KNX®

The worldwide STANDARD for home and building control

JOURNAL
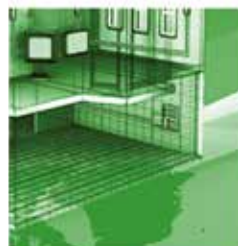## 2/2017

KNX is No1 System

Successful ETS Inside Launch

HVAC Use Cases with KNX

ETS Inside – Special Features

Embedded

Smart

Wireless

**ETS5 now available with
KNX Secure functionality!**

www.knx.org

ETS5 Professional

See all ETS Apps on www.knx.org

New licenses	Price	Restrictions
ETS5 Professional	€ 1000,00	
ETS5 Supplementary	€ 150,00	For Notebooks, 2 licenses maximum, only together with ETS5 Professional
ETS5 Lite	€ 200,00	20 possible products maximum
ETS Inside	€ 160,00	
ETS Apps	see KNX Online Shop	
Upgrade licenses		
ETS4 Professional > ETS5 Professional	€ 350,00	
ETS4 Supplementary > ETS5 Supplementary	€ 110,00	
ETS4 Lite > ETS5 Lite	€ 150,00	
Educational licenses		
ETS5 Training Package	€ 1.200,00	1 x ETS5 Professional, 10 x ETS5 Lite / 2 x Training Handbooks

All prices excl. VAT

Order at: https://my.knx.org

Editorial

Projects

System

Tools

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Out and About

KNX is already there

Heinz Lux
CEO, KNX Association

Whenever you hear the phrase "As everyone knows…" you should prick up your ears. Time and time again we read: "As everyone knows, the lack of standards hampers the breakthrough of smart homes in the mass market." Indeed, this perception is brief and succinct but it is nevertheless wrong, and continuous repetition will not change that.

So, as everyone expects, let us stick to reality instead of "alternative facts". A comprehensive investigation proves that there is a worldwide, leading communication protocol: KNX. Have a look at the real facts of the BSRIA study on the following pages. Read "good news" instead of "fake news"!

The predicted triumph of IoT providers over traditional providers of home and building automation, which you could still read about recently, has not occurred and can now confidently be described as disproved. The downfall of the traditional providers has not happened. According to the author of the study, KNX has the tremendous advantage of being used a wireless (RF), IP-based or wired solution.

Certainly, the processes of market segmentation are in full swing on an international level. But if, as we can learn from Aristotle, a process "is the realisation of the possibilities inherent in being...", then KNX offers the possibilities and the fulfilment of the "being", of both the existing and future markets. With KNX, our partners have also bet on the future. Because we are what we stand for: "KNX is the leading smart home protocol – all over the world."

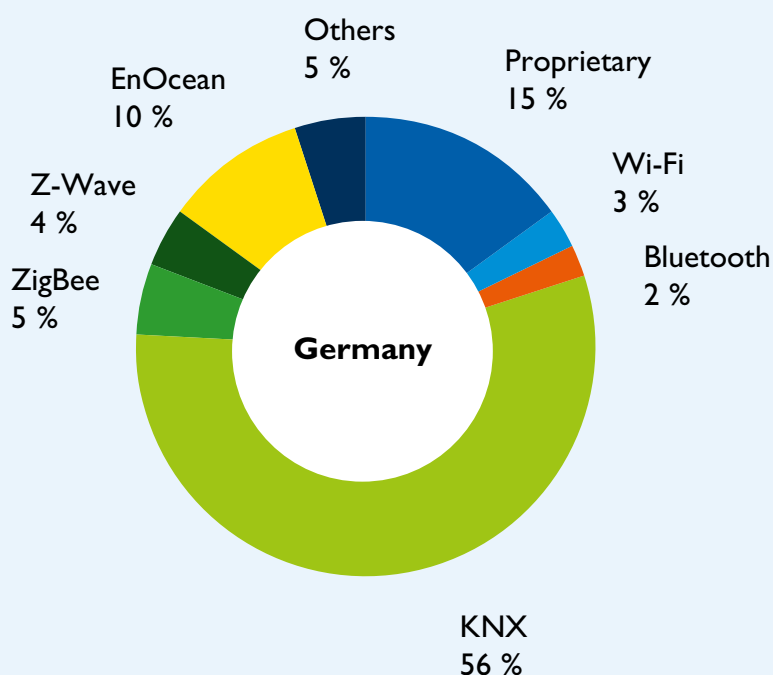So you see: Wherever you go – KNX is already there.

**"KNX is the leading smart home protocol – all over the world.
So you see: Wherever you go."**

KNX is the leading communication protocol

in the European and Chinese smart homes / light commercial market

Others
5 %

Proprietary
15 %

EnOcean
10 %

Wi-Fi
3 %

Z-Wave
4 %

Bluetooth
2 %

ZigBee
5 %

Germany

KNX
56 %

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BSRIA is pleased to present the results of its latest Smart Home/Light Commercial market study produced in January 2017. The study, which consists of individual country reports on China, France, Germany, Netherlands, the United States and the UK , is forecasting a total global growth of 20 percent in the Smart Home/Light Commercial market in 2017, with the largest growth being predicted for the UK market with a growth rate of 29 percent. The study segments the market into stand-alone products and whole home products and also analyses the value of system integration (value add) and service and maintenance.

The total value of the global market is forecast to be $15.8 billion in 2017; the US market remains the largest single market forecast at 29 percent of the total market value. Despite the maturity of the US market, the growth forecast is expected to be in line with the global increase in value of 20 percent, with stand-alone products being the segment showing the largest growth at 27 percent.

The study is also forecasting rapid growth in sales of both products and system integration, but due to the infancy of the market, a lower level of sales for service and maintenance.

The reports show that the largest individual vertical sector is luxury villas accounting for 25 percent of the market value; the second and third largest segments, offices and hotels respectively, represent a combined total of 23 percent of the market. The reports provide an outlook through 2021 when it is forecast that the total global market will be worth $29.8 billion.
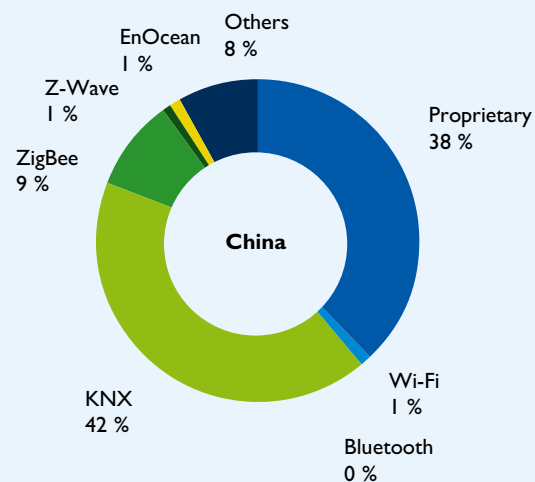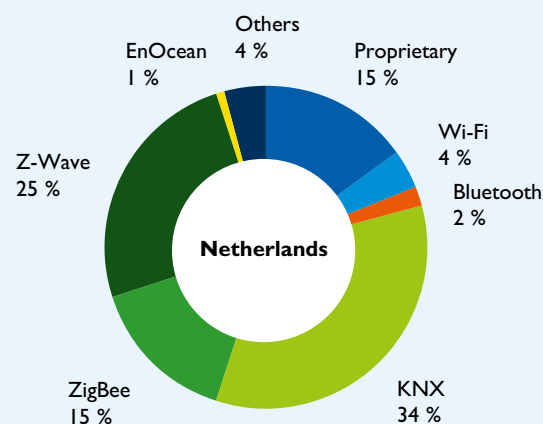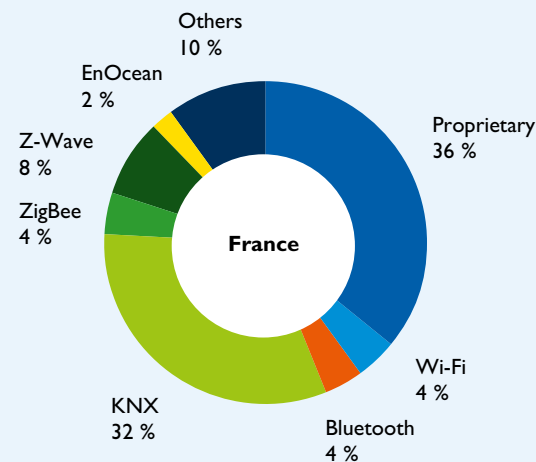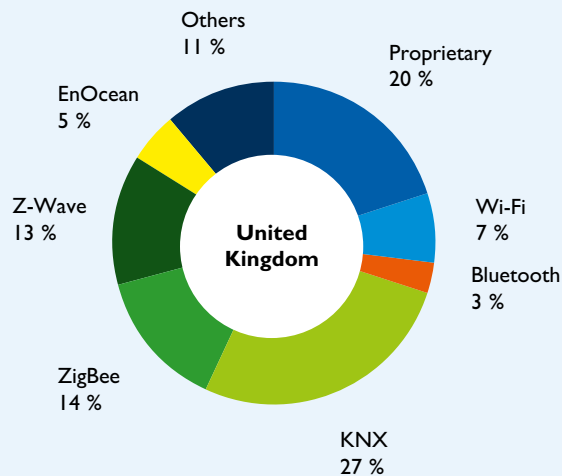
In terms of communication protocols, whereas the market in North America is dominated by proprietary protocols, the study shows a significant increase in the penetration of KNX in Europe and China. The typical KNX wired solution has traditionally limited its deployment to newly-built installations: the launch of the KNX RF (wireless) version in 2010 has enabled it to gain a significant market share, placing it in third place behind proprietary communication protocols and Wi-Fi, but with the advantage that it can be integrated with KNX wired products.

In Germany the whole home solutions market is heavily dominated by KNX (with a share of 56 percent), which was developed largely under the auspices of major German and European smart building suppliers. While proprietary protocols still have a significant share, none of the other protocols have yet gained critical mass.

The whole home solutions market in the UK is not dominated by any one communication protocol. All protocols have their own strengths and weaknesses, and many installations will incorporate more than one protocol. The BSRIA study found that KNX has a 27 percent market share in the UK's whole home smart systems segment.

KNX remains the most popular of the non-proprietary protocols in France with 32 percent of the market. It is a long-established communication protocol in this country, but it should be pointed out that proprietary protocols are also very strong in France. Proprietary protocols may have the advantage of not adding additional costs to the devices and give the biggest freedom to the manufacturer: however, they seriously complicate integration with other systems. The industry has not yet achieved a consensus on the open standard and the convergence issue remains a threat to the progression of the smart market. Because EDF, the leading energy supplier in France, has decided to offer the possibility of transporting metering data via a KNX interface in its Linky smart meters, among others, the importance of KNX in France is expected to rise.
Proprietary protocols (15 percent) are well represented in the Netherlands, but KNX has a market share of 34 percent in whole-home smart home systems, and has thus become the standard for home and building control in the Netherlands.

Wired systems account for the vast majority of the overall market in China for whole-home smart systems. Of the total whole-home smart home market, nearly 38 percent uses proprietary protocols and about 42 percent was accounted for by KNX systems. The KNX protocol constitutes a "European standard for smart home installation" in China, which has become the only approved Chinese standard (GB/T20965) for home and building control in 2013. A large number of protocols are used in wireless products in China, however, mostly for stand-alone smart products / subsystems, including Wi-Fi.
Wi-Fi's disadvantage, however, is that it consumes more energy, and devices working through Wi-Fi can slow down internet connectivity at home.

United Kingdom

- Others 11 %
- Proprietary 20 %
- EnOcean 5 %
- Wi-Fi 7 %
- Bluetooth 3 %
- Z-Wave 13 %
- ZigBee 14 %
- KNX 27 %

France

- Others 10 %
- EnOcean 2 %
- Proprietary 36 %
- Z-Wave 8 %
- ZigBee 4 %
- Wi-Fi 4 %
- KNX 32 %
- Bluetooth 4 %

Netherlands

- Others 4 %
- EnOcean 1 %
- Proprietary 15 %
- Z-Wave 25 %
- Wi-Fi 4 %
- Bluetooth 2 %
- ZigBee 15 %
- KNX 34 %

China

- Others 8 %
- EnOcean 1 %
- Z-Wave 1 %
- Proprietary 38 %
- ZigBee 9 %
- Wi-Fi 1 %
- KNX 42 %
- Bluetooth 0 %

ETS Inside is the most successful product launch in the history of KNX

More than 1000 ETS Inside licenses sold within the first three days after the launch
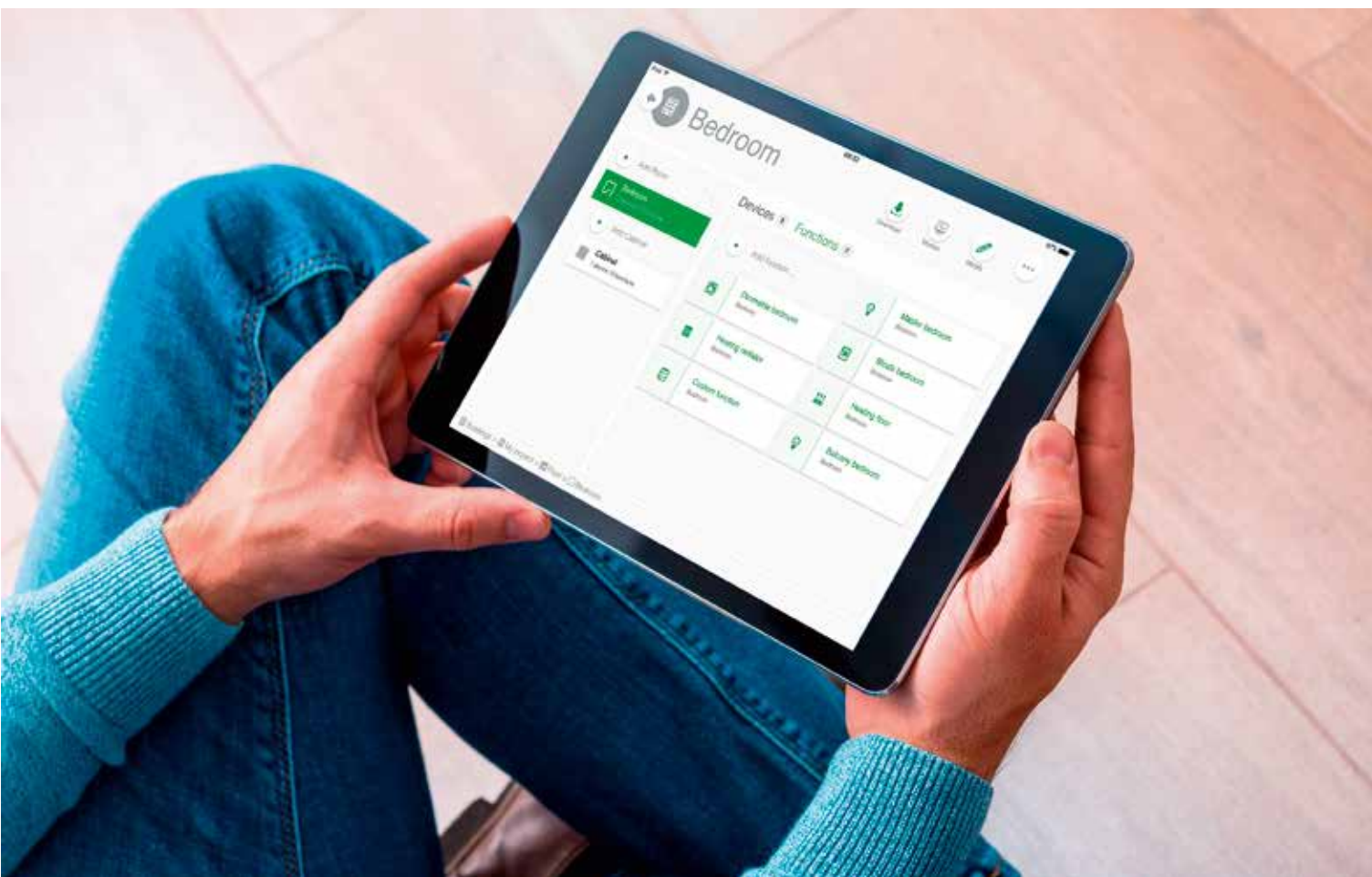
ETS Inside can be easily used on most commonly used mobile devices

The launch of the ETS Inside was accompanied by the biggest series of events in the history of KNX. With more than 30 conferences all over the world, in March 2017 the whole KNX community ushered in a new era of working with the worldwide STANDARD of home and building control – in a Smart, Simple and Safe way! More than 1000 ETS Inside licenses were sold within the first three days after the launch of the new software.

"The last years saw a growing awareness on the topic of smart home. Smart home solutions became more mainstream, leading to a change in the whole industry", comments Franz-Josef Kammerl, President of KNX Association. "With the launch of ETS Inside, KNX not only responded to current market trends, ETS Inside also made the benefits of the KNX standard available to more people wanting to realise KNX installations in an easy way in homes and light commercial buildings. As ETS Inside does not require extensive training, it revolutionises the market and KNX as we know it. It was therefore only appropriate to celebrate this historical launch with a series of events around the globe, putting ETS Inside in the spotlight in the month of March".

ETS Inside is smart, simple and safe

The new era in home and building control: ETS Inside

ETS Inside opens up the world of home and building control to more potential users. ETS Inside: it is Smart, Simple and Safe:

Smart – By making the transition from PC to commonly used mobile devices, ETS Inside is reshaping how KNX installations are designed and commissioned. As the software can be a permanent part of the installation, only the ETS Inside client app is needed to configure the KNX installation. This app is downloadable from all app stores, i. e. Apple App Store, Google Play Store and Windows Store.

Simple – The user interface is easy-to-understand and lowers the barriers for anyone wishing to benefit from the interoperability of KNX across products of different manufacturers and applications. Without the need for extensive training, newcomers to the smart home market now have the possibility of putting a real KNX installation into action, be it in a home, shop or office.

Safe – With support for KNX Secure devices using the worldwide encryption standard AES-128, ETS Inside comes with the highest security features in home and building control. With KNX Data Secure devices, communication between devices is protected and with KNX IP Secure, communication across IP is encrypted and authenticated.

More than 30 events all over the world

The worldwide KNX community had been eagerly looking forward to the launch of the ETS Inside. KNX Association declared the month of March 2017 to be the "ETS Inside Launch Month" and the response from all over the world has been tremendous: More than 30 events were organised all over the world, from many countries in Europe to Australia, Japan, Korea, Brazil, Mexico, Colombia and Argentina.

Getting started with ETS Inside? Make use of dedicated online courses and material!

KNX Association has compiled a comprehensive set of materials, also online, to make sure that every ETS Inside customer can easily get started using the new tool. Some of the many highlights include the new ETS Inside brochures "Getting Started", "Features", "Checklist" and others.

In addition to the brochures, KNX Association is currently organising interactive webinars and making online video tutorials available. The list of scheduled KNX Webinars can be found at *www.knx.org* (section: training – webinars), the ETS Inside tutorials can be found at *etsinside.knx.org* (section: Getting started).

More information on the ETS Inside, the ETS Inside launch and all worldwide ETS Inside launch events can be found on the dedicated ETS Inside website, etsinside.knx.org.

KNX AWARD 2018

INTERNATIONAL AWARD
PUBLICITY AWARD
SPECIAL AWARD
ENERGY EFFICIENCY AWARD
YOUNG AWARD

You can now submit your projects for the KNX Award 2018, which will be granted at the Light+Building fair 2018 in Frankfurt (Germany) on the 20th of March 2018.

The KNX Award rewards the smartest KNX projects in home and building control around the world, as measured by how they stand out as regards innovation and technical progress.

Awards are handed out in 5 categories. Applications from around the world are welcome.

Improved platform: with the new project platform, you can now quickly and easily submit projects. Moreover, you can use the platform to display all your realised projects on the web and manage them from your MyKNX account.

Prize money: € 1.000 in each category

Deadline for submission:

**Friday,
24th of November 2017**

Registration: https://award.knx.org

A STRONG MESSAGE
FOR SOUTH AMERICA

Torre Pituba in Salvador with LEED certification

The largest energy company commits to efficiency with KNX

One of the first KNX projects in Brazil is the installation of the new headquarters of Petrobas in the commercial city of Salvador in the Brazilian state of Bahia. As a LEED certified building, the Torre Pituba sends a strong message about environmentally-friendly construction throughout South America. Automatic controllers contribute to efficient energy usage for lighting and shading functions.

As an internationally active energy company listed on the stock exchange, Petrobas is one of the largest companies in the southern hemisphere and is the largest company in Latin America. The offices that were located until 2015 in separate properties have now been brought together in the new high-rise office building Torre Pituba. This reduces administration costs and means shorter communication channels. Behind the prestigious glass façade, there are 23 floors with over 60,000 square metres of commercial space.

The successful application of the CNN Automação system integrator to Petrobras during the implementation of the electrical installation with KNX can be seen as a milestone in the introduction of building system technology in Brazil. CNN Automação is a service provider in the area of building automation and proves its expertise with references from large international companies.

LEED certification

The convincing arguments in favour of KNX in this project are obvious: clear and simple installation, interoperability with different providers, OPC interface to third-party systems, and future reliability through simple maintenance and modification.

There is a clear organisation of the network architecture. KNX / IP network routers link the lines on the different floors to a rapid KNX / IP backbone. This is the important prerequisite for the required building management system with access to over 50,000 control groups.

The lighting control, shading for the façade and energy management system are integrated. Finally, the building, with its international LEED certification (Leadership in Energy and Environmental Design), should be a model for energy savings and environmental protection.

Lighting and blind control connected

8,200 DALI-ballasts are controlled via light sensors using KNX / DALI gateways. In public areas, presence detectors automatically provide lighting on demand. Light-scenes in the meeting rooms and in the offices of the company's top management guarantee the convenient control of the lighting.

The lighting control is coupled with the shading for the façade so that the brightness of the interior lighting is constantly regulated according to the anti-glare protection and the amount of daylight entering the room. If rooms are unoccupied, the blinds are fully closed to protect the rooms from warming up. This achieves an optimum ratio between comfort and energy saving.

Attention is also paid to troublesome night-time light pollution. This is reduced by blinds that automatically close at night. The shading of the façade with 1,050 blinds occurs automatically via a Somfy Animeo sun protection unit with solar tracking and a weather station with the help of 391 motor controllers.

In addition to the lighting and shading functions, a load management system provides emergency operation in the event of a power failure. KNX lighting controllers thus reduce the load by dimming or switching off luminaires. The building management system can ideally communicate with the KNX installation via the NETx KNX OPC server. All the KNX information is visualised such as the operating states, weather data, load management and remote monitoring.

No unwelcome night-light as the blinds close automatically

BENEFITS OF KNX IN THIS PROJECT
• *Simple installation and configuration*
• *Energy savings*
• *Supports LEED certification*

TECHNICAL HIGHLIGHTS
• *Coupling of shading and lighting control*
• *Façade control with solar tracking*
• *Multiple use of presence detectors for lighting, shading and scene control*
• *Coupling of BMS with KNX*

TRADES / APPLICATIONS
Lighting, sun protection, energy management

KNX COMPONENTS – EXTRACT
• *Number:* 526
• *Brand:*
  Façade control: Somfy KNX Animeo
  Lighting: Philips Light Master
  Coupling of BMS: NETx KNX OPC server

COMPANIES INVOLVED
• *Client:* Petrobras

• *Architect:* Andrè sà Francisco Mota Arquitos

• *Planner:* Penta Egenharia

• *System integrator:*
  CCN Automação Ltda, São Paulo
  www.ccnautomacao.com.br

Optimum lighting conditions in the shared offices thanks to the coupling of shading and constant light controllers

ROOM AUTOMATION
BASED ON DAILY RHYTHM

KNX supports certified energy efficiency in Microsoft headquarters in Denmark

The Danish subsidiary of the software developer and manufacturer Microsoft has a new headquarters. The building complex in Lyngby, located north of the capital city of Copenhagen, is impressive due to its cubic design complete with an atrium and glass walls. Among the technology requirements of the building is support of LEED certification (Leadership in Energy and Environmental Design). With the help of the KNX automation implemented by Hoffmann A/S, it was possible to achieve Gold Class.

In October 2015, the construction company Hoffmann A/S was able to hand over the keys to the software giant. The Danish insurance group Danica Pension is the owner and landlord of the property. The building is formed from two cuboids that are offset from one another – the west wing and the east wing, each with six or seven floors. In the centre of the complex, there is an atrium with a glass roof. While the two lower floors, with their restaurant areas and studios, are accessible to the public, with restaurant areas and studios are accessible to the public, the upper floors have offices, conference rooms and meeting rooms. The architecture has a transparent effect to the outside through glazing units facing the atrium. This enables a large amount of daylight to stream inside the building.

Use of daylight in the atrium reduces the lighting costs.
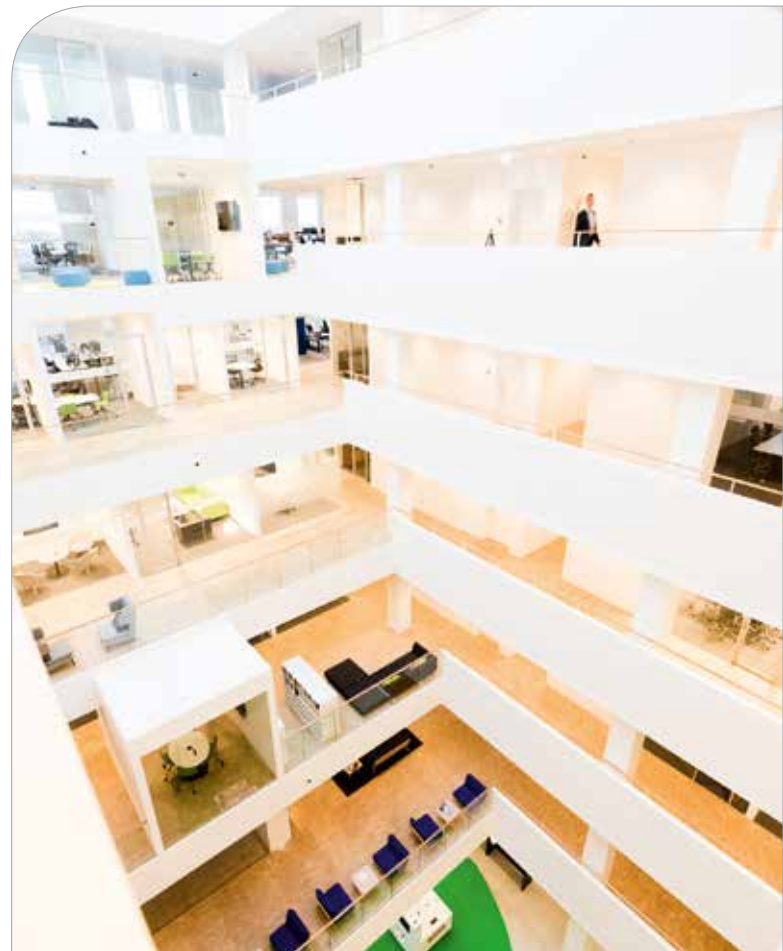
Efficient constant lighting control in the open-plan office.

Individual operation with smartphone

The KNX electrical installation with KNX supports efficient building use in a property that spans 30,000 square metres. The scope is not only made clear from 1,884 installed KNX devices, but also from the 3,800 low-energy lamps that are controlled and dimmed via the DALI protocol in connection with KNX. Movement detectors, presence detectors, and constant light controllers ensure that the interior lighting is customised. CO_2 sensors control the ventilation so that a high level of air quality is achieved. Temperature controllers for heating and air conditioning as well as blind control coupled with KNX contribute to the pleasant working environment. The room functions are automatically controlled and regulated in all the offices and hall areas according to the natural and organisational daily rhythm. This means the best possible energy efficiency. As the room automation in the open-plan office is organised by zones, the functions in the workplace can also be operated manually. This can be carried out via wall-mounted panels or smartphones using a web interface. Room functions in conference rooms can also be operated via the media controller as it too is coupled with KNX.

BMS solution is a pilot project

The availability of the building technology is guaranteed through technical monitoring that relays alarms, error messages, and other irregularities to the responsible service centre. Failures can thus be quickly detected and rectified. They are measured using electricity meters through monitoring, recording and optimisation of the energy consumption.

Among the high-level requirements of the building installation is a BMS (building management system) with visualisation at the heart of the building automation. The Hoffmann IBI / BMS department created these demands based on the ETS App MooV'n'Group, which was taken directly from the ETS device data, and made a graphical interface available. This solution in the Microsoft headquarters in Denmark is rated as a pilot project on the Danish market for building automation with KNX.

Transparent and bright: meeting room facing the atrium.

BENEFITS OF KNX IN THIS PROJECT
- Simple installation and configuration
- Convenient lighting control
- Energy savings
- Basis for a BMS with visualisation
- Supports LEED certification
- Central and decentralised operation
- High level of air quality

TECHNICAL HIGHLIGHTS
- Consideration of the incoming daylight through constant lighting control
- Fully automatic control according to the daily rhythm
- BMS on the basis of the ETS App MooV'n'Group

- Smartphone operation
- Integration of several systems for optimum energy efficiency

TRADES / APPLICATIONS
Lighting, Sun protection, Heating, Air conditioning, Ventilation, Technical monitoring, Energy management, Visualisation

KNX COMPONENTS – EXTRACT
- **Number:** 1,884
- **Brand:**
  ABB: KNX / DALI gateways, CO_2 sensors, valve drives, blind controllers, panels etc.
  Hager: Movement detectors

Schneider: Push buttons FUGA
Servodan: Presence detectors, constant light controllers
Siemens: VAV compact controllers, IP routers, brightness controllers
Wago: IP controller
Witze: Gateway

COMPANIES INVOLVED
- **Client:** Danica Pension
- **Architect:** Henning Larsen Architekten
- **Installer and system integrator:** Hoffmann A/S, www.hoffmann.dk

*Magnificent oriental architecture
with the appropriate level of technical luxury –
the Al Wajba Palace in Qatar*

TECHNICAL COMFORT BEFITTING THE SURROUNDINGS

Building functions meet luxury requirements in the presidential palace

It is a great honour to integrate intelligent building system technology in a presidential palace. This is at least how the service provider for building automation, Armiti Traiting L.L.C. in Dubai, felt. The KNX system integration in the Al Wajba Palace, the residence of the Emir of Qatar, rates among its impressive large projects. Since 2013, this prominent project has contributed to the popularisation of the KNX standard in the Middle East.

The exterior view of the project alone, with its landscaped gardens, can scarcely be surpassed in terms of architectural beauty. Of course there was a well-established company with experienced consultants and specialists behind the architecture and planning of the Al Wajba Palace with clubhouse and guest facilities. The decision in favour of the KNX standard is a significant vote of confidence in building automation, which is increasingly being practiced in the Middle East. Beyond the usual control systems in functional and residential buildings, the building functions in the Al Wajba Palace must meet the appropriate level of luxury and the representative tasks of a presidential residency. The employees of Armiti felt particularly challenged and were committed to formulating professional control ideas for the lighting, curtains, shading, air conditioning system, landscaped gardens and the integration of further systems.

The building functions in the Al Wajba Palace meet the level of luxury of a presidential residency.

Light scenes in the palace hall

The main features of the luxurious lighting are the interior rooms and the landscaped gardens. Thanks to KNX LED dimmers for retrofit LEDs, numerous luminaires can be converted from 40 watts to energy-saving LED technology with seven watts such as the chandeliers in the palace halls with up to 250 light branches. This not only reduces the connected load, it permits appropriate light moods via preset light scenes. They can be retrieved via touch screens and modified at any time.

The lighting and curtain controls are coupled to maintain a consistent and comfortable level of room brightness when the amount of daylight entering a room changes. Light sensors regulate the dimming level. In the extensive palace gardens, the "landscape mode" external lights are activated via movement sensors and light sensors. Pre-programmed and automatically retrievable lightscenes create the right light moods to suit twilight and night-time. The automatically controlled façade lighting creates an air of prestige.

Efficient building management

Armiti was able to create a central building management system (BMS) through the integration of individual KNX systems: the air conditioning system and the audio and video control system. It integrates KNX via BACnet. The requirement for a comfortable indoor climate can be implemented using distributed room temperature controllers and valve drives via the KNX network. The audio and video systems are also integrated. Using the touch panels of the media controller that are installed in various locations, it is possible to operate both KNX functions and audio systems via KNX operating sensors.

The building automation with BMS and KNX is not only the basis for the efficient management of the palace. It enables the service and maintenance technicians to guarantee seamless functionality of all the applications with visualisation and monitoring. The inhabitants, guests and staff benefit from using an appropriate level of technical comfort.

Thanks to KNX LED dimmers for retrofit LEDs, the chandeliers can be converted to energy-saving LED lamps.

BENEFITS OF KNX IN THIS PROJECT
- *Integration with BMS*
- *Lighting control*
- *AC control*
- *Curtain control*
- *Integration of audio video*
- *Landscape lighting*
- *Façade lighting*

TECHNICAL HIGHLIGHTS
- *Coupling of lighting control and curtain control*
- *Dimming of retrofit LEDs*
- *Lightscenes*

TRADES / APPLICATIONS
Lighting, Curtains, Air conditioning system, Media control, BMS

KNX COMPONENTS
- **Number:** *1100*

COMPANIES INVOLVED
- **Client:** *State of Qatar*
- **Architect and Planner:** *GHD, www.ghd.de*
- **System integrator:** *Armiti Trading (L.L.C.), Dubai www.armiti.de*

The rear of the palace: the KNX automation controls the prestigious façade and landscape lighting

INTELLIGENT RESORT
ON THE GOLDEN SEA

Automation supports guest comfort and the hotel business

Jinhai Lake is also known as the Golden Sea. The green mountainous landscape with an artificial lake, situated 85 kilometres away from Beijing in China, is an area used for excursions and local recreation. The surrounding hills create a delightful coastal landscape. Situated on the shore is a five-star luxury resort, the Jinhai Lake Hotel, which was completed in 2015. It was fitted with an intelligent building automation system in accordance with the high standards of the hotel.

The gardens and the gabled houses, which were built from natural stone and wood in the traditional style, blend seamlessly into the mountainous landscape on the lakefront. Spread over 14,750 square metres, in addition to 24 luxury suites and a presidential suite of 700 square metres, there is a restaurant, a café, meeting rooms and a lobby, emphasising the special quality of the place with high-quality furnishings including golden marble floors. A marina, golf course, jockey club and fishing areas offer exclusive sporting facilities.

Beautiful view: suites with a panoramic view and automatic shading

Creative integrators

From the outset, the building automation required a flexible and intelligent system. Extensive control options had to support the high standards of the hotel. Energy savings, a high level of integration, and individual solutions were arguments in favour of KNX. It was therefore good that the young engineering firm "Beijing Handz Engineering and Technical Service CO., LTD" could be acquired for the system integration. The commitment of the employees – electrical engineers, engineers and designers – can be seen in the creative solutions. Suitable brands and products were selected by the team from the variety on offer, which is only possible with KNX. Together they planned the installation, installed the devices, configured them and commissioned the system. With 1,135 KNX devices distributed across 25 lines, a comprehensive automation network evolved for all the applications including lighting, blinds, ventilation and air conditioning, audio and video systems as well as modern operating concepts.

Guest-friendly operation

Automatic switching and dimming functions are implemented for the lighting. Scene controllers ensure well-balanced lighting conditions, particularly in the public areas. Movement detectors are operated on demand. The blind control for shading the window areas in the suites is conveniently carried out for hotel guests: as an alternative to the central automation system, guests can individually adjust the blinds via iPad to their own requirements. The heating, ventilation and air conditioning systems are automatically regulated. Temperature controllers ensure a feel-good factor. The indoor climate can also be adapted to personal taste. There are also emergency buttons in all

Traditional building style and modern building automation: the Jinhai Lake Hotel, Beijing in China.
The hotel lobby with golden marble and KNX light scenes.

the accommodation. When they are pressed, this is displayed on the monitor in the reception area. All the other information of the KNX installation is collected on the visualisation screen. The control unit is used for monitoring, logging, and operation. The interface to the BGM system (Background Music) is implemented via KNX RS/485.

Guests can operate room functions individually via an iPad.

BENEFITS OF KNX IN THIS PROJECT
• *Individual implementation according to the requirements of the customer*
• *Large selection of brands and devices*
• *Flexible and highly integrated system*
• *Comprehensive monitoring of the building technology*
• *Safeguarding the high standards of the hotel*
• *Visualisation*

TECHNICAL HIGHLIGHTS
• *Efficient lighting through automation with switching, dimming and regulation, movement control, and time control*
• *Lighting comfort with scene control*
• *Coupling with BGM*
• *iPad control for guests*

TRADES / APPLICATIONS
Lighting, Sun protection, HVAC, Audio / video

KNX COMPONENTS – EXTRACT
• *Number:* 1135
• *Brand:* Basalte: Distributed operating buttons
Elvis: Visualisation
D-Controls: Web interface

COMPANIES INVOLVED
• *Client:* Riverside Group, www.lvcgroup.com
• *System integrator:* Beijing Handz Engineering and Technical Service CO., LTD, www.handz.com.cn

HIGH-END DESIGN

Casa Aude – first-class architecture and modern building automation complement each other.

MEETS CUTTING-EDGE TECHNOLOGY

Exclusive smart home on the Pacific coast

A dream of purist boldness amidst rugged natural beauty. This describes the achievement of the Belgian and Costa Rican designers and architects. The Casa Aude residence on the Playa del Coco in Costa Rica was completed in 2014. The high level of functionality of the building technology is also well-designed. Automated with KNX components, it emphasises the high-end design aspect of the first-class architecture and ensures the building is used for comfort, entertainment, energy efficiency, and monitoring.

The futuristic structure, with its prominent white cuboids over a panoramic terrace, is uniquely situated on a beach-front property right on the Pacific and covers approximately 1,400 square metres. An ingenious combination of design features, selected materials, and refined surfaces make Casa Aude an example of modern architecture. Lounges, bedrooms, bathrooms, kitchens, a terrace, swimming pool and garages are located on the almost 600 square metres of floor space. There is an additional flat for guests or staff. The exclusive villa with its technical building management should meet the requirements of European standards.

Automation regulates the garden irrigation

A persuasive argument in favour of a smart home implementation with KNX was the versatile integration options including the web-based, intuitive operating concepts. The lighting design with LED technology and architectural luminaires counts among the highlights of the installation. Particularly in the terrace and swimming pool area, impressive lightscenes can be conjured up with KNX / RGB controllers through a selection of light sources, dimming values and changing colours. Installed presence and movement detectors are used for demand-based lighting control and also as intruder alarm signalling devices in the event of absence. Presence simulation is further activated when nobody is present. The regulation of the air conditioning technology is oriented to the temperature, time of day and presence, and can be toggled from economy mode to comfort mode. The installed photovoltaic system is integrated in the energy management via smart meters. Savings are also offered when dealing with water. The automatic irrigation of the green spaces and garden is therefore regulated intelligently in connection with the weather station.

Home entertainment integrated

An extensive audio and video system including smart TVs and amplifiers for eight areas complements the intelligent building technology. The mobile operation of the multi-room control system is implemented elegantly with iPad frames. In addition to the audio and video option of a smart blu-ray player, the videos from the indoor station can also be retrieved and displayed via a smart TV and the fingerprint reader of the access control system can also be monitored. The complete integration also includes operation of the air conditioning devices via IR interfaces and the RGB lighting control via the Bab-Tec KNX / GMX gateway. The visualisation of all the building functions with KNX is carried out via a master control touch panel as well as using the smart home solution ayControl via an iPad.

*In the terrace and pool setting,
KNX scenes combine customised light moods.*

*Feel-good atmosphere created at night
by refined LED lighting controllers*

BENEFITS OF KNX IN THIS PROJECT
- *Intuitive and mobile operation*
- *LED lights and design sensors are integrated in modern architecture*
- *KNX integrates home entertainment with a multi-room audio system*
- *Progressive IP applications*

TECHNICAL HIGHLIGHTS
- *Convenient lighting control with scenes and colour palettes*
- *Presence and absence automation for lighting control and intruder alarm*
- *Energy management with smart metering*
- *Automatic irrigation*
- *Access monitoring*

TRADES / APPLICATIONS
Lighting, Air-conditioning technology, Audio/video, Safety monitoring, Smart metering, Visualisation

KNX COMPONENTS – EXTRACT
- ***Number:*** *63*
- ***Brand:***
  *Basalte: Audio multi-room control, switch sensors
  Bab-Tec: KNX/GMX interfaces
  Berker: IP controller, IP router, master control, dimmer
  Zennio: Actuators, IR interfaces, room controllers etc.*

COMPANIES INVOLVED
- ***System integration:***
  eco-tecno S.A., Rudi De Lendtdecker

EACH UNIT HAS A
HOME MANAGER

Smart home applications support a high standard of living in the elegant Fereshteh Palace.

Exemplary smart home application based on KNX in a residential complex

Smart home applications are standard in daily life in the Fereshteh Palace in Tehran. The renowned Iranian building company Shayegan formally opened the last construction phase in 2015. The luxurious residential complex, situated in the affluent area of Fereshteh Street, was designed by the architect Esmaeil Zadeh. The modern complex comprising three high-rise buildings is an example of sustainability due to its LEED certification. The building technology was automated with KNX by the electrical company Delham Tabesh.

The total area covered by the 16-storey towers is approximately 10,000 square metres. There are 114 spacious apartments located on the top twelve floors. The lower four floors are reserved for parking spaces. The apartments are not only of the highest standard in terms of position, construction and furnishings, they are also equipped with the latest smart home technology.

Each apartment forms an intelligent unit with automatically controlled lighting, air conditioning system, blinds and door intercom system. The control and operating platform is the Happy Home application from Gewiss. The app offers a graphical interface and can be installed on any iOS or Android device. By touching the icons, all the KNX functions relating to the apartment can be monitored and operated. It is even possible to control one's one own parking space lighting. Corresponding KNX/IP interfaces create the link from the smart home application to the KNX installation and the BMS (Building Management System).

Each apartment forms an intelligent unit with automatically controlled applications.

Lobby with porter's lodge for monitoring the access control system linked to KNX

Scenes support the high level of comfort

All the lighting is switched via KNX and also partly dimmed. The blind or shutter drives are automated via time functions and light sensors. The heating, ventilation and air conditioning technology (HVAC) is regulated automatically via room thermostats to ensure a demand-based indoor climate. There are switch sensors, touch panels and corresponding smartphones and tablets available for manual operation. Individual functions in the apartments can also be combined for scene control. There is for example a movie scene which dims the lights, sets the HVAC to comfort mode and closes the blinds. In the car park, movement sensors are used for lighting on demand as well as for monitoring.

Operating panel displays energy consumption

The functions of the KNX installations can be retrieved and monitored via touch panels and the graphical interface of the visualisation. These include switching, dimming, recalling scenes, closing blinds, changing HVAC mode and establishing a link to the door intercom system. The energy consumption in the individual apartments can also be monitored due to the KNX energy meters. An informative consumption diagram can encourage the inhabitants to optimise their energy usage. In addition to the decentralised touch panel in the units, a central monitor in the porter's lodge in the lobby is used for access monitoring.

Spacious lounge with position-dependent room scenes

BENEFITS OF KNX IN THIS PROJECT
- Comprehensive network architecture possible
- Clearly-structured installation
- Organisation of "units" for visualisation and smart home applications
- Energy savings
- Large number of applications
- Central monitoring and maintenance

TECHNICAL HIGHLIGHTS
- Smart home application and visualisation per unit
- Consumption monitoring per unit
- Integration of the door intercom system and access control system
- Automatic car park lighting
- Scene controllers

TRADES / APPLICATIONS
Lighting, Blind control, HVAC, Smart metering, Monitoring, Visualisation, Smart home application

KNX COMPONENTS – EXTRACT
- **Number:** 4400
- **Brand:** Gewiss: Happy Home app, IP controller, IP router, switching and dimming actuators, blind actuators, valve drives, room thermostats, energy meters, touch panels, binary inputs etc.

COMPANIES INVOLVED
- **Client:** Shayegan Construction Inc., www.shayegan.com
- **Architect:** Jamshid Esmaeil Zadeh
- **System integrator:** Delham Tabesh Inc., www.delham.org

HVAC use cases with KNX

Demand-based controllers make a significant contribution to energy savings

KNX covers all the heating, ventilation and air conditioning applications using the available products. In particular, demand-based controllers make a significant contribution to energy savings in buildings. The following pages provide examples of typical HVAC applications and systematically show how heating/cooling generators, individual room thermostats and visualisation systems interact via KNX.

The data determined via KNX by the heating / cooling generators and individual room thermostats can be displayed by the visualisation systems not only as values, diagrams or graphics but also:
• stored locally and in the cloud and displayed or evaluated at a later point

• evaluated and checked to determine whether they exceed the limit values
• linked with events, states and times and trigger actions
• converted into Euro amounts and totalled up
• routed as status or fault signals via push messages or email

If the user would like to automatically access the data via the internet, the use of KNX Web Services is offered. A gateway displays the KNX project so that the data can be accessed via existing web service implementations such as OBIX, OPC UA and BACnet-WS, without knowing the specifications of the KNX protocol. The KNX Web Services gateway can be operated in parallel to the visualisation system and is not displayed in the applications for reasons of clarity.

Control and monitoring of the system functions of an HVAC device

Display and remote control of operating modes

The display and remote control of the operating modes (comfort, standby, night reduction) for the system functions (heating, cooling, ventilation and hot water) of a generator are of particular interest for the user if he wishes to intervene in the system control outside of the standard operation.

Case A:
The user toggles the operating state via his smartphone.

Case B:
The user starts the one-time heating of the hot water before showering.

KNX solution for case A
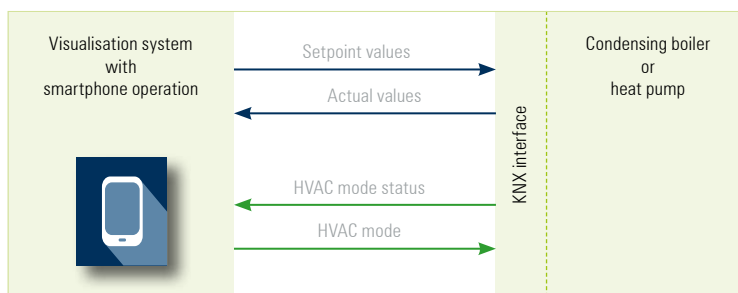*Selection of the operating mode*
The user has different options depending on the system configuration:
1. To set the operating mode centrally on the power generation system. The system affects the respective heating circuit (e. g. one floor).
2. To set the operating mode separately for each room via the visualisation using individual room temperature control.
The setting under 1. has the primary function.

1. The default operating mode is only carried out on the heating / cooling generator per heating / cooling circuit with a corresponding feedback signal. The heating system is largely self-sufficient. The operating mode is only assigned via the KNX either manually, via a timer or a scene. A typical application is party mode in which the comfort mode should be maintained outside the programmed period. Another application is the integration in a presence scene, which is activated if the occupants are not at home for several days.

Selection and feedback of operating modes over HVAC mode, 1 Byte / DPT 20.102 or 1 Bit / DPT 1.00x

For example for a heat pump control:
0: Auto
1: Comfort
2: Standby
3: Economy
4: Building Protection

2. The default operating mode is carried out primarily at the level of the heating / cooling generator as well as per room on the individual room thermostats. Both the room thermostats and the heating / cooling generators send a feedback signal to the visualisation about the respective status. In this constellation, the operating mode on the heat / cooling generator is typically set for the entire building or a large section of the building. In addition, individual rooms such as conference rooms, training rooms, or canteens can be operated in an energetically low state.
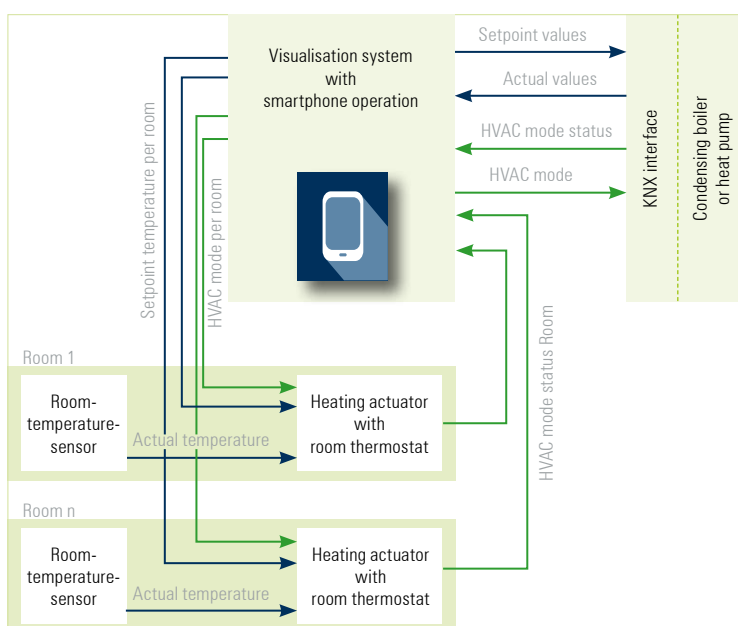
KNX solution for case B
Domestic water heating
The one-time heating of the hot water, e.g. via night mode, is triggered via a 1-bit command. The status of the object or a different object can be queried. Alternatively, a temporary increase of the setpoint temperature of the hot water is possible.
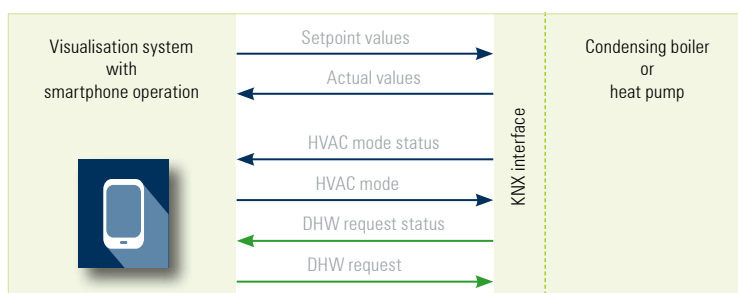
one-time domestic hot water (DHW) 1 Bit / DTP 1.00x

Heating, Cooling, Ventilation with KNX

hvac.knx.org

Control and monitoring of temperatures

Display and remote control of setpoint and actual temperatures

The display of actual and set-point temperatures of rooms, zones/heating circuits as well as the remote control of setpoint temperatures and the optional creation of setpoint tempera-ture time profiles are among the standard functions of an individ-ual room temperature controller.

Case A:
The user sets the setpoint tempera-ture from 19°C to 21°C.

Case B:
The user would like the room tem-peratures to be displayed via a smartphone.

Case C:
An energy manager optimises the inlet temperature of a heating cir-cuit/zone using the predefined room temperatures.

Case D:
The user configures time profiles so that the corresponding rooms have achieved the comfort temperature at the time of usage.

KNX solution for case A

Changing setpoint temperature from 19°C to 21°C

An individual setpoint value can be predefined for each room by the individual room thermostat via the visualisation.

The input is carried out either as a numerical value or via graphic ele-ments (e.g. slide).

The room thermostat sends the re-spective setpoint value back to the visualisation as confirmation.
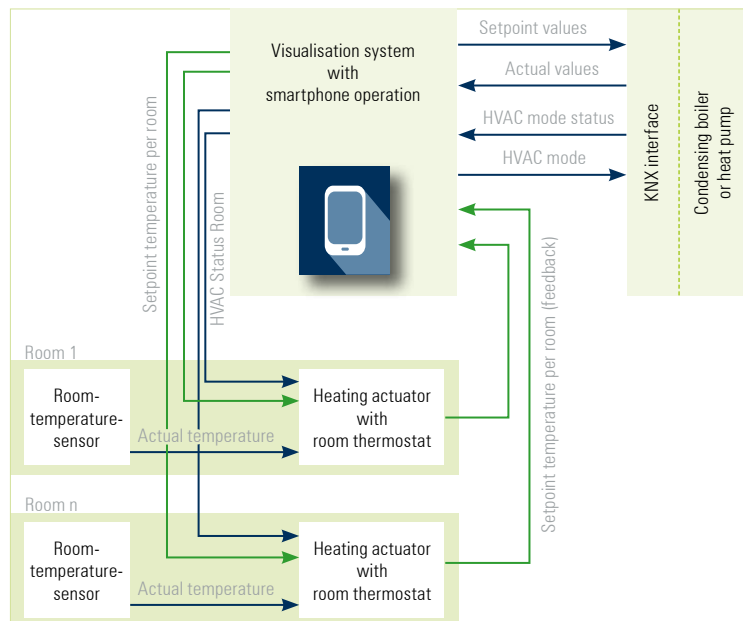
Actual-/Setpoint temperatures: 2 Byte Float / DPT 9.001

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KNX solution for case B

Display of the room temperatures on a smartphone

A temperature sensor sends the respective actual value per room via KNX to the associated room thermostat which routes it for display on the visualisation.
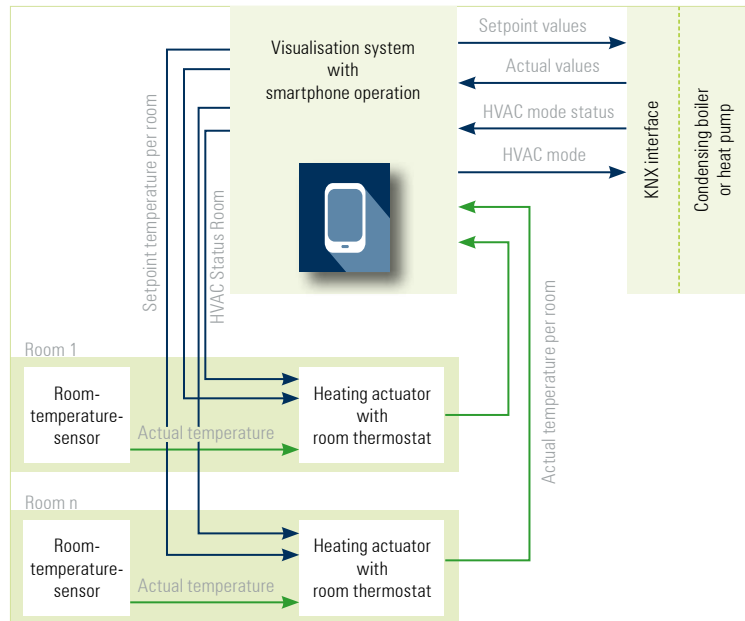
Actual-/Setpoint temperatures: 2 Byte Float / DPT 9.001

KNX solution for case C

For demand-based control, an energy manager optimises the energy consumption

The valve drives send the valve position per room to the energy manager which calculates the optimum inlet temperature on the basis of the current valve positions.
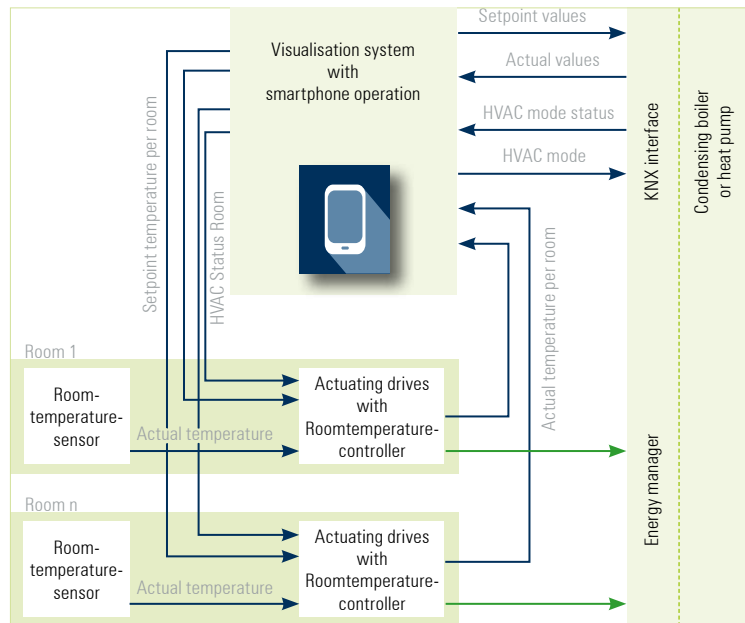
Actual-/Setpoint temperatures: Value_temp 2 Byte Float / DPT 9.001 • valve stroke: Percent (0 ... 100 %) / 1 Byte / DPT 5.001

KNX solution for case D

The user configures time profiles

Individual setpoint values can be pre-assigned for each room for individual room temperature control. The input of the setpoint values and times is generally carried out via graphic elements on the user interface of the visualisation. The profile data is stored in the visualisation system.
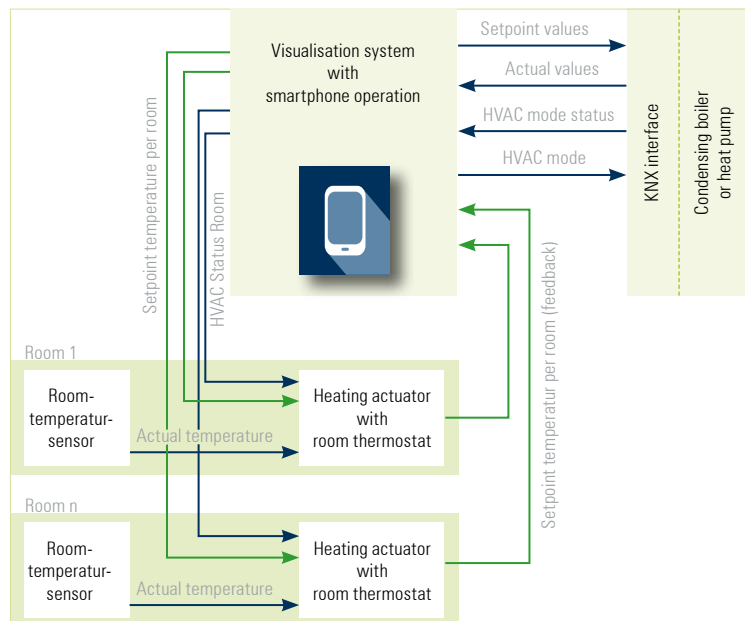
Actual-/Setpoint temperatures: 2 Byte Float / DPT 9.001

Visualisation
of HVAC-related parameters

Display of HVAC-specific parameters

Current condensing boilers and heat pumps make far more information available via KNX than the setpoint and actual temperatures. Users can thus be fully informed via the KNX visualisation about the status of the system and the HVAC-specific parameters.

Case A:
The user would like the power consumption of HVAC devices to be displayed.

Case B:
The user would like the operating state (normal operation, faults, service requirements …) to be displayed via smartphone.

Case C:
The next service interval should be indicated to the user.

KNX solution for case A
Current heating controllers mainly make the energy consumption available as an absolute value on the KNX:
• electricity for heating
• electricity for hot water
• gas for heating
• gas for hot water

The energy consumption values are prepared in the visualisation system and displayed as:
• diagrams
• absolute values
• daily, weekly, monthly or annual values

Visualisation system with smartphone operation — Energy consumption — KNX interface — Condensing boiler or heat pump
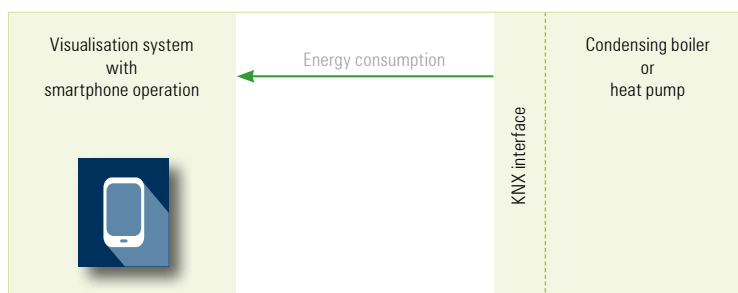
Energy consumption: real energy (kWh), 4 Byte / DPT 13.013

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KNX solution for case B

Displaying operating states on the smartphone

Almost all the operating states can be queried via the KNX interface and displayed in the visualisation including: heating, cooling, active heating program, day / night mode, HV pumps, DHW heating, active electric night heating, service, etc.

When there are system errors, error messages are automatically sent to the visualisation via the KNX, either as individual fault messages or as group messages ("Faults of heat generator"). Both fault messages and states can be routed by the visualisation for immediate display and push message to a smartphone.
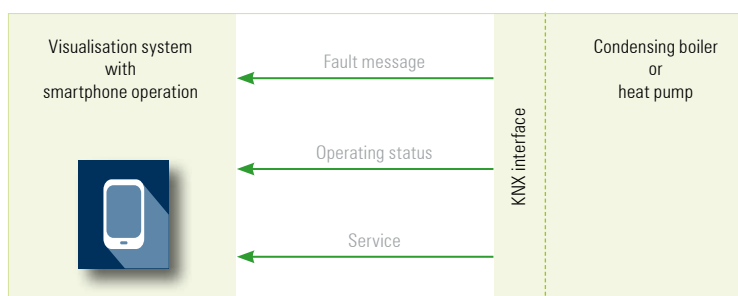
Fault message, Operating status: 1 Bit / DPT 1.00x; 1 Byte / DPT 6.020; 1 Byte / DPT 20.xxx

KNX solution for case C

Note about the next service interval

The note about the next service date can be carried out in different ways.

1. The heat / cooling generator determines the necessity of a service appointment itself and sends a request in the form of a yes / no telegram to the visualisation system.

2. The running times of the HV and storage pumps, compressors, electric heaters etc. are sent as absolute values to the visualisation, compared with the specified maintenance intervals and the next service period is calculated.
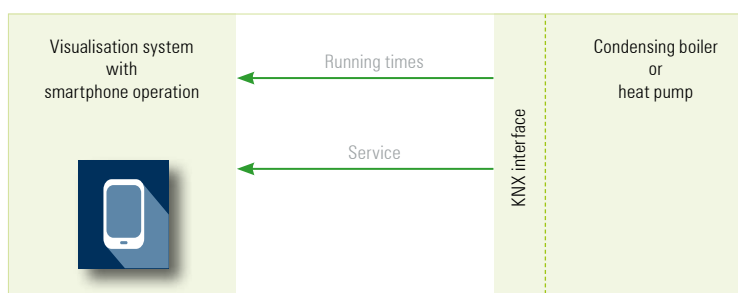
Running times: TimePeriodHrs / 2 Byte / DPT 7.007

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Optimisation for optional power consumption of heat pumps

Integration of heat pumps in energy management

Heat pumps belong to the most energy-intensive devices in the building. There is therefore a high added value for the customer to integrate these systems in the energy management so that they can be operated cost-effectively.

Case A:
The service water is heated if the electricity is reasonable.

Case B:
The heating or cooling is carried out within a tolerance range defined by the customer if the electricity is reasonable.

Case C:
Further energy-intensive processes which exceed the domestic current of the PV system are prevented from starting during the heating cycles.

Case D:
The user can be shown when heating cycles take place and at what price.

KNX solution for case A/B

Heat pumps can represent optional processes (e.g. heating or cooling) on the communication interface, so that these processes can be started by an energy management system under favourable conditions.

Use of SG ready functions for heat pumps with Smart Grid capability

Operating status 1
is backward compatible to utility lock, incorporates a maximum lock-out period of two hours

Operating status 2
the energy-efficient normal operation with pro-rata filling of thermal store for the maximum lockout period of two hours

Operating status 3
is the controller mode for heating rooms and water

Operating status 4
is a definitive start-up command
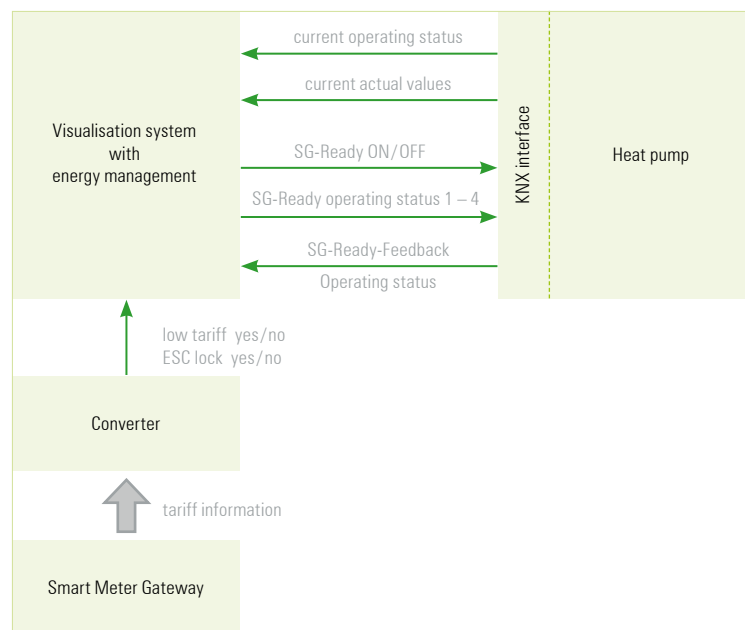
SG-Ready-Operating-status: 1 Bit / DPT 1.00x
SG-Ready-Mode: 1 Byte / DPT 20.xxx
www.waermepumpe.de/waermepumpe/sg-ready/

KNX solution for case A/B

Control with a conventional heat pump via operating modes and set-point values.

Visualisation system with energy management

current operating status

current actual values

Operating modes

Setpoint values

1 x warm water

KNX interface

Heat pump

low tariff yes/no
ESC lock yes/no

Converter

tariff information

Smart Meter Gateway
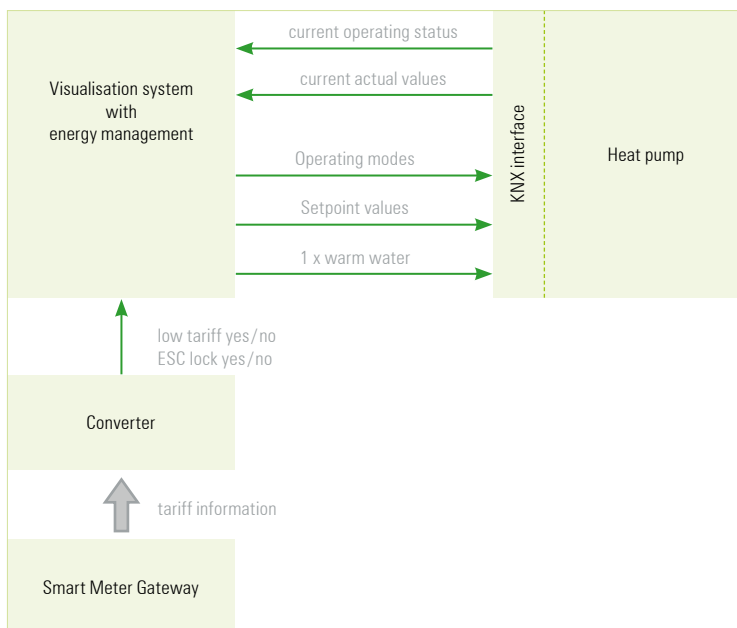
KNX solution for case C/D

The heat pump determines the thermal energy demand of the building and communicates the power requirement to the PV system.

The PV system plans the operating time of the devices under consideration of a yield and consumption forecast so that the power consumption makes an optimum contribution to the domestic consumption.

The heat pump converts this proposal dependent on the operating state and thus increases the domestic consumption.

Electrical energy is converted into thermal energy cost-effectively and stored temporarily in the house.

Operating states and forecast data can be communicated by heat controllers to a visualisation program via the KNX and displayed as values, diagrams or graphics.

Visualisation system with energy management

current operating status

current actual values

Forecast

SG Ready ON/OFF

SG-Ready operating status 1 – 4

SG Ready feedback

operating status

KNX interface

Heat pump with Energy management

low tariff yes/no
ESC lock yes/no

Converter

tariff information

PV system with Energy management

Energy Meter / Smart Meter Gateway
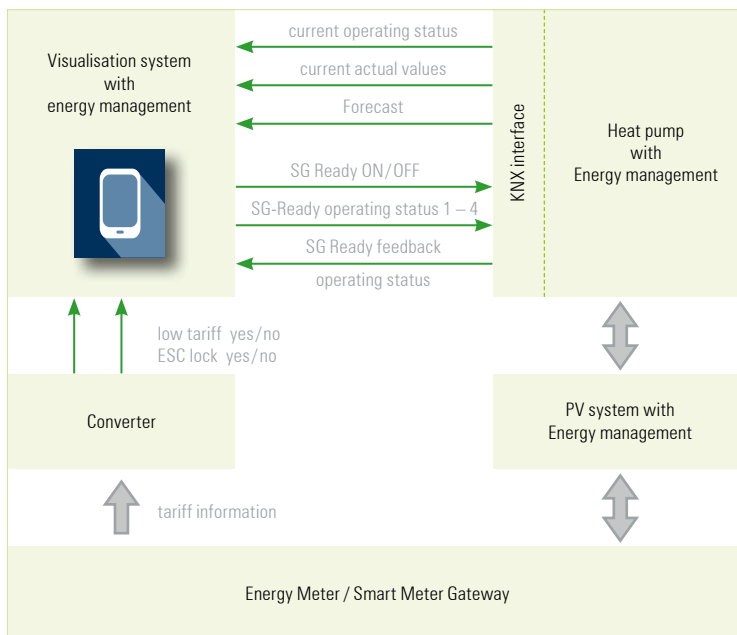
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ETS Inside – Special Features

8 Features that make all the difference

1   Using a mobile device for commissioning

Available for:
Android
iOS
Windows

Commissioning has never been simpler. Simply download the ETS Inside App to your smartphone* or tablet and get started commissioning your KNX installation. The whole world of KNX is now available at your fingertips.
The ETS Inside App is available for iOS, Android and Windows at all stores. Download the ETS Inside client, install it on your mobile device and experience KNX's full potential with just the swipe of a finger.

2   KNX devices as part of the installation

Forgot your computer, lost the project file or a dongle? Not a problem anymore. ETS Inside and the project are part of the installation. That means an end to stress and extra luggage – simply log on with your mobile device to the ETS Inside device and continue your operations.

3   Synchronising ETS Inside with ETS Professional*

ETS Professional   ETS Inside

ETS Inside is the perfect tool for small-scale installations, such as a smart home or a small shop. However, that doesn't mean that you have to choose between either ETS Inside or the ETS Professional. Projects using either tool can be easily synchronised! Get commissioning started on your computer with ETS Professional and transfer the project to your ETS Inside – or vice versa. Configure your project's devices with your ETS Inside and take the project with you to the next installation (Quite handy for apartments with the same requirements, etc.).

4   Use ETS Inside for certified KNX devices – say goodbye to extra gateways

ETS Inside is part of the KNX installation – which means it's fully integrated with the project. The result is that any device can be configured by ETS Inside, without the hassle of installing additional plug-ins. That means zero auxiliary gateways are needed for you to bring your KNX installation to life!

5 ETS Inside comes standard with the KNX Online Catalog
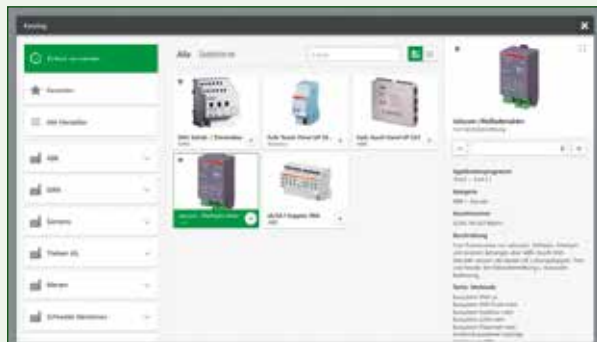
ETS Inside comes with the popular KNX Online Catalog, which makes adding devices to your project simpler than ever. There's no more need for long drawn-out searches for product files – just connect to the internet and in mere seconds the information you need will be downloaded and available!

6 Remote commissioning
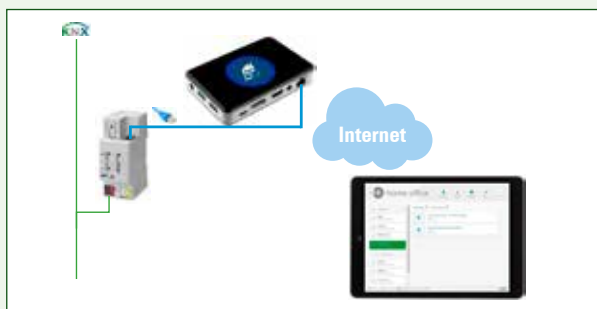
Are there urgent changes that need to be made to the installation or does a device need replacing while you aren't around? Thanks to the internet, remote commissioning is not a problem!

One of ETS Inside's features is that it remains connected to the internet, so remote device configuration no longer requires a KNX IP Interface! This makes commissioning of KNX devices even simpler, more convenient and more reliable.

7 Freedom for the end-user*

ETS Inside is a tool not only for installers but also end-users. For the first time, end-users have the option of personally configuring their enabled devices. This does away with the need to call the installer for any minor change. Thanks to ETS Inside end-users can make changes right away.

8 Highest security standards

ETS Inside doesn't just offer password protection to prevent unauthorised access, but also supports the new KNX Secure, making the KNX installation invulnerable to any hack-attacks. Protection is based on the AES 128 international encryption standard.

* Feature available from 2nd half of 2017 onwards.

Please visit the ETS Inside website for more information about use, features, benefits, guidelines, FAQs, etc. at http://etsinside.knx.org.

New Members

3S-Smart Software Solutions GmbH

GERMANY High expertise in software development and innovative technical concepts – that is what 3S-Smart Software Solutions, the company behind CODESYS, stands for. Users and device manufacturers value the company's many years of experience in all areas of automation technology as well as the open and authentic corporate communication. CODESYS is a software platform for industrial automation technology. The platform is based on the CODESYS Development System, an IEC 61131-3 programming tool. It provides end users with extensive integrated solutions for convenient project engineering of automation applications. The associated goal is to provide practice-oriented support for users in the implementation of their tasks. *Contact: www.codesys.com*

ABB LV Installation Materials Company Limited, Beijing

CHINA ABB LV Installation Materials Co., Ltd. Beijing, is one of ABB's four businesses making low-voltage products in China. The company was established in November 1994. Building on core technologies introduced from ABB in Germany, Italy, France, and Sweden, the company now produces Enclosure & DIN-rail products and Electrical Wiring Accessories (EWA), etc. Sharing ABB's 100 years of experience in electrical apparatus, ABB LV Installation Materials Co., Ltd. Beijing, implements the advanced technology and pioneering spirit of ABB to focus on product localisation and pursuing leadership in every detail. It has created a complete range of high-quality low-voltage products for the Chinese market, that have found wide applications in both rural and urban buildings, industries and utilities. *Contact: www.abb.com.cn*

Ardomus Networks Corporation

TAIWAN Ardomus Networks Corporation is a startup company from Taiwan that focuses on IoT connectivity technology development. They intend to develop and provide connectivity solutions for building automation applications, more concretely a protocol gateway which translates between heterogeneous devices. *Contact: www.ardomusnet.com*

Bird Home Automation GmbH

GERMANY The Bird Home Automation Group headquartered in Berlin is a leading manufacturer of IP door communication products with a manufacturing facility in Germany. The main product of Bird Home is the IP Video Door Station "DoorBird": Answer your door anywhere. With DoorBird you never miss a visitor. With DoorBird you will not miss any more deliveries – because you will be informed right away when the postman rings. In addition, DoorBird is probably the world's most integrated IP Door Station, among others: Crestron, Control4, RTI, Elan, Bang & Olufsen, Volkswagen cars, Savant, Vera, ONVIF and many more. *Contact: www.doorbird.com*

digitalSTROM AG

SWITZERLAND digitalSTROM connects analogue / IP devices and sensors with each other and the web. While the integration of analogue devices happens through the existing electrical wiring, the system uses a virtual device container (vDCs) for the connection of digitally controllable devices and applications: these are virtual gateways that emulate the entire functionality of device control incl. the network adapter and corresponding standard device behaviour in software form, converting the digitalSTROM signals for the microcontroller of the third-party end-user device. The dS gateways for the integration of applications also use dS-vDCs that are especially customised for these protocols. With the aim of providing a universal, manufacturer-independent smart home platform, digitalSTROM now offers users the simple and unified integration of KNX products into the digitalSTROM network. *Contact: www.digitalstrom.de*

e-home automation

CHINA e-Home Automation International LLC (e-Home) is the leading Internet of Things (IoT) innovator. Their technologies blur the edges between smart cities, connected properties and enterprise level solutions, and are designed to fit both commercial and residential applications. They provide a multi-tier next generation of controlling, monitoring, reacting and real-time reporting, providing the building blocks for Smart Grid integration through highly flexible hardware and software deployments for more future-proof technological demands. e-home's solutions appreciate a property's value, differentiate it from its surroundings, and enhance the lives of its users.
Contact: www.e-homeautomation.com

EWTech (East West Technologies)

GERMANY EWTech (East West Technologies) is a company with many years of experience working closely with the best home and building automation open standard in the world, KNX. They specialise in offering KNX system components at the most competitive prices. Their product range is mainly intended for the distribution board, but we are not limited to it. *Contact: www.ewtech.de*

FEELSMART GmbH

GERMANY In the growth market of Smarthome, manufacturers and trades companies are constantly reaching the same limits. The industry does not use its full potential due to its half-knowledge, imprecise definitions, and touch-ups – especially on the part of experts in planning and installation, there are unfortunately still deficits. Manufacturers, planners, specialist companies and end-users are still very often working together and approaching the topic with very different ideas. "FEELSMART." has the goal (manufacturers, wholesalers, contractors, architects, planners and finally builders) to uniting fair and equal on a communication and planning platform and thus eliminating market barriers.
Contact: www.feelsmart.de

GARO AB

SWEDEN GARO AB markets everything from electrical products such as CEE connectors, switches, boxes, outlet boxes, DIN and media enclosures with the full range of components (e. g. residual current devices, safety isolators, circuit breakers and astro timers) to more advanced adaptations of distribution panels and boards for building sites, in combination with switchgear and cabinets. GARO is a major player when it comes to supplying ready build consumer units for apartments and houses in its market. During the last years more and more advanced control equipment like KNX has been integrated in their products. *Contact: www.garo.se*

Ges Teknik Klima Kontrol ve Otom. Sist. San. Tic. A.S.

TURKEY Ges Teknik A.S. located in Istanbul, Turkey is a private company that hase been operating in the field of climate control and building automation systems since 2003. They have a growing interest in developing building automation systems aiming to lower energy and maintenance costs and maximising the comfort of residents in office and living areas. Over the years, building and HVAC automation has become its specialty and the company offers a wide range of solutions in fluid control, heating-cooling, automation and OEM products. *Contact: www.gesteknik.com*

GreenControls Technology Sdn. Bhd.

MALAYSIA GreenControls Technology Sdn. Bhd. together with its partner company has been involved in KNX for more than 15 years, and hase vast experience with GreenControls Technology. They are proud to be the first KNX member in Malaysia producing high quality KNX devices to meet markets needs.
GreenControls provides cost-efficient and customised innovative solutions for home and building automation. GreenControls's main goal is ensure state-of-the-art, easy-to-interact technology to suit every budget and lifestyle. In addition, they are also a new supplier of KNX equipments with world-class quality and competitive pricing. Coming to GreenControls, you will fully experience the smart home life of comfort and convenience. *Contact: www.greencontrolstech.com*

hubware AG

SWITZERLAND Hubware AG is a specialist in smart home solutions. The company was founded in 2016 and is based in Ittigen (Switzerland). Their mission is to develop the smart home solutions for the future. Hubware is convinced that the Smart Home has to place itself at the service of the people. An intuitive operation and the application of the highest safety standards are basic requirements for them. They work together with Feller AG Switzerland and are looking for ways to integrate KNX IoT and KNX Gateways into SARAH, their central home system. *Contact: www.hubware.house*

IME S.P.A.

ITALY IME designs and manufactures measuring instruments and integrated systems in Italy. The application fields are: electric measurement, industrial automation, energy management and protection. IME was founded in 1946 and started by producing analogue instruments for the measurement of A/C and D/C electrical quantities. Today, IME designs and produces analogue and digital measuring instruments and integrated systems for various application fields in Italy: electrical measurement, industrial automation, energy management, and protection. Its first breakthrough arrived in the early '70s, when the company widened its product range and introduced electronics, with transducers for the conversion of electrical and physical quantities, as well as digital indicators.

Contact: www.imeitaly.com

IQ Group Holdings Berhad

MALAYSIA IQ-group is a global leader in PIR sensor technology, working alongside an array of big name international brands for over 25 years. They provide smart technologies that detect (sensors), illuminate (intelligent sensor lighting) and announce (door entry products) your arrival – an increasing appetite for comfort, safety and convenience that revolutionises the way we live (more interactive), work (more productive) and play (more effortless). They are an experienced and trusted partner boasting enviable innovation, fantastic R&D facilities, a no-compromise attitude to quality and an ethos that places the customers at the heart of everything they do. *Contact:* www.iq-group.com

Kluger Automation GmbH

GERMANY Kluger Automation offers one elegant panel, at a sensible price and with excellent support from the manufacturer. With Kluger you can eliminate the need for multiple panels on the wall, and replace them with simple, stylish multi-functional ones instead. They design and produce all products under one roof within a sensible pricing range, prioritising quality of the highest standard to give you peace of mind.

Contact: www.klugerautomation.com

Maico Elektroapparate-Fabrik GmbH

GERMANY Innovative technology, high quality and outstanding design are the cornerstones of the product and brand philosophy of the long-standing family-owned company. MAICO concentrates on the development, production and sale of fans and components for ventilation engineering and domestic ventilation systems. Since 1928 Maico Elektroapparate-Fabrik GmbH has been supplying wholesalers, tradesmen, architects, planners, building management companies, firms and individuals with modern, efficient technology. With over 1,600 products, more than 200 staff members and sites in numerous countries, the traditional German company is one of the leading manufacturers of products delivering good air in Europe.

Contact: www.maico-ventilatoren.com

METEL s.r.o.

CZECH REPUBLIC METEL Ltd is a Czech company established in 1996. Since the beginning, they have focused on communication equipment for security and automation systems. Thanks to their well-experienced R&D experts they are able to quickly respond to changing market requirements and regularly introduce new products into the market. Currently they mainly produce industrial managed switches, IO modules and programmable control units. Their products are distributed in more than 20 countries for security and automation projects. *Contact: www.metel.eu*

Nanjing Shufan Info. Tech. Co, Ltd.

CHINA Nanjing Shufan was established in 2016 and is focused in KNX technology study and accelerating it's growth in China. Because of their application experience and product developing experience in KNX area, they can give practical technology support in KNX product developing, KNX application engineering, etc. Such services will result in a lower product cost and shorten the KNX application engineering period. *Contact: http://28476451.czvv.com*

Sichuan Hao Ding Technology Co., Ltd.

CHINA Sichuan Hao Ding Technology Co., Ltd. is a company mainly engaged as a science and technology enterprise dealing with intelligent control product development, production and sales of similar products in China and abroad. The company focuses on technological innovation, quality first with focus on the customer. It is vital to them, starting from the development stage to provide high quality products and high quality services to their customers. *Contact: www.sc-hdl.com*

The Qt Company

FINLAND The Qt Company develops and delivers the Qt development framework under commercial and open source licenses. They enable the reuse of software code across all operating systems, platforms and screen types, from desktops and embedded systems to wearables and mobile devices. Qt is used by approximately one million developers worldwide and is the platform of choice for in-vehicle systems, industrial / building automation devices and other business critical applications in 70+ industries. With more than 200 employees worldwide, the company is headquartered in Espoo, Finland and is listed on Nasdaq Helsinki Stock Exchange. *Contact: www.qt.io*

Träum deutsche Elektronik GmbH

GERMANY Träum Deutsche Elektronik GmbH was founded in 2017 in Germany. The target of TDE is to enter the building automation market by designing and developing new KNX products. TDE has an innovative team which deals with best solutions for building automation systems with the KNX standard by knowing and responding to customers' needs.

Contact: www.tdeknx.de

Ubee Interactive

NETHERLANDS Ubee's vision is to develop products that help cable, telecommunications and mobile providers generate additional revenue, retain subscribers, and reduce capital costs. Their vision guides everyone in the Ubee family. From the CEO to sales, they're focused on the elements that define a thriving customer experience. United by this common mission of enhanced service and innovation, they continue to broaden their customer base, ultimately delivering unmatched value and speed-to-market in their CPE products. *Contact:* www.ubeeinteractive.com

ZHEJIANG SUPCON INSTRUMENT CO.,LTD

CHINA Zhejiang SUPCON Instrument co., LTD. affiliated with the SUPCON Technology Group is the leading supplier of automation instruments in China. The company focuses on the research, development and manufacture of building automation and instrument products. They have been engaged in the building automation business, including intelligent lighting, for more than 10 years, mainly for the Chinese market. Now they will first adopt KNX technology in their intelligent lighting product line and then use KNX in their smart home product line. *Contact:* www.supconauto.com

New Products

NEW DALI gateways – Three functionalities in only one device

ABB The new ABB KNX / DALI gateways give you the highest level of flexibility by controlling individual DALI devices, DALI groups and DALI emergency devices with one gateway instead of three. Intelligent lighting management with DALI has a number of advantages including flexible components, ease of installation and simple programming. Two versions are available: DG/S 1.64.1.1 (1-fold) and DG/S 2.64.1.1 (2-fold). The difference between the 2-fold and the 1-fold DALI gateway is that it has two outputs and therefore twice as many KNX / DALI devices, DALI groups, scenes and emergency devices can be connected. *Contact: www.new.abb.com*

KNX power supply with extensive configurable alarm functionality

APRICUM D.O.O. Apricum's KNX power supply IPS640 with alarms, diagnostics and remote reset makes all actual values of current, voltage, telegram traffic and internal temperature available to the KNX bus system. Together with number counters and time counters for operation, alarm, overload, short-circuit, device start-up and KNX bus reset, the course of operation can be documented in detail. The measurement alarms (after exceeding the threshold value) or operational status alarms (overload, short-circuit) can be configured by the user via ETS and allow fast troubleshooting. In total, there are 36 Group Objects available. The IPS640 requires only two modules on the DIN-rail, less than any other similar device. *Contact: www.apricum.com*

AVE Design Touch Control

AVE S.P.A. AVE System 44 design in KNX technology. The control device cod.442KNXTC6 has six independent channels and three modules S44. It can be configured with one to six sensitive areas to which three colours can be assigned for optical signalling. It can be personalised with AVE Touch front plates. Available in glass or aluminium versions and in many colour variants, AVE Touch front plates rediscover an aesthetically minimalist design in order to redefine the concept of style: you can manage the lighting and your home by simply touching a surface, since it is coordinated with all the rest of your home automation system. *Contact: www.ave.it*

KNX occupancy detector for intelligent building automation

B.E.G. BRÜCK ELECTRONIC GMBH The new PD4N-KNX is available in three different functional variants: for simple requirements, common requirements and demanding applications. Innovative functions such as short presence, i. e. reduced follow-up time after only a short presence of persons, and offset for three light zones enable a perfect light regulation. Thanks to bidirectional remote control, the parameters can be read easily. Thanks to an internal and external light sensor and an additional brightness object and furthermore the possibility to connect an external light sensor via infrared, light measurement is optimised. *Contact: www.beg-luxomat.com*

SMART SURFACE – Touch panel PC

BAB TECHNOLOGIE GMBH Luxury-grade building visualisation: The touch panel computer with its gorgeous full HD display combines state-of-the-art technology and architectural design flexibility. The flush-mounted touch panel seamlessly integrates into nearly any surface. Its "Smart Dots", which are integrated into the high-quality full glass front, allow you to directly access useful functions. With an integrated presence detector, the "Smart Surface" is immediately available as a control and information centre. Its uncompromising selection of components guarantees an undisturbed and noiseless 24 / 7 operation. The "Smart Surface" is available from 13.3" up to 21.5".

Contact: www.bab-tec.de

Spotify in Asano multiroom audio

BASALTE Basalte's Asano multiroom audio amplifies and distributes uncompressed hi-fi music in projects worldwide. Now, Spotify Connect is an integrated service in the S4 music server, the core of the Asano system. As a result, Spotify Premium subscribers can listen to millions of songs in their home: anything they like, wherever they want! This completes Asano's music services, also including internet radio and other streaming services. Thanks to the direct KNX integration of the S4, no interface is required. Users can control tracks, playlists and volume with their favourite KNX device, whether this is a remote, a switch or a touch screen! You can also use the intuitive Asano Music app for iOS and Android.

Contact: www.basalte.be

KNX Tool

BEMI SMART HOME The online KNX Tool is the perfect tool for system integrators to efficiently sell smart home and building automation projects. It creates stylish documents, saves time and keeps the focus on the functions you are selling. The KNX Tool has many new features such as an ETS lookalike online catalog from where you can download KNX devices with pictures into your own database. It has an improved PDF design for function description and actuator lists, new device types such as push buttons and displays with multiple pages and functions with calculation like square meter price, as well as branding of PDF reports with multilingual support plus many other new features.

Contact: www.knxtool.com

NEW universal dimming actuator 230 V AC

BLUMOTIX S.R.L. KNX universal dimming actuator (RLC, LED, CFL) 2-channel, capable of loads of up to 300 W at 230 V AC on each of the two lines. The dimming curves are configured with ETS by adapting the type of source light used. The front panel has manual controls for the adjustment of the outputs. The most important feature of this new dimmer is the ability to dim the new energy-saving lamps (Type E27). In fact, the dimmer is able to dim small loads from 5 W.

Contact: www.blumotix.com

KNX app – shading control in your pocket

BMS – BUILDING MANAGEMENT SYSTEMS Why run to the switch when you can carry it with you all the time? With the KNX app, all BMS blind actuators of the MCU-Modular series can be controlled from mobile iOS devices. The app communicates directly with the actuator – no server, no additional module – just a single interface between WLAN and KNX and each user can individually adjust the sun protection to his needs. *Contact: www.bms-solutions.de*

Busch-SmartTouch®

BUSCH-JAEGER The Busch-SmartTouch combines the functionality of smart home automation with the comfort of modern door communication. And it does this with an extremely slim, elegant device with a high-quality 7" touch panel whose capacitive glass surface makes operation possible with total ease. Fully intuitive, as with a smartphone – with the tip of the finger and swiping gestures. Furthermore the Busch-SmartTouch® supports the DCA function of the ETS5 protocol for easier graphic programming.
Contact: www.new.abb.com

LC-GL04/06-TP – E-Glass 4/6 buttons

LIGHT CONTROL offers all the safety and durability advantages of a capacitive keyboard, since there is no mechanical wear of any kind, and ease of use is improved with the introduction of luminous and acoustic feedback, made possible by the ability to program the backlighting and the buzzer based on any event notified on the bus. The devices are also equipped with a proximity sensor through which the keyboard is activated, the wall-mounted backlighting is turned on to make the keyboard visible or an actual KNX command is generated. LC-GL offers the complete KNX command set needed to control any type of device: on / off commands, light dimming, window actions and transmission of scenarios. Printed icons / names on paper that slides inside the back of the glass. *Contact: www.lightcontrol-knx.com*

DIVUS HEARBEAT, the heart of a smart building

DIVUS GMBH Securing smart homes is becoming more and more important. HEARTBEAT guarantees a stable and secure connection of the DIVUS devices in a protected area of the network. You have the network and all connected components fully under control. Comprehensive protection and full security can be guaranteed! Important components for building automation, which belong to a secured building network, can be connected to DIVUS HEARTBEAT and be controlled. Security gaps are closed, the network is stable and the auto configuration makes it easier to handle the network with this complexity.
Contact: www.divus.eu

Oria switch and thermostat series

EAE TECHNOLOGY Oria premium switch and thermostat series creates a natural harmony and adds value to your interior designs with an elegant look and sophisticated technology. Combined with the KNX system, use of a single Oria switch would provide you with the means to activate light scenes, control blinds and set a comfortable temperature. Oria series devices, which combine the familiar push button feeling with the latest technology, are available in anthracite, ivory and cloud grey. *Contact: www.eaetechnology.com*

9025 – Room temperature/humidity controller/ seven channels/glass finish

EELECTRON SPA CR/CH70A02KNX is a KNX® room temperature controller with seven capacitive push buttons that can be configured to manage on / off controls, dimming, shutter and blind control, scene management, sequences of three objects, etc. The device also includes a 2-stage room temperature controller with integrated PI to control heating and cooling equipment, valves, 2- and 4-pipe fan coils etc. Embedded temperature sensor included and a rear connector (2 poles) configurable as digital or analogue input. Using digital inputs, window contacts, door contacts or presence detectors, outputs can be detected to implement specific embedded logic functions.

Contact: www.eelectron.com

ekinex delégo: the easy-to-use app

EKINEX BY SBS delégo is the new control system by ekinex that allows you to control and monitor a KNX home automation system with a mobile device equipped with an Apple iOS or Android operating system. The system is based on a dedicated PC with an Ethernet port connected to the user's local area network (LAN) and a USB dongle containing the activation system. The graphic interface is simple and intuitive and the app allows the user to control lights, temperatures, actuators, audio / video devices and much more with a simple touch from any place reached by a wi-fi connection, as well as remotely through a web connection. The immediate integration with the ekinex® devices is enriched by the full compatibility with any device based on the KNX open standard. *Contact: www.ekinex.com*

KNX RF remote control Remo

ELSNER ELEKTRONIK GMBH Remo KNX communicates according to the KNX RF standard and can be used for various functions in the KNX system. The wireless hand-held transmitter which was awarded the Red Dot 2017 has a flat and handy shape. The touch display is activated automatically when the hand-held transmitter is picked up (vibration recognition). The well-arranged screen surface provides an overview for the operation of up to 32 radio components. For example, light is dimmed or shading elements are positioned with a touch of the finger. After the setup in ETS, the user can change the names for the radio channels directly in the display. The individual adaptation of the names is thus possible at any time and independently of the integrator.

Contact: www.elsner-elektronik.de

KNX to CAN gateway

EMBEDDED SYSTEMS SIA KNX to CAN gateway provides 1:1 group communication mapping between CAN / FT and KNX without any manual configuration. The device fully supports common KNX Datapoint Types, auto-addressing and import of KNX project files. CAN bus is used in environments where the highest reliability is a must: aerospace, automotive and railway. CAN / FT is an international standard (ISO 11898-3:2006).

Contact: www.openrb.com

Large backlit keypad

EMT CONTROLS Keypads with metal and glass surface options are now available. HTP95-PB series push-buttons have large backlit buttons. These buttons can be laser engraved to form text and / or icons for ease of use. EMT Controls with expertise and attractive prices in a glass touch panel series has now been expanded with metal and glass keypads, using the same installation mechanism that supports many backbox types.

Contact: www.emtcontrols.com

Enertex® MeTa® KNX Premium

ENERTEX BAYERN GMBH MeTa® KNX is a KNX touch sensor and room controller with electronic labels and mechanical rockers. Each rocker can be programmed for use of four or eight (left / right) KNX functions. The function is selected with the menu button at the lower end. 32 KNX functions can be implemented. Room thermostat, temperature measurement, humidity measurement, an external binary input for potential-free contacts, feedback and operating symbols are integrated. The high-quality housing made of milled aluminum is available in "brushed", "black anodised" or "white powder coated" versions.

Contact: www.enertex.de

18.5K – KNX presence detector

FINDER SPA The new movement sensor is specifically designed to sense micro movements and is the ideal solution for managing of lighting systems in offices, work environments in general, and schools. The type 18.5K movement and presence sensor comes with two software outputs, one of which is controlled according to the light measured by the internal sensor, and is also appropriate for particular types of systems where it is necessary to control both the lighting and the heating / air conditioning. There is also a third software output that sends only movement information to the KNX bus: thanks to specific software inputs, sensors can be networked in master / slave configurations.

Contact: www.findernet.com

Signal and alarm panel - KNX MAT

GEPRO MBH The MAT uses eleven RGB LEDs and an acoustic signal to process physical variables and display critical states. The states of valves, blinds etc. (1 byte) are monitored as well as 2-byte and 4-byte objects with threshold value and hysteresis temperatures, volumes, pressure and voltages. The eleven inputs can be linked internally with the integrated buzzer with the help of the internal logic. The buzzer reacts to changes in the alarm state. It is acknowledged with the button. The change is visible through the LED ring and sent on the KNX. Several MATs can be cascaded via the bus and unnecessary acknowledgement buttons can be used as normal bus buttons.

Contact: www.EIB-TAB.de

New KNX push-button panel

GEWISS SPA KNX push button panel with four independent channels, with interchangeable button keys and customisable illuminated symbols for a quick and easy identification of the functions controlled by the button. Each channel is associated with a RGB LED for night-time locating or status display for the commanded load. The panel can manage the switching of loads on / off, the control of roller shutters / venetian blinds, dimmers, memorisation and activation of scenarios. The push button, available in KNX and KNX Easy versions, is a 2-module Chorus device and is suitable for mounting in round / square and rectangular boxes. It is available in white, black and titanium and fits all the plates in the Chorus range. *Contact: www.pro.gewiss.com*

Direct dialogue

GEZE GMBH A natural, energy-efficient supply of fresh air whenever needed on demand and under control at all times: the new GEZE IQ box KNX interface module allows GEZE IQ window drives to be directly incorporated in KNX building systems, thus enabling a dialogue with other KNX-enabled components. In contrast to simple switch contacts, the IQ box KNX uses the intelligence of the window drives and after performing a "command", reports the mode of a window to the KNX building system or building management system. More detailed window information is also made available via the module. *Contact: www.geze.com.*

Gira KNX heating actuator

GIRA GIERSIEPEN GMBH & CO. KG Heating and cooling using KNX: The Gira 6-gang heating actuator with integrated controller facilitates the integration of heating and cooling systems into intelligent building technology with KNX. The heating actuator controls up to six heating or cooling circuits in the building. 230 V or 24 V thermal valve drives can be used as drives. Integrated room temperature controllers in the heating actuator mean that separate room temperature controllers are not needed in the respective rooms. In short: where a Gira KNX touch sensor 3 Plus with room temperature controller was previously needed, the cheaper touch sensor 3 Komfort can now be used.

Contact: www.gira.com

GreenControls 12-channel switching actuator

GREENCONTROLS TECHNOLOGY SDN. BHD. The new GreenControls 12-channel switching actuator is designed for installation on DIN 35 mm and programming with ETS to perform different switching parameters. This switching actuator can switch 12 independent electrical AC loads or three-phase loads with 16 A maximal load. Each channel relay can be switched ON or OFF manually without connection to electricity. The switching actuator also comes with four and eight channels. Model: GC04SA003

Contact: www.greencontrolstech.com

Push button sensor Plus, 1/2/3/4 gang

GUANGZHOU VIDEO-STAR ELECTRONICS INDUSTRIAL CO.,LTD. The push button can be used as separate rockers or as a pair; short / long operation for different KNX function; customisable template (middle part) for printing of function titles as well as icons; built-in temperature sensor; RGB status indication; brightness adjustment; integrated bus coupling unit, all in one piece; matt, and shiny finish available. *Contact:* www.video-star.com.cn

Hager IoT controller

HAGER VERTRIEBSGESELLSCHAFT MBH & CO. KG Hager IoT controller (TJA560) is a gateway that enhances your KNX electrical installation by making it compatible with tens of IoTs (IoT: Internet of Things). With the IoT Controller, you can use multiple applications such as controlling your Sonos Home Sound System, expanding the lighting with Philips Hue, integrating voice control with Amazon Echo (Alexa) or an IFTTT compatible device. List of compatible products / services: Amazon Echo (Alexa), Sonos, Philips Hue, Netatmo weather station, IFTTT (Cloud Service). *Contact:* www.hager.com

Berker Q.7 KNX switch range

HAGER VERTRIEBSGESELLSCHAFT MBH & CO. KG The award-winning design of the Berker Q.7 switch range is pleasing to the eye, using materials such as aluminium, stainless steel, glass, slate or concrete and translucent frames that make the switches appear to float on the wall. Moreover, the technology is also impressive, because the Berker Q.7 fits a broad range of KNX: the range runs from buttons and modern touch sensors, to particularly convenient touch sensors with displays for controlling lighting, heating, shutters and blinds, to new room controls with highly contrasting black displays. *Contact:* www.hager.de

KNX air quality sensors (AQS)

HUGO MÜLLER GMBH & CO KG The new air quality sensors (AQS) GS 40.10 KNX / GS 41.10 KNX offer detection of air quality (atmospheric pressure compensated CO_2 concentration, temperature, relative humidity), as well as air quality control functions (via integrated PI / step controllers). Up to five integrated binary / analogue inputs allow you to connect external push buttons, $0-10$ V / $1-10$ V signals as well as one external temperature sensor. Manual adjustment of setpoint temperature (range: +/- 3°C) is available in the GS 41.10 KNX via an integrated touch panel. The compact wall-mounted housing ensures variable positioning of the sensor. Various options and parameters within the ETS application offer adaptation to multiple solutions.

Contact: www.hugo-mueller.de/en

Iddero + By-me integration

IDDERO HCx-KNX touch panels and the Iddero Home Server are now fully compatible with the By-me product range from Vimar. Projects generated with Vimar's EasyTool Professional software can be easily imported into the Iddero configuration tool. This makes it straightforward to use the Iddero HCx-KNX touch panels or the Iddero Home Server for visualisation and control of a mixed installation containing both KNX devices and Vimar By-me products, as well as supported IP door stations and cameras. This functionality is available starting with firmware/software version 3.3, at no additional cost.

Contact: www.iddero.com

iHaus app: Connects KNX & IoT

IHAUS AG The professional hybrid solution for all smart home situations: iHaus is a unique platform to link and control KNX automated devices with all other intelligent IP-based smart home devices, no matter which manufacturer, brand or system they work with. In combination with a JUNG KNX IP router or gateway, the iHaus app enables commands between KNX and other systems such as Apple HomeKit, Ikea Trådfri, Home Connect, SONOS, Philips Hue or Amazon Echo, which can be set and called up individually – even by voice command to assistant Alexa or via touch screen when you are away from home. An additional hub or gateway is not necessary as iHaus uses iOS or Android smart mobile devices as a 24/7 server solution.

Contact: https://ihaus.de/en/app/knx

22S actuator – CT432220

INGENIUM – BES KNX hase introduced its new actuator, which maintains the hallmark of the brand: simple, complete, easily programmable and intuitive devices. It is a binary actuator with 22 potential-free relay outputs. As a direct result of the multifunctional programming of its outputs, it provides the ability to work either independently or simultaneously in different modes: binary outputs, blinds, valves or fan coils. Additionally, it has up to eight arithmetic and logical units (ALU) as well as up to eight timers. These features allow the programming of complex logical operations, timings, counters, etc, using external or internal variables. Programming is accomplished through ETS.

Contact: www.besknx.com/website/en

IntesisBox® KNX gateway for Panasonic air to water systems

INTESIS SOFTWARE SLU IntesisBox® presents an updated gateway PA-AW2-KNX-1 for the control of Aquarea H, the new air to water system series of Panasonic. The IntesisBox® AW gateways series is the only solution in the market that integrates air to water systems into KNX. The connection is carried out directly on the hydro unit using the supplied cable making the installation extremely simple and quick. The gateway allows the control of the two zones available in Aquarea H and the hot water tank. The zone temperature can be set as the ambient temperature or otherwise as the water flow temperature. Furthermore, a high number of signals can be monitored by using different KNX objects. The remarkable feature is the monitoring of the system energy consumption and alarms. *Contact: www.intesisbox.com*

iRidium gate for Homekit®

IRIDIUM MOBILE offers three tools to enable voice control in KNX installations. Depending on your customer's choice, you can choose one of the voice control options: iRidium gate for Homekit®; Amazon Echo® module or Google Home® module. Add voice control to your installation in a matter of minutes. There is no need to make any changes in an automation project. Your customer can control the smart home with his voice via the Home app, Amazon Alexa app or Google Home app. iRidium gate for Homekit, Amazon Echo, Google Home allows you to integrate in one project the voice control from KNX and other professional automation systems, as well as IoT devices supported by iRidium. iRidium gate for Homekit® works only on Raspberry Pi 3. *Contact: www.iridiummobile.net*

KNX DALI gateway TW

ALBRECHT JUNG GMBH & CO. KG Simulating daylight by changing the colour temperature (Tunable White): lighting which is based on daylight noticeably promotes our performance curve. The Jung KNX / DALI gateway TW forms the interface for controlling DALI Tunable White luminaires and other DALI luminaires in a KNX installation. The colour temperature and brightness can thus be set independently or combined if required. The behaviour of an incandescent lamp can for example be readjusted by dimming down the colour temperature in warmer areas and dimming it up in colder areas. It is the first KNX device to offer this functionality to such an extent. *Contact: www.jung.de/en*

Nuvo Player Portfolio

LEGRAND Legrand recently announced KNX compatibility for its Nuvo Player Portfolio home audio system. Created by audiophiles and designed for professional installation, Player Portfolio streams audio over Wi-Fi and wired networks to up to 16 zones. The Player Portfolio line covers several models of players, including a new TV sound bar and tabletop speaker, as well as 1RU multi-zone amplifiers. *Contact: www.legrand.us*

The five second installation

M. ZÜBLIN AG The Swiss Garde 360 Präsenz KNX / KLR offers a fast installation with a very discreet and well-designed visible part. It is one product out of an identical family. You know one product, you can handle all installation situations. The product family offers spring clips, flush mounting and surface mounting IP20 to IP55. Functionality focused on light control and presence detection. To ease the commissioning, the functionality is optimised for on / off or daylight control with a wide variety of applications such as manual override, standby lighting, presence detection, lighting scenarios and runtime configuration of time and lux values. Ideal for KNX applications in offices, classrooms, meeting rooms, etc. *Contact:* www.zublin.ch

MDT VisuControl Easy VC-EASY.02

MDT TECHNOLOGIES GMBH The new generation of object servers VisuControl Easy for controlling building functions has been comprehensively extended. It includes: The VisuControl app for iOS is compatible with the iPhone and the iPad, and includes iPhone and iPad, support for four object server / locations, up to four IP cameras per object server / location, an integrated VPN support, an email function for status / notifications, visualisation and control of up to 120 functions, automatic generation of the graphical user interface, individual division into rooms, zones or groups, usable as an IP interface for programming the bus system, a time server function and power supply from the KNX bus. *Contact:* www.mdt.de

Device kits for EiPlan app

NAUTIBUS ENGINIERING For KNX beginners, the parameterisation of KNX devices may present a hurdle. Therefore, Nautibus has assembled sets of pre-configured devices. Device kits contain XML files with all the necessary parameter settings. The standard actuators (switching, dimming, heating, blinds) as well as touch sensors and room temperature controllers are available. The device kit can be downloaded free of charge from the Nautibus website and copied to the EiPlan Device directory. Then projects can be created without the user having to go into the details of the device parameters. A kit with MDT devices is available. Other manufacturers will follow. *Contact:* www.nautibus.de

LaMPS module for vendor-independent management of KNX/DALI gateways

NETXAUTOMATION SOFTWARE GMBH To make the management the KNX / DALI gateways easier, the NETx BMS Server provides a new module – LaMPS. Its main goal is to provide an interface to initiate DALI tests independent of the KNX / DALI gateway vendor used. The most important features of LaMPS are: Generic interface to initiate DALI tests and show test results, support for DALI emergency lighting including emergency tests, vendor-independent representation of DALI gateways and devices, data and commands that are all available as normal data points (server items), and can be used in any client (e. g. visualisation) and reporting tool to generate test reports *Contact:* www.netxautomation.com

Voice control with RealKNX

PROKNX SAS In addition to the KNX control by Augmented Reality based on the smartphone camera, RealKNX became a complete voice control centre. One single configuration carried out with an ETS product database now offers voice recognition with Siri (iOS devices such as iPhone, AppleWatch, iPad, Apple TV), Alexa (Amazon Echo, Echo Dot, Echo Show) and our powerful RealKNX Skill and Google Home Assistant. Functions (lights, scenes, HVAC, values, states) are automatically assigned to their rooms and translated to the corresponding function of the voice controller without requiring special knowledge. *Contact: www.proknx.com*

KNX weather station basic V2

SCHNEIDER ELECTRIC GMBH C/O MERTEN Merten's new weather station basic V2 MEG6904-0001 combines a wind, precipitation and temperature sensor and three brightness sensors. It provides fully automatic blind and sun protection control with automatic adjustment of blinds according to the position of the sun. Rain sensor with integrated heating. If the mains (AC 110−230 V, 50−60 Hz) is not connected, the device runs without the heating. Automatic sun protection for up to three façades via three integrated brightness sensors is provided. Shading can be temporarily interrupted via an object. There are two brightness objects for external sensors and threshold functions with delay and logic operation for flexible solutions. *Contact: www.merten.de*

eConfigure KNX Expert

SCHNEIDER ELECTRIC "eConfigure KNX Expert" is a new ETS App from Schneider Electric for a seamless graphical design and configuration of KNX home and building automation systems. This tool is perfect for KNX Partners who want to gain time and improve the quality of their repetitive KNX projects. The design of the KNX project is carried out graphically on the floor plans, using drag-and-drop and easy links between devices and loads. All the DIN-rail devices are then automatically calculated and generated by the tool including homeLYnk and spaceLYnk controllers. This version includes all the main products from the Schneider Electric KNX catalogue, including a special tool for creating and integrating additional KNX devices.
Contact: www.schneider-electric.com

KNX RTS receiver 433MHz

SOMFY Somfy continues to improve the performance of façades by developing intelligent controls and motors for solar shading. The latest product extends the complete animeo KNX solution, offering a high functional level for occupants, facility managers and system integrators. The animeo KNX RTS receiver 433 MHz is a single gateway opening the RTS protocol to the KNX world to manage all devices such as solar shading, lighting, HVAC, etc. It can be implemented anywhere on the KNX bus, allowing the RTS (Radio Technology Somfy) remote control range to be used. Thanks to the cost-effective animeo KNX RTS receiver, wireless local and group commands (ten groups per interface) are possible without any motor controllers. *Contact: www.somfy.com*

IS 345 MX Highbay aisle sensor

STEINEL VERTRIEB GMBH Ideal for logistics areas: the IS 345 MX Highbay infrared motion detector is the specialist for watching over narrow aisles with high ceilings between high-bay racking. It ensures the exact detection of movements at mounting heights of up to 14 metres. In a typical aisle shape, its detection zone has a maximum radial reach of 30×4 metres. It is available as a surface-mounted or concealed version with KNX, COM1, PF, DALI or LiveLink interfaces in a square housing. Thus, the IS 345 MX Highbay is easy to integrate into chosen installations in storage facilities or high-bay warehouses and is perfect for buildings with high ceilings, such as machine halls or departure lounges. *Contact: www.steinel-professional.de*

New TP KNX integrated transceiver

STMICROELECTRONICS A new member has recently joined the elite circle of KNX TP interface: STKITT (ST KNX Interface Twisted Pair Transceiver) samples are now available. Born from the collaboration between STMicroelectronics and Tapko Technologies, the new device has recently received KNX certification. STKITT is the smallest footprint solution using a QFN24L, 4×4 mm^2 housing for the chip. This makes the STKITT a long awaited, low-cost solution. In addition, it has been designed to achieve high energy efficiency, allowing energy-saving implementations. To summarise, STKITT represents the right choice that, due to its flexibility, allows various configurations to provide the optimum solution in terms of energy, component count, footprint and cost. *Contact: www.st.com*

RGBW 4-channel KNX dimmer SR-KNX9511FA

SUNRICHER TECHNOLOGY LIMITED The SR-KNX9511FA is a 4-channel RGBW LED dimmer that is fully compatible with all KNX systems and meets all KNX certification criteria. With a wide input voltage range DC 12−48 V, and up to 5 A per channel output current, the dimmer can drive up to 20 A RGBW LED lighting. Safeguarded by short-circuit protection, overtemperature and overvoltage protection, the module is inherently safe and reliable. The RGBW dimmer supports relative dimming, absolute dimming, colour sequences and colour cycles. It also has a staircase lighting function, preset value and modifying preset value function. Switching / relative dimming can be controlled manually via buttons. *Contact: www.sunricher.com*

New line coupler version MECtp

TAPKO TECHNOLOGIES TAPKO's new version of TP Line Coupler MECtp is able to process telegram filtering over the entire group address range. In the ETS, there is also a new parameter available for suppressing device configurations from secondary line to main line. Useful as a Line Coupler, Area Coupler or Line Repeater in any KNX network, the MECtp provides a data connection with galvanic isolation between two separate KNX TP bus lines. The MECtp supports long telegrams and is able to (selectively) suspend telegram filtering at the single press of a button. Convenient during commissioning, this short-time access to other lines is possible even without ETS. The suspension period can be set via an ETS parameter. *Contact: www.tapko.com*

KNX touch panel for wall mounting

TCI GESELLSCHAFT FÜR TECHNISCHE INFORMATIK MBH presents the design touch panels aluna for mounting directly on the wall. The touch panels are equipped with a capacitive multi-touch display available in 7, 10 or 16 inches. They are particularly flat and have an enclosed housing. The panel can be mounted on exposed concrete, historic timber frame or other wall structures onto which housings cannot be installed. KNX and IP interfaces make the touch panels suitable for various applications such as building control, conference technology and digital signage. The integrated microphone and the speaker with echo cancellation allow the user hands-free conversations with high audio quality. *Contact: www.ambiento.de/en*

PAINTABLE and WALLPAPER SWITCH

TENSE BVBA The Belgian designer and manufacturer of Top Design KNX products has developed a PAINTABLE 1,2,4 & 8-fold touch-button switch which you can paint and varnish yourself in the same colour of the wall. In case you would use wallpaper, no problem, the WALLPAPER 1,2,4 & 8-fold switch has an inlay in which you can glue a piece of wallpaper, wood veneer, cork, leather, fish skin, etc., matching the same material of the wall.

Contact: www.tense.be

AMUN 716 S KNX

THEBEN AG With the AMUN 716 S KNX, Theben is presenting a new CO_2 sensor for energy-efficient temperature control and for ventilation systems dependent on the room air quality. AMUN measures CO_2 concentration, relative humidity, temperature and barometric air pressure. Thanks to three independently parameterisable thresholds for CO_2 concentration and relative humidity, AMUN allows maximum air quality with minimum energy consumption. The integrated temperature controller allows, amongst other things, the control of actuators. With four binary inputs, AMUN can be flexibly integrated into any KNX installation. *Contact: www.theben.co.uk*

theRonda S360 KNX FLAT

THEBEN HTS AG The new presence detector theRonda S360 KNX FLAT from ThebenHTS is attractive not only a result of its extremely flat design, but also thanks to convenient functions such as self-learning time delay, short-term presence, manual override, constant lighting control with standby function and dimmable lighting. Adjusting of the brightness measurement by entering the measured lux value via remote control is extremely simple. Teach-in and scene functions make the operation easier. Thanks to the high protection class IP54, theRonda is also suitable for wet rooms. *Contact: www.theben-hts.ch*

Thinknx Portal: the way to centralisation

THINKNX Thinknx is introducing its new Thinknx Portal, a cloud service dedicated to system integrators and users with multiple installations such as multi-site point of sales system, a cluster of villas or several branches with the same headquarters. It enables all the installed servers to be connected virtually regardless of their physical position and for them to be controlled with a centralised Thinknx user interface. Each user also has access to a customisable web page that groups data from all enabled installations into charts and reports, and that allows the user to perform the same actions on all selected servers.

Contact: www.thinknx.com

KNX multiroom audio system PC34C

TRIVUM TECHNOLOGIES GMBH The new trivum PC34C is an up to 12 / 24 zone multiroom player with up to 24 digital I/O ports, four independent streaming clients, four FM tuners, four line-in inputs and 16 built-in power amplifiers with 30 watts each. The brand new licensing model makes the PC34C extremely flexible: the type and number of usable inputs and outputs can be adapted via paid licences as required. The music streaming services TuneIn, Deezer, Tidal and Qobuz are supported as well as audio playback via AirPlay. The PC34C is controlled via the trivum 7" TouchPad, the trivum app, a web browser or via the KNX environment, in which the PC34C can be integrated bidirectionally. *Contact: www.trivum.com*

KNX IR Linker

VIATRON GMBH The KNX IR Linker from Viatron is a solution for combining infrared devices with the KNX bus system. The KNX IR Linker allows KNX devices such as switches, dimmers and blinds to be controlled via an infrared signal. In addition, the controlling of AV devices such as TV, blu-ray player etc. via the KNX bus system is also possible. All common infrared protocols are supported. Up to 22 switches, seven dimmers and seven blinds can be controlled and a total of 64 infrared signals can be emitted. The KNX IR Linker can be configured very easily and innovatively via the KNX bus system. Supported by KNbriX. *Contact: www.viatron.de*

Vitrum KNX series: 6 buttons

VITRUM The Vitrum KNX series becomes more versatile for all users' needs, while staying true to the elegant Vitrum design. Now a 6-fold device enriches the Vitrum KNX series, which includes interfaces, actuators and the new climate control. With our switches, you can manage all lighting functions. Switching lights on and off and dimming, but that's not all: it can adjust the temperature, control window blinds and configure scenarios. KNX series devices have RGB backlighting (six different colours available) and proximity sensors to optimise energy consumption. It's also possible to customise the aesthetics with icons. Lastly, the KNX series can be installed in Italian 3- or 4-gang modules and 1-gang British standard wall boxes. *Contact: www.vitrum.com*

KNX ENO 626/636 secure

WEINZIERL ENGINEERING GMBH The KNX ENO 626 secure and 636 secure by Weinzierl are the first KNX gateways on the market to support secure radio communication with EnOcean devices. Commissioning is very simple: encryption can be activated individually for each channel. EnOcean sensors and actuators which support security can be linked as usual. The expanded scope is also new with over 100 device profiles (EEP EnOcean equipment profiles) now supported. The model 626 has eight channels and is suitable for installation in a flush-mounting box. The KNX ENO 636 supports up to 32 channels and has a discreet housing for wall mounting. *Contact: www.weinzierl.de*

Iswitch

YÖNNET BILISIM is again taking to the stage with a new product which drew attention at ISE Amsterdam on the KNX booth and at Frankfurt L+B. The last self-developed product from Yönnet is a KNX switch that outshines everything with its brilliant design and its functions. Iswitch has integrated light and temperature sensors in different button configurations, from one button to 12 buttons. There will be two models with and without VATN display. Iswitch offers perfect touch sensitivity, so the traditional customer who doesn't like using touch keys will be more than satisfied. Besides, the unit is only 12 mm thick. Interra continues to work hard at full speed and will have new surprises soon. *Contact: www.yonnet.com.tr*

Z35

ZENNIO AVANCE Y TECNOLOGÍA SL Z35 is the new Zennio capacitive touch panel with a 3.5" display, internal temperature probe and thermostat for two independent areas. It is able to contain up to 42 controls / indicators, distributed over up to seven pages with a navigation menu. A screensaver with date, time and / or temperature is set when the touch panel is not in use, and the device wakes up automatically when the user approaches thanks to the proximity sensor. Its brightness is regulated by the included ambient luminosity sensor. In addition, it incorporates four analogue-digital inputs that may be configured as binary inputs, for sensors and potential-free push-buttons, as temperature probe inputs or as motion sensor inputs. *Contact: www.zennio.com*

KNX temperature regulation

ZIDATECH AG ZidaTech AG If you are looking for a price-optimised solution for single room regulation, then the KNX push button with room temperature sensor is the best choice. To measure the temperature in the living room, a feeler cable or an external temperature sensor can be attached to the KNX push-button at any time. Therefore the costs for expensive KNX room temperature sensors are dispensed with. If the temperature sensor is attached outside the KNX push button, the push button is also not influenced by the dissipated heat of the LEDs. The room temperature sensor can be mounted to save space on the wall and is programmed occurs via ETS. *Contact: www.zidatech.ch*

THE KNX DEVELOPMENT MICROSITE

Find all you need to know to understand KNX technology and all the available possibilities to start developing KNX products. This microsite contains multiple resources for developers, including some that have never been published before.

Do not miss it!

development.knx.org

CONGRATULATIONS TO ALL THE WINNERS OF THE KNX DEVELOPMENT SURVEY!

Winner	Country	Prize	Thanks to
Yan xiaoyi	China	Programmable	ISE
Jonathan Demeyer	Belgium	KNX BAOS Starter Kit Demoboard + 830 +832 +838 kBerry	WEINZIERL
Jony Chen	Taiwan	KAIstack	TAPKO
Guillermo Rodriguez	Spain	Siemens BIM M13x + Renesas E1	OPTERNUS
Rudolfs Maltavnieks	Latvia	RPI - KNX Interface	EELECTRON
Andre Philipp	Germany	K98103-0001	ELMOS
Stefan Günther	Germany	NCN5130 EVB	ON SEMICONDUCTOR

National Groups

KNX Austria Awards
Giant Ferris Wheel Project

AUSTRIA During its "PowerDays Forum" in Salzburg in March, the KNX National Group Austria presented "SmartHomeKrainer GmbH" and "Elektrotechnik Ma-Zim" with the "KNX Austria 2017 Award" for their joint "Wiener Riesenrad" project. This landmark giant Ferris wheel in Vienna now connects the traditional round-trip experience with KNX technology, offering features such as multi-language displays, presence detection and individually-selectable music.

Contact: *Robert Marzy | robert.marzy@hager.com*
www.knxaustria.at

Winner of KNX Austria Awards

KNX Belgium Hosts
Successful Network Event

BELGIUM The head office for the Port of Antwerp, The Port House, was the venue for the network event of the KNX National Group Belgium. During the course of a diverse programme, the various speakers addressed topics such as how to work with ETS Inside, developments in using wireless sensors, and how to use KNX Secure in practice. Prior to the networking event, the KNX National Group Belgium held its annual membership meeting.

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

KNX Belgium Networking Event

Busy Days for KNX China

CHINA The KNX National Group China again occupied a prominent position in Hall 6.1 at the Guangzhou Electrical Building Technology Fair. The KNX China community booth allowed members to present their products and solutions, whilst a KNX Tech Forum and working groups helped to further promote the many benefits of KNX in China.

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

KNX China booth at GEBT 2017

160 participants at ETS Inside launch event

KNX Colombia Hops from One Success to the Next

COLOMBIA With 160 participants, the KNX National Group Colombia successfully launched ETS Inside at an event in Bogotá. Integrators, architects, students and representatives from the university EAN enjoyed first-hand experience of the simplicity of the new KNX tool, which will further boost KNX in Colombia. The launch served not only as an introduction, but helped to enhance training and market opportunities in Colombia too.

Contact: Erika Rodriguez | secretario@knxcolombia.org
www.knxcolombia.org

ETS Inside Introduced at Amper 2017

CZECH REPUBLIC With more then to 200 participants, the largest ETS Inside introduction in Czech Republic took place during the AMPER 2017 trade fair in Brno. Two winners – Mr. Marada and Mr. Pěcha – received ETS Inside licenses with a mini PC. During April 2017, two more events took place at the technical universities in Ostrava and Brno. The workshops aroused great interest in all of the more than 90 participants.

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

KNX at Amper 2017

Introduction of the ETS Inside

KNX Denmark introducing ETS Inside

DENMARK With three events all over Denmark, ETS Inside could not have better been introduced to the local market. Supported by various KNX manufacturers each event ushered a new era of KNX all over Denmark, addressing the existing community as well as new target groups, which can now better experience the benefits of the worldwide STANDARD for home and building control.

Contact: Martin Mortensen
martin.mortensen@dk.abb.com
www.knxdenmark.dk

KNX Secure Event in Dubai

DUBAI The first KNX Secure event in Dubai, held at the Jumeirah Emirate towers, was a true eye-opener for the whole local KNX community. KNX Association, KNX Scientific Partners and KNX Members impressively highlighted that, with almost 30 years of development behind it, KNX is the right choice for the market, especially in terms of security. Based on the worldwide encryption standard AES 128, KNX Secure is almost impossible to hack.

Contact: Taj Kollara | taj@tacdubai.com
www.knx.org/ae

Prof. Dr. Praus presenting KNX Secure in Dubai

Johan Stigzelius presenting ETS Inside

KNX Finland Concludes Spring Tour

FINLAND The KNX National Group Finland celebrated the launch of ETS Inside in four different cities. Each event was supported by local KNX Training Centres and included presentations about the latest KNX news and developments. The highlight of each event was the practical hands-on of ETS Inside, which was highly appreciated by the Finish KNX community.

Contact: Johan Stigzelius | johan.stigzelius@knx.fi
www.knx.fi

KNX France training its community

FRANCE More than 100 participants gathered in Marseille to learn! The event by KNX France highlighted the various possibilities of KNX Training, from schools, workshops, certified KNX Trainings and the many opportunities an extension of knowledge can deliver. Supported by various KNX Member companies, the whole event was a full success!

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

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ETS Inside Arrives in Hungary

HUNGARY The KNX National Group Hungary presented ETS Inside to the local KNX community. Following the presentation of the new tool, a lively discussion took place about the importance of ETS Inside to the Hungarian market.

Contact: Zoltan Balogh | bz@berker.hu
www.knxhungary.eu

ETS Inside presentation in Hungary

KNX India at GGC Acetech Mumbai Lamp Lighting Ceremony

INDIA As one of the leading associations for home and building control in India, KNX National Group India was invited to participate in the Lamp Lighting Ceremony at one of the biggest fairs for building automation in India, GGC Acetech Mumbai. Suvankar Das, President of KNX India, represented the KNX National Group, next to other national and international industry leaders.

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

KNX India at Lamp Lighting Ceremony

More than 80 participants at ETS Inside Launch in Italy

ITALY The ETS Inside launch event by the KNX National Group Italy attracted more than 80 participants. New features were introduced, followed by a live demonstration. The event culminated in a lucky draw which was won by Alessandro Ripamonti, a high school student from the Technical Institute I.I.S. Guglielmo Marconi in Dalmine.

Contact: Filomena d'Arcangelo | segreteria@konnex.it
www.knx.it

ETS Inside launch in Italy

ETS Inside Introduced in Japan

JAPAN The development and promotional activities by the KNX National Group Japan over the years soared to new heights with the presentation of ETS Inside. The whole KNX community with invited guests turned out to witness a new level of KNX simplicity in Japan, highlighting the use of an open technology with all its benefits. The simplicity of ETS Inside greatly impressed all who participated, and will certainly help to further promote KNX in the land of the rising sun.

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

Presentation by Mr Kaiho

Daniel Lee, winner of Korea Vision Leader Award

KNX Korea Wins National Award

KOREA The KNX National Group Korea President, Daniel Lee, was presented with the 2017 Korea Vision Leader award thanks to KNX National Group Korea's dedication to national standards in Korea. In cooperation with various stakeholders, such as government-funded institutes and representatives of the industry, KNX is becoming ever more accessible to the Korean people – an achievement of which KNX Korea may be rightly proud.

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

Presentations and Workshops in Luxembourg

LUXEMBOURG As part of the international ETS Inside launch, KNX Luxembourg organised a variety of workshops that attracted more than 30 visitors. The hands-on sessions used real KNX devices to clearly highlight the many new opportunities for installers and users. Due to the positive response of those who attended, a follow-up event has already been planned for the near future.

Contact: Alphonse Massard | info@knx.lu | www.knx.lu

ETS Inside launch event participants

ETS Inside in Mexico

KNX Mexico Now Part of the Revolution

MEXICO The building control market in Mexico is characterised by a high demand for smaller projects in the residential sector, so when ETS Inside was launched to the local KNX community, it was exactly what they had been waiting for: smart, simple, secure. Thanks to ETS Inside, access to KNX and its unique benefits has now been opened up to a much wider market.

Contact: Maribel Pacheco | info@knx.mx | www.knx.mx

Netherlands Celebrates ETS Inside Inn Style

NETHERLANDS About eighty KNX Professionals and KNX manufacturers gathered at the Inn Style venue in Maarssen, Netherlands, to be informed about various current developments. Amongst the various topics covered, a fascinating explanation of ETS Inside gathered most interest. The event was successfully concluded with a lucky draw, with prizes being free dongles and vouchers for ETS Inside.

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

Lucky drawing at the Inn Style venue

More than 100 participants in Warsaw

KNX Poland Brings ETS Inside to the People

POLAND The luxury Lord Hotel in Warsaw was the setting for the first of three ETS Inside launch events in Poland. Supported by members of the KNX National Group Poland, the first event attracted more than 100 participants, and the lucky draw for ETS Inside was won in Warsaw by Adam Slisz. Launch events, with accompanying lucky draws, are also planned for Poznan and Gliwice.

Contact: Jan Worobiec | jan.worobiec@targetpress.pl www.knxpolska.pl

ETS Inside Presented to Thousands in Portugal

PORTUGAL Fifty participants and international speakers gathered in the auditorium of the ATEC centre in Lisbon for the launch of ETS Inside in Portugal. But instead of resting on this event's laurels, the KNX National Group Portugal also participated at EXPOSALÃO, the country's leading fair for home and building control. This was a major success and attracted more than 2000 visitors to the KNX Portugal booth.

Contact: Rui Horta Carneiro | rhcarneiro@agefe.pt www.knx.pt

ETS Inside launch event at ATEC

Double Celebration in Romania

ROMANIA The KNX National Group Romania celebrated the launch of ETS Inside in two venues, one in Bucharest and the other in Targu Mures. More than 75 systems integrators, electrical designers, distributors and students expressed an interest in its functions and implementation possibilities. Two participants, namely Romeo Vascu and Andrei Savu, had an extra reason for being delighted, as they were the happy winners of the ETS Inside lucky draw.

Contact: *Rafael Marculescu | presedinte@knx.ro*
            www.knx.org

Welcome by Rafael Marculescu

KNX PlugFest
Gains Ground in Russia

RUSSIA The KNX National Group Russia organised the first KNX PlugFest of 2017, where one hundred participants had the exclusive opportunity to touch and feel the latest KNX devices from various manufacturers. The success of the PlugFests is speaking for itself – the number of participants is constantly rising, more and more KNX manufacturers want to join the PlugFests, and the response is unfailingly positive.

Contact: *Andrey Golovin | golovin@konnex-russia.ru*
            www.konnex-russia.ru

Successful KNX PlugFest

KNX Serbia Introduces ETS Inside

SERBIA The KNX National Group Serbia premiered ETS Inside to an enthusiastic group of KNX Professionals. The hands-on presentation resulted in a lively discussion about new possibilities offered by ETS Inside, and was accompanied by an introduction to KNX Secure and KNX IoT. Representatives of the KNX training centre received a voucher for an ETS Inside licence and dongle, and each participant received a voucher for an ETS Inside license.

Contact: *Srdjan Gavrilovic*
            srdjan.gavrilovic@knxserbia.com
            www.knxserbia.com

ETS Inside workshop in Serbia

Busy First Half-year
for KNX Spain

SPAIN The KNX National Group Spain is proud of its achievements in 2017 so far. With four ETS Inside launch events, a technical forum and several other events, KNX has reached out to more than 1000 professionals across the country, including installers, manufacturers, designers and architects. 2017 has already been a major success for KNX in Spain, and we are only half way through!

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

Technology Forum, one of many events

KNX Sweden reaching out to thousands

Active Year for KNX Sweden

SWEDEN With three ETS Inside launch events and one successful participation at the leading national fair under its belt, the KNX National Group Sweden can already look back at an active 2017. Thanks to the launch events in Malmö, Gothenburg and Stockholm, ETS Inside was brought directly to the people. Furthermore, the successful participation at ELFACK highlighted that KNX is the leading building control technology in Sweden.

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

KNX Swiss #techworkshop Introduces ETS Inside

SWITZERLAND The KNX National Group Swiss organised five #techworkshops across Switzerland, the highlight of each being the presentation of ETS Inside, which was highly appreciated by all. Thanks to the accessibility of the events all over Switzerland, ETS Inside could be brought to the whole Swiss KNX community – a great success that will lead to future #techworkshops that are to follow soon.

Contact: René Senn | knx@knx.ch | www.knx.ch

One of five #techworkshops all over Switzerland

Proud winner, Rowan Royds

Simplicity Brought to the UK

UK KNX National Group UK's ETS Inside event was a great success. It started with a timeline history of KNX and the ETS, followed by the introduction of ETS Inside. The launch was both informative and provocative, explaining the reasoning behind this new innovation and demonstrating its possibilities. A free copy of the product and a mini PC was won by Rowan Royds.

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

KNX USA and KNX International at CABA Forum

USA CABA organised its annual Intelligent Buildings and Digital Home Forum in Santa Clara, in which the KNX National Group USA participated with a stand. The focus of the event was on home and building automation, with keynote speeches from Silicon Valley giants such as Intel and Google. KNX International joined the discussion, underlining the guarantee for end-users that KNX products of different manufacturers and applications will work together.

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

David Thurow explaining KNX

KNX Userclub / Professionals

Austria KNX Professionals
Focus on KNX

AUSTRIA The Austrian KNX Professionals organised their workshop with the title 'KNX in focus', at which ETS Inside was presented to the local community of installers. This was accompanied by application presentations about its correct installation, as well as useful tips on presence and measuring sensors.

Contact: *Mario-Pascal Necker*
            mario.pascal.necker@knx-professionals.org
            www.knx-professionals.org

Beginning of event in beautiful scenery

New website
for KNX Professionals Belgium

BELGIUM KNX Professionals Belgium has a brand-new website, where professionals can check the latest news and have the possibility to ask or answer technical questions in a forum. The website also contains a full list of all KNX members, helpful information about KNX products and much more. The website is available in both Dutch and French at https://www.knx-professionals.be.

Contact: *Hannelore Verdonckt | info@knx-professionals.be*
            www.knx.org/be-nl/KNX-Belgie

The homepage of the new website

German KNX Professionals
Promote KNX at ELTEFA

GERMANY With more than 20,000 national and international visitors, ELTEFA in Stuttgart is a leading fair for electronics, not only for Germany but also neighbouring countries. German KNX Professionals took the opportunity to showcase their solutions to a completely new audience, whose feedback was, without exception, positive. A highlight of the fair was the lucky draw for an ETS Inside licence.

Contact: *Dirk Müller | info@knx-professionals.de*
            www.knx-professionals.de
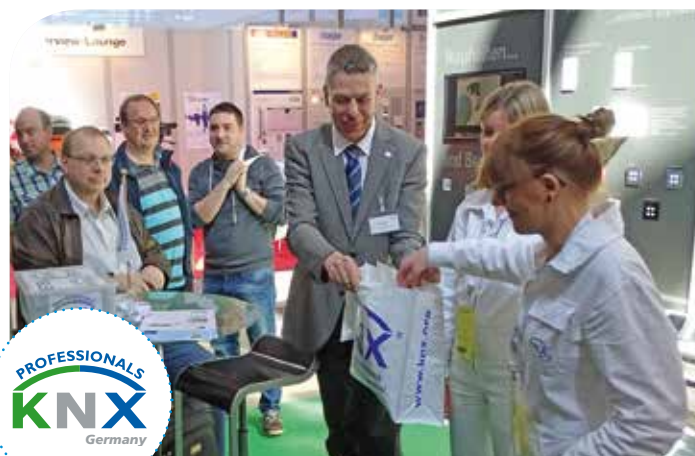
Lucky draw at KNX booth

Attendees listen closely during the IP workshop

KNX Professionals Netherlands Hosts Meeting

NETHERLANDS The first KNX Professionals Netherlands networking event of the year was held in March, and started off a little differently from previous events. In addition to launching ETS Inside to the KNX Professionals and other attendees, it included a practical and approachable workshop about IP technology. There were also pleas by speakers for the use of DC, rather than the current use of AC for electronic devices.

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

Spanish KNX Professionals at EFICAM Fair

SPAIN EFICAM is one of the most important fairs for integrators and installers in Spain, making it the best opportunity to present the new ETS Inside to a professional audience. As the room for the presentation was not able to accommodate everyone who wanted to get in, the KNX Spain booth provided more information to visitors during the two days of the event.

Contact: Michael Sartor | michael.sartor@knx.es
www.knx-professionals.es

Presentation of ETS Inside

KNX workshop on visualisation with KNX

KNX Userclub Iran Swings into Action

IRAN After the successful foundation of the KNX Userclub Iran, its first activities have taken place. These include several workshops and discussion sessions. Future steps, such as the launch of the website and the finalised registration process, are imminent and will pave the way for KNX in this new market.

Contact: Roozbeh Bita | roozbeh2004@gmail.com

KNX Userclub Malaysia on the Way to WorldSkills 2017

MALAYSIA Tiejah Ku is not only the first woman to win ASEAN Skills 2016 in the Skill of Electrical Engineering, she will also represent Malaysia in the upcoming WorldSkills 2017. With the unconditional support of KNX Malaysia and its international partners, Tiejah Ku is in a great position to prepare herself for the upcoming competition and her future with KNX.

Contact: PW Siew | pw_siew@yahoo.com
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KNX Malaysia Userclub ready for action

KNX New Training Centres

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mikkel@2ctrl.se
www.2ctrl.se

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Odisee
Belgium
joachim.goeminne@odisee.be
www.odisee.be

KNX at International Conferences and Fairs

KNX Amazes Visitors at ISH 2017

GERMANY ISH in Frankfurt from 14 – 18 March was once again a great opportunity for KNX to make its mark on the HVAC world. A much larger booth than in 2015 was manned with twelve KNX Members showing their new solutions. Across the aisle, five KNX Professionals used project simulations to show what KNX and IoT can achieve. The new ETS Inside made an appearance, with demonstrations at the presentation area, along with sessions on HVAC. *Contact: KNXatISH.knx.org*

The KNX booth at ISH2017

KNX Joins Panel Discussion at HTNG Insight Conference

THE NETHERLANDS KNX participated in a panel discussion on security at the Hotel Technology Next Generation (HTNG) Insight conference in Amsterdam on 28 March. HTNG fosters the development of next-generation solutions to do business globally in the 21st century. HTNG and its working groups also discussed topics such as building automation and the related security risks. Joost Demarest of the KNX Association took part in a panel discussion and highlighted the importance of KNX. *Contact: www.knx.org*

The attendees of the HTNG Insight Conference

KNX Excels at ISE 2017

THE NETHERLANDS In the new Smart Building hall of ISE 2017, a space of over 200 m² was transformed into a small slice of KNX heaven. Visitors were amazed by with the solutions the fifteen KNX Members and two training centres presented. For those eager to expand their knowledge, there were ETS Inside hands-on sessions, as well as KNX-related presentations in the Smart Home Theatre – THE place to be. See you in 2018! *Contact: KNXatISE.knx.org*

Enthousiastic visitors at the KNX booth at ISE

KNX IoT Panel Discussion

GERMANY CRN, one of the world's leading news providers for the IT industry, organised a five-day conference about IT solutions. A highlight of the second day was the panel discussion that pointed out the advantages of KNX IoT for the IT industry. The conference confirmed that KNX has correctly identified the market needs and will play a leading role in the developing merger between KNX and the world of IT. *Contact: www.knx.org*

Harald Hasenclever at Panel Discussion

KNX Italy Organises Local KNX Tech Forum

ITALY A large number of KNX members have head offices in Spain, UK, Italy and China. KNX Association motivated the national groups to have experts trained by KNX to introduce new KNX developments, including KNX Secure, KNX IoT and ETS Inside, to its members and to organise KNX Tech Fora in the local language, with the support of a KNX staff member. The first took place on the 3rd of May at ANIE in Milano, Italy. *Contact: www.knx.org*

The audience of Italian KNX manufacturers listening to the presentations

KNX Premieres at CeBIT

GERMANY Smart homes and buildings and IT are on their way to becoming one. Thanks to KNX IoT, the infrastructure and solutions have been created of unify the advantages of KNX with unlimited IT possibilities. Presenting at CeBIT, the world's leading fair for IT solutions in Hannover, KNX was well-received by an international audience interested in current and future business opportunities using KNX. *Contact: www.knx.org*

KNX Booth with international visitors

KNX Tutor Course Welcomes New International Tutors

BELGIUM From Africa, via Europe and Canada, all the way to Myanmar – the demand for KNX Training all over the world has never been higher. In order to support the development of certified KNX Training, KNX Association organised a KNX Tutor Course. KNX is happy to look forward to opening new KNX Training centres all over the world. *Contact: www.knx.org*

KNX Tutor Course Participants and Tutor

Tools Workshop for KNX Manufacturers

GERMANY KNX Manufacturers had the opportunity to test beta versions of ETS5, ETS Inside and the Manufacturer Tool during a two-day workshop that took place at Siemens in Regensburg, Germany. The new features looked very impressive and show that KNX IoT is becoming part of the ETS standard functionality. *Contact: www.knx.org*

KNX Manufacturers during the Workshop

CFDCC visiting KNX Association

BELGIUM The growing demand for KNX in smart home appliances is becoming more noticeable, with one example being the visit of the China Furniture & Decoration Chamber of Commerce. Seemingly a meeting between two completely different organisations, it turned out that in times of IoT and a growing demand for smart automation solutions for households, KNX and CFDCC are headed towards to a prosperous cooperation.

Contact: www.knx.org

Group picture with Joost Demarest (CFO) and the Chinese delegation

KNX Secure presented at ZHEV conference in Hamburg

GERMANY On the 7th of June, KNX was invited to present the concepts of KNX Secure at the annual conference of the German Association for Electrical Contractors. KNX explained how ETS5.5 will make it possible to secure a KNX IP access, as well as how authentication and encryption of KNX field devices will be ensured. The launch of KNX certified Secure devices, in the meantime, is imminent. *Contact: www.knx.org*

The crowd at the ZVEH annual meeting

KNX at the Smart Lighting Conference

GERMANY On the 31st of May, KNX spoke on the second day of the Annual Smart Lighting conference, underlining that today with KNX Classic devices KNX is the right choice for smart lighting applications if one wishes to use a solution that is scalable, secured, open and manufacturer and application independent, even at the configuration stage. KNX underlined that it will continue down this road with KNX IoT. *Contact: www.knx.org*

The filled conference room at the Smart Lighting Conference

Events and Fairs Schedule

Shanghai Intelligent Building Technology
5. – 7. 9. 2017
Shanghai (China)
China's premier platform for intelligent building technology
www.shanghai-intelligent-building-technology.hk.messefrankfurt.com

ineltec 2017
12. – 15. 9. 2017
Basel (Switzerland)
Switzerland's leading electronics and building fair
www.ineltec.ch

BEX Asia 2017
13. – 15. 9. 2017
Marina Bay Sands (Singapore)
Building exposition in South East Asia focused on green building
www.bex-asia.com

BIEL Light + Building 2017
13. – 16. 9. 2017
Buenos Aires (Argentina)
Biennal international trade fair for electrical engineering, electronics and lighting
www.biel.com.ar

KNX Technology Forum
14. 9. 2017
London (United Kingdom)
KNX Technology Forum, focusing on the latest technology news and ongoing projects
www.registration.knx.org/en/knx-technology-forum-uk

KNX Training Centre Conference
25. – 26. 9. 2017
Helsinki (Finland)
2 Day conference for KNX certified Training Centres
www.media.knx.org/feed/file/858

Elektrotechniek 2017
26. – 28. 9. 2017
Utrecht (Netherlands)
The most important trade fair for the installer industry
www.elektrotechniek-online.nl

Facilities Integrate 2017
27. – 28. 9. 2017
Auckland (New Zealand)
The NZ trade exhibition for the facilities management and system integration industries
www.facilitiesintegrate.nz

Matelec Latinoamérica
4. – 6. 10. 2017
Santiago (Chile)
International trade fair for the electrical and electronics industry
www.ifema.es/ifemainternacional_06/feriasenelextranjero/mateleclatinoamerica

Hem, Villa & Bostadsrätt Stockholm
12. – 15. 10. 2017
Stockholm (Sweden)
The largest do-it-yourself trade fair
www.stockholm.hemochvilla.se

WorldSkills 2017
14. – 19. 10. 2017
Abu Dhabi (United Arab Emirates)
The world's largest international skills competition
www.worldskills.org

European Smart Homes 2017
25. – 26. 10. 2017
London (United Kingdom)
This two-day event will bring together key industry stakeholders in the Smart Home business
www.wplgroup.com/aci/event/smart-homes-europe-summit

HEM·VILLA & BOSTADSRÄTT

Hem, Villa & Bostadsrätt Göteborg
27. – 29. 10. 2017
Göteborg (Sweden)
The largest do-it-yourself trade fair
www.goteborg.hemochvilla.se

INTERCLIMA+ELEC

inteclima + elec
7. – 10. 11. 2017
Paris (France)
An opportunity to discover the most innovative solutions which combine energy efficiency and comfort
www.interclimaelec.com

interlight MOSCOW
powered by light + building

Interlight Moscow
7. – 10. 11. 2017
Moscow (Russia)
International trade fair for lighting, electrical engineering, home and building automation
www.interlight-moscow.ru.messefrankfurt.com

KNX®

KNX Tech Forum
6. – 7. 11. 2017
Frankfurt (Germany)
2-day event for KNX Members and Test Labs where KNX-novelties are presented
www.knx.org

wirelessCONGRESS systems & applications

Wireless Congress: Systems and Applications
17. – 18. 11. 2017
München (Germany)
Forum for an exchange of knowledge and experience among wireless professionals
www.wireless-congress.com

Integrated Systems Europe

ISE 2018
6. – 9. 2. 2018
Amsterdam (Netherlands)
Europe's no.1 show for professional AV and electronic systems integrations
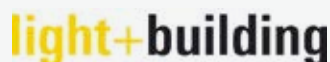*www.iseurope.org*

BATIBOUW

Batibouw 2018
22. 2. – 4. 3. 2018
Brussels (Belgium)
Batibouw is held every year and is entirely dedicated to the building trade
www.batibouw.com/en

light+building

light + building 2018
18. – 23. 3. 2018
Frankfurt (Germany)
The world's leading trade fair for lighting and building services technology
www.light-building.messefrankfurt.com/frankfurt/en/aussteller/willkommen

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KNX AWARD 2018

INTERNATIONAL AWARD
PUBLICITY AWARD
SPECIAL AWARD
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YOUNG AWARD

You can now submit your projects for the KNX Award 2018, which will be granted at the Light+Building fair 2018 in Frankfurt (Germany) on the 20th of March 2018.

The KNX Award rewards the smartest KNX projects in home and building control around the world, as measured by how they stand out as regards innovation and technical progress.

Awards are handed out in 5 categories. Applications from around the world are welcome.

Improved platform: with the new project platform, you can now quickly and easily submit projects. Moreover, you can use the platform to display all your realised projects on the web and manage them from your MyKNX account.

Prize money: € 1.000 in each category

Deadline for submission:

**Friday,
24th of November 2017**

Registration: https://award.knx.org

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