VIDEO-STAR INTELLIGENT CORP., LTD The KNX Smart Touch Z10 is one of the latest products presented by GVS in 2020. The device has a 10.1" IPS touchscreen of true colours and high definition. One of the biggest techno-logical breakthroughs of the device is that it perfectly combines KNX and inter-com functions which enables its user to use both functions directly at the same time. Z10 has integrated all possible KNX functions in both listed and map-view way, offering users a high level of flexibility in their daily control of their smart buildings in lighting, dimming, shutter control, HVAC, scenario control etc. It also has a built-in sensor for temperature adjustment and weekly timing and logic functions. **Contact:** *www.gvssmart.com*

KNX Presence Sensor

HDL AUTOMATION CO., LTD. KNX Presence Sensor, a multifunctional sensor which contains a PIR sensor, temperature sensor and brightness sensor, can be used in the automatic control of lighting, shading, air-conditioning, security and other features. For example lighting: the indoor brightness can be kept at a com-fortable level while making full use of natural light. Security: it can trigger the alarm system if a thief breaks into your home when the occupants are away for work. Shading: it can be connected with lighting for dimming to adjust the de-sired brightness in a room. HVAC: it can automatically keep the HVAC at a com-fortable temperature. **Contact:** *www.hdlautomation.com*

New Intesis interface for Fujitsu RAC and VRF integration into KNX

HMS INDUSTRIAL NETWORKS S.L.U. Intesis launches a new KNX interface for the integration of Fujitsu RAC and VRF units provided with the new CN65 (UART) connector. Developed with the collaboration of the AC manufacturer, this product allows you to integrate Fujitsu units in your projects, independently of the remote controller type. It is an individual controller considered as the cost-effective solution for small and medium size projects. It is KNX certified, con-figured using ETS, equipped with four binary inputs and with energy efficiency functions available. This is the first product compatible with the new Intesis ETS app for easier and faster firmware updates. **Contact:** *www.intesis.com*

KNX chime interface AS 26.01 knx

HUGO MÜLLER GMBH & CO KG Whether a doorbell, school bell, alarm or alarm clock – with the new AS 26.01 KNX, different acoustic applications can be realised. Any external 8 Ω loudspeaker can be connected to reproduce the acoustic signal. A flush-mounted loudspeaker is included in the version AS 26.11 knx. There are twelve pre-defined melodies available and the volume and repetition can be adjusted. The KNX chime interface is activated via switching objects or can be integrated into a scene control. Additionally, the AS 26.01 knx has a day/night function, a muting function and one binary input.

Contact: www.hugo-mueller.de
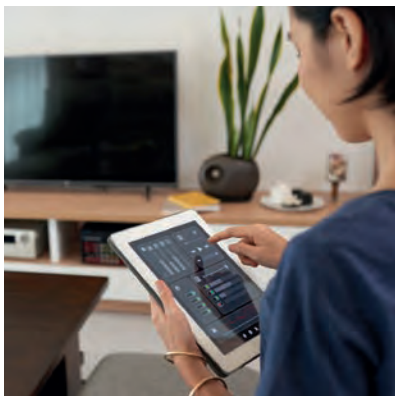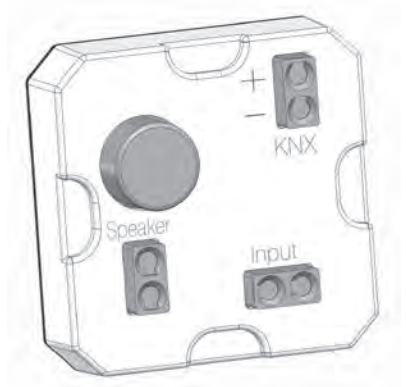
KNX-Gateway

HÖRMANN KG The fourth generation of Hörmann garage door operators is equipped with an integrated communication interface (HCP bus) as standard, allowing the garage door operator to be connected to various home automation systems. Forming the interface to the KNX installation, the KNX gateway enables users to control the operator from KNX and query the status of the door position – at any time and from any location. The KNX gateway is connected via a plug-in connector in the operator module slot. Depending on the selected operator type, different tailored communication objects are available, such as switching on the lighting integrated in the operator or entering a manual door ventilation position.

Contact: www.hoermann.de

iHaus and German Red Cross

iHAUS AG "My Henry" makes everyday life easier and creates a safe, easy and fast way of communicating with people you trust. Henry is activated by sensors and actuators (e. g. KNX switch). If you need support, the predefined people in your trust chain will be contacted one after the other. If they cannot be reached, the German Red Cross service centre will call you. This means that all KNX participants have indirect access to a professional support service. The iHaus platform makes this possible, thus creating smart living services. *Contact: www.ihaus.com*

EVE X1 Server: KNX and multi-protocol server

ILEVIA S.R.L. X1 SERVER is a supervision server capable of interacting with numerous standard and proprietary technologies to offer a single management environment for home automation, technological and thermotechnical systems, security and multimedia. X1 SERVER is designed to be housed in a normal electrical panel and easily connected to the power supply and the LAN network. X1 SERVER is equipped with an integrated KNX interface. The terminal block on the front provides two RS485 ports, ideal for controlling Modbus devices or equipment with serial operation. The USB port on the back allows you to easily expand the standard ports through accessories available on the market.

Contact: www.ilevia.com

VIIP – Touchscreen with SIP

INGENIUM - BES KNX goes a step further in developing new products, launching VIIP, a new touchscreen family with SIP video intercom support. This release is the result of mixing innovation and design. It can be integrated with any third-party outdoor SIP panel and enables, among other things, mobile call forwarding. It enables you to control and monitor a KNX installation via background plans or rooms, together with remote control via apps. In addition, it includes scripts and logic gates, and the appearance is fully customisable. A remarkable feature is that the user is able to create his own functioning conditions, scenes, timings or sending technical alarm emails. Also, compatible with Google Home and Alexa voice control. *Contact: www.besknx.com/website/en*

BES KNX Room Controller

INGENIUM - BES KNX Room Controller, GW669900, is the complete solution of BES KNX for a complete basic control. This device fulfills practically all the basic needs that a home or hotel room may have: from controlling on/off and dimming lighting to fancoils and electrovalves. In addition, inputs to control all the outputs are included, as well as inputs for a card reader, technical alarm probes and magnetic detectors. Room Controller is completely configurable via ETS and enables multiple settings. In addition, it is compatible with any KNX installation. In order to complete a hotel room control, it can be used together with Cubik-VH or Cubik-VHD, the BES KNX hotel room door push button with DND and MUR indicators. *Contact: www.besknx.com/website/en*

PowerBlock Multi – Intelligent control centre

IPAS GMBH With the PowerBlock actuator series, IPAS offers universally applicable 16 A C-load actuator modules with 8 and 16 outputs or with six potential-free inputs and four outputs. PowerBlock Multi with 8 or 16 outputs enables the functions of switching, blind/shutter and fancoil control. The functions can be mixed in the actuator. In addition, the following functions are available in the multi-function block independently of the actuator inputs and outputs: Alarms, scenes, time functions, logic, two-point control and much more. This makes PowerBlock actuators the decentralised control centre of the KNX installation. *Contact: www.ipas-products.com*

KNX Home Server

IRIDIUM MOBILE KNX Home Server is a controller, a cloud and a smart visualisation app for the fast creation of an intellectual system to control KNX apartments, offices and houses. It enables a fully-functional KNX smart home to be created in one hour. KNX Home Server is a tool for small and medium-sized properties where custom visualisation is not required and there are time and budget constraints. It includes the essential functions of a KNX smart home: connection to the bus via TP1 and setting devices from ETS, integration of SIP intercom, IP cameras, Samsung TV, Sonos, schedules, routines, timers, notifications, secure remote and voice control as well as fast interface creation. Setting and control is done in an app for iOS, Android or on a Windows PC. *Contact: www.knx.iridi.com*

SMART CONNECT KNX e-charge II

ISE INDIVIDUELLE SOFTWARE UND ELEKTRONIK GMBH Next generation: The SMART CONNECT KNX e-charge II brings electric mobility to your KNX smart home. Charging with safe mains power: thanks to Dynamic Load Management (DLM) no complex, expensive and larger mains connection is necessary and long charging times are eliminated. The convenient control and the energy management are convincing. Integrate up to five charging points from different, well-known manufacturers and see on the visualisation inside what is happening outside. The SMART CONNECT KNX e-charge II requires no additional adapters, is KNX secure and can be completely configured in the ETS. Even KfW eligible.

Contact: www.ise.de

LIVING NOW dresses KNX

LEGRAND BTICINO presents its new KNX switches which perfectly complement its new collection LIVING NOW: 16 finishes for cover plates available in three materials and three different colours for key covers. LIVING NOW's design is instantly recognisable due to its extremely neat design and precise lines. A unique and distinctive shape, a synthesis of aesthetic, functional and technological evolution that turns the switch into a true control interface. Advanced control allows priority management, counting, double or conditional actions. Contextual RGB backlighting, which is fully configurable, gives any expected feedback and an embedded sensor provides ambient temperature. Available in two and three modules.

Contact: www.catalogue.bticino.com

24-channel multifunction actuator

LIGHT CONTROL LC-A2416, Light Control's 24-channel KNX actuator is programmable with ETS for the control of loads with absorption up to 16 A. It has screw terminals of a size that can accommodate cable sections up to 5 mm². The relays can be controlled manually from the keyboard on the front, complete with LED indicating the contact status. The actuator is powered via the KNX bus with the latest generation TPUART2, which allows rapid switching. The IP20 enclosure is designed for installation on a 35 mm DIN-rail.

Contact: www.lightcontrol-knx.com

Push-Button Smart 55 4-fold with colour display, BE-TAS55T4.01

MDT TECHNOLOGIES An active colour display, an innovative group control, the new multi-tip function, RGBW status LED and integrated temperature/humidity sensor. With these new functions/features, the Push-Button Smart 55 from MDT presents itself on the market. The extensive application enables functions such as switching/dimming lighting, blinds, value and scene control. The push buttons can be set as a pair of rockers or as individual rockers. The integrated temperature sensor is used for room temperature measurement and, together with the heating actuator, enables efficient room temperature control. Temperature and operating mode are adjustable.

Contact: www.mdt.de

Slim 1280 mA KNX power supply

MEAN WELL ENTERPRISES CO., LTD. The KNX power supply KNX-40E is a 1280 mA power supply with high efficiency and a small footprint of only four SU wide (72 mm). The device has a bus choke output and an additional output for auxiliary power. Its wide temperature operating range can meet all kinds of demands for building automation applications. There are two versions: basic and diagnostic. The basic version with LED indicators on the panel is used in normal operation, overload conditions and RESET operation, while the diagnostic version provides bus monitoring, recording of all bus activity and other advanced functions. With over 38 years of industrial power supply experience, KNX-40E is engineered to be a reliable and safe solution for the KNX bus environment.

Contact: www.building.meanwell.com

The NETx Cloud Portal

NETXAUTOMATION SOFTWARE GMBH Building management systems have the aim to provide remote access for performing maintenance tasks. To make remote access easier and location-independent, NETxAutomation provides a new cloud service. The NETx Cloud Portal allows you to manage all your building management servers from a single place. It provides the following functions: health status of server, database and other services, initiate remote backups and save them in online storage, access to KNX and other data points, location-based map view of your installations, remote, firewall-friendly connection to web manager, visualisation and desktop and much more.

Contact: www.netxautoation.com

NCN5140S KNX switch

ON SEMICONDUCTOR The NCN5140S integrates the market leading ON semiconductor KNX transceiver and an ARM Cortex-M0+ microcontroller, together with the majority of the necessary passive components, into one package, allowing the design of ultra-slim KNX switch applications. Combined with a certified KNX stack and pre-certified software for up to eight configurable rocker or touch switch buttons, the KNX system-in-package enables the development of KNX switch applications in a very short time frame. The pre-certified application software includes driving and dimming up to eight RGB LED to illuminate the buttons or touch pads. Registration of a derivative design at KNX Association is sufficient to achieve KNX certification.

Contact: www.onsemi.com
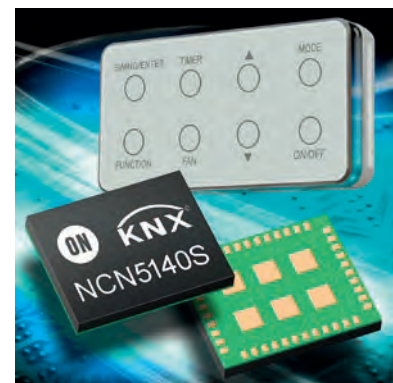
Panasonic MULTIS

PANASONIC LIFE SOLUTIONS TÜRKIYE MULTIS is a multifunctional thermostat developed and produced by Panasonic Life Solutions Turkey. MULTIS with two different models as shielded (MS104-D) and unshielded (MS104) is progressing to be the number one choice for users and system integrators with its modern design, wide range of functions and easy configuration menu. It stands out among its competitors with its touch and sound return buttons, its screen whose brightness is automatically adjusted according to the ambient light level, its weekly time schedule, its simple and easy-to-adapt screen design.

Contact: www.lstr.panasonic.com/en

KNX Offline Voice Control

PROKNX SAS ARAGON WL is the new, inconspicuous desktop device for voice control without cloud connection. The well-known KNX servers from Gira, Jung and ProKNX are read out via WLAN / LAN without external intervention. After an automatic training run, the words stored in the visualisation can be used to control or query the building functions or the SONOS multi-room system. ARAGON also provides AI algorithms for anomaly detection of people living alone. Movement detectors and switch actuation are evaluated to determine unusual behaviour. Any abnormal getting up times or long stays in the bathroom are detected and the resident will be asked whether a caregiver should be called.

Contact: www.proknx.com

ecos504/505 with KNX interface and IoT function

SAUTER HEADOFFICE (FR. SAUTER AG) The SAUTER ecos504/505 room controllers already had a KNX/TP1 interface. They have now been supplemented with an IoT driver. The ecos-IoT is a programmable BACnet server which allows direct integration of KNX devices. It also has optional IoT functions (MQTT client / broker). KNX devices in the TP1 network of the plant can publish data to the cloud via the ecos-IoT. At the same time, MQTT data from the cloud can be subscribed to and integrated into building and room automation. The KNX/TP1 interface and the IP interface for BACnet and MQTT thus enable cloud integration of data coming from touch panels, mobile apps, KNX actuators, and sensors as well as speech recognition services. *Contact:* www.sauter-controls.com

Zigbee gateway module

SIA EMBEDDED SYSTEMS In addition to the already supported KNX to ModBus, BACnet, DALI, LTE, MQTT functionality, LogicMachine extends your KNX installation seamlessly with a ZigBee gateway module. It is provided either as a USB dongle for DIN rail devices or as a built-in ZigBee module for wall-mounted devices. Moreover, LogicMachine now provides support for KNX IP Secure routing communication. *Contact:* www.logicmachine.net

The right light for every situation

SIEMENS AG Ever heard of Tunable White? The right indoor lighting helps to create a healthy environment, by imitating the natural daylight and changing the colour temperature according to the daytime – for improving well-being and productivity. This can be achieved with two devices of Siemens GAMMA, which support the Tunable White function: the KNX/DALI Gateways N 141 and the KNX switch/dim actuator DALI N 525D11. They control the light's colour temperature by using dimming as well as scenes, schedules, and effects. The products are easy to install and integrate, and on top, these devices ensure the highest efficiencies and cost-effectiveness for building owners and end customers.

Contact: www.siemens.com

Communicative room thermostat RDG200KN

SIEMENS SCHWEIZ AG The high-end designed RDG200 KNX thermostat range with a capacitive rotary knob, ensures a good air quality and a healthy indoor climate. The thermostat range offers a wide selection of preloaded applications, built-in sensors, control functions, input/output and flexible power supply, which covers applications for industries such as commercial buildings, hotels, offices, and educational buildings. For integrating the products into different building management systems, the communication is made via KNX; commissioning takes place simply and easily via NFC and the Siemens PCT Go Smartphone app.

Contact: www.siemens.com

KNXdrive4u – The first KNX RF S valve drive

SMART BUILDING SERVICES GMBH The Swiss company Smart Building Services GmbH, based in Münchenstein, has now developed a product that closes a gap: With "KNXdrive4u", the world's first KNX RF S-Mode valve drive – convector radiators can be wirelessly integrated into the KNX room temperature control. KNXdrive4u fits directly onto Heimeier/Oventrop-compatible radiator valves M30x1.5 (Grässlin valves using an adapter). The energy required for operation is generated using an electrical temperature difference process and stored in a long-life battery in the device. Commissioning is carried out using ETS.

Contact: www.smart-building-services.ch

TaHoma KNX solution

SOMFY GMBH With the new TaHoma KNX Configurator, Somfy has succeeded in combining the mainly wired KNX world with its own smart radio technology. Many devices can now be connected to a DIN-rail via the TaHoma smart home box: Radio-based lighting, sun protection, access and security solutions can be easily and cost-effectively integrated into properties with the KNX standard. Planners, architects or installers are free to choose the ideal applications. The solution is suitable for single houses and apartment owners, and especially for the vertical residential segment – no matter if it is a new build or a renovation.

Contact: www.somfy.de
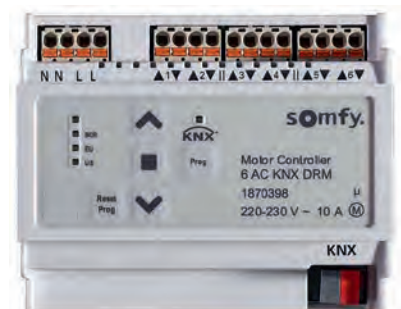
Motor Controller 6 AC KNX DRM

SOMFY Motor Controller for electrical cabinets (DRM). Compatible with exterior venetian blinds, screens, roller shutters, window openers and with all animeo KNX devices. Status feedback through LED. Basic motor settings possible with the "PROG" button. Intelligent switching between manual and automatic operation to guarantee excellent user-comfort and energy savings. Starting delay time adjustable for electronic motors. Access for software updates in event of functional extensions. Modern push-in CAGE CLAMP® connectors for any wire type (flexible or rigid cable) for any cable connection on the device. Daisy chain for the mains. Six individual motors.

Contact: www.somfy.com

Multisensor Aerosol KNX

STEINEL VERTRIEB GMBH As a member of STEINEL's True Presence® sensor family, the Multisensor Aerosol KNX is the first to provide the risk of infection as a KNX Group Object. To this end, the ceiling sensor measures room temperature, humidity and the CO_2 content of the room air and displays the risk value, for example on a dashboard. The ceiling sensor is integrated into a building management system via the KNX interface and creates the basis for a healthy indoor climate – in classrooms or offices, for example. It also helps to reduce the potential risk of infection from influenza or Covid-19 viruses.   *Contact: www.steinel.de*

SSA 24.230.1 KNX universal switch/shutter actuator

STILIGER SP. Z O.O. Probably the most compact switch/shutter actuator in the world. 24 relays 16 A in a housing only 162 mm wide (9M). Unique design. Power connectors are located opposite the output connectors to the receivers. 24 outputs for receivers are located at the top edge of the device. 24/12 power inputs, located at the bottom edge of the device. Load per output 10 or 6 A – depending on the connection method. "Push in" connectors. Power and receiver connector blocks detachable from the housing. Testing switching and blinds from mobile devices via NFC and Ethernet – Virtual Control Panel.   *Contact: www.stiliger.com*

Connecting sublines without power supply units

TAPKO TECHNOLOGIES MECps640 is the latest innovation of the KNX developer TAPKO and extends the MEC series of KNX couplers. This exceptional OEM product combines two system devices, a line coupler and a 640 mA bus power supply. Installations can be extended and sublines can be added to upper lines with only having to plan space for the coupler. Just place MECps640 on the main line and the subline is both connected and powered. Two SU on the DIN rail – it occupies the same space of one line coupler only. Installations can be planned more compactly. KNX projects become more concise. Filtering is configurable and to ease commissioning and troubleshooting, filtering can be switched to off or to limited functioning by a short press on the function key.

Contact: www.tapko.de
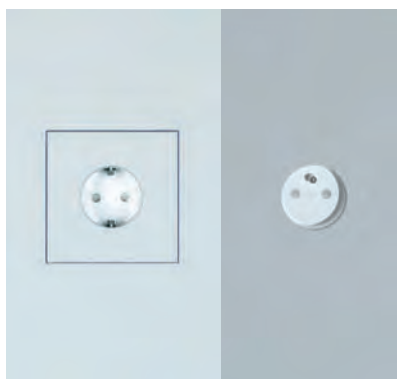
Paintable and Invisible Socket

TENSE expands its product range with the paintable and invisible socket solutions: minimalistic socket frames fully integrated in the plastered walls and complementary to the invisible and integrated Tense KNX switch. These paintable and invisible socket frames can be made fully recessed in the plasterworks and finished off by painting them just as you wish. Thanks to the special Xillo wall boxes, installing these is child's play. They are available with or without a gap in both 1-fold and 2-fold versions and are compatible with several types of inserts. With only the small gap and/or plug hole visible, the paintable and invisible socket solutions are one of the most minimalistic socket outlets on the market.

Contact: www.tense.be

iON sensor and room controller

THEBEN AG Switch on and dim lights, raise and lower blinds, control the room temperature, save and call up individual scenes: With iON tactile sensors and room controllers, a wide range of functions in every KNX-based smart building can be controlled simply by pressing a button. iON tactile sensors are available in various designs: as 1-way (two buttons) or 2-way (four buttons) version and as a room controller with LC display and Bluetooth interface. iON 108 KNX can also be easily controlled via Bluetooth using an app. App operation is also perfect for meeting rooms or hotel rooms. *Contact: www.theben.de*

thePrema P360 KNX Multi CO_2 sensor

THEBEN AG Good indoor air quality has never been more important than it is today. Measuring the CO_2 concentration can make a positive contribution to our health by ensuring our rooms are correctly ventilated. This is exactly where thePrema P360 KNX Multi comes in: The presence detector detects not only human presence but also CO_2 concentration, humidity, ambient temperature and air pressure. The multi-sensor reduces the installation effort, since instead of a CO_2 sensor and a presence detector, only one device has to be installed. It is also available as a retrofit kit for thePrema S360 KNX. *Contact: www.theben.de*

Adaptive Lighting

THINKA BV Adaptive lighting is a new feature in Apple Homekit IOS14. This function automatically controls lamps to adjust their white balance to the ambient light during the day. Thinka has succeeded in adjusting the lamps that support the colour temperature based on the location and thus adjust the sunrise and sunset almost imperceptibly at the right time. Adaptive lighting is available in all Thinka products. Thinka KNX and Thinka KNX PRO control all your KNX devices and allow KNX technology to be controlled via Apple Homekit, Siri, Google Home and Amazon Alexa. *Contact: www.thinka.eu/en*
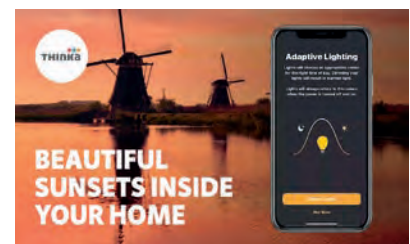
Thinka KNX PRO: Remote access

THINKA BV Thinka KNX PRO is the second product in the Thinka KNX Bridge portfolio and is executed with a secured KNX IP gateway and dashboard, to manage Thinka and KNX systems remotely. As data privacy is one of their key design principles, they do so in a way you are used to at Thinka. They set up a secure connection between the system integrator outside of the home and Thinka within the local network, without any adjustments on the router or firewall. Access is based on clear business rules and time kept. Thinka KNX and Thinka KNX PRO control all your KNX devices and allow KNX technology to be controlled via Apple Homekit, Siri, Google Home and Amazon Alexa. *Contact: www.thinka.eu/en*

Discover Micro_20 and MicroDIN

THINKNX Micro is now a more powerful server with a highly enhanced performance. Equipped with a completely renewed electronic board, it can adapt to cover the different needs of the installation. In addition to the basic desktop version (Micro_20), MicroDIN is now available as a DIN-rail mounted server. With native KNX communication, it enables the management of unlimited clients and supports unlimited KNX groups. The server can also be used as a KNXnet/IP interface or router. The device provides integration with IP intercoms, Lutron, voice control, IFTTT and communication with third-party systems. A USB port can be used for local storage of data collection and logs. *Contact: www.thinknx.com*

The Vimar KNX flat controls

VIMAR The Vimar KNX flat controls are part of the Eikon Exè series, designed for exclusive interior design projects with a distinct identity. The flat controls, with their defined and linear design, contain up to eight independent buttons to be used for on / off commands, shutter control, light regulation and scene recall. They can also be customised with lasered icons, drawing from a vast library of symbols and letters. Made with matt white, anthracite grey, brushed nickel, gold and brushed dark bronze finishes, they allow you to create an elegant total look that follows the most current stylistic trends featured by simple lines and clean and essential geometry. *Contact: www.vimar.com/en*

KNX 1MPF.4 FM actuator

WAREMA RENKHOFF SE is expanding its range to include the KNX 1MPF.4 UP actuator, a flush-mounted actuator for switching sun shading drives and power consumers. Thanks to its compact size, it can be easily mounted in the flush-mounted box and is therefore ideal for retrofitting and renovation. It enables up to two floating output channels to be controlled and parameterised individually. Four binary inputs are available as actuator or bus push-buttons, for example to connect commercially available (venetian blind) push-buttons. *Contact: www.warema.com*

KNX Modbus TCP gateway 716

WEINZIERL ENGINEERING GMBH Modbus is widely used in building automation mainly in the field of heating and ventilation, but also for charging stations or energy storage systems. The KNX Modbus TCP gateway 716 allows an easy integration of Modbus devices that communicate via TCP/IP. The gateway can act as a Modbus master as well as a slave. Modbus data is mapped to KNX group objects and vice-versa compliant to KNX data point types. The assignment between KNX objects and Modbus registers is carried out flexibly via parameters via ETS. The device is for rail mounting with a width of only one unit (18 mm). Three coloured LED on the front of the device visualise the connection and operation status. *Contact: www.weinzierl.de/en*

ALLinBOX 88

ZENNIO AVANCE Y TECNOLOGÍA SL The starting point for most projects incorporating control and monitoring functionalities. Multifunction device that integrates a 320 mA KNX power supply, KNX IP interface, four independent thermostats, logic module, eight analog / digital inputs and eight relay outputs (16 A C-load) in only eight DIN-rail units. Offers multiple configuration options as individual outputs, shutter channels or fancoil controller (two/four pipes). Accessories: Temperature probes, motion sensor and AC/DC shutter adapters.

Contact: www.zennio.com

Get started with KNX

Are you looking to expand your knowledge about KNX? "Get started with KNX" offers an overview of the various training options, accompanying material and identifies how teaching materials and methods can effectively be used in order to increase knowledge about KNX. Find all info at

https://start.knx.org

KNX introduces a ranking for KNX Partners

Stand out from the competition!

Since 30 years, KNX Association has proven that KNX certified courses, organized by KNX certified training centers, lead to successful KNX installations realized all over the world. Already more than 90.000 KNX Partners from 170 countries have decided to put their business in the spotlight by appearing on the KNX international website in order to attract potential end customers.

The KNX Partner ranking system, introduced in August 2020, has taken this KNX partnership to the next level, thereby rewarding active KNX partners and giving them a higher chance of attracting potential end customers.

In the KNX Partner ranking system, the KNX partner can gain or (lose) a number of credits in 5 categories:

• Knowledge
• Tools
• Engagement
• Realized Projects
• Customer Feedback

The aim of the Partner ranking is to ensure that potential end customers (building owners) using the search engine are better guided as regards the strengths of the listed KNX partner. In the previous alphabetical list, these strengths were not shown. Worse, the listed partner could possibly no longer be active.

Thanks to the KNX Partner ranking system, the active partner stands out, while previously the potential end customer was searching for a needle in a haystack.

How many credits a KNX partner can gain in the different categories can be summarized as follows:
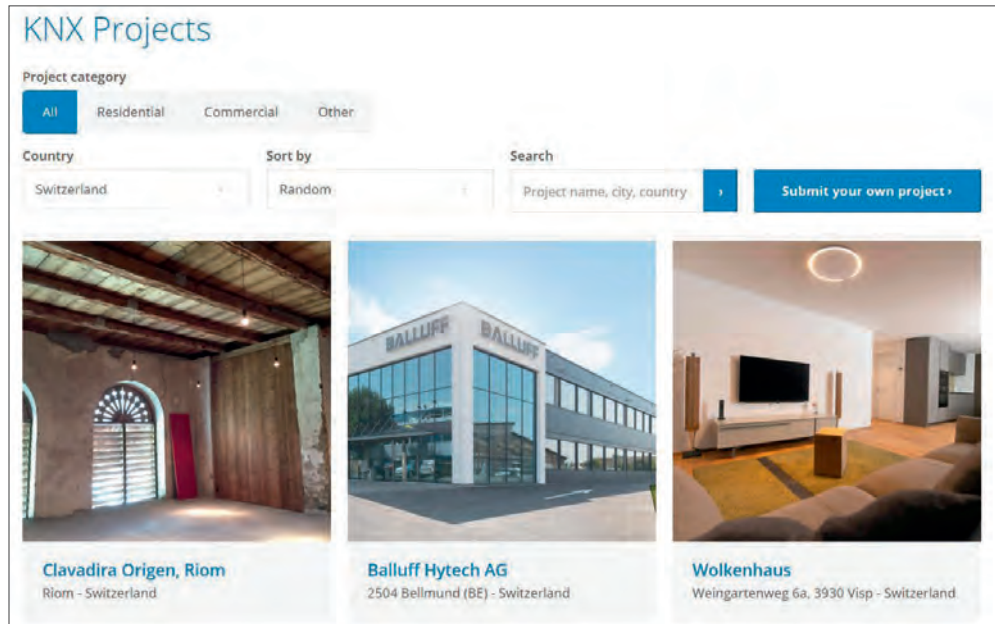
Knowledge

The "master switch" for the KNX partner ranking system is obviously having followed the complete KNX Basic course or the Condensed practical Basic course. The more KNX certified trainings the KNX partner has attended, the more credits he/she gains. Other certified courses that will increase the partner's ranking in this category are: Advanced course, Condensed Practical advanced course, HVAC Specialist course, Tutor course and last but not lease the newly introduced "KNX Refresher course". This course is intended for KNX partners who have followed the Basic course in the past. Thanks to this course, a KNX partner can refresh and develop his/her KNX skills further by receiving the most recent information on KNX system and tools novelties. The KNX Refresher courses can be attended fully online or Face to Face (F2F) and there is no exam.

Tools

a KNX partner using official ETS versions is rewarded with extra credits if using the ETS Professional and its latest generation. It is also good to know that the partner ranking system also takes into account the licenses that belong in the professional account of the KNX partner. There is in other words no need to transfer the licenses back to the personal account of the KNX partner.

Engagement

Engagement is an indicator for assessing the commitment of the partner to KNX. This category rewards the KNX partner who keeps his/her data in MyKNX up to date, keeps him/herself informed about the latest KNX developments and is active in a local national group or user club.

Realized projects

Potential end customers are more likely to be attracted to a KNX partner who has already successfully planned, designed and commissioned KNX installations. A KNX partner already today had the possibility to upload as many finalized reference projects on *https://projects.knx.org*.

Within the framework of the Partner Ranking system, the uploaded KNX project with the highest score can be eligible for gaining credits in this category. This means that a KNX partner can select one of the realized KNX projects in his/her MyKNX account in order to promote this project in the partner list on: *https://www.knx.org/knx-en/for-professionals/community/partners/*.

When uploading the project on *https://projects.knx.org*, the KNX partner has moreover the possibility to state whether this project is eligible for the KNX award. If this project is chosen by the Jury and the KNX partner becomes a nominee and/or winner, he/she can again gain extra credits in this category.

Customer feedback

After having uploaded the project on *https://projects.knx.org*, the KNX partner has the option to enter the email address of the end customer (home/building owner) to request his/her feedback. If feedback is given, the KNX partner can gain more credits in the Customer feedback category.

The changes in the score are not automatically reflected on the website, but only 24 h later. When a partner for instance updates his/her contact details or has successfully attended a KNX Advanced course, it may take up to 24 h time before the ranking is adjusted on the partner web page on *https://www.knx.org/knx-en/for-professionals/community/partners/*.

It goes without saying that only if the KNX partner has explicitly stated in his/her MyKNX account that he/she wants to be visible on the KNX international partner website, the score will be shown on the partner web site.

More information on the partner ranking system can be found in our Support area on: *https://support.knx.org/hc/en-us/sections/360004415099-Partner-Ranking-System*

National Groups

KNX Argentina Building Bridges

ARGENTINA KNX National Group Argentina addressed students of technical universities, who were studying about regulations on electrical installations for building automation and IoT. Thanks to the activities of KNX National Group Argentina, KNX became the leading technology, due to its openness and easy accessibility. By focussing on teaching, KNX National Group Argentina perfectly built the bridge between the industry and the future generation.

Contact: *Federico Catriel Giana | federico.cg@hotmail.com*
www.knxargentina.com

*Federico Giana pushing
KNX in Argentina*

Spreading the word down under on the web

AUSTRALIA With approximately 75 % of the area of Europe but only 3 % of the population, the vast distances between cities provided even greater challenges during COVID. KNX National Group Australia maintained a presence and growth during 2020 with regular online meetings and promotions on social media of case studies, training, product releases and general news that will stimulate recovery into 2021.

Contact: *Peter Garrett | peter.garrett@mysmart.com.au*
www.knx.org.au

*Video call of
KNX National Group Australia*

Webinar on the novelties of KNX manufacturers

BELGIUM On 28 October 2020, KNX Belgium organised a webinar in which KNX manufacturers presented their new products and developments of 2020. In addition to these novelties, information was given about KNX Belgium as an association, the KNX training possibilities and the combination KNX and IoT. This webinar was well watched by almost 100 visitors.

Contact: *Rob Van Mill | info@knx.be | www.knx.be*

*A webinar that exceeded
all expectations*

KNX China goes digit@l

CHINA Already in 2019, KNX National Group China prepared itself for a roll-out on social media. So when the pandemic reached its peak in China, KNX National Group China perfectly transitioned from on-site to digital. Thanks to efforts of KNX National Group China and the correct positioning, 2020 will go down as one of the most successful years of the KNX National Group, strengthening the group for all future challenges.

Contact: *Shen Pu | knxchina@knx.org | www.knxchina.org*

Great Results on multiple social media platforms

KNX National Group Czech Republic Celebrating Two Anniversaries

CZECH REPUBLIC Concurrent to the celebration of 30 years of KNX, KNX National Group Czech Republic held an online conference to celebrate the 5th anniversary of the KNX National Group Czech Republic. The online broadcast was watched by almost 250 viewers. Due to the high number of questions, the conference lasted an hour longer than the originally expected time. The recording of the conference can be viewed on the website of KNX Czech Republic.

Contact: *Josef Kunc | eibsyst@volny.cz | www.knx.org/cz*

Presentation during the anniversary event by KNX National Group CZ

KNX National Group France visible as never before

FRANCE KNX National Group France is moving towards a digital future to support its community. This includes communication, resulting in the first fully digital KNX France Journal. This edition, with 80 pages the biggest ever, was more successful than the previous editions. This success helped to increase the online presence of KNX France and turn the group to a true ambassador of digitalisation and real-time communication.

Contact: *Amel Karim | contact@knx.fr | www.knx.fr*

Just some of the activities by KNX National Group France

KNX India participating at KNXperience

INDIA With the participation in KNXperience, KNX India has once again proven that the group is actively promoting KNX, even in the most special times. Thanks to the extra exposure at the show, KNX India was invited to various other events, which were hoping to benefit from the shine, KNX could give them. Due to this, KNX National Group India is looking forward to an active year 2021.

Contact: *Bhavesh Doshi | info@knx.in | www.knx.in*

KNX National Group India with own booth at KNXperience

KNX Italy leading the way

KNX National Group Italy reinvented

ITALY In this particular period, KNX National Group Italy has taken the opportunity to reinvent their activities by showing more support for the community. So why do not invest in digital? A new website has been published in June. With information about courses, webinars, publications, participations in seminars and fairs, services for schools and news, the Italian community can be certain to be always up-to-date.

Contact: Francesca Talamo | segreteria@knx.it | www.knx.it

KNX National Group Japan ready for the change

JAPAN 2020 was an exceptional year for Japan as well. With no physical events, KNX Japan was able to concentrate more on online activities. With newly created accounts on Facebook, Twitter and other platforms, KNX National Group Japan started to deliver webinars of their own, and conduct mailings in order to reach out better to the audience. Whatever turns out next year, KNX Japan is ready to accelerate these activities.

Contact: Takayuki Shintani | knxjapan@itrco.jp | www.knx.org

Strong internet presence by KNX National Group Japan

MOU signing between KNX Korea and VDE Korea

KNX National Group Korea signs MOU with VDE

KOREA KNX National Group Korea focussed on "KNXis30" by celebrating on social media. Next to the celebration, KNX National Group Korea focussed on further activities, such as translation works and training. The highlight of 2020 was the MOU with VDE Korea, which enhances KNX's brand awareness and competitiveness. In 2021, KNX National Group Korea aims to increase its market share by focussing on standardisation work in order to become a Korean standard.

Contact: Daniel Lee | info@knx.or.kr | www.knx.or.kr

KNX National Group Luxembourg informs about ETS6 and pushes training

LUXEMBOURG The virtual general assembly in December 2020 was be enriched by a lecture on ETS6. Members, experts and interested parties could find out more about the new ETS6. For students in vocational training, KNX has been ingrained in the curriculum for years. This year too, the KNX technology is an integral part of the theoretical and practical examination and thus ensures qualified junior employees.

Contact: Thomas Plein | info@knx.lu | www.knx.lu

Training for the youngest

Outstanding outcome at online show

Online participation in Building Automation Week

NETHERLANDS In November 2020 KNX National Group The Netherlands participated in the annual conference Bits, Bricks & Behaviour, this year as an interactive, online event. The National Group's contribution included a forum discussion on automation in healthcare, an interview on cyber security and a panel discussion on the importance of building automation in meeting the BENG. Additionally, KNX National Group The Netherlands participated with an stand at VSK fair.

Contact: Rob van Mil | info@knx.nl | www.knx.nl

KNX National Group Poland welcoming new President

POLAND After more than 15 years, Jan Worobiec went in more than deserved retirement. Before he left, he successfully introduced a new president. With the nomination of Damian Fituch, Jan Worobiec did a final great favour to the KNX National Group Poland. Needless to say that all members confirmed his nomination and made Damian Fituch the president of KNX National Group Poland. KNX Association is looking forward to the great cooperation!

Contact: Damian Fituch | info@knxstandard.pl | www.knxpolska.pl

Foundation meeting of KNX National Group Poland in 2005

KNX Portugal Online Conference

The acceleration of digital transformation at KNX National Group Portugal

PORTUGAL The activities of KNX National Group Portugal in 2020 were characterised by the digitalisation of KNX National Group Portugal. This included several highlights, such as the online held KNX Portugal Awards. The KNX digital conference, which is held to analyse and discuss the future of building construction and control systems, brought together leading voices from construction, architecture, government, manufacturing and integrating.

Contact: Rui Horta Carneiro | rui.carneiro@knx.pt | www.knx.pt

2020 a major step in the world of automation towards 2021

ROMANIA KNX National Group Romania celebrated together with KNX Association the 30th anniversary of KNX by organising the biannual KNX conference. Next to the highly anticipated highlight, KNX National Group Romania was able to double the number of certified students in 2020 compared to the year before. This was achieved thanks to the extended efforts by the new KNX National Group Romania employee as well as by hosting focussing on online activities.

Contact: Rafael Marculescu | presidente@knx.ro | www.knx.ro

Live Transmission by KNX National Group Romania

*Highest concentration
during competition*

KNX National Group South East Asia supporting competitions

SOUTH EAST ASIA From Vietnam, to Myanmar and Malaysia, all the way to Indonesia – KNX National Group South East Asia put in a lot of effort to win the future for KNX. With KNX as the chosen technology for multiple national competitions, KNX National Group South East Asia made sure that all competitions went smoothly and that KNX was recognised as the leading technology all over the world. Congratulations to all winners of the competitions.

Contact: Peng Wha Siew | pw_siew@yahoo.com | www.knx.asia

New ways to be present on the market

SPAIN During 2020, KNX National Group Spain's activities were marked by the pandemic. Many in-person events organised by KNX National Group Spain and third-parties had been cancelled. For this reason, KNX National Group Spain organised multiple virtual events, with a great participation. KNX National Group Spain continues planning and organising online activities until a safe environment, both for organisers and visitors, can be assured.

Contact: Michael Sartor | info@knx.es | www.knx.es

*Upcoming KNX Spain event –
Join with your Avatar*

*KNX National Group Sweden getting
ready for on-site meetings*

KNX National Group Sweden welcoming a new board of directors

SWEDEN With the handover to a new board of directors, KNX Sweden ushered in a new era! Not only the move from Helsingborg to Linköping was proof of change, foremost the various online activities of KNX National Group Sweden put this National Group on more maps than it has ever been before. Thanks to newsletters, webinars and the creation of content, KNX National Group Sweden and its members are now facing a new future of success.

Contact: Jan Hammersköld | info@knx.se | www.knx.se

KNX National Group Thailand celebrates KNXis30

THAILAND KNX National Group Thailand celebrated the 30th anniversary of KNX with cake and champagne. The youngest KNX National Group emphasizes that even times might be special, happiness and joy are needed more than ever. With this positive attitude, the KNX National Group Thailand community was once again able to harvest the fruits of a growing market in the land of the smile, also in 2020 and thereby setting another example for the world.

Contact: Benoit Guillerey | benoit.guillerey@phuket-technology.com

*KNX National Group Thailand
celebrating KNXis30*

The KNX UK Awards 2020 handed out online

KNX National Group UK Celebrates 2020 Award Winners

UNITED KINGDOM KNX National Group UK has revealed the winners of its 2020 Awards, showcasing the skills, creativity and depth of expertise of the UK's growing KNX community. Having awarded winners in five different categories, KNX National Group UK has once again proven that KNX is the right technology to realise outstanding solutions and results! KNX Association congratulates to all winners of the KNX UK Awards 2020.

Contact: Tara Garland | admin@knxuk.org | www.knxuk.org

KNX National Group USA is going through this challenging time wisely

USA The entire industry needed to adjust to different ways to meet, work, and proceed with the commissioning. One of the outcomes was that many KNX specialists acquires IT field's skills. KNX installers were able to extend their service portfolio and promote heightened security thanks to KNX Secure. Consequently, KNX National Group USA provides comprehensive guidelines to newcomers, specifiers and installers.

Contact: David Thurow | info@knx.us | www.knx.us

KNX National Group USA shining thanks to good idea

ETS eCampus available in 18 languages

Since its contents have been updated to ETS5, the ETS eCampus has once again proven a great success. Thousands of new users have joined this free online training, making it at the same time a unique community of ETS5 students. The tool is available in Chinese, Czech, Danish, Dutch, English, Finnish, French, German, Greek, Italian, Japanese, Norwegian, Polish, Portuguese, Russian, Spanish, Swedish and Turkish.   *https://my.knx.org*

Userclubs / Professionals

New website and KNX Journal for KNX Belgium

BELGIUM The new website of the Belgian KNX Professionals went live in November 2020. This will allow them to better profile their members and also publish general news and product news. The page also informs its members via social media and a monthly E-letter. A special Belgian edition of the KNX Journal was also sent to all members and KNX Partners in December.

Contact: *Rob van Mil | info@knx-professionals.be*
www.knx-professionals.be

Visit now the website of KNX Belgium

College for Integrators joins KNX Userclub France

FRANCE By the admission of a college for integrators, KNX Userclub France opened a new world for certified KNX Professionals, in order to work as closely as possible with end-users and to bring visions from the field to the KNX National Group. With the implementation, the KNX Userclub France will get better access to new members and offer many services in return for all active French KNX Partners.

Contact: *Amel Karim | contact@knx.fr | www.knx.fr*

KNX Userclub France on Facebook

KNX Professionals Germany at KNXperience

GERMANY Peter Sperlich, Dirk Müller, Marc Jäger and Holger Schult gave KNX Association the honour to present their solutions, which were dedicated to "IoT Services with KNX". From energy management, to security, to assisted living and distributed secure facilities, the online version of the KNX Professional's performance was once again the highlight and a great representation of the roadmap by KNX Association.

Contact: *Dirk Müller | info@knx-professionals.de*
www.knx-professionals.de

German Professionals realising Services with KNX

Whitepapers by KNX Professionals The Netherlands

Whitepapers on HVAC and Cyber Security

NETHERLANDS The Dutch KNX Professionals developed a whitepaper on the possibilities of KNX for HVAC installations. The document creates more clarity by presenting examples and specific HVAC products. A whitepaper has also been written about the importance of cyber security. Publication takes place via its own Smart Inside community, but also via social media and installation portals of other publishers.

Contact: Ineke van Erp | info@knx.nl | www.knx-professionals.nl

Dialog Days by Polish KNX Professionals

POLAND During the DIALOG DAYS in September 2020, 200 KNX trainings were conducted via webinars, panel discussions, workshops and online interviews. The workshops conducted by KNX Professionals Poland (led by Andrzej Stachno), were very popular. Supported by various manufacturers, the participants of the DIALOG DAYS were able to learn more about the unlimited possibilities by applying KNX.

Contact: Andrzej Stachno | info@knxpolska.org
www.knxprofessionals.pl
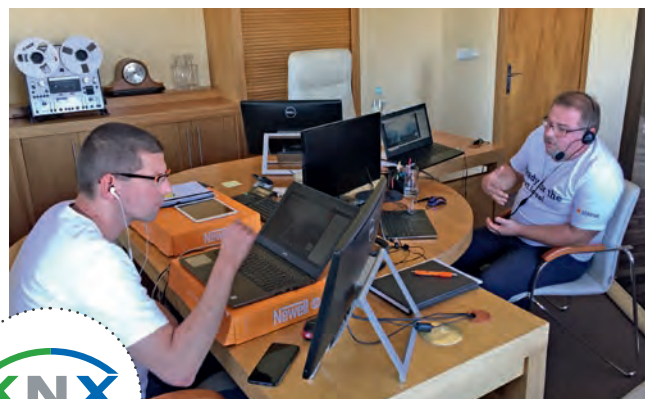
Dialog days supported by STEINEL
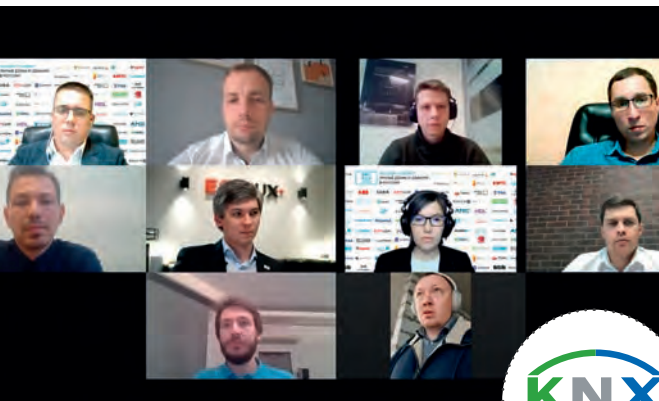
Online conference in Russia

KNX Day at The "Smart Homes and Buildings in Russia" Online Summit

RUSSIA KNX Userclub Russia held the KNX Day on October 23 within the first Online Summit "Smart Homes and Buildings in Russia". The online summit was attended by over 2000 listeners and 50 speakers. Representatives of KNX Association International, KNX Russia, JUNG, Johnson Controls, Embedded Systems, HDL, ESYLUX, EKINEX, GIRA and other manufacturers participated as speakers at the KNX Day.

Contact: Dmitry Sass | dmitry.sass@knx-user-club.ru
www.knx-user-club.ru

KNX Professionals Sweden grow with more activities

SWEDEN KNX Professionals Sweden was livestreaming via the internet about various interesting topics. These shoots were done to also celebrate the KNX day and the 30th anniversary day. For the upcoming years the group will increase these live studio events with talks and interviews of people together with interesting new topics and products. In the future, the group hopes to combine those streams with on-site events.

Contact: Jan Hammersköld | info@knx.se | www.knx.se


KNX Professionals Sweden steaming live

KNX Userclub Tunisia paving the road

TUNISIA Also in these special times, the Tunisian KNX market is expe-riencing another growth, also due to the extended activities of KNX Userclub Tunisia. By making sure that KNX is put on the curricular, vari-ous representatives of KNX Userclub Tunisia held trainings for students and professors in order to make sure that the future road is paved with the only open technology – KNX.

Contact: Amin Messaoud | amin_messaoud@yahoo.fr

Amin Messaoud training his former professors
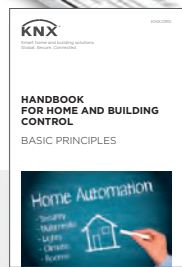
KNX books now available as ebooks

Until now, the KNX books were only available in paper format. Due to the number of smartphones and tablets used worldwide, KNX Association offers now most of its books in ebook format like KNX Handbook, Basic Course and Advanced Course. The ebooks are available via the Amazon website.

If you want to see a list of the KNX books, have a look on this link:

https://my.knx.org/en/shop/ebooks

New Training Centres

@utomazioni di Sitzia Gianmarco
Italy
sitziaimpianti@gmail.com
www.knxsardegna.com

AFRI2GETHERBUILD BUSINESS LTD
Cameroon
hugodonfacks@yahoo.fr
www.afri2b-smartbuilding.com

Berufliche Bildungsstätte Tuttlingen GmbH
Germany
iseler@bbt-tut.de
www.bbt-tut.de

BETSUKAWA CORPORATION
Japan
ytagawa@betsukawa.co.jp
www.betsukawa.co.jp

BTZ der Handwerkskammer Frankfurt-Rhein-Main
Germany
elektro@hwk-rhein-main.de
www.hwk-rhein-main.de

Colegio Oficial de Ingenieros Técnicos de Telecomunicación
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juansm@coitt.es
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www.gbs-grafschaft.de

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Kadan Pty Ltd
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jamesfphady@hotmail.com
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KNX ZONE
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SmartLight Co.,LTD.
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takahiro.nakahata@gmail.com
www.smartlight.jp

Société Européenne de Formation
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sef2@wanadoo.fr
www.sef-formation.info

SUMAMO co., ltd
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www.sumamo.co.jp

YATUN, s.r.o.
Czech Republic
martin.wokoun@yatun.cz
www.yatun.cz

New Scientific Partners

Fachhochschule Wiener Neustadt Campus Wieselburg

Austria
franz.theuretzbacher@fhwn.ac.at
www.wieselburg.fhwn.ac.at

ITIS A. Rossi

Italy
info@azengineering.it
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Technische Hochschule Bingen

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u.rossberg@th-bingen.de
www.th-bingen.de

KNXperience

First Online KNX Exhibition Hailed a Great Success

KNXperience – the first online KNX exhibition organised by KNX Association, took place from 28 September to 2 October 2020, and was hailed a great success. It featured a total of 71 KNX-coordinated conference sessions and two exhibit halls with 42 booths, bringing together thousands of participants across 148 countries to discover the latest KNX developments, products, solutions, awards, promotions and more.

President of KNX Association, Franz-Josef Kammerl, sums the show-up: "This was our first attempt at a global online trade show dedicated to KNX, and we have been overwhelmed by the positive response. The show was open to everyone and allowed them to discover the latest KNX solutions and developments, to connect with industry professionals from across the globe, access new tools, and win fabulous prizes. We promised an exciting and inspirational week of KNXperience, and that's what we delivered. I am so proud of the whole KNX community for making this event such a great success."

Exhibitors and visitors were just as enthusiastic:

"My impression of the exhibition is very positive. We've had good feedback from visitors, with a lot of personal chats and deeper introductions to products. The pleasant surprise is that it is working very well – the Association has done a great job in my opinion and all of the guests have enjoyed the event." said Giangiacomo Pastore of KNX Member, Eelectron.

"I can't describe how happy I am, it's just like being at Light + Building, but perhaps even better because I can rapidly switch between halls without getting tired. I am amazed and so proud to be a member of the KNX family," said Amin, a KNX professional from Tunisia.
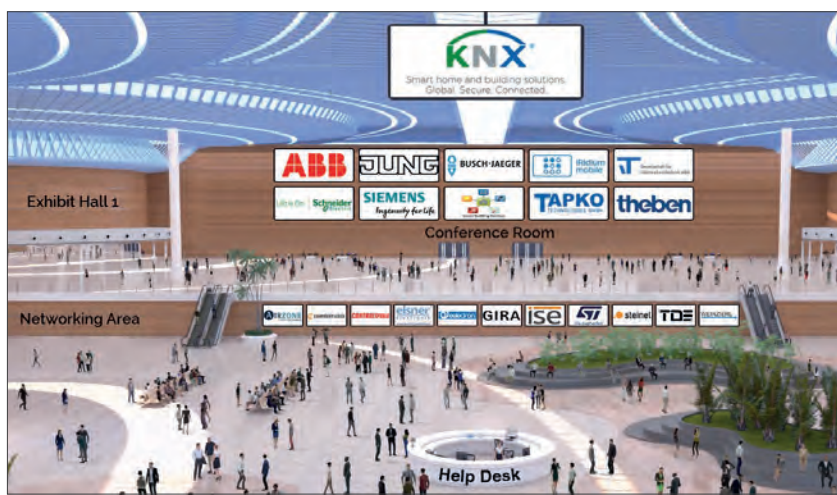
KNXperience, the meeting point of thousands of participants across 148 countries to discover the latest KNX developments

Through conference sessions, dedicated booths and chat rooms, visitors were able to discover why KNX IoT, Services with KNX and Energy Management with KNX are so crucial to new business opportunities. They could engage with experts from all over the world, whether they were KNX Association staff, delegates from national regions, KNX manufacturers/suppliers or KNX professionals. They could also access new tools developed by KNX and its community Members, and test their skills and knowledge, with the opportunity of winning some great prizes.

Most visited areas: Conference Room and two virtual exhibit halls

Consisting of five areas, the virtual fairground's most popular areas were the conference room and two exhibit halls. In the conference room, 71 sessions in English and German were followed live, out of which 44 were presented by KNX Members, 26 by KNX

Association and one by KNX National Group Korea. Over the official exhibition period, the conference sessions were viewed a total of 18,714 times.

The two exhibit halls were filled with 21 booths from KNX Members, 7 booths from KNX Association, 10 KNX National Groups and 4 KNX Professionals. Each exhibitor had their own featured booth, consisting of banners, logos, videos and brochures, and every visitor had the opportunity to chat live with the booth reps. Over the official opening period, the two exhibition halls received a total of 69,393 visits.

KNX Awards went Digital

KNX Awards, the highlight event in KNXperience week, also went digital for the first time. The celebration gave awards to excellent KNX projects within 8 categories. During the event, to add to the excitement, five ETS licenses and a special prize were also given away to the event followers.

KNX Association would like to thank all of its Members, National Groups, Professionals, media and supporters for helping to make KNXperience the best event ever in KNX history!

#KNXis30

A year-long jubilee is highlighting with a blast!

KNX Association celebrates its 30th anniversary with monthly activities and a 10-hour marathon on the 20th of October.

When the founding members created KNX in 1990, little did they know that they would create more than just a technology. They created a worldwide movement. In order to celebrate the countless achievements and milestones for its 30th anniversary, KNX Association invited the world to reminisce, tell their story and celebrate the biggest birthday in the history of smart homes and smart buildings.

Every month another joyful moment for the KNX community

January made the beginning not only of the year, but also of the first of many activities, starting with the "KNX Vintage Wall". The KNX community handed in pictures, which allowed to reminisce about the past, the beginnings of KNX and the growth and development of the community. All impressions were collected on the social media wall, which is still active on the KNXis30-website.

February went down in the KNX history of the month of the biggest video collection by KNX Association ever. The birthday wishes from the community from all over the world did not only exceed all expectations, the contributions from countries, from which we would have never expected anything, were melting the hearts of the entire community. As the videos kept on coming, KNX Association extended this action to **March**.

With over 100 videos received from 30 countries, this action clearly showed that the KNX community is not only present all over the world, it is foremost moving to see that the community is contributing to the festivities of KNX!

In **April**, KNX Association presented the 30 biggest milestones from the birth of KNX up until now. Afterwards, the KNX Community voted for the best milestone and shared their personal story with the world. Here again, the stories did not only highlight the involvement of the KNX community in the worldwide success story of KNX, it also showed that KNX is not only a technology, but a movement. Not being able to imagine that we would exceed the previous month, but the more than 600 votes for the top 30 memories from every continent in the world filled the KNX world with unknown joy, making this birthday the best ever...And the highlight has not been even reached!

In **May** it was time to listen to the KNX community and their stories. The whole KNX Community handed in their story of how false statements and wrong rumours were cleared out. Out of the more than 100 received stories, KNX Association chose one winning story, which was rewarded with a special prize! Want to know, what the winning story is? Then check out https://knxis30.knx.org

In **June**, #KNXis30 tested the skills of the communities by asking how they overcame a problem by applying KNX. The surprise was not that the application of KNX underlined once more that KNX is suitable for every application and for everybody in every situation. Also the 150 contributions from over 40 countries did not surprise anymore, although the expectations were exceeded once more. The big surprise was the creativity of the KNX Community, which applied KNX in areas, even we did not know it was possible to use KNX. Also, one application was so special that it got awarded with a special prize.

July and **August** were dedicated to let everybody shine who contributed to the past month. By sharing numerous stories by hundreds of stories and contributions by the KNX Community, #KNXis30 has once again shown that the celebration is for the whole community in the whole world.

Reaching one of the annual highlights, #KNXis30 greatly contributed to the biggest online fair for KNX Smart Homes and Smart Buildings in **September**. With close to 10.000 visitors, KNXperience exceeded all expectations and resulted in a great participation during the fair.

The 20th of October – A day to remember for the next 30 years

The whole KNX Community celebrated the 30th anniversary on the 20th of October with a 10-hour online marathon. This did not only guarantee social distancing, but literally brought the event to the countries all over the world. Starting with the contribution by the Asian KNX National Groups and finishing with the KNX National Groups in the western hemisphere, the event underlined once more that KNX is not only the leading technology in the market, but an entire whole community, which keeps KNX strong.

A big shout out to make this event a great success does not only go to the thousands for viewers, it also goes to the contributing KNX National Groups:
Japan, Korea, Swedish Professionals, Romania, Czech Republic, Netherlands, Belgium, Luxembourg, France, Italy, UK and Spain.

KNX Association would like to thank the many viewers and participants of the anniversary, as well as all KNX National Groups, as well as all representatives that took their time to present the latest developments in the market.

#KNXis30 – In conclusion
#KNXis30 has united the KNX community as it has happened never before! We would like to thank the world for:

- almost 1.000 contributions from more than 50 countries on every continent
- around 1.000 participants in the KNXis30 Lucky draws
- 300 stories by the KNX Community letting us reminisce about the last 30 years
- 3 hours of video material by the KNX Community in the months February and March
- 10 hours of excitement on October 20th
- more than 20 supporting KNX National Groups throughout the whole duration of #KNXis30
- and 30 years of fun, joy and success: Thanks to a strong and unique KNX community!

KNX Japan signs MoU with ABEE

JAPAN KNX Association and KNX National Group Japan proudly announce another milestone in the young history of KNX in the Country of the Rising Sun – the signing of an MoU with the Association of Building Engineering and Equipment (ABEE). The cooperation will allow both institutes to combine forces in order to provide a wider range of opportunities for creating additional value to the whole building construction industry in Japan and beyond. First events have been scheduled, which will put the focus on the newly created and strong union. *Contact:* www.knx.org

The signing of the agreement

ETS6 Plug-fests for KNX Manufacturers

BELGIUM KNX Association has organized for the first time four online ETS6 plug-fests, where KNX Manufacturers from all over the world had the opportunity to get ETS6 ALPHA versions, test their devices implementing the new KNX System extensions (Segment Coupler, Secure Proxy & RF Multi) and directly give feedback about the newly introduced functionality. Organizing the plug-fests online gave the opportunity to many KNX Manufacturers who were not able to join such events in the past, to join and actively participate since the 'distance barrier' had been overcome. *Contact:* www.knx.org

Four Online ETS6 plugfests were organized

The KNX Technology Forum 2020 unfolds a new era of services with KNX

BELGIUM The KNX Members had the opportunity to discover the latest news that impact their businesses at the latest edition of the Technology Forum. The main novelties were in the KNX specifications and tooling (with the ETS6 around the corner, EITT offering an enhanced testing framework and KNX Virtual helping in the development process) and the latest news affect KNX IoT and KNX RF Multi. The cherry on top was an opening keynote from Mr. Heinz Lux, CEO of the KNX Association, sharing the vision of a new era of services built with KNX. *Contact:* www.knx.org

Jesus Arias hosting the Forum

KNX at the EuropeOn online Annual Conference

BELGIUM In 2020, EuropeON put the conference's focus on the impact of the EU Renovation Wave and European recovery. The conference highlighted the building renovations as a key segment for electrical contractor companies, and the importance of recruiting enough professionals with the right skills, in the next years to come. KNX contributed, with the presentation "Bridging the gap between smart buildings and e-mobility", offering professionals new applications for their portfolio to deliver sustainable solutions to their clients and environment. *Contact:* www.knx.org

EuropeON online conference

Events and Fairs Schedule

ETS6 Training Centre Workshop
16. 3. 2021
Online
One day workshop for certified training centres to get acquainted with ETS6
www.knx.org

ISH 2021
22. – 26. 3. 2021
Online
Two trade fairs together under one roof: energy, building and air-conditioning technology as well as bathroom solutions.
www.ish.messefrankfurt.com

KNX HVAC Solutions Conference
30. – 31. 3. 2021
Online
2-day conference focusing on KNX HVAC solutions as well as new products by KNX Members
www.knx.org

eltefa 2021
20. – 22. 4. 2021
Stuttgart (Germany)
Leading fair for electronics in Germany and the neighbouring countries.
www.messe-stuttgart.de/eltefa

Matelec 2021
4. – 7. 5. 2021
Madrid (Spain)
International Trade Fair for the Electrical and Electronics Industry.
www.ifema.es/en/matelec

ISE 2021
1. – 4. 6. 2021
Barcelona (Spain)
Europe´s no. 1 show for professional AV and electronic systems integrations.
www.iseurope.org

KNX A/V Solutions Integration Conference
8. – 9. 6. 2021
Online
2-day conference with main focus on KNX A/V solutions by KNX Association and its Members
www.knx.org

GEBT 2021
9. – 12. 6. 2021
Guangzhou (China)
Asia's premier platform for the electrical engineering, building and home automation markets.
https://guangzhou-electrical-building-technology.hk.messe-frankfurt.com/guangzhou/en.html

Integrate 2021
21. – 23. 7. 2021
Sydney (Australia)
Australia's largest industry event for AV and system integration.
www.integrate-expo.com

SEBT 2021
31. 8. – 2. 9. 2021
Shanghai (China)
Event that aims at brand building and invites potential customers.
http://shanghai-intelligent-building-technology.hk.messefrankfurt.com/shanghai/en/visitors/welcome.html?nc

IFA
3. – 7. 9. 2021
Berlin (Germany)
Fair for consumer electronics and home appliances.
www.b2b.ifa-berlin.com

Please note that due to COVID-19, events might be cancelled, rescheduled or changed to online events.

BIEL Light + Building 2021

8. – 11. 9. 2021

Buenos Aires (Argentina)

International Biennial of the Electrical, Electronic and Lighting Industry.

https://biel-light-building. ar.messefrankfurt.com/buenos-saires/es.html

Interlight 2021

13. – 16. 9. 2021

Moscow (Russia)

International Trade Fair for Decorative and Technical Lighting, Electrical Engineering, Home and Building Automation.

https://interlight-moscow.ru.messe-frankfurt.com/moscow/en.html

KNXperience Edition 2

28. – 30. 9. 2021

Online

KNX online exhibition of all types of KNX solutions and products

https://knxperience.knx.org

Lightfair 2021

25. – 29. 10. 2021

New York (United States)

World's largest annual architectural and commercial lighting trade show and conference.

www.lightfair.com

Facilities Integrate 2021

3. – 4. 11. 2021

Auckland (New Zealand)

New Zealands trade exhibition for the facilities management and system integration.

www.facilitiesintegrate.nz

KNX Technology Forum

25. 11. 2021

online

Technical event for KNX Members

www.knx.org

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https://my.knx.org

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https://support.knx.org

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- Radio Frequency (RF)
- Powerline (PL)

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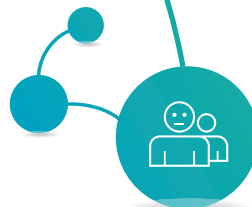SCIENTIFIC PARTNERS
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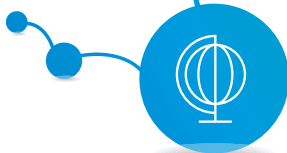IN **9** COUNTRIES

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