



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

# JOURNAL

## 2 | 2018



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**KNX RF the New Era**  
**Quo Vadis KNX**  
**KNX Secure - Why, What, When**  
**KNX Awards Winners 2018**

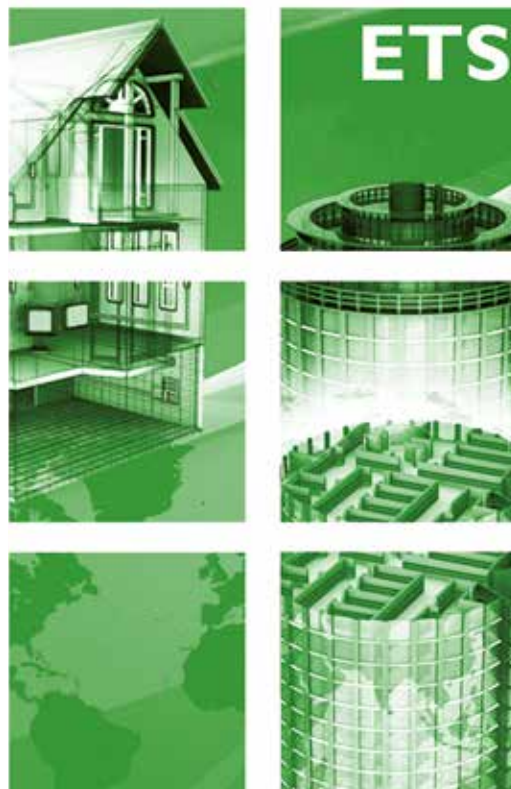


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# KNX RF means: Really flexible



**Heinz Lux**  
CEO, KNX Association

*Johann Wolfgang von Goethe is generally known as a poet, writer, literary figure and thinker. His idea of humanity was that of “the pious, conducting and active recognition of one’s essence” according to the encyclopaedia.*

Less well known is his opinion as a naturalist which was already incredibly incorrect at that time (1830). In his colour theory, Goethe rejected the laws of optics which were already known at that time because they had to be “wrenched from nature with levers and screws” and did not simply exist as populists often demand these days. “It would be a great task to ban the mathematically philosophical theories from the field of physics” thought the prince of poets.

Fortunately, physicists such as James Clerk Maxwell or Heinrich Hertz did not comply and predicted radio waves based on mathematically theoretical observations (1864) and proved them in experiments (1886).

Nowadays modulated electromagnetic waves have been developed as a method to transfer signals wirelessly. They have been proven and found to have an increasingly broader application.

The benefits of the wireless signal transmission are obvious. There are many carrier frequencies which do not affect each other and the number of radio transmitters and receivers is therefore not subject to any technical limitations. It is also not necessary to lay any cables and transmitters and receivers can be designed as extremely small modules.

The RF radio transmission in addition to TP, PL and IP was therefore part of the KNX development right from the start. Nowadays it is continuously advancing with KNX members carrying out their own developments in RF technology. The devices in S-Mode can be put into operation with ETS while the commissioning is carried out without ETS for the devices in E-Mode.

Numerous new KNX RF devices were presented at Light + Building.

Whether a motor control unit, remote control, media coupler or switch sensor. Whether as a hand-held transmitter or wall-mounted transmitter, as a flush-mounted or universal interface – KNX RF is safe due to KNX Secure, as using KNX RF means: Radio is in and radio is within.

“

**The benefits of the wireless signal transmission are obvious.**

”

# Quo vadis KNX

## KNX: The challenge for the future

*For more than 28 years, KNX has been an immovable component in home and building automation or – to use a more modern expression – the smart home.*

*KNX has developed extremely well in the process and nowadays surely constitutes the leading system on the global market – to quote reliable market surveys carried out for example by the BSRIA.*

*A market share of 56 % in Germany or 42 % in China in the smart home/building market speaks for itself.*

The success of KNX can be attributed to several points which the KNX system and the KNX Association pursue consistently with their over 400 member companies:

- A standard tool for configuration, commissioning and diagnosis: ETS
- Clearly defined interworking for all products provided with the KNX logo across all the manufacturers and application fields
- A restrictive certification process which checks these guaranteed features with all the products and simultaneously meets the basic elements of product quality.
- Absolute safeguarding of the compatibility of all the products for over 28 years. Products from 1990 can work together with products from 2018 in a mutually functionally installation.

The facts about the spread of KNX confirm the market orientation of KNX. Almost 100,000 certified partner companies which plan and commission KNX installations every day all over the world; national KNX organisations in 45 countries all over the world promote the system in its market development even in Japan and the USA.

However this alone would not have led to the successful continued existence and permanent growth of the KNX system.

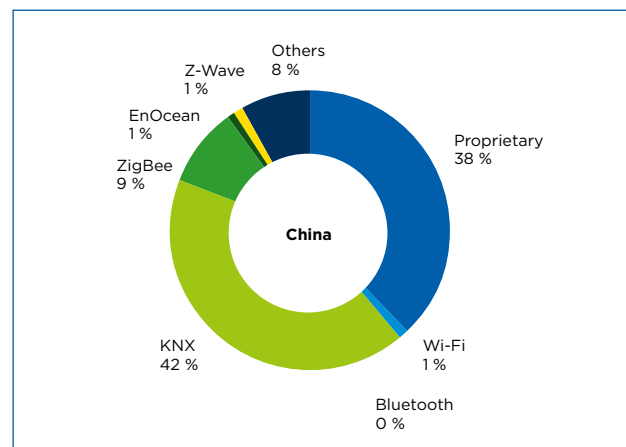
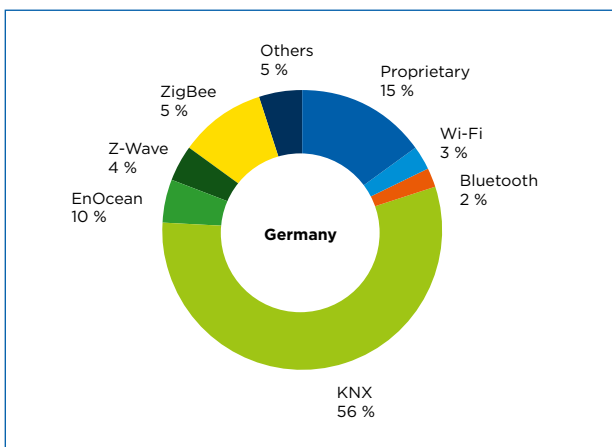


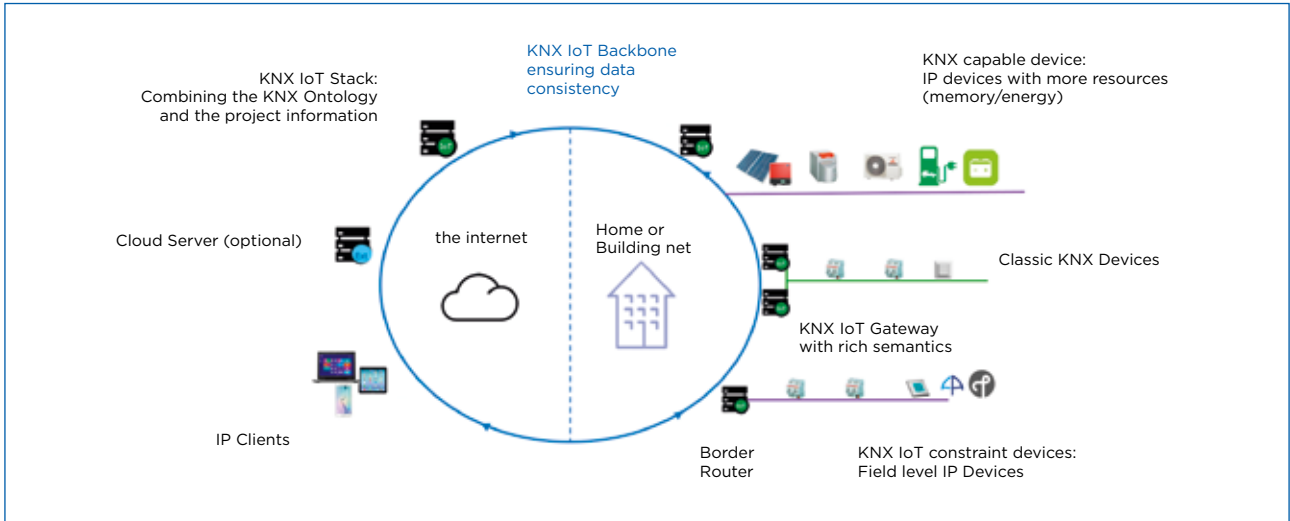
**Franz Kammerl**  
*(Siemens) is president of the KNX Association in Brussels*

A further essential element in guaranteeing this is the permanent further development of the KNX system in the various technical aspects but also in the market orientation in order to remain up-to-date.

Examples of this are:

- The continuous further development of the ETS tool with significant simplification for the users but also with solutions such as apps to create a degree of freedom for niche applications.
- Market-adapted ETS solutions such as ETS Inside to better meet numerous customer requirements.
- Development and implementation of future-oriented safety mechanisms in terms of cyber security on both the IP level and device level.
- Supplementation of the KNX RF technology to carry out this inherently in the system offering including the ETS integration.





There are still many points that could be listed here but let us glimpse into the future and examine the new buzzword “IoT” in the context of KNX.

The IT industry can certainly be identified as a driving element of IoT as well as the terminal device industry, each striving to build up service business based on IoT.

The service industry promises to make substantial growth in the future based on data.

KNX offers a broad range in this field and we are preparing our system technology and our system structures for this purpose.

IP and digitalisation will penetrate all areas of life and thus also the application fields of KNX.

We are prepared for this and are developing our basic requirements to give our member companies the adequate system technology.

KNX IoT is the buzzword for this and means that KNX is transferred to standardised IP protocols and the KNX application know-how is converted on the application level.

We are working together with well-known companies on the standardisation level relating to IP protocols such as Thread in the wireless range or Fairhair in the area of security mechanisms. Complementary systems such as BACnet and competitive systems such as Zigbee are also active in defining common standards.

But this is not enough – detailed definitions must be made in order to implement an interworking standard which re-

ally functions across system limits. In this case “semantic interworking” and ontology can actually function as a basic requirement and thus as an understanding between machines.

In this regard, KNX is also working together with leading market players such as BACnet or the Haystack Initiative in the USA but also with locally operating organisations such as the ZVEI towards a common standard.

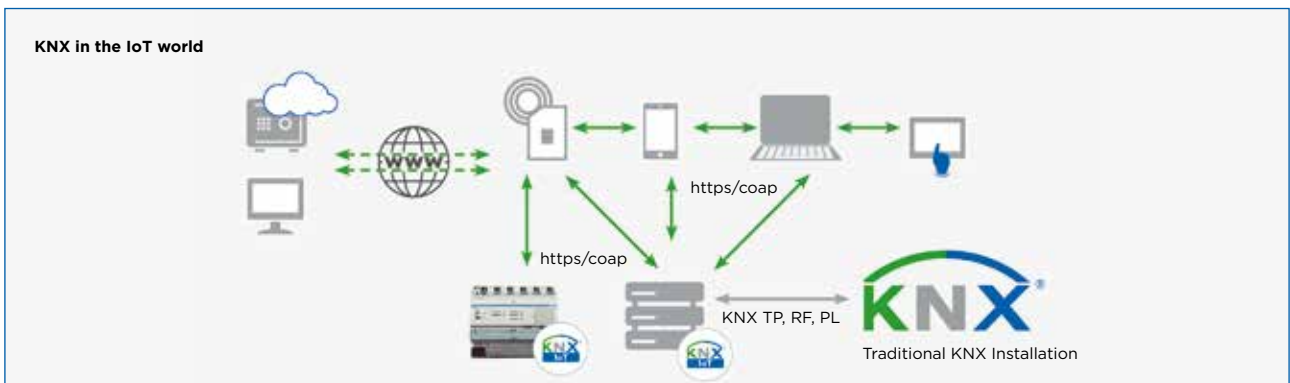
Common ontologies – machine-readable definitions of terms – are a necessary requirement to be able to “communicate” using automated processes across system limits without specific gateways.

This is made possible with the solution approaches of “semantic interworking” which is in turn ground breaking in a digitalised world and makes the automation systems in the home and building comprehensively smart.

Before KNX is classified as outdated in its current version, I would like to clarify that the well-established and proven communication protocols of KNX have existed for a long time and will always remain where applicable.

There are transitions between current systems and IoT systems which will enable the equipment in buildings to be fully integrated in the digital world as KNX is digital in all versions of communication. KNX IoT is only a supplementary but important extension of our range of systems on the market. The customers will decide future trends.

*KNX smart home and building solutions. Global. Secure. Connected.*



# KNX Secure – why, what, when

Security has increased and KNX is now is more and more used in wireless communication



**Joost Demarest**  
CTO, KNX Association

*Security has evolved over the years into a topic that should be everybody's concern when dealing with smart buildings. KNX and its members have invested heavily in designing a security extension to the KNX Standard. In the below Interview, Joost Demarest (CTO, KNX Association) will shed some light on the how, what, when and why of KNX Secure.*

## Why is security a priority with KNX Association, and what have you done to address this?

**JOOST DEMAREST** In the past, there was not too much awareness for security in the KNX community. For a start, many of the KNX installations are wired based, so if physical access to the installation is restricted (e. g. devices in locked distribution boards), then the risk of someone hacking an installation is lower. And as KNX spelled out in the KNX Security checklist available from the KNX website, many measures can be taken in KNX classic installations to protect an installation against unwanted access and tampering.

But awareness for security has increased and KNX is now more and more used in wireless communication, so the KNX Secure extension became a must.

## What typical scenarios do you see KNX Secure being applied to?

**JOOST DEMAREST** KNX sees three areas where we expect the use of KNX Secure. First of all, in KNX installations also including radio frequency communication, secondly in buildings where it is difficult to prevent physical access to the installation (e. g. in in public areas of public buildings) and last but not least, protection against unwanted access to the installation via IP.

## Are all KNX Members on board with your security strategy, and how have they responded?

**JOOST DEMAREST** As KNX is an open protocol, there was an absolute need to thoroughly coordinate the solution amongst the manufacturers and also as KNX to timely deliver the corresponding extension to ETS. Selecting an encryption algorithm is one thing, creating a solution based on it that is also watertight and manageable by all involved is another. The specifications are now finalized, the test specifications and test tools have already been tried out on first prototypes and the ETS5 supports KNX Data Secure (for TP and RF) and KNX IP Secure (for IP). Many KNX manufacturers are about to launch their first realisations on the market. And on top of that: KNX Data Secure has already become an international standard as EN 50090-3-4!

## What has KNX Association been doing to get the KNX Secure message across, and what has been the market's response (e. g. reactions to your efforts at Light + Building and elsewhere).

**JOOST DEMAREST** KNX has created the KNX Security checklist, has written the KNX Security Position Paper, is working on extensions to the KNX training documentation, the ETS help files contains many tips and trick on the use of KNX Secure and KNX has given numerous presentations at conferences and fairs. With all of this, the community should be well prepared for the commercial launch of the first products.

## How is development of actual KNX Secure products progressing?

**JOOST DEMAREST** Many manufacturers have already updated their system stacks to support KNX Secure, some of them have already positively passed the tests. The KNX team is conducting all the first certification tests, to make sure that all test specifications and test tools are bug-free, before tests of further KNX Secure implementations are delegated to the KNX accredited test labs.

## How will KNX Secure fit in with the IoT?

**JOOST DEMAREST** KNX Secure is clearly a Security solution for KNX Classic, whereby KNX IoT is a completely IP based communication extension to KNX Classic. For KNX IoT, of course also security mechanisms will be selected, but these will be largely based on mechanisms that are defined by the Internet Engineering Task Force for IP devices.

## Ultimately, what would you like to see as the future of KNX Secure, and what must be done in order for this to happen?

**JOOST DEMAREST** KNX regards KNX Secure as a milestone in building automation, as KNX is the first building automation system that comes with a vendor-independent security concept for its field level devices. This brings many opportunities for KNX and for KNX manufacturers. KNX is convinced that thanks to the availability of KNX Secure, yet more buildings owners will opt for KNX instead of opting for another field bus solution.

# Australia and New Zealand also choose KNX as standard

KNX is developing its market position in Australasia even further!



*The Australian standards and standardisation organisation STANDARDS Australia has officially declared the world's leading standard for intelligent building, KNX, as the national technical specification.*

*In doing so, the organisation, whose standards are also of significance in New Zealand, acquired key parts of the ISO/IEC 14543-3 standard, under which KNX is already standardised on an international level. KNX is therefore also expanding its position in the market for smart home and smart building solutions in Australasia. And the Australian smart home market is growing rapidly. Analysts even expect it to break the USD 1 billion revenue mark in the coming year.*

## High level of future security, interoperability and product quality

"The standardisation in Australia and New Zealand is another important milestone for us. It's proof of KNX' future security as a non-proprietary standard and also of the quality of all KNX-certified products," commented Franz Kammerl, president of the KNX Association. With respect to international standards, the growth of KNX allows for unprecedented interoperability and communication ability between KNX products, independence from any hardware and software technology and the possibility of integration into existing system landscapes.

## Global leaders: KNX meets numerous standards

In addition to the most recent standardisation in Australia and New Zealand and standardisation in accordance with the international ISO/IEC 14543-3 standard, KNX is also recognised under the European standards CENELEC EN50090 and CEN EN 13321-1, or CEN EN 13321-2, the Chinese standard GB/T 20965 and the US standard ANSI/ASHRAE 135. Recognition as a technical specification by both international and national standard and standardisation organisations is the highest distinction for technical innovations. Entire markets and manufacturers, system integrators and users orient themselves based on these. As an example, after KNX became the only recognised standard for home and building automation in the Chinese smart building market, the technical protocol became a market leader in the Middle Kingdom.



# “Global. Secure. Connected.” Thanks to a new brand image, KNX is gaining ground

The completely revamped corporate identity plays to the strengths of the world’s gold standard for building automation.



*The home of intelligent building automation has received a fresh coat of paint: effective immediately, KNX is rolling out its global triumph with a completely modernised corporate identity (CI), which puts new emphasis on the KNX slogan: “Global. Secure. Connected.”. As the world leader and gold standard when it comes to open technology in building automation, KNX is now able to better communicate its brand and reach an even broader target market thanks to its new look & feel which can be seen, for instance, on the website ([www.knx.org](http://www.knx.org)), on flyers and all KNX publications.*

## Increasing importance of smart homes

“Although the intelligent networking of commercial premises has always been par for the course, when it comes to new builds, there has been a significant increase in smart home technology. KNX, with its wide-range of offerings, plays an important role in this industry as well. This being true, the new CI allows us to bring ourselves in line with the daily requirements of our system integrators, building site managers, architects and building managers” says Franz Kammerl, president of the KNX Association.

## Even clearer

The rebranding highlights the clear strengths of KNX: The ability to improve people’s lives by simplifying highly complex technologies. “Less technology, more clarity” is the resulting ethos of the communications strategy at KNX, which should help the company to continue to develop its world-leading, gold standard in open technology. The new CI will make the many benefits and the guiding principles of KNX even clearer and more accessible to a broader target market, thereby also increasing awareness of KNX certified products.

## KNX as the global face of building automation

“Global. Secure. Connected.”: These are the core principles that make up KNX as a global face of building automation and which are now better conveyed by the new corporate identity” concluded the KNX president at the launch of the new CI.

# Winners of KNX Award 2018

12<sup>th</sup> Award Ceremony reflects the international character of KNX

## International - Europe

Instell As (Norway) - Tromsø Helsehus



## International - Asia

Total Automation, Dubai (UAE) - Dubai Parks and Resorts



## International - Africa, America, Australia

Domvision (USA) - Beverly Hills Mansion - Zad



## Publicity

Helsingin Kaupunki (Finland) - Helsinki Calls Out for Standardized Smart City Solutions!



*KNX Award Winners in front of 2.000 guests from 88 countries at the KNX TOP Event 2018 in Frankfurt.*





You'll find the projects of the winners honoured with a KNX Award during Light+Building 2018, illustrated in detail on the following pages.

<https://projects.knx.org>  
<http://www.youtube.com/knxAssociation>

### Special

WebGate Consulting AG (Switzerland) - AWS IoT Connected Smart Home with AI and HoloLens Interface



### Energy Efficiency

Eibshop Greece, Arup (Greece) - Stavros Niarchos Foundation Cultural Center



### Young

iHaus AG (Germany) - iHaus Micro Grid: "Efficient Energy Management in Private Household"



### People's Choice

CASAIO GmbH (Germany) - State-of-the-Art Architecture with Highest Energy Efficiency



# MEDICAL SERVICES AT THE ARCTIC CIRCLE

*The new hospital in Tromsø, Norway.  
The KNX installation has earned the  
KNX International Award Europe.*



KNX shows itself as multi-functional  
in the Tromsø Helsehus



*The Norwegian city of Tromsø is well above the Arctic Circle. The provincial centre can now boast not only the most northerly university and cathedral in the world, but also the most northerly KNX building system automation to receive a prize. The KNX installation, finished here at the Tromsø Helsehus in 2017, was honoured with the KNX International Award Europe. KNX is well installed and distributed in Norway. The advantages of the system for the contractor and system integrator "Instell AS" from Oslo, were obvious: An open system with a large selection of products for different requirements, good functionality, numerous options and efficient installation.*

*The highlights include central control of all functions in a patient's room, including patient call.*



**Winner KNX Award 2018**  
**Category: International Europe**

Instell AS (Norway)  
 - Tromsø Helsehus

This meant that the requirements for a common, open-loop control system could be fulfilled. In the large hospital, covering 6300 square metres, there are 69 rooms for patients over three floors, as well as medical practices, laboratories, offices and general rooms. The normal applications of KNX include lighting control systems, blind controls and closed-loop control of the heating, ventilation and air conditioning system (HVAC).

#### Automatically free from snow and ice

The practices, patient rooms and offices are fitted with energy-saving, constant light, closed-loop control systems. In the medical rooms, the corridors and staircases, and for the outside systems, the lighting is switched automatically according to a schedule and to presence. In conjunction with KNX/DALI gateways, KNX controls the emergency lighting systems. The blind control system comprises central automation with wind and rain protection, positioning and interaction with the lighting and HVAC. Operation and control are done manually on-site with buttons, panels and by means of web servers, as well as by tablets and smartphones. To protect against snow and ice, KNX also controls the hot water underfloor heating of the entrances and access routes. This is an important function in the sunless winter months. A WAGO PLC controller with a KNX module, in cooperation with a ground temperature sensor, acts as a central control unit. The controller also analyses CO<sub>2</sub> concentration sensors and cooling data and controls the ventilation system valves accordingly.

#### Patient call integrated

Finally, KNX has shown itself to be multi-functional in this project by integration of the medical and care services with control of functions in the patients' rooms. Binary inputs connect bed sensors, door and window contacts, pull switches and presence detectors with KNX. A controller with KNX interface by Sensio, a leading medical technology manufacturer (welfare technology) in Norway, acts as a control centre. The controller processes the signals, visualises these and forwards the patient signal to the duty carers. Displays are stationary panels or mobile smartphones. This application underlines the versatility of KNX, in this case especially for technologies in the health sector. A sophisticated topography with TP lines and IP backbone has enabled efficient networking of the 1337 KNX units.



*A Wago PLC with a KNX module regulates the hot water outside heating.*

#### BENEFITS OF KNX IN THIS PROJECT

- *Low management installation*
- *Comprehensive open-loop control system for the trades*
- *Efficient energy and building use*
- *Comfort and security for patients*

#### TECHNICAL HIGHLIGHTS

- *Integration of the patient call system*
- *Emergency lighting control*
- *Open-loop control of the hot water heating system*

#### TRADES / APPLICATIONS

- *Lighting*
- *Solar protection*
- *Air conditioning systems*
- *Technical monitoring*
- *Patient call system*
- *Visualisation*
- *Interfaces*

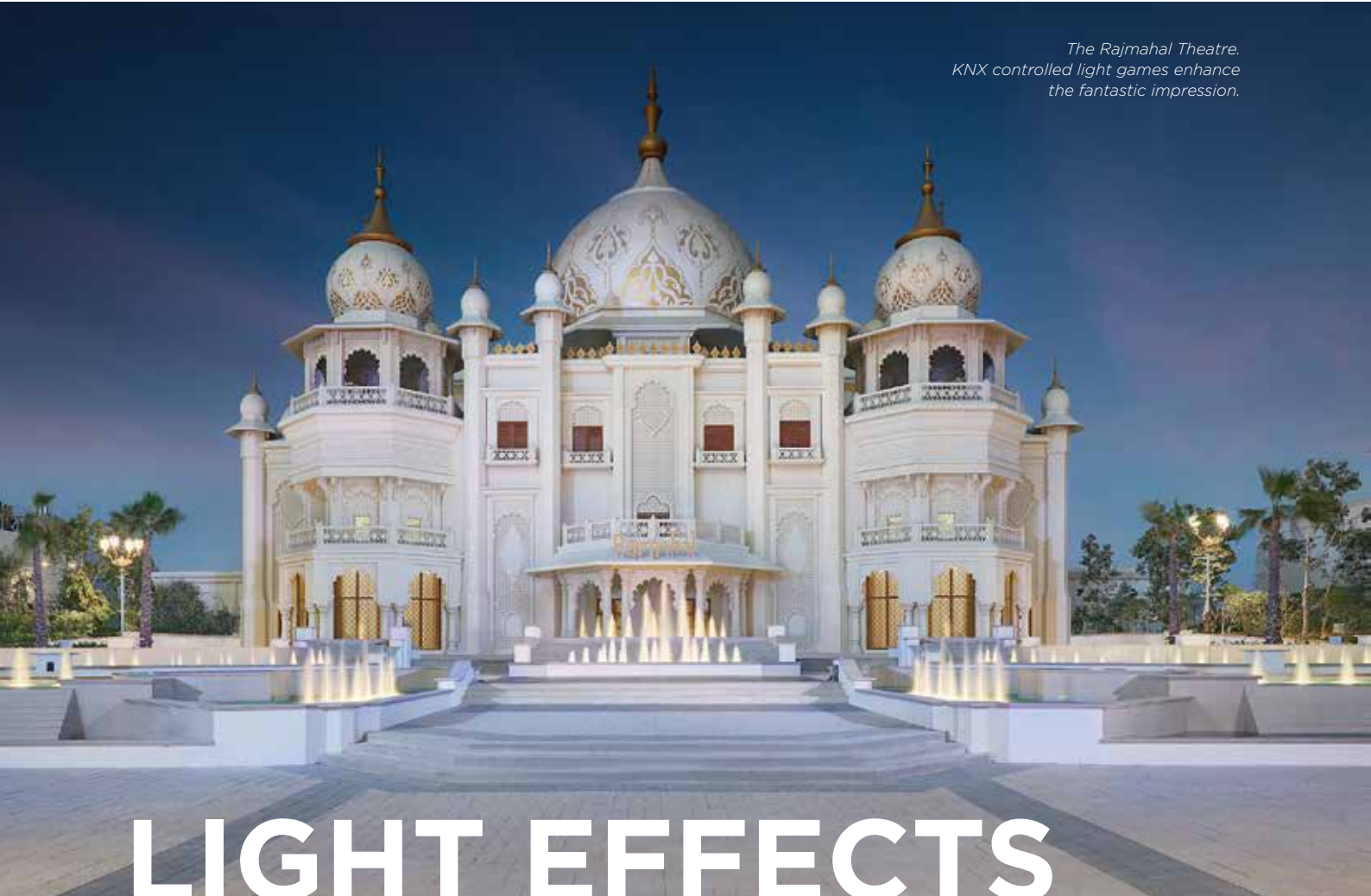
#### KNX COMPONENTS

- **Number:** 1337
- **KNX units (extract):** Jung - Network equipment, bus switches; Hager - KNX/IP routers; Sensio- KNX controller; Theben - Actuators; WAGO - Controller, visualisation

#### COMPANIES INVOLVED

- **Client:** Tromsø Kommune
- **Prime Contractor:** Skanska
- **Architect:** Lyngstad Arkitekter AS
- **Contractor and system integrator:** Instell, Oslo, Harald Haugen, [www.instell.no](http://www.instell.no)

*The Rajmahal Theatre.  
KNX controlled light games enhance  
the fantastic impression.*



# LIGHT EFFECTS FOR BOLLYWOOD THEATRE

KNX automation for adventure complexes  
and a new theme park for a hotel resort in Dubai

*Dubai entices with its fantasy worlds, such as fantastic mosques, gigantic skyscrapers and now “Dubai Parks & Resorts”, with its 30 million square metres the largest theme park in the Middle East. The new attraction offers three theme parks simultaneously. Motiongate fulfils Hollywood dreams. The highlight in the Bollywood park is the romantic Rajmahal Theatre. Legoland with its water park appeals to children. A Polynesian resort offers luxurious accommodation with 500 hotel rooms and villas.*

*KNX also accompanies the superlatives with approximately 12.500 KNX devices automate all functions in the systems and on the real estate, covering all trades. The smart home and building provider “Total Automation”, based in Dubai, has been acclaimed for the project with the KNX International Award Asia.*

In the extensive system, KNX fulfils three main roles simultaneously. Refined lighting effects offer a great show on the estate, with façade illumination and colourful water games, which contribute to an unforgettable park experience. In a first-class manner, even if not with so much audience appeal, the standard, proved many times over in Dubai, acts for efficient operation of the lighting systems, HVAC systems and shading. The parameters for the automation are the current room occupancy and presence of guests, the brightness of the natural light, schedules and combinations of all these. Scene controls and operation by tablet in the guest rooms make for a high level of comfort. Likewise the integrated entertainment, with audio and video in the rooms.



**Winner KNX Award 2018**  
**Category: International Asia**

Total Automation Company Dubai (UAE)  
 – Dubai Parks and Resorts

### Transparent consumption

Automatic energy-saving functions play a leading role for the operator. Lighting and temperature controls are dependent on presence in and use of the rooms. In the public areas, such as the lobby, lifts, corridors, parking spaces and outside systems, light is controlled according to occupancy and a schedule. Even the façade lighting is controlled effectively with KNX, according to the brightness value. To have control over energy consumption, these are monitored individually. Switch actuators with current measurement are fitted for this. The visualisation analyses the measured data and displays consumption trends. If average and limit values are breached, anomalies can be revealed and errors rectified quickly.

### Central control

KNX also integrates the hotel management software, the access control system, the fire alarm system, the building management system and the ventilation and thus also helps with the security of the guests and the administrative procedures. Switch actuators, dimmers, sensors, presence detectors, brightness sensors, gateways for the DMX protocol, fan coils, visualisation and web servers are used. Remote access is possible via the Internet.

The entire project is visualised at the server level on different sites. This guarantees the highest degree of control and monitoring. Information and operation are available clearly through ground plan graphics. The topology of the extensive installation is organized via KNX/IP routers. The lines consist either of KNX TP bus cables or the KNX RF wireless medium. The KNX/IP areas for the individual buildings are connected via the data network (LAN) with the central unit.



*Adventure worlds seduce you in historic periods of time. With KNX, the building systems are at the leading edge of contemporary technology.*

### BENEFITS OF KNX IN THIS PROJECT

- Automation of all building functions covering all trades
- Lighting effects on the real estate
- Energy efficiency applications
- Central visualisation

### TECHNICAL HIGHLIGHTS

- Measurement of individual energy consumption with display of consumption trends

### TRADES / APPLICATIONS

- Lighting, HVAC, Solar protection, Technical monitoring,
- Energy management, Visualisation, Interfaces

### KNX COMPONENTS

- **Number:** 12.476

### COMPANIES INVOLVED

- **Client:** Dubai Entertainment
- **Prime contractor:** Multiplex Konstruktion LLC
- **Architect:** Dewan Architekten und Ingenieure
- **System integrator:** Total Automation, Taj Kollára, [www.tacdubai.com](http://www.tacdubai.com)

*In the Polynesian resort, typical hotel KNX functions for guest comfort, energy efficiency and room administration are implemented.*



# PROMINENT IN BEVERLY HILLS



*Grand houses are common place in Beverly Hills  
- KNX is new in this district, occupied by the great and the good.*

## Integration of all US systems convinces even hardened KNX sceptics

*The hills of Beverly Hills in the US state of California are dotted with elegant houses and magnificent gardens. The great and the good of the city of Los Angeles live here. Even the Beverly Hills Mansion belonged formerly to a famous playboy and is now being used as an exclusive home. The new owners have had the existing property, consisting of three buildings, renovated completely. Existing architectural styles have been married perfectly with new architectural components, for example in the pool area. The renovation has encompassed renovation of the building systems. The building management has also demonstrated a sound choice by appointing Domvision with the integration of intelligent building system automation.*

The company, which operates in Belgium and in California, chose KNX from its own convictions. With this, Domvision was able to offer a versatile automation system, with integration feasible, and thus solved a major problem. The problem for KNX system integration in the USA is that the market is not yet ready for competition with the worldwide standard in building automation. People are accustomed to proprietary home automation systems. Accordingly, hardly any of these offer production standard gateways to KNX. To overcome these obstacles, the company has cooperated for the past 13 years in California with US manufacturers who are open for new developments and also set their own creativity. With this project, it was therefore possible to combine very different systems into a standard platform via KNX.





### Winner KNX Award 2018

#### Category:

International Africa, America, Australia

Domvision (USA)

- Beverly Hills Mansion - Zad

### Complex automation

In the Beverly Hills Mansion, KNX automates all lighting systems, partly with halogen lamps and partly with LED lamps. Depending on situation and requirements, open-loop control elements act as bus switches, dimmers, operation by smartphone and tablet, and especially also as time controls, scenes, motion detectors, weather station sensors or other events. Heating, ventilation and air conditioning are integrated in the same way. At the same time, automation handles energy economically. The alarm system is also controlled via KNX visualisation through a gateway developed in-house. Even the video monitoring by a CCTV system can activate certain lighting systems. Smart metering units are used to control functions and their use. A Sonos home sound system is also integrated into the KNX system and can be operated in a user-friendly manner by iPhone or iPad.

### Visualisation with iRidium

The heart of the home automation in the house is a visualisation based on the iRidium browser, which guarantees a high degree of security in the private sphere. A logic module complements the automation. Domvision has developed a complete solution based on this. In this way, all KNX functions and integrated systems can be controlled and operated via iPads, iPhone and PCs. Domvision is proud to have typical US systems included, such as the Jandy pool system, the ELK security system and the Doorbird gate monitoring. Also, security system alarms, air conditioning system variables such as room temperature, air humidity and the pool system can be displayed as temperature alarms on the TV screens. 136 KNX devices, distributed on six lines, have been installed. Basalte buttons underline the high quality of KNX, even in the design. Domvision emphasises that all previous US experience has flowed into this project and even the last KNX sceptics had to be convinced of its merits as the best option in building system automation.

*The historic heart of the building, now twenty years old, has been enriched by an intelligent automation system.*



*Modern architecture in the pool area. The Jandy pool system could be integrated into the central control system with TV, PC and iPad.*

### BENEFITS OF KNX IN THIS PROJECT

- High living comfort due to home automation
- Integration of all systems
- Efficient use of energy
- Visualisation with standard user interfaces

### TECHNICAL HIGHLIGHTS

- Visualisation on the basis of the iRidium platform, developed in-house
- Turnkey solution modified for the US market
- Integration of typical US systems

### TRADES / APPLICATIONS

- Lighting, Heating, ventilation, air conditioning system, Gate control,
- Access control, CCTV monitoring, Technical monitoring,
- Pool control, Alarm system, Home Entertainment, Visualisation, Interfaces

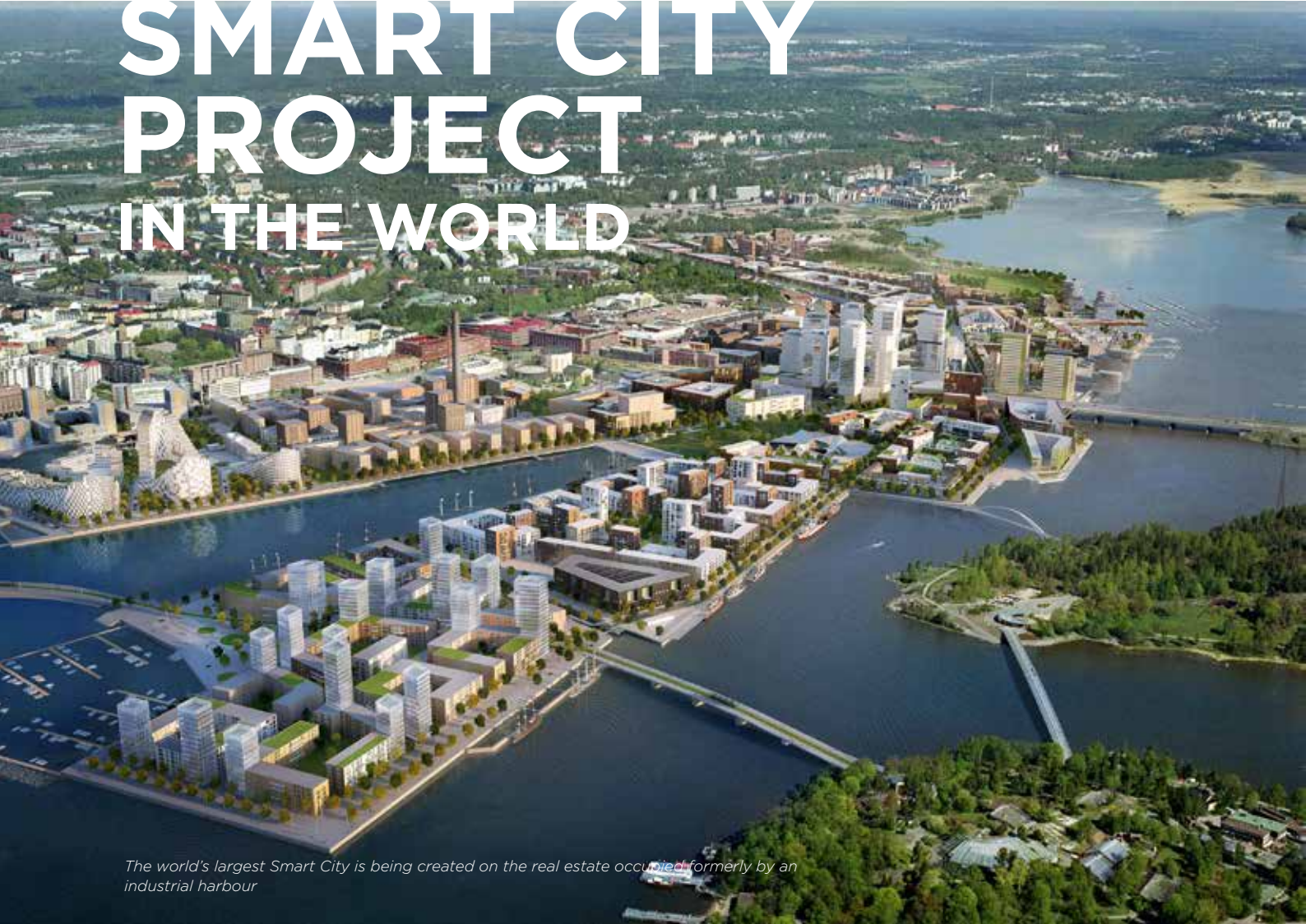
### KNX COMPONENTS

- **Number:** 136
- **KNX units (extract):** Domvision - Visualisation on iRidium basis; Basalte - Button sensors; Gira - Logic module, HDL - Actuators; Elsner - Sensors

### COMPANIES INVOLVED

- **System integrator:** Domvision, Johan Noben, [www.domvision.com](http://www.domvision.com)

# LARGEST SMART CITY PROJECT IN THE WORLD



*The world's largest Smart City is being created on the real estate occupied formerly by an industrial harbour*

## Helsinki's urban planners have revealed KNX IoT as the standard for Smart Grid and Smart Building

*The KNX Publicity Award is given for the best effect on the general public. The Kalasatama Smart City in Helsinki has caused a sensation. On a former harbour and industrial area, a new residential and business quarter for 25.000 residents and 10.000 jobs has sprung up. The Kalasatama vision includes intelligent solutions for building systems, energy saving and traffic. They will help with quality of life, energy efficiency and climate friendliness. The city of Helsinki has developed a smart city plan for this. The conditions for selling a plot, planning permission and contract award define the properties and use of building system automation.*

Because the old industrial harbour had moved away, the City Council decided to make the now vacant area of 175 hectares a model area for intelligent urban development. Partners for the technical developments are the regional energy supply company Helen, the network operator "Fingrid" and "ABB Finland". Jointly, they produced a paper which defines the properties of a usable smart energy system. These rules are based on European guidelines and national energy efficiency recommendations and are exemplary for modern urban development.



### Winner KNX Award 2018 Category: Publicity

Helsingin Kaupunki (Finland)  
– Helsinki Calls Out for  
Standardised Smart City Solutions!

### KNX meets the requirements

In principle, the construction programme should facilitate and support the efficient use of heat, cooling and water consumption. To avoid systems overlapping, the rules must be obeyed even in the early planning phase. It is also emphasised that building users and the residents will personally control and regulate their automation. In this way, the building system automation system is open for interfaces, for example to the Internet, for external services such as Smart Grid, and it is to have the usual standards such as decentralised actuators and sensors, use standardised protocols, be supported by numerous manufacturers and, not least, support remote access. A prerequisite is a bidirectional CIM interface to IEC 61968. Those in the know about KNX and system integrators are familiar with these requirements. The Smart City, Kalasatama, is actually awakening a considerable and sustainable market for KNX providers. The worldwide building system automation standard includes all required properties and, with KNX IoT, also offers “Internet of Things” solutions. With KNX Secure, the data security demanded is also at the highest level.

### Energy efficiency with Smart Grid

The “Kalasatama smart energy system” paper stipulates certain features that must be provided in every building. Accordingly, for apartments and other buildings, central off switches are required, which disconnect electrical loads on leaving the house and reduce the nominal room temperature setpoint. Closed-loop controls with outside sensors are recommended for heating systems and ventilation systems must be controlled. Separate measurements are stipulated for electrical loads, from lighting to vehicle charging stations. The measured data are then available to energy management and load management via Smart Grid. Consumption data can be checked by Smartphone or tablet. Project planners calculate that savings of 15 percent on consumption will be achieved.

### An example to the world

The “Kalasatama Smart City project” has been honoured with the KNX Publicity Award. “The prize is recognition for the city of Helsinki and shows how important the role of cities is in developing new markets”, says Deputy Mayor Anni Sinnemäki, according to the Internet forum Virium Helsinki. The forum describes Kalasatama as “a very comprehensively integrated area, which uses a standard for building system automation” and as an example for urban developments worldwide.



Air view of Kalasatama (Picture by Voima Graphics Oy)



Kalasatama, towers and bridge of Kulosaari from east (Picture by Suomen Ilmakuva Oy)

### BENEFITS OF KNX IN THIS PROJECT

- Recognised Smart City standard
- Integration of all systems/KNX IoT
- Home automation for comfort, security and efficiency
- Smart Grid
- Energy and load management
- Checking via Smartphone and tablet
- Remote monitoring

### TECHNICAL HIGHLIGHTS

- Energy and load management with Smart Grid

### COMPANIES INVOLVED

- The City of Helsinki, Helen (energy supplier), Fingrid (network operator), ABB Finland
- KNX Finland, Johan Stigzelius, [www.knx.fi](http://www.knx.fi)



# VIRTUAL BUTTONS IN THE SMART HOME

*The WebGate smart home in Dietikon: Many years of the owner's experience with KNX and in process digitisation have gone into the system integration.*

KNX IoT and Cloud computing allow limitless functionality

*A flick with your finger and the blinds go up, the light comes on or the setpoint temperature drops. The owner of the smart home presented has been able to forget about switches on the wall. With his Augmented Mixed Reality glasses, he magics virtual operating concepts with freely floating buttons, signals and a 3D visualisation. "WebGate Consulting AG" in Dietikon (Switzerland) combines in its smart home the realities of a KNX installation with the world of the Internet of Things (IoT). But this is simply one highlight of the WebGate smart home, which has been acclaimed for its solution with a KNX Special Award.*

The WebGate smart home is actually a normal, single-family home with three floors and 250 square metres of living area. KNX automates the lighting systems, shading, heating, air conditioning equipment and ventilation. In conjunction with Amazon Web Services (AWS), the result is a comprehensive overall concept. Cloud computing offers facilities such as computing power, storage options, networking and databases. Communication with KNX takes place bidirectionally with the MQTT protocol. The IP Gateway Weinzierl 771 KNX/IP creates the connection. This allows the use of many benefits from the IoT world.

## Virtual visualisation

The Alexa voice service is a smash hit. On demand, you can switch on the TV and other media, set up telephone calls, call up the weather forecast or sports results, produce



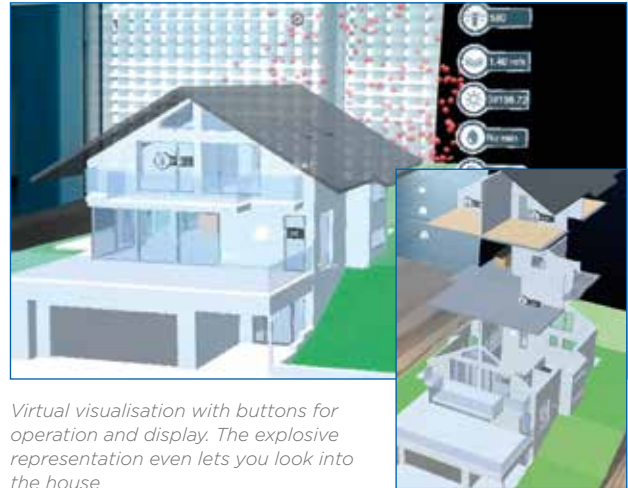
### Winner KNX Award 2018 Category: Special

Webgate Consulting AG (Switzerland)  
– AWS IoT Connected Smart Home  
with AI and HoloLens Interface

shopping lists or operate home functions. In the WebGate smart home, lights, room temperature, blinds and even the cooker hood respond to the call. The personal analysis by the AWS recognition system, which can detect and analyse objects automatically, operates the door phone system in order to recognise visitors by name. The HoloLens mixed reality glasses are also connected with KNX via MQTT. This is how conventional wall switches can be eliminated and environments can be enriched with extended data and objects. Virtual switches or displays as well can even be “fixed” to the walls. The 3D visualisation, a virtual clone of the house, also displays KNX sensor readings.

#### The model learns data logic

With AWS Machine Learning (ML), KNX data traffic is recorded selectively and trained in a model. This is how ML can with time understand regular individual data connections. ML checks correlations against current sensor data and sets alarms with deviations, such as room temperature or humidity. This is how even fleeting organic connections or open windows can be detected and the corresponding functions triggered. By connecting the KNX smart home and the AWS Cloud via the MQTT gateway, all units of the system profit from all the sensors. Logical parameters for blind control, room temperature regulation or lighting functions can be formed in the Cloud. This is how the blinds “know”, for example, whether the room needs to be shaded because persons are present or solar heat should be absorbed.



Virtual visualisation with buttons for operation and display. The explosive representation even lets you look into the house

#### BENEFITS OF KNX IN THIS PROJECT

- Home automation for comfort, security and energy efficiency
- KNX as the basis for IoT applications
- Bidirectional communication with Cloud computing
- Visualisation with Smartphone and tablet
- Remote monitoring

#### TECHNICAL HIGHLIGHTS

- Integration of IoT services
- AWS voice service
- Augmented Mixed Reality
- Recognition for person detection
- AWS Machine Learning detects anomalies

#### TRADES/ APPLICATIONS

- Lighting, Solar protection, Heating, ventilation, air conditioning system, Access control, CCTV monitoring, Technical monitoring, Visualisation, Interfaces

#### KNX COMPONENTS

- **Number:** 63

#### COMPANIES INVOLVED

- **System integrator:** WebGate Consulting AG, Dietikon, Switzerland Richard Schmid

Notwithstanding Mixed Reality and Alexa Echo: The room functions can also be operated and controlled perfectly “conventionally”.



*Generous architecture:  
The new Stavros Niarchos Foundation Culture Centre  
in Athens, with opera and national library.*

# MAJOR PLATFORM IN ATHENS

Energy-saving functions with KNX help the opera and library complex to gain the coveted “LEED Platinum” environmental certificate



*Example of the visualisation, with ground plans and icons.*

*The people of Athens are proud of their new opera and national library. The Stavros Niarchos Foundation Cultural Center (SNFCC), on a hill by the sea, is, like the Parthenon, a temple to the new age and celebrates Greece's ancient heritage. The star architect, Renzo Piano, has designed a transparent architecture from concrete, glass and steel. Outside, severe shapes, inside rooms flooded with light and around the stage, the performances. It was built by the Stavros Niarchos Foundation for 630 million Euro. The complex is also noteworthy for its sustainable construction. Not least, with KNX building system automation for energy efficiency, it can apply for the coveted “LEED Platinum” environmental certificate. The system integration by Christos Dokios, Eibshop, Greece, was honoured with the KNX Energy Efficiency Award.*



### Winner KNX Award 2018 Category: Energy Efficiency

Eibshop Greece, Arup (Greece)  
– Stavros Niarchos  
Foundation Cultural Center

The numbers throw light on the significance of the SNFCC: One million books and magazines are stored on the 22.000 square metres occupied by the library. The opera house takes 1.400 visitors and an alternative concert hall 400. The parking takes 1.000 cars. 10.000 square metres of photovoltaic cells underline the sustainability of the complex. They reduce the energy demand, together with other savings on electricity and has by 7.4 GWh per year, according to an SNFCC impact study by the Boston Consulting Group. Savings measures include presence and brightness-dependent lighting controls.

#### 1.600 times less power

The KNX installation is also impressive: Some 2.500 KNX units control around 600 blinds and more than 15.000 lights, including 12.000 DALI lights with 900 integrated circuits. As one of the advantageous KNX properties for this project, Christos Dokios quotes available interfaces to other systems. In this way, lighting with KNX/DALI gateways and shading with KNX/SMI gateways can be combined on a common platform for interactive and energy-efficient, open-loop control systems.

At the same time, 1.600 presence detectors switch and control the lights in an energy-saving manner, depending on the persons present and the natural light, in almost all inside areas. Where it is sensible, preset light scenes can be called up in halls and lobbies. If necessary, these can be changed easily via the visualisation. Astronomic timer controls with DMX for the outside lighting also save energy, as they switch this on and off depending on twilight, time and individual presets. The lamp control by DALI and DMX is useful for the maintenance department.

#### BENEFITS OF KNX IN THIS PROJECT

- Integration of different technologies, such as DALI and SMI
- Efficient energy and building use
- Presence and timed lighting control
- Shading automation
- Helps with LEED Platinum certification
- Visualisation

#### TECHNICAL HIGHLIGHTS

- 1.600 presence detectors control 12.000 DALI lights
- Shading by façade according to current solar radiation angle
- Timed switching and astro-automation control the outside lighting
- Monitoring of luminaries

#### TRADES / APPLICATIONS

- Lighting, Solar protection, Technical monitoring,
- Visualisation, Interfaces

#### KNX COMPONENTS

- **Number:** 2.551
- **KNX units (extract):** ABB – Presence detectors; Arcus – DMX KNX gateway; BAB-Technologie – EIBPORT; Elka – DMX KNX gateway; BMS – Quadra weather station

#### COMPANIES INVOLVED

- **Client:** Stavros Niarchos Foundation
- **Architect:** Renzo Piano, Italy
- **System integrator:** Eibshop Greece, Athens (Greece), Iason Chaloulos, [www.eibshop.gr](http://www.eibshop.gr)

#### Shading according to solar radiation angle

Correct shading of glass façades against hot sun reduces the cooling load. A Quadra weather centre for up to eight sectors, brightness sensors and azimuth automation takes over the open-loop control. In this way, curtains can be drawn and closed depending on the sun's course and its current radiation angle on each façade. Individual interventions in the automation are possible. A wind alarm protects the curtains.

KNX installations are interconnected via KNX/IP couplers. Line filters in place prevent data jams. The KNX installation control centre is an EIBPORT automation and visualisation gateway. All KNX functions can be controlled and adjusted via the visualisation interfaces. The control centre also offers remote access by authorised technicians.

*In the opera house and on the stage, KNX controls the lighting in an energy-efficient manner, as in all other areas.*





# HOW TO USE SOLAR POWER MORE PROFITABLY?

Young ideas for efficient and environmentally friendly energy use in private houses

*How is energy managed intelligently by producers and consumers, depending on availability, demand, cost and presence? A group from the Technical University Munich, sponsored by the Chair of “Applied Software Engineering” addressed this problem in the winter term 2016/17. Again and again, young people inspired by technology produced new ideas for the Smart Home. The KNX Young Award rewards the corresponding commitment. This time, it went to the eight students taking part and their leaders, Prof. Bernd Brügge, PhD and the Head of Development at iHaus, Ralf Pflöghar. During their practical work, together they launched the prototype for an energy management plan – iHaus Smart Grid for private houses.*

Changes to the market for home-generated solar power are the background to the project. Mains electricity is becoming less profitable due to falling returns. Against this are rising prices for buying electricity. Personal solar power consumption, backed up by small energy stores, is becoming increasingly more profitable. However, when is the right time for personal consumption, battery charging, mains power and bought-in electricity? Home automation must therefore in future also be capable of providing intelligent energy management and taking many parameters into account. Is there enough power coming from the roof or are the skies grey? What is the current energy consumption in the home? Should the washing machine be switched on first or the e-mobile charged? What is the current price per kWh? These parameters must be defined, recorded, assessed and collated.





**Winner KNX Award 2018**  
**Category: Young**

iHaus AG (Germany)  
 – iHaus Micro Grid: “Efficient Energy Management in Private Household”

**Interface for IoT equipment**

Home automation with KNX has proved itself in reducing energy consumption in the home. Solutions were formerly related to heating control, lighting control and automation of other consumers. KNX is also the basis of the iHaus app. This is also an independent interface, which KNX and other Smart Home systems, as well as IoT equipment, integrate and can process its data. In actual fact, blinds, lighting, heating and garage doors have been controlled via KNX. The system has been extended to current IoT equipment for the home sound system Sonos, the Philips Hue lighting system, the Tesla charging station, for voice control systems with Alexa, for Siemens home appliances and the integration of Apple Home-Kit. As a centre, the iHaus app for iOS and Android administer or control the quoted systems.

**Four usage profiles**

iHaus Micro Grid can be perceived as a further development of iHaus Smart Home. Four typical usage profiles have been defined in the development process:

- **Eco-Mode** for the use of energy that is as environmental-ly friendly as possible
- **Vacation-Mode** for absence and holidays
- **Money-Saving-Mode** for dealing with energy costs economically
- **High-Availabilty-Mode** for energy use depends on availability.

All four operating modes give clear instructions to energy management. For example, how and when an e-mobile charging station, a heat pump, high energy consumers or other energy-related systems can access available and economical energy. At the same time, the individual and current requirements of the occupants are received. With the cooperation with a smart metering provider announced by iHaus AG, the research project will become of practical use.

*As early as 2017, the developers were acclaimed with their project as the best student performance.*



*From a practical project to everyday use, as Micro Grid app from iHaus AG.*



*View of the Micro Grid App on Tablet and Smartphone*

**BENEFITS OF KNX IN THIS PROJECT**

- Basis of home automation
- Integration via interfaces
- Integration of IoT equipment
- Efficient use of energy
- Visualisation
- Remote monitoring

**TECHNICAL HIGHLIGHTS**

- Intelligent energy management

**TRADES / APPLICATIONS**

- Lighting, Solar protection, Air conditioning systems, Visualisation, Solar power system, Smart metering and Smart grid, Interfaces, KNX IoT, Smart metering, Smart grid energy management

**KNX COMPONENTS**

- iHaus Micro Grid app

**COMPANIES INVOLVED**

- Technical University Munich
- iHaus AG, Ralf Pfléghar, [www.ihaus.com](http://www.ihaus.com)



# BUFFER STORES IN AN ENERGY PLUS HOUSE

*Open shutters  
with adapted light  
mood.*

KNX applications, full of ideas for sustainability, comfort and safety receive the greatest share of the votes

*The eighth class of the KNX award is not assessed by a panel, but by the general public. For the third time, the KNX Association included the People's Choice Award. With 22.7 percent of the votes cast, the system integrator "Casaio GmbH" took first place with the Energy Plus house project. Already, the Bauhaus architecture of the housing complex in Volkach am Main makes a striking impression from the outside - a brightly rendered flat roof structure and black-clad ashlar. But it is not only the shapes that are audacious. The property is also functional and combines visual appeal with sustainability. The flat roofs and black façades thus consist of solar modules. "Casaio" earned the award with KNX' applications, full of ideas.*

The photovoltaic system, with peak output of 65 kilowatts, produces three times more energy than the house can use. With high solar gain, a heat pump - depending on the season - heats or cools water with the surplus electricity and thus acts as an appropriate buffer store. The buffer management, as well as various heating and cooling circuit controls, are connected with KNX. KNX optimises the heat pump and buffer temperatures on the basis of the heat or cold demand. KNX controls individual heating and cooling circuits according to room temperature and air humidity. At the same time, dewpoint monitoring is also possible. A KNX VOC sensor guarantees controlled living room ventilation.



**Winner KNX Award 2018**  
**Category: People's Choice**

CASAIO GmbH (Germany)  
 – State-of-the-Art Architecture with  
 Highest Energy Efficiency

**“Coming/Leaving” automation**

An important task was to coordinate the work of the different trades. KNX is offered as a standard system. In addition to the conventional trades such as lighting, heating, shading, for example, KNX also incorporates garden watering, alarm system, multi-room system and access control. The entire building is equipped with a LED system. In addition to LED tapes for indirect ground lighting and strip lighting, property lighting also has to be controlled. At the same time, conventional dimming functions such as DALI and DMX are used. There are eight lighting scenes in every room. While the room is brightly lit if people are present, the remainder of the floor is lit only moderately. A “Coming/Leaving” automation is refined: The central off function notes the last lighting status and re-activates it when the house is entered. Another idea: To prevent viewing into the shower, the lighting here is set according to the ambient light level and the status of the shutters.

**The alarm system is self-activated**

Numerous functions provide living comfort and safety. Automatic shading for each façade is aligned with the relevant position of the sun, whether persons are present and the room temperature. Whereas if people are present, the slats are angled to give a free view as far as possible, they shade the house completely if the house is unoccupied. The control centre in the home is a Gira Home Server with viewing for inspection and control. All information is assembled here. For example, information needed for monitoring smoke alarms, CCTV cameras and motion detectors. If no presence is registered over a protracted period, the alarm system is activated automatically. Technical fault reports for the heating, cooling, heat pump, PV system and other building functions are shown and forwarded if necessary to the responsible service personnel.



*Stationary and mobile operation with tablet.*

**BENEFITS OF KNX IN THIS PROJECT**

- Home automation for top living comfort
- Backbone for all trades
- Efficient energy management
- Application for heating and cooling
- Visualization with standard user interfaces

**TECHNICAL HIGHLIGHTS**

- Optimising of the heat pump and buffer store
- Dewpoint monitoring
- Ambient lighting
- Shower lighting
- Eight light scenes per room
- Coming/Leaving automation

**TRADES / APPLICATIONS**

- Lighting, Heating, ventilation, air conditioning system, Heat pump, Photovoltaic system, Access control, CCTV monitoring, Technical monitoring, Alarm system, Multi-room system, Garden watering, Visualisation, Interfaces

**KNX COMPONENTS**

- **Number:** 200
- **KNX units (extract):** BMS – Quadra weather station; Enertex – LED dimming sequencer; Ekinex – Touch & See room controller; Gira – presence detector Comfort Mini and Home Server

**COMPANIES INVOLVED**

- **System integrator:** Casaio GmbH, Güntersleben, Dr. Thomas Lübbecke, [www.casaio.de](http://www.casaio.de)

*Bold architecture: Energy Plus house with KNX home automation.*



# KNX RF: a new era for wireless applications

## Pioneering technology and seamless integration for KNX projects

Admittedly, KNX Partners are great fans of the green bus. Why? It is tangible, it is reliable, it works, and it creates a dedicated communication medium between the interoperable KNX certified devices. Perfect combination for a hassle-free installation. But wireless communications create immense business opportunities that cannot be denied. Some people may argue that wireless only makes sense for mobile devices (such as GPS, smartphones, cars...), but this is far from reality. Can you imagine carrying out a nationwide smart meter rollout which requires wired communications to communicate with the equipment downstream? That's exactly why the ambitious project Linky is equipped with KNX RF. France's path to 95% digital meter deployment by 2020 relies on KNX RF, so that the smart meter can communicate with the existing applications in the house (appliances, lighting, HVAC...). This ambitious project is the model for many to come, as other countries are looking at this project eagerly. Why is wireless so important here? Because most of the houses are already built, hence the pie grows when looking at retrofitting. So, put your business hat on and continue reading, then you will be surprised with the technology.

### KNX RF - An All-Round Solution

KNX RF is, from a technological point of view, an all-round solution. If we look in depth at the KNX RF specifications, we come to realise that is extraordinarily well thought. Just to start, the frequency carrier of 868.3 MHz ensures an excellent propagation compared to higher frequencies (this is law of physics: signals sent out using higher frequency bands will travel lesser distance than those signals sent on lower frequencies), being a very good balance between energy consumption and range. In this regard, KNX RF Ready products work with just one single channel (one central frequency) while KNX RF Multi uses five available frequencies, which enhances protection against interference. In line with the popular TP devices, there are also KNX RF S-Mode and E-Mode devices, which allow experienced professionals and beginners to install KNX wireless devices.

### KNX RF follows highest security standards

It goes without saying that KNX Secure can be implemented as well in KNX RF products, being this a demanded feature in specific environments (it makes a lot of sense in wireless communications). As for the transmission of the telegrams over the RF, KNX specifications allocate optimised rules for re-transmitters, avoiding unnecessary repetitions. Until this point, what it has been said about KNX RF is enough to consider this technology a top-star, but these advantages only get better when combined with the whole KNX spectrum.



*Smart Meter Linky equipped with KNX RF*



*Hager: KNX RF Multi certified system component*

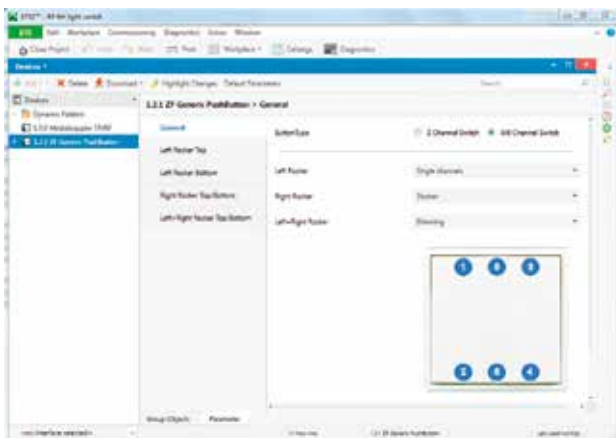
### KNX RF follows highest security standards

Although KNX RF S-Mode devices can be directly programmed by ETS (with the right RF-USB stick), KNX RF can be easily coupled with TP installations. Extend existing installations by adding a TP/RF Media Coupler, a new world of wireless applications is awaiting: all sort of sensors (window contact, temperature, motion...), controllers (all purpose, lighting, shutters...), push buttons, remote controllers, sockets... Even energy harvesting is a reality, where battery-less push buttons can communicate by means of the sole energy produced during the actuation. One single tool, ETS, with extended functionality thanks to ETS Apps for RF commissioning (signal strength) rounds off the whole system, with the aim to deliver the same interoperability across all the communication media. System integrators are witnessing, during 2018, the largest increase in KNX RF S-Mode devices ever, which enriches the whole KNX market and pushes this technology to the leading position it deserves. Flagship projects are already equipped with KNX RF (such as the historical Castle Billoen, with more than 400 KNX RF products), and hundreds of thousands of households in France will be ready to be retrofitted with KNX RF... It is, undoubtedly, time to rely on the KNX RF waves as much as on the KNX green bus!

# The KNX-RF Push Button – a Step Closer to a Smart World

For more flexibility and long-term planning

*The developers of an office complex, recently reopened after renovation, were keen to leverage the benefits of wireless, energy-harvesting building automation. The building control plan was designed to allow users flexible, customized switch planning while changing the basic structure of the building as little as possible. The aim was to ensure that workspaces and rooms can be redesigned as required and with minimum effort, and that switches can also be installed on contemporary glass walls. The developers soon came to the decision that KNX was the solution if they wanted to avoid the difficulties and issues associated with rewiring while also providing greater flexibility. They opted for Energy Harvesting KNX Pushbutton and KNX Media Coupler.*



Up to six-fold programming in ETS5

## Simple, fast programming in ETS5

The biggest advantage of this technology was immediately apparent during setup and programming. The push button boasts a high energy yield and supports direct connection via the KNX RF-ready wireless protocol, dispensing with the need for a gateway. As in this case, both the light switch module and the Media Coupler can be configured in ETS software, and the parameters wirelessly loaded onto devices. Once the data is transferred, the modules are entirely self-sufficient and require no wiring or batteries.

## Versatile, functional operation

The push button module itself has four push-points housed under a standard panel. Two are assigned to a rocker switch that allows the switch module to be custom-programmed by room and room use, and also allows the KNX RF mod-



ZF KNX RF push button



ZF-KNX Media Coupler

ule to be used as a two-, four- or six-fold device. Generally, the module serves as a 4-fold push button that switches the building lighting on and off, and raises and lowers the shutters. But where special applications are necessary or desirable, two more functions can be added by pushing a combination of buttons. In this case, for example, a door opener was installed in the foyer, and a meeting room dimming function configured later on.

## Smart, independent and flexible

Wireless use of the KNX push button saved additional work on the basic structure as well as avoiding a huge increase in wiring. Using KNX also gave the building planners more freedom and allowed for a longer-term perspective. Ultimately, simple programming without a gateway makes it possible to redefine the module's functions at a later stage, allowing greater flexibility when it comes to modifying control functions.

# KNX RF S-Mode Products

## KNX RF Motor Control Unit



**ELSNER** The KNX RF-MSG-ST motor control unit integrates the drive of a shading element or window into the KNX bus system via radio. The standard used is KNX RF S. The unit is easily plugged between drive and voltage supply with its STAK/STAS connectors. The integration is realized with the ETS. In the application program, the function of the control unit can be adapted to the drive in detail, for example by setting the mechanism dead times. The movement time of the connected drive is automatically determined by current measurement. The KNX RF-MSG-ST triggers drive positions and scenes and has got short time and movement limitations.

**Contact:** [www.elsner-elektronik.de](http://www.elsner-elektronik.de)

## KNX RF Remote Control Remo

**ELSNER** Remo KNX communicates according to the KNX RF standard and can be used for various functions in the KNX system. The Red Dot 2017 awarded wireless hand-held transmitter 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 finger's touch. After the setup in the 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](http://www.elsner-elektronik.de)



## Media Coupler KNX RF LC-TP: Interface between wire and radio



**ELSNER** The KNX RF LC-TP media coupler supplements existing or newly installed KNX TP systems with the KNX RF KNX RF standard. The media coupler is the interface between wire and radio and enables bidirectional data exchange between wired (KNX TP) and wireless (KNX RF) KNX devices. It forwards the telegrams received via radio or wire and displays addressing, bus load and telegram flow between source and destination addresses. Due to its size of 55 x 55 mm, it fits in standard frames. **Contact:** [www.elsner-elektronik.de](http://www.elsner-elektronik.de)

## Gira KNX RF Push Button 1-gang and 3-gang

**GIRA** The Gira KNX RF push-button sensors in System 55 are an excellent fit for the Gira switch design. There are a variety of KNX functions such as switching, dimming, blinds, value transmitter and scene functions available. The feedback is via a 2-color LED display. The devices are battery operated, so that the control points can be installed anywhere - not only on walls of stone, concrete or wood but also with the help of a support plate on smooth or even transparent surfaces such as glass doors, window panes or fix furniture surfaces.

**Contact:** [www.gira.de](http://www.gira.de)



### Gira KNX RF/TP media coupler or RF Repeater

**GIRA** The Gira KNX RF / TP media coupler is used to connect KNX RF components to the KNX TP system. There is no need to use a complicated and expensive gateway which must be programmed separately with its own software. All devices can be put into operation in the familiar way via the ETS 5, just like bus-wired KNX products. If, due to difficult construction conditions, the radio range is insufficient, the Gira KNX RF / TP media coupler with the additional function "Repeater mode" can be used to increase it.

**Contact:** [www.gira.de](http://www.gira.de)



### KNX RF Data Interface (USB stick)

**GIRA** By means of the Gira KNX RF data interface (USB stick), individual KNX RF products as well as the complete KNX system, including the KNX TP products via the Gira KNX RF/TP media coupler, can be put into operation and maintained by radio. It allows comfortable and wireless access from a PC or laptop to a KNX installation – for addressing, programming and diagnosis via ETS 5 or for operation with the appropriate PC tools.

**Contact:** [www.gira.de](http://www.gira.de)

### GIRA KNX RF Remote Control 2-gang and 4-gang

**GIRA** The Gira KNX RF hand transmitters allow convenient operation of the building control system. The hand-held transmitters are not tied to a fixed installation location but can be flexibly included anywhere in the building where they are needed. Thus, the KNX system can now be operated from the desk or sofa. There are a variety of KNX functions such as switching, dimming, blinds, value transmitter and scene functions available. The feedback is via a 2-color LED display.

**Contact:** [www.gira.de](http://www.gira.de)



### Wall Transmitters F40 and F50

**JUNG** The perfect solution wherever no bus cables can or should be laid: the KNX RF F 40 and F 50 Wall Transmitters in the JUNG switch design. These high-performance, flat structured transmitters can be located anywhere you like in the room, on plaster, wood, glass or other surfaces. They are simply fixed with adhesive to the desired location – with minimum effort. The individual keys for allocating each function can be individually labelled using the JUNG Graphic Tool. Any addressing, parametrising and diagnosing is carried out through the KNX wireless USB stick or through the KNX USB data interface. The new JUNG media coupler takes over the connection between KNX and wireless systems.

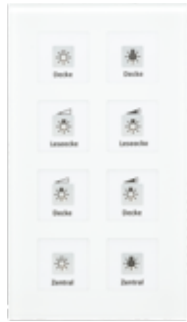
**Contact:** [www.jung.de](http://www.jung.de)

### Media Coupler

**JUNG** The JUNG media coupler with built-in line coupler capability forms the interface between cabled and wireless operated components in the KNX system. The device can also be used as a repeater. No bus connection is necessary for this, as the 24 V power supply is sufficient.

**Contact:** [www.jung.de](http://www.jung.de)





### KNX RF+ Glass Push Button 8-fold Plus with Actuator, RF-GTT8W.01

**MDT** The RF+ radio glass push-button has 8 sensor surfaces and LED for operating and status indication. A circulating white orientation light can be individually selected via a day/night object. The keys can be freely set as a button pair or individual buttons. The glass push-button includes a temperature sensor for measuring room temperature. The functions of the RF+ radio glass push-button are switching, dimming, shutter control, value sending and forced control. Integrated relay contacts allow the operation as a 4-fold switching actuator or a 2-fold shutter actuator. The glass push-button is particularly suitable for modernisation in residential buildings without laying bus cables.

**Contact:** [www.mdt.de](http://www.mdt.de)

### KNX RF+ Socket 1-fold, 16 A, 230 V AC, RF-AKK1ST.01

**MDT** The RF+ radio socket is supplied as an intermediate plug and functions as switching actuator with a maximum current of 16A ohmic load and 10A at 21 $\mu$ F/ 3 ECGs. The RF+ radio socket works in normally opened and normally closed mode. Time functions such as switch-on/switch-off delay and staircase lighting functions are available. An active or passive feedback function is selectable. Logical operations, 8 scenes per channel, central functions and locking objects with forced control are also available. The connection of the RF+ radio socket is done via the MDT KNX RF+ radio line coupler. MDT provides 3-year product warranty.

**Contact:** [www.mdt.de](http://www.mdt.de)



### KNX RF+ Universal Interface 2-fold, flush mounted, RF-BE2230.01

**MDT** The new KNX RF+ universal interface 2-fold is suitable for the connection of 230V push-buttons, switches and motion detectors. During the modernisation of residential buildings, this offers the possibility to get along without laying bus cables. The functions of the universal interface are switching, dimming and shutter control. These can be set in one- or two-button operation. Additional functions like send value, forced control, integrated pulse and switch counter, 4 logic modules as well as cyclical sending are available. The connection of the RF+ radio socket is done via the MDT KNX RF+ radio line coupler. MDT provides 3-year product warranty.

**Contact:** [www.mdt.de](http://www.mdt.de)



### KNX RF Media Coupler MECrf

**TAPKO TECHNOLOGIES** MECrf is a KNX line/area coupler that connects the KNX RF subline to the KNX TP main line. Its ability to process long messages is a precondition for KNX Data Secure telegrams that guarantee safe commissioning. To prevent access from subline to main line, MECrf can block device-oriented messages from the subline. The Function button for temporary deactivation of message filtering is improving the comfort and reliability of this device. This way, access to other KNX lines is possible without download from the ETS. After a user-defined period of time, MECrf switches back to normal operation. A clearly arranged LED display indicates filter status, busloads and any faulty communication. For further improving the reliability and comfort of MECrf, see our KNX RF Field Strength Analyzer App for ETS.

**Contact:** [www.tapko.com](http://www.tapko.com)



### RF Detection by KNX RF Field Strength Analyzer App for ETS

**TAPKO TECHNOLOGIES** With the "KNX RF Field Strength Analyzer" app, KNX RF FSA, you get the grip on the innate uncertainty of KNX RF installations. Detecting signal strength indicators (RSSI) of all user-selected RF devices and displaying them by a colored matrix makes testing and debugging of KNX RF device connections easier than ever before. Deficits of a KNX RF installation are easy to identify by observation of device RSSIs. The app is also able to measure the area coverage of all activated repeaters to avoid future problems. TAPKO's KNX RF Field Strength Analyzer App is all one needs to successfully commission a KNX RF installation. The App is available at [www.knx.org](http://www.knx.org).

**Contact:** [www.tapko.com](http://www.tapko.com)





### USB RF Interface UIMrf is providing a data connection to KNX RF



**TAPKO TECHNOLOGIES** The UIMrf establishes direct PC access to KNX RF S-mode devices. With the ETS, the handy USB stick works as the programming interface for KNX RF. UIMrf finds use also for visualization, protocolling, and diagnostic applications. Any software based on FALCON (ETS, EITT, ...) is able to communicate with the connected RF devices via the cEMI protocol. With use of a TP RF media coupler access to the KNX TP installation is possible. UIMrf is able to process long messages. Due to HID profile support no specific USB driver is required. For special diagnostic software the operation mode Raw Frames is available. UIMrf ensures easy software handling also under operating systems like Linux.

**Contact:** [www.tapko.com](http://www.tapko.com)

### KNX RF Push Button Insert 440 secure

**WEINZIERL** The KNX RF Push Button Insert 440 secure offers KNX Data Security and mechanically fits numerous switches available on the market. Especially the soft and soft keystroke allows the installation in bedrooms and living rooms. It is supplied by a standard battery type CR2032. The built-in USB port (Micro-USB type) allows a wired configuration of the device. Of course, the device can also be configured wirelessly with the ETS5.

**Contact:** [www.weinzierl.de](http://www.weinzierl.de)



### KNX RF USB Stick 340



**WEINZIERL** The KNX RF USB Stick 340 allows the configuration of KNX RF devices directly from the PC. In conjunction with a KNX TP/RF Coupler, the stick also allows convenient access to the entire KNX installation. This way, wired KNX devices can be configured wirelessly from the laptop using the stick.

**Contact:** [www.weinzierl.de](http://www.weinzierl.de)

### KNX RF / TP Coupler 672

**WEINZIERL** The compact KNX TP/RF Coupler 672 fits in a standard flush-mounted box and establishes the connection between KNX radio and the KNX bus. Multi-colored LEDs indicate the current operating status of the device.

**Contact:** [www.weinzierl.de](http://www.weinzierl.de)



### KNX RF – Selfpowered Lightswitch



**ZF** Friedrichshafen AG presents the world's first selfpowered KNX RF switch module – configurable via ETS5. Regardless of whether it's being used as a light switch or as a shutter switch – this wireless module is easy to integrate. With the ability to communicate without the need for a gateway, it provides many potential applications. The module is a maintenance-free RF solution – no cables, no batteries! The wireless switch module comes ready to install. It is compatible with standard frames and can also be combined with customer-specific designs.

**Contact:** [www.switches-sensors.zf.com](http://www.switches-sensors.zf.com)

### RF media coupler

**ZF** At the Light + Building ZF presents their new RF media coupler. This ZF model provides a connection between KNX RF and KNX bus lines. Focus is on easy commissioning of a KNX system. The temporary access to other lines is possible without download from the ETS. In addition, a wrong communication on the bus is indicated through LEDs. For purchase of ZF's KNX products please look at the partner list on the website or send an e-mail to [switches-sensors@zf.com](mailto:switches-sensors@zf.com)

**Contact:** [www.switches-sensors.zf.com](http://www.switches-sensors.zf.com)

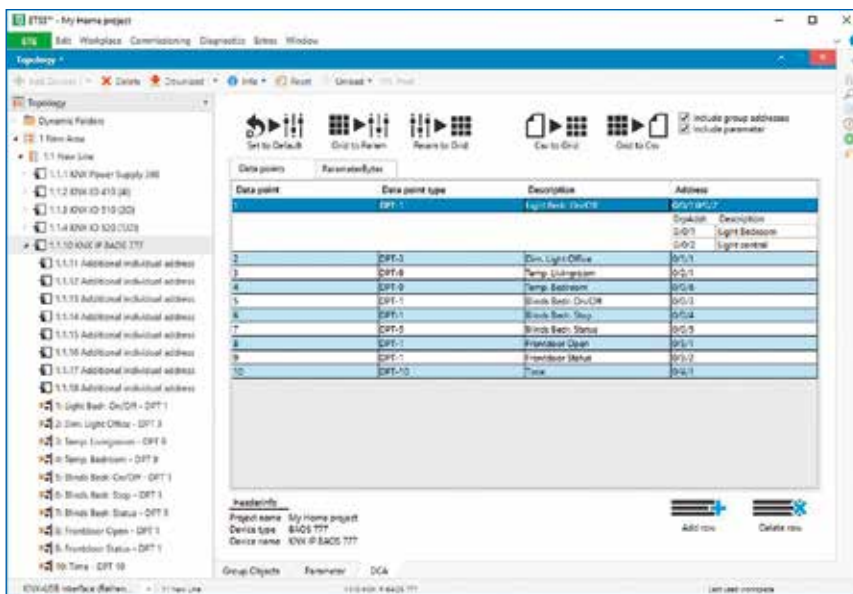




# New ETS Apps

You can find all ETS Apps at <https://my.knx.org> ▶ Shop ▶ ETS Apps

## Baos CSV Importer



### WEINZIERL ENGINEERING GMBH

The Baos CSV Importer is an easy way to export the existing configuration of a generic BAOS database to a CSV file and import it into another project. This eliminates the need for tedious manual configuration. The BAOS CSV Importer is available for all Weinzierl BAOS devices with a generic ETS product database.

Contact: [www.weinzierl.de](http://www.weinzierl.de)

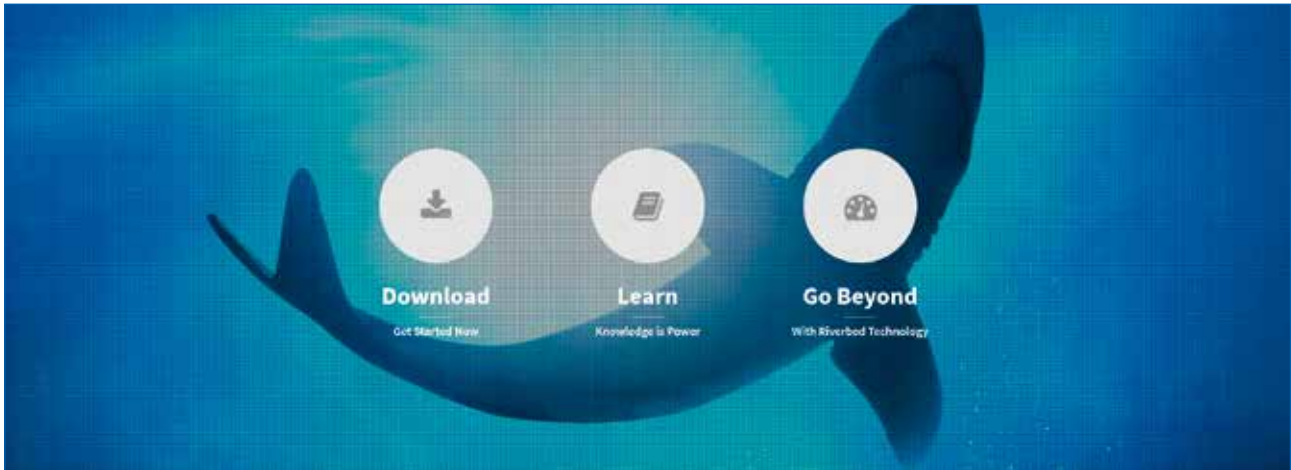
## KNX/DALI Gateway Data Import



**SIEMENS AG** Parameterise the KNX/DALI gateways from Siemens in ETS quickly via the new ETS App DALI Data Import with the help of an Excel or CSV file. The new App provides sample files which help to configure the parameters such as the Group Addresses and to create DALI groups and ballasts with their name as well as luminaire type. Once the Excel or CSV file is imported in ETS, the Group Addresses will be created in ETS and automatically linked to the Group Objects. This helps saving time significantly when configuring the KNX/DALI gateways.

Contact: [www.siemens.com/gamma-tools](http://www.siemens.com/gamma-tools)

# KNX and Wireshark – A strong team



*Wireshark is the monitoring tool for developers, IT specialists, but also integrators, who would like to observe the bus traffic and analyse the telegrams in an installation. It is the world's most widely-used network protocol analyser. It lets you see what is happening on your network at a microscopic level and is used by many commercial and non-profit enterprises, government agencies, and educational institutions.*

In the world of KNX, monitoring is essential to development of new devices, as developers are able to read each bit of an IP frame, containing a KNX telegram. Thanks to the ongoing mission of KNX to make the technology more available to the world, KNX Association created a dissector for Wireshark, which now allows everybody to use Wireshark in order to understand not only the IP frame, but also the containing KNX telegram, starting from its source and target address, going all the way to the telegram's useful information, such as values, functions, etc.

## Why is it important?

Wireshark is available free of charge and so are the KNX specifications. With both at hand, and thanks to the Wireshark dissector, the first steps of development have been tremendously simplified. Without the need for getting familiar with other tools, the developer can now get started with KNX development right away.

## For whom is Wireshark intended?

Thanks to the Wireshark dissector, the whole IP telegram can be made visible, including the embedded KNX telegram. This helps the developer, especially who is new to KNX, to understand, how the telegrams are sent on the internet and how they are fetched by the respective KNX IP interfaces. But analysing KNX telegrams is not only interesting for developers, but also for everybody with technical knowledge about the KNX specifications. This could include the home owner, who wants to observe the traffic in

his home, the system integrator, who might use Wireshark for fault finding on the IP level. In combination with the feature "bus monitor" in ETS, which is used for a full analysis of the KNX telegram in the installation, users have a full insight on both, the IP telegram and the KNX telegram.

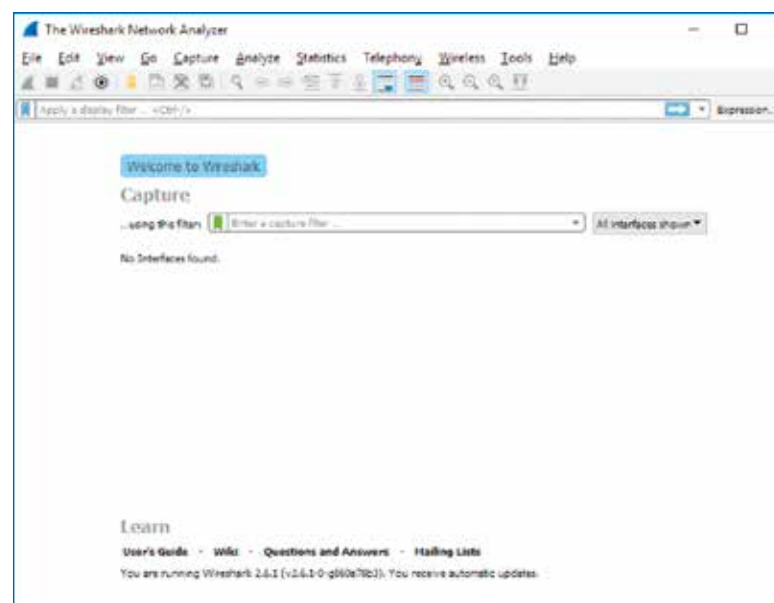
## Getting started and where to download Wireshark and the KNX dissector?

Wireshark can be downloaded free of charge at [www.wireshark.org](http://www.wireshark.org)

Under the button "Download", you can download the Wireshark version, which suits you best. After a quick, installation, you can start analysing telegrams.

The KNX dissector is available in the KNX Help Centre, to be found under <https://support.knx.org>.

Lastly, if you like to cross-check telegrams with the KNX specifications, order them for free at <https://my.knx.org> → Shop → KNX Specifications





## New Members

### Alexander Maier GmbH



**GERMANY** Established in 1996 in Eberbach near Heidelberg, Alexander Maier GmbH has evolved into an innovative, high-performance company. The company's business focus lies in the visualisation area based on different bus systems and communication interfaces of building automation systems. Portfolio competence is their strength. During the long company history, Alexander Maier GmbH can look back on numerous innovative projects and developments. Many of the world's largest projects in building automation technology were realised with their support. With these system solutions, their customers can also rely on a competent partner in terms of software, hardware and support. They have established an internal tracking and monitoring system, which ensures premium quality, on-time delivery and optimum efficiency. **Contact:** [www.busbaer.de](http://www.busbaer.de)



### Control Behin Afagh

**IRAN** Control Behin Afagh Company (COBACO) was founded in 2010 by a group of experienced engineers from highly reputable universities in Iran. The firm's goals have been production of building management systems. COBACO's engineers are focused on developing building management systems that provide a variety of quality services, suit the Iranian lifestyle and are capable of competing with similar foreign products. **Contact:** [www.cobaco.ir](http://www.cobaco.ir)

### ELAN SRL



**ITALY** ELAN is a leading manufacturer of alarm cables, fire-resistant cables, CCTV cables and network cables for over 20 years. ELAN is also distributing VRLA sealed acid lead batteries under the brand BIGBAT. The wide range of cables and batteries is produced following high technological standards and strict quality control, always complying with Italian and international regulations. In order to satisfy an increasingly demanding market in terms of quality and technological products, ELAN has a very flexible manufacturing facility which is able to produce high-tech products covering a wide range of applications. The workshop features modern equipment capable of delivering the most accurate mechanical, electrical and fire resistance tests. **Contact:** [www.elan.an.it](http://www.elan.an.it)



## EOS Saunatechnik GmbH

**GERMANY** For more than 70 years, EOS Saunatechnik GmbH has developed and produced high-quality, innovative equipment for saunas, steam baths, infrared cabins or other wellness areas. The company is represented in more than 70 countries across the world and, as a premium market leader, supplies a very broad product range of products to satisfy almost all requirements and usage form. Special attention is paid to safety and compliance with the latest norms. Today, modern wellness facilities demand increasingly deep integration of the EOS technology into existing Smart Home systems to guarantee comfortable and safe operation. The KNX standard offers many options to realise these kinds of solutions and also to integrate and communicate with equipment of other suppliers.

**Contact:** [www.eos-sauna.de](http://www.eos-sauna.de)



## Evaux

**UNITED KINGDOM** Evaux is the creator of an extraordinarily beautiful range of KNX button panels and accessories. Features are optimised for luxury residential and hotel projects. Each button panel comprises a solid, precision engineered metal front plate which may be finished in a range of architectural coatings. One to eight buttons may be specified in any of eight button positions. Button panels include accurate temperature and humidity measurement as standard. Ultra-high design values combined with a purist classic-contemporary style are the defining characteristics of Evaux.

**Contact:** [www.evaux.co.uk](http://www.evaux.co.uk)



## Freedompro Srl

**ITALY** Freedompro is an Italian company that develops software, devices and management systems for home automation and the Internet of Things. In 2014, Freedompro had already launched ISAAC, an innovative domotic supervision solution that allows its users to control BTicino's MyHOME system, systems and components developed in KNX, and numerous other smart devices. The simplicity of installation and use are the main features of the ISAAC management system that through an app, available for both Apple and Android devices, allows the end user to create complex scenarios that interact automatically on devices that communicate with different protocols. Freedompro, now moves on to voice control with a solution that links the world of KNX with HomeKit from Apple.

**Contact:** [www.freedompro.it](http://www.freedompro.it)



## Guangzhou Autosolan Co. Ltd.

**CHINA** Guangzhou Autosolan Co. Ltd. is an IoT technology company providing smart home and education solutions. Located in Guangzhou, the Science City of China. Based on the foundation of wireless technology, pursuing the idea of "easy install" and "convenient implementation". As an innovative enterprise creating new IoT and smart control systems, they are developing accurate synchronised networks, high-speed sampling chips, reliable sensors and server technology based on cloud control, with hybrid technology instead of traditional methods. Autosolan's Smart Home is a perfect solution of "smart security", "realtime supervision" and "smart control".

**Contact:** [www.autosolan.com](http://www.autosolan.com)



### Guangzhou HOKO Electric Co.,Ltd.

**CHINA** HOKO Electric is a professional supplier of energy metering control systems and power monitoring products. It was established on 8th September 2005. HOKO Electric specialises in R&D for the production and sale of intelligent measurement meters and electric power monitoring products. They are committed to building and providing energy metering management systems and to providing services and solutions to their customers. HOKO strives to create a good experience through "the wisdom of using electricity, saving energy and maintaining safety."

**Contact:** [www.gz-hoko.com](http://www.gz-hoko.com)



### I-Luxus GmbH

**GERMANY** I-Luxus Luxury Solution GmbH is a high-tech enterprise. The company focuses on long-term integration of KNX and other products, product development, production, sales and service in one. I-Luxus insisted on independent research and development and technological innovation and provides apps for iOS, Android and PC, which are easy to set up for the end user. I-Luxus products for intelligent automation solution used in all types of buildings and automation solutions.

**Contact:** [www.i-luxus.de](http://www.i-luxus.de)



### ITC S.r.l.

**ITALY** Since 1979, ITC researches, develops and produces cables for every type of signal. Their branded products are made in Italy and ensure the best transmission and reliability. All the company's resources are used to ensure the best performance and product quality, as well as customer care and extremely short delivery terms in Italy and abroad. Thanks to its technological state-of-the-art plant, research laboratory, selected raw materials and an ISO 9001:2015-certified organisation, the company can produce cables to meet the most demanding and sophisticated requirements, in full compliance with the European standards CPR, RoHS and REACH. Since 2004, ITC is part of the Belden group.

**Contact:** [www.itc-belden.com](http://www.itc-belden.com)



### Kampmann GmbH

**GERMANY** Kampmann is a German manufacturer of fan coil units and central ventilation systems for the air conditioning and ventilation of rooms and buildings. The units can be integrated into building automation systems via the Kampmann KaControl control system. Kampmann offers a gateway including technical support for the integration of fan coils into a KNX network. It is a plug-in KNX gateway, which in combination with a parameterisable controller board allows the integration of fan coil units.

**Contact:** [www.kampmann.de](http://www.kampmann.de)



### Nanjing SouXin Intelligent Technology

**CHINA** Nanjing SouXin Intelligent Technology Co., Ltd., formerly known as the Smart Home Business Division of Tongfang Industrial Co., Ltd., was established in December 2016, with a registered capital of RMB 11.08 million. It is a professional smart home integration service company that specialises in intelligent product sales, project design, system integration and project implementation in many fields such as smart home, smart building, smart community, smart hotel and smart display. The main products include switches, relays, sensors, security, central control systems and smart hotel control systems. Each product is the perfect combination of function and design. The products and solutions have served many well-known housing developers.

**Contact:** [www.njsxzn.com](http://www.njsxzn.com)



### project innovations GmbH

**GERMANY** project innovations GmbH is an engineering office for the planning and programming of media-based systems. The planning incorporates large-screen projections using projectors or display walls as well as conference room systems, individual conference rooms or meeting points. The corresponding sound systems are likewise part of our portfolio. We capture and channel the needs of our customers in preliminary discussions and thereby create a concept which corresponds to the presentation requirements of the customer. Through the adapted programming of the control systems, we create an intuitive, media-based, complete package which is simple to operate. The functions connected with media technology are generally controlled via interfaces to other bus systems such as KNX.

**Contact:** [www.project-innovations.de](http://www.project-innovations.de)



### Shanghai E-tech Solution Co., Ltd.

**CHINA** Founded in 2009, Shanghai E-tech is one of the leading KNX smart home integrators in the Chinese market. Working with some major European KNX product suppliers, E-tech has established itself as the premier choice for property developers in the high-end market for smart homes installations. In 2015, the company released its own product for the remote control and visualisation of smart homes through mobile devices. E-tech aims to provide innovative concepts that will further improve the convenience of smart homes.

**Contact:** [www.e-tech.net.cn](http://www.e-tech.net.cn)



### Shenzhen Merrytek Technology Co., Ltd

**CHINA** Merrytek, founded in 2011, focuses on products for the lighting control industry. They design and manufacture innovative microwave motion sensors, integrated sensor LED drivers and 1-10 V and DALI dimmable LED drivers for lighting and electrical manufacturers, distributors, wholesalers, retrofit projects, professional lighting chain stores etc. With the effort of over 30 R&D members and ISO9001:2008 qualified production lines, Merrytek supplies over 100 models with an output volume of over 200k per month for numerous applications. Their R&D staff and engineering team have over 20 years' experience in lighting control product design. Merrytek has been continuing its focus on intelligent lighting control product development.

**Contact:** [www.merrytek.com](http://www.merrytek.com)



### Sudoku Project Management Software

**SPAIN** Sudoku Project Management is a software company which specialises in developing tools for system integration. The tools developed by Sudoku Project Management enhance the performance of the professionals that are involved in projects, by connecting the best techniques in project management with the daily work of a system integrator. The frameworks and software apps offered by Sudoku Project Management achieve a perfect symbiosis with the KNX technology, enabling a new dimension for the KNX Partner Community.

**Contact:** [www.knxpm.com](http://www.knxpm.com)



### Vivaldi SRL

**ITALY** Vivaldi is an Italian company, born in 1996 in Noventa di Piave, in the Venice province. The company began designing and manufacturing multiroom audio systems for both residential and commercial buildings. With the advent of new technologies in smart buildings, Vivaldi has developed user-friendly solutions to control, supervise and program not only its audio products, but also manage video, lighting and almost any automated device from other brands.

**Contact:** [www.vivaldigroup.it](http://www.vivaldigroup.it)



### Webro Cables & Connectors

**UNITED KINGDOM** Webro are a distributor of cables and connectivity based in Nottingham. They have traded since 1980 and business has grown steadily during this time to achieve turnover in excess of £16 million per annum. Their progression with product development and use of future technologies has helped them to gain a strong reputation for quality and service. Their expanding product portfolio consists of security, telecom, data, broadcast, aerial/satellite, wireless, rail, marine, mains, control and instrumentation, energy and audio visual cables. To complement their cable ranges, they also offer copper and fibre connectivity solutions, cabinets and containment for each product set.

**Contact:** [www.webro.com](http://www.webro.com)



### Zhejiang HWISCON Technology Co.,Ltd.

**CHINA** Zhejiang HWISCON Technology Co., LTD., with its headquarters in Hangzhou, is the leading supplier of automation products in China, and focuses on the research, development and manufacturing of building automation products. HWISCON has been engaged in the building automation business for more than five years, mainly for the Chinese market. Their products mainly adopt RS-485 bus. According to the trend in this area, they have decided to adopt the KNX bus technology in the next generation of their products.

**Contact:** [www.hwiscon.com](http://www.hwiscon.com)



# New Products



## Holistic HVAC solution ClimaECO

**ABB ClimaECO** is the holistic heating, ventilation and air conditioning (HVAC) automation solution for commercial buildings based on the proven ABB i-bus® KNX system. A solution that seamlessly integrates room automation and central HVAC functions into one system – a significant step in increasing energy efficiency and reducing operational costs. ClimaECO creates many advantages, making HVAC automation more efficient. It ranges from central HVAC automation and HVAC management automation for small to medium buildings to full room automation for large commercial buildings. It contains pre-configured application controllers and integrated BACnet gateways.

**Contact:** [www.abb.com](http://www.abb.com)

## The optimal KNX power supply

**APRICUM D.O.O.** To meet today's demands of an expanding market, Apricum has extended its successful line of 640 mA KNX bus power supplies. With the motto "Concentration on the essentials", the KPS640 was newly developed under the most modern technical viewpoint and impresses with its optimised internal structure. Aspects such as quality and reliability were considered first. An additional unchoked voltage output as well as a bus reset button and the LED display of operating states round off the device functionality.

**Contact:** [www.apricum.com](http://www.apricum.com)



## Interface PBM-KNX-DX-4W

**B.E.G. BRÜCK ELECTRONIC GMBH** The push button interface PBM-KNX-DX-4W from the "Deluxe" version series offers four channels, each of which can be used either as an input for a potential-free push button or switch contact or as a binary output for controlling a control lamp. The constant current output of 3.6 mA is suitable for many LED with a flux voltage up to 3.5 V, the brightness of the LED can be adjusted by software via PWM. The flat push button interface can easily be accommodated in standard 60 mm flush-mounted boxes and offers forced operation, HVAC mode, dimming, blind and scene control.

**Contact:** [www.beg-luxomat.com/en](http://www.beg-luxomat.com/en)

## CUBEVISION 2

**BAB TECHNOLOGIE GMBH** The exclusive KNX building visualisation system is very easy to set up and operate. Use timers with an astro function, scenes and logics to create smart home functions via drag 'n' drop directly in the user interface and be inspired by the unique look and feel. The German Innovation Award winning visualisation CUBEVISION 2 is available to all users of the CUBEVISION MODULE at [cubevision.info](http://cubevision.info) for free download. The sophisticated user interface scales automatically on almost all display devices. Smartphone, tablet etc. become the control centre for your intelligent home in no time.

**Contact:** [www.bab-tec.de](http://www.bab-tec.de)



## T-DOT - Talk to your room



**BLACK NOVA** T-DOT is a flawless touch panel interface, that allows you to control an entire room with your voice. In addition to pressing the controls, you are able to control lights, blinds and climate by simply asking the T-DOT. The stylish panel works with a 7 far-field microphone speaker that hears you in even the noisiest of conditions. Play music, check the latest news or call a taxi hands-free, thanks to the integration with Amazon Alexa. As with all Black Nova products, T-DOT is designed with precise attention to detail and can be fully customised.

**Contact:** [www.blacknova.co](http://www.blacknova.co)

## DOORY, KNX access control

**BLUMOTIX SRL** has designed and produced a new access control system that allows you to get into a tourist accommodation by providing the credentials received by SMS. Doory is an intelligent numeric keypad that can receive a new access code from a remote smartphone, to facilitate the check-in without a receptionist. The code can be programmed using a dedicated app to be installed on a smartphone (iOS or Android). The access key can be replaced whenever it is necessary to welcome a new guest. Doory is a 12-key capacitive touch glass solution, with backlighting activated thanks to the integrated proximity sensor. The memory can contain up to 100 data to allow the devices located in the common areas to be able to store the codes of every single room. Each code has 6 digits to guarantee maximum security.

**Contact:** [www.blumotix.it/en](http://www.blumotix.it/en)



## KNX MCU-04 DC - anti-trap protection



**BMS - BUILDING MANAGEMENT SYSTEMS** Sun protection systems are regulated by the EC Machinery Directive 2006/42/EC and must not pose any danger to persons or physical goods. The plant engineer is responsible for the risk analysis and the corresponding protective measures. The risk of trapping may be reduced by limiting the closing force for example. With the MCU-04 DC blind actuator, BMS offers a smart solution for 24 V DC drives. The anti-trap protection is directly integrated in the actuator. The actuator has 4/8 motor outputs and 8/16 inputs for shutter buttons or dry contacts. Proven functions such as product libraries, driving strategies or the 6-byte SunControlObject are of course included.

**Contact:** [www.bms-solutions.de](http://www.bms-solutions.de)

## BSMART iPad frames

### - New design, for beauty and strength

**BSMART** Perfect metal construction – take a look. The BSMART iPad® aluminum frames for iPad® Air/Mini, are designed and manufactured like no other frame on the market today. A strong and rigid construction displays your tablet in a whole different light, bringing the glimmer and shine of metal to any digital tablet setup. Designed with flush mounting for clean looks, while being secure. Stylish BSMART iPad aluminum wall-mounting frames will blend seamlessly into your decor. Available in black, white and bronze. **Contact:** [www.bsmart-knx.com](http://www.bsmart-knx.com)



## Voice control of the KNX system

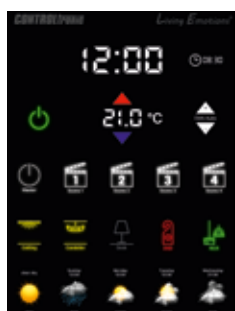
**BUSCH-JAEGER ELEKTRO GMBH** launches the first certified voice control system for KNX building automation that is compatible with the voice-controlled devices of the three market leaders: Echo (Amazon), Home (Google) and HomeKit (Apple). Busch-VoiceControl® KNX can control up to 150 building functions, such as lighting, heating and blinds. The modular device provides real-time data such as room temperature, light intensity and relative humidity values. It also allows the integration of presence detectors. The device can be configured from the myBUSCH-JAEGER Internet portal. Define the required functions and connect to the smart speaker from the provider of choice.

**Contact:** [www.busch-jaeger.de/en](http://www.busch-jaeger.de/en)

## EA - Entertainment controller V2

**CONTROL4** Control any consumer electronic brand without any compromise. Their second generation of EA-Controllers received some hardware improvements and can even integrate more devices since the release of the first generation. The database of integrated devices has grown from 9.500 to over 11.500 today. Control and operate any entertainment device with KNX.

**Contact:** [www.control4.com](http://www.control4.com)



Living Emotions®



## Living Emotions® app

**CONTROLTRONIC** The Living Emotions® app for iOS is the most luxurious sensor replacement with unlimited functionality for building control in one single app. Combined with an Apple smart device, it enables convenient control and visualisation of KNX installations. The user interface as well as its configuration are designed for easy and intuitive use. Choose freely between the simple and clear control from the room control view in touch sensor design (e. g. hotel room application) and the structured menu navigation with zones (e. g. smart home). Combine the app with a smart device and the entirely smooth Glass Pad solution for ultra-flat, in-wall mounting to create a completely new operating concept for smart building automation.

**Contact:** [www.controltronic.com](http://www.controltronic.com)

## HomeCockpit Excelsior V4

**DIALOGIC SYSTEMS** Innovations in abundance: The latest V4 model of Dialogic Systems' intelligent multi-touch panel PC features a high-performance Core i5 processor and a special videophone module with peer-to-peer technology (= connection without an interconnected PBX) that enables direct control of all KNX-enabled devices. The new basic module allows any universal app with perfectly adapted resolution to be integrated quickly and easily into the existing menu. In addition, the complete navigation can now also be remote-controlled via KNX. Get in touch with the future!

**Contact:** [www.home-cockpit.de](http://www.home-cockpit.de)



## New gateway: dS-S21-GW

**DIGITALSTROM AG** No more "either ... or" – digitalSTROM now works with KNX push button modules and sensors. System integrators now have the opportunity to offer their customers a wide range of high quality, design-oriented KNX push button modules for digitalSTROM, manufactured by companies such as Gira or Busch-Jaeger. The solution integrates KNX products and their entire functionality into the uniform logic of the smart home platform. Using the dS configurator, any desired function can be assigned easily to the push buttons. KNX products now enjoy all of the benefits associated with digitalSTROM; this includes, for example, the interaction with Amazon Echo or Google Home without any (additional) configuration effort.

**Contact:** [www.digitalstrom.com](http://www.digitalstrom.com)

## New KNX RF S-Mode products

**DINUUY S.A.** DINUUY introduces its new range of KNX RF S-Mode devices. Besides the current portfolio of KNX RF E-Mode products, DINUUY has launched the new RF S-Mode range, with interesting wireless sensors and actuators. Between the first products we can find different actuators: MI K5X 001 Switching actuator, RE K5X LE1 Dimming actuator for LED lamps, K5X LE2 Dimming actuator for LED strips, RE K5X DA1 Dimming actuator for DALI drivers, RE K5X 010 Dimming actuator for 1/10 V drivers. The programming of all these devices is carried out via ETS5. The configuration is carried out via the KNX RF/USB stick, and the connection between these wireless actuators and the KNX bus is established via the KNX RF Media Coupler.

**Contact:** [www.dinuy.com](http://www.dinuy.com)



## BO16F01KNX - Universal module 16 outputs plus

**ELECTRON SPA** BO16F01KNX is a DIN-rail KNX actuator with 16 x 16 A - 230 V AC relay outputs. The outputs can be configured as: 16 outputs for light/ load control, 16 channels for valve in PWM (solenoid actuators), eight channels for roller shutter/ venetian control, eight channels for three-point valve control, four fan coil actuators two-pipe. It is also possible to combine two or three relays with logic interlock for four-pipe/three-speed fan coil control or combine groups of relays (up to eight) for special functions using logic interlock. The device includes manual buttons for switching local relays and LED to indicate operation.

**Contact:** [www.eelectron.com](http://www.eelectron.com)

### Effe - KNX connected home/building

**EFFTRONICS SYSTEMS PVT LTD** An intelligent connected system seamlessly integrates various building/home functions such as lighting, air conditioning systems, television, blinds, door locks etc., and can be controlled as per pre-programmed rules, schedules or as per context. The system is highly scalable using different KNX 16/32 channel switching actuators, 8/16 channel dimming actuators, hybrid switch modules (max. 55 switches), IoT sensors (occupancy, motion, smoke, temperature, humidity, CO<sub>2</sub>, VOC, dust etc.) and allows unified operation through wall panels, mobile/desktop/web applications. The system additionally provides voice control through Siri and Alexa. Features are software-driven and users will obtain continuous incremental values through periodic updates and easy configurations.

**Contact:** [www.effe.in](http://www.effe.in)



### Hotel room controller

**EKINEX BY SBS** ekinex® EK-HO1-TP input/output module controls all hotel room functions: lighting, temperature control, shading and input/output indications. The device has membrane keys for manual control and status indication LED. It is provided with one analogue input for NTC temperature sensor, one configurable input (analogue or digital) and ten digital inputs. The device is equipped also with 15 digital outputs, one 12/24 V AC output for an electric lock and one 0-10 V analogue output for fan speed control).

**Contact:** [www.ekinex.com](http://www.ekinex.com)

### ELAN twisted KNX cable

**ELAN SRL** The KNX cable works on the standardised OSI network communications protocol, succeeding EHS, BATIBUS and EIB. With their excellent electrical and shielded transmission performance, KNX cables can be used for data transmission and to connect building technology systems, allowing the functioning and control of lighting and climate. KNX runs perfectly on ELAN twisted cables thanks to its incredibly low capacitance.

**Contact:** [www.elan.an.it/en](http://www.elan.an.it/en)



### KNX gateway for PARADOX alarm systems

**ELAUSYS** Integration of alarm systems in a KNX installation offers many advantages. For example, it is possible to control the lights using the motion detectors for staircase lighting or automatically recalling KNX scenarios when the alarm system is armed or disabled and much more. The KNX gateway enables bi-directional communication with the alarm system. Real-time status of up to 96 zones, control of up to four areas (arm/partial/disarm) and nine statuses per area are available (intrusion, entry, exit, fire, ...). Recall of KNX scenes for each status is possible. Gateways for other alarm systems are also available (Jablotron, GE NetworX, ...)

**Contact:** [www.elausys.be](http://www.elausys.be)

## Intra-Sewi KNX: Presence and climate sensor

**ELSNER ELEKTRONIK GMBH** With an installation height of only 5 mm and a real glass surface in signal white or deep black, the Intra-Sewi KNX recessed ceiling sensor blends harmoniously into the room. Various sensor combinations ensure that the right model is available for any project: Intra-Sewi KNX T is a temperature sensor and controller with an actuating variable comparator. Intra-Sewi KNX TH also measures the air humidity, calculates the dew point and regulates ventilation (humidification/dehumidification). The model TH-Pr also detects the presence of people in the room. Intra-Sewi KNX Pr is a pure presence detector. All versions have integrated AND and OR logic gates for individual logic functions.

**Contact:** [www.elsner-elektronik.de/en](http://www.elsner-elektronik.de/en)



## LogicMachine LoRa Long Range Wireless

**EMBEDDED SYSTEMS SIA** LogicMachine LoRa offers the wireless interconnection of KNX networks with a range of up to several tens of kilometers (depending on antenna). Other LoRa end devices can be connected as well. Thanks to sub-1 GHz transceiver and Chirp Spread Spectrum modulation, LogicMachine LoRa provides the best wall penetration compared to other technologies. High sensitivity up to -142 dBm, strong indoor penetration, resistance to Doppler effect and signal weakening, robustness to channel noise are just some of the characteristics of this device.

**Contact:** [www.logicmachine.net](http://www.logicmachine.net)

## Enertex® EibPC<sup>2</sup>

**ENERTEX BAYERN GMBH** The next generation of reliable control server for KNX installations offers computing power for many years. The integrated bus coupler serves as an IP interface and supplies the device with power. Existing EibPC programs are directly executable. Encrypted web server, VPN, 65,000 processing objects, telegram recording, emails are implemented in the EibPC<sup>2</sup>. The free Eib-Studio V4 is the graphical logic and visualisation editor and project manager. For experts, direct programming is possible. A display makes commissioning easy and shows system status and user-based information.

**Contact:** [www.enertex.de](http://www.enertex.de)



## High-range presence detector

**ESYLUX GMBH** supplements the presence and motion detectors of its successful automation series COMPACT with variants with a range of 32 metres. This includes the ceiling presence detector PD-C 360i/32 KNX UP. Thanks to its range and 360-degree detection area, it is able to automatically control the lighting of a large room with constant lighting control. However, it can be used in master-slave combinations. In addition to two individual light channels, an HVAC output is available for presence-dependent switching. If required, the detector sends, among other things, a separate presence signal or the current light value to a central building automation system.

**Contact:** [www.esylux.com](http://www.esylux.com)

### IoT-ready controllers with KNX interface

**EXOR INTERNATIONAL SPA** EXOR International eXware are ideal control and communication devices for building and home automation applications based on KNX IP. eXware controllers are ready for Internet of Things (IoT) applications thanks to their advanced communication capabilities and EXOR Corvina Cloud service. With the integration of EXOR JMobile software, eXware devices can connect not only to KNX IP/TP networks but also to other systems making these compact devices a great integration tool. JMobile data gateway functions offer seamless connection between KNX and virtually any kind of network.

**Contact:** [www.exorint.com](http://www.exorint.com)



### Efficiency & Hygiene

**FRANKE AQUAROTTER GMBH WATER SYSTEMS** The AQUA 3000 open water management system contributes to efficient water and energy consumption in large drinking water installations and at the same time ensures drinking water hygiene. An Ethernet CAN coupler (ECC2) with integrated WEB server supports the mobile control and monitoring of the drinking water installation. The GLT connection option is implemented via a standardized RJ45 interface, thus facilitating e.g. KNX-IP for the interaction of all building areas. All statistics of the fittings can be read out directly and are provided in csv format.

**Contact:** [www.franke.com](http://www.franke.com)

### GEWISS Smart Living

**GEWISS S.P.A.** The new GEWISS solution for the complete management, control and supervision of buildings comes in the form of an app, available on smartphone, tablet and PC. The hardware platform used by the system is represented by a multi-protocol gateway that guarantees functional interoperability even between devices with different communication protocols, managing the system and the automated functions via the Cloud. The simple and intuitive interface allows you to control lighting devices, roller shutters and blinds, configure and run scenarios, adjust the temperature in each room, etc.

**Contact:** [www.gewiss.com](http://www.gewiss.com)



### i-BECHAMP Dimming Actuators

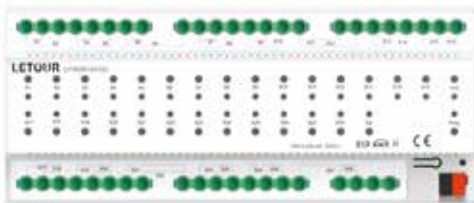
**GREAT EMPIRE INTERNATIONAL GROUP CO., LTD.** The dimmer with LED constant current drive can drive LED directly, has four channels, each channel is independent and has two independent outputs. The output current of each channel can be set by linked switch current button and channel switch current button and can output 350 mA/700 mA or 700 mA/1 A. Attention is needed when the output current exceeds the rated current of the load as the load will probably burn out. You cannot for example use a 700 mA output to drive 350 mA LED. In the meantime, in the case of a full load, if all LEDs are 350 mA, the dimmer can output eight fold, but if some LEDs are 700 mA or 1 A, it cannot output eight fold in some configurations, or the LED cannot reach the expected brightness value.

**Contact:** [www.geigcl.com](http://www.geigcl.com)

## KNX room controller

**GREENCONTROLS TECHNOLOGY SDN. BHD.** GreenControls KNX room controller offers premium cost-effectiveness within a single actuator controlling electrical loads such as switching and dimming of lighting, blinds and air conditioning/heating, together with binary interfacing to conventional push buttons. Built-in KNX IP interface to enable communication to other systems. Application – Small apartment, offices or hotel room. Part number: GC02RC001P2.

**Contact:** [www.greencontrolstech.com](http://www.greencontrolstech.com)



## 28-fold switch actuator

**GUANGZHOU LETOUR LIFE TECHNOLOGY CO.,LTD** Switch function: A switch for controlling output to control switches of lamps or other devices. Delay function: Delay switch after receiving control command to prevent frequent switching and protect the light. Staircase lighting function: After the output is turned on, it can be automatically turned off for a period of time for staircase lighting. Scene function: Each channel supports five scenes; used for scene control.

**Contact:** [www.gzletour.com](http://www.gzletour.com)

## New 3.5" touch panel

**GUANGZHOU VIDEO-STAR INTELLIGENT CORP.,LTD** CHTF-3.5/20.1.21 new panel with KNX standard, program via ETS5. Function: main page, switch, dimming, shutter, value send, air quality, HVAC, background music, RGB dimming, floor heating, ventilation and also general sensor, time, event, logic, etc.

**Contact:** [www.video-star.com.cn](http://www.video-star.com.cn)



## Smart RF Module for Building Automation Solution

**HAGER GROUP** The Hager Smart RF module integrates all necessary elements for home and building automation applications and services that need KNX RF secure communications in sub-GHz bands (868-870 MHz/433 MHz), 2.4 GHz Bluetooth LE connections and Sigfox technology for Low-Power Wide-Area network (LPWAN) access. Hager smart RF module including the software certified stacks (KNX RF secure Push Button and S mode, BLE, Sigfox) is available for OEM for easy and quick integration into any type of existing product. Datasheet is available on request.

**Contact:** [nathalie.grewey@hagergroup.com](mailto:nathalie.grewey@hagergroup.com)



### DLP Modern Touch Panel

**HDL AUTOMATION** The KNX DLP Modern is an eye catching wall-mounted intelligent panel with an incredibly simple to use KNX user interface, which is capable of controlling the lighting, HVAC, audio, floor heating, shading and other connected KNX solutions. With the built-in temperature and proximity sensor, it can wake up automatically if a user approaches it. From the language and icons, to the LCD illumination level and LED indication colors, the KNX DLP Modern is fully customizable to meet different requirements. The screen brightness and change icons can be set via the ETS software. Besides, the touch button can also be locked to ensure security and privacy. **Contact:** [www.hdlautomation.com](http://www.hdlautomation.com)



### KNX carbon monoxide detector

**HUGO MÜLLER GMBH & CO KG** The new KNX carbon monoxide detector GS 80.22 KNX is ideal for measuring CO<sub>2</sub> concentrations in living spaces or boiler rooms. The measured values are provided directly to the KNX bus. Thresholds can be used to control external appliances, such as air ventilation systems. A “stand-alone” operation mode allows use without prior configuration. Besides optical and acoustical alarm signals, two independent configurable binary outputs can control external buzzers or sounders. Two configurable binary inputs as well as integrated temperature and humidity sensors offer multiple solutions for use in various applications involving air quality control. **Contact:** [www.hugo-mueller.com](http://www.hugo-mueller.com)

### Iddero HC3 “all-in-one” touch panel

**IDDERO** The new HC3 “all-in-one” capacitive touch panel is available in white or black glass. It provides an elegant, intuitive visualisation which can handle more than 4000 configurable functions, organised in pages, zones, and maps for easier navigation. Remote control is possible from smartphones and tablets; both direct (LAN) connection and cloud-based operation are supported with no additional configuration. The HC3 doubles as an indoor monitor for SIP-based video door phone systems. Additional functionality includes time schedules, alarm management, user-editable scenes, programmable logic, email and mobile push notifications, advanced thermostats, four multifunction inputs, and much more. **Contact:** [www.iddero.com](http://www.iddero.com)



### DKAC-I

**INGENIUM SL - BES KNX** launches a new gateway between the KNX protocol and the DAIKIN® air conditioning system, GW630100. This new product supports one indoor SKY DAIKIN® climate unit and the management of its five operating modes (auto, heat, cool, fan or dry) and three ventilation speeds (low, medium or high). It is also possible to set only cool or heat mode. Another special feature is the swing control by movement or position, or the warning in the event of a DAIKIN® fault, to identify its type. In addition, it includes energy saving mode, scenes, arithmetic/logic unit and timers/counters. **Contact:** [www.besknx.com/website/en](http://www.besknx.com/website/en)

## IntesisBox® KNX gateway for Hitachi VRF air conditioner units

**INTESIS SOFTWARE SLU** At the end of last year, IntesisBox® team started a new development for the control of Hitachi VRF systems. As a result, a new product, HI-RC-KNX-1i, has been introduced in the extensive KNX solutions catalogue offered by IntesisBox®. The interface has been certified by the air conditioning manufacturer. The gateway is directly connected to the wired remote controller of the manufacturer enabling fully bidirectional communication and therefore the option of monitoring any type of error. Additionally, four binary inputs provide the possibility to integrate external sensors that could be used as standard inputs in the KNX bus or to activate any extra functions of HI-RC-KNX-1i. **Contact:** [www.intesisbox.com](http://www.intesisbox.com)



## BYOD Solution by iRidium mobile

**IRIDIUM LTD.** BYOD (bring your own device) concept from iRidium mobile is a cost-effective solution that lifts KNX commercial installations, such as hotels, hospitals and meeting rooms up to a new level. Hotel guests, patients, etc. can control all automation and A/V equipment of a hotel room or a hospital ward right from their own mobile devices for the period of their stay. Thanks to the BYOD add-on to any iRidium pro license, an administrator can set the lifetime of a license on a mobile device of a hotel guest or a patient.

**Contact:** [www.iridiummobile.net](http://www.iridiummobile.net)

## Smart home entertainment with Loewe and KNX

**ISE INDIVIDUELLE SOFTWARE UND ELEKTRONIK GMBH** Smart home entertainment with Loewe and KNX Display pictures of outdoor cameras on the TV when the doorbell rings or fade in your own defined texts, for example "The washing has finished". It is also possible that the internet browser of the TV opens via KNX and displays for example "weather.com". Start any scene in KNX by turning on the TV or take action against burglars and integrate the TV into your presence simulation. Control up to two Loewe TV sets separately. Volume control, program and source selection, parental control, PIP and much more are covered.

**Contact:** [www.ise.de](http://www.ise.de)



## KNX power supplies

**ALBRECHT JUNG GMBH & CO. KG** The new JUNG KNX power supplies are compact, energy-efficient, can be installed in parallel and are equipped with an integrated signal contact for the diagnosis function. The operating status can be read quickly with an LED on the front of the device. With just four rail units (160 mA, 320 mA and 640 mA versions) or six rail units (1,280 mA), the KNX devices take up little space in the distribution. With the three structurally identical performance classes of 160 mA to 640 mA, extensions can be made at any time or devices can be replaced by those of the next higher performance class. With the 1,280 mA version, it is even possible to support twice as many devices as previously, which saves costs.

**Contact:** [www.jung-group.com](http://www.jung-group.com)

### KOTO server

**KOTO AUTOMATION** KOTO Automation manufactures building automation servers that act as a hub between existing ecosystems. With KOTO it is easy to install and configure building automation systems from small houses to large industrial set-ups. KOTO combines different standards seamlessly and offers a unique, intuitive user interface to control the building, or make changes to the system. KOTO is the only solution that lets the tenant visually reprogram everything from KNX wall switches to groups of appliances by themselves, and also create scenes using combinations of different types of appliances.

**Contact:** [www.kotoautomation.com](http://www.kotoautomation.com)



### KNX integration for NUVO

**LEGRAND INTEGRATED SOLUTIONS** The Nuvo KNX interface is a versatile bridge between the Nuvo players & KNX, making it easy to integrate Nuvo players in any KNX system. Nuvo whole home audio systems guarantee an unparalleled listening experience, with wired and wireless distributed audio solutions specially designed to match incredible fidelity with the latest in streaming source variety and intuitive control. Easy to install, easier to enjoy, Nuvo systems are the perfect fit for any home. And with this interface you can integrate Nuvo whole home audio systems in any KNX installation. With the push of a button of a KNX product, a homeowner can effortlessly control these Nuvo player devices.

**Contact:** [www.legrandintegratedsolutions.com](http://www.legrandintegratedsolutions.com)

### LC-MDB-02 KNX brightness and motion detector

**LIGHT CONTROL** The new motion and brightness detector has detection areas with high sensitivity (4 - 5 m) and low sensitivity (5 - 8 m), illumination level: 0 - 65535 Lux, resolution: 1 Lux, master-slave interworking, master output with three data types - illumination enabled, movement detector enabled and logic enabled.

**Contact:** [www.lightcontrol-knx.com](http://www.lightcontrol-knx.com)



### RIVA Switch KNX-TP

**LIME INTERNATIONAL** The intelligent Room controller "RIVA Switch" uses a KNX-TP connection for the easiest integration into the KNX system and is configurable directly in ETS without a plug-in or any additional components. The RIVA switch comes with a high-resolution colour graphics display and four keys (illuminated with RGB-LEDs). It's combinable with nearly all conventional 55 mm switch ranges. And define up to 30 pages with five functional groups with six pages each (light/shading/value encoder/state display/scenes). Standard colours: white and black.

**Contact:** [www.lime-smart.com](http://www.lime-smart.com)

## Trio from MAICO – Flat, flexible and efficient

**MAICO ELEKTROAPPARATE-FABRIK GMBH** The perfect all-round device. Trio is designed to be extremely flat and can be flexibly installed on the ceiling, on the wall or on sloping ceilings. The ventilation unit, which is marked with energy efficiency label A, has highly efficient EC motors and a constant flow rate. In addition to high heat recovery, the enthalpy heat exchanger also enables transmission of humidity to the supply air. Trio can be integrated into modern building management systems in a variety of ways. **Contact:** [www.maico-ventilatoren.com](http://www.maico-ventilatoren.com)



## Shutter actuator

**MDT TECHNOLOGIES GMBH** The new shutter actuator 1-channel is for shutter motors 230 V AC to 300 W and has features like four potential-free binary inputs. These are for the connection of one blind push button and for two window contacts provided. With this, the new practice-oriented ventilation function can be implemented. If, for example, the roller shutter is closed and the window will be tilted, then the roller shutter is automatically lifted for ventilation. Conversely, the roller shutter automatically moves down back to the original state. **Contact:** [www.mdt.de](http://www.mdt.de)

## Movicon.ba

**PROGEA S.R.L.** Progea has developed a new generation software platform, the perfect tool to realise building automation projects. Movicon.ba, thanks to its modules, is a scalable platform which is flexible and easy to use. It allows the supervision of both simple buildings and projects involving large buildings and infrastructures. This platform includes all the fieldbus protocols to control the systems of the buildings through supervision software. Movicon.ba is equipped with web client, that can manage telecontrol equipments such as electricity, gas and water meters. In addition, it offers Geoscada functionality and Augmented Reality. **Contact:** [www.progea.com](http://www.progea.com)



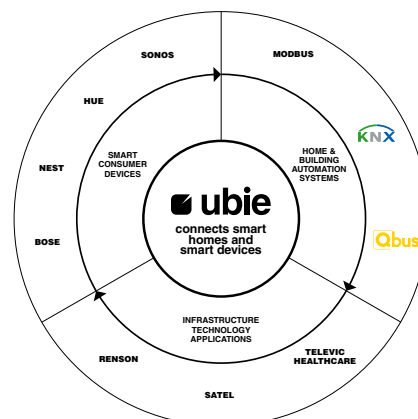
## Cloudless voice control

**PROKNX SAS** In addition to the well-known voice assistants Siri, Alexa and Google Home, the new realKNX v2 now also offers an extremely powerful, offline voice control. Privacy is guaranteed, the voice data stays in the room. The vocabulary is not limited: any words can be used for room and function names. For operation, neither smartphone nor tablet is needed. This solution is ideal for hotel rooms, conference rooms and ship cabins. The configuration is carried out via a standard product database in the ETS software. Thus, no specific configuration knowledge is necessary. Visualisation, voice, logic and augmented reality are always based on exactly one datapool. **Contact:** [www.proknx.com](http://www.proknx.com)

### Ubie® connects smart homes and smart devices

**QBUS** Ubie connects KNX smart homes and buildings with smart plug and play devices (Sonos, Bose, Hue, Nest, ...) and other infrastructure applications that are added now or in ten years. "Ubie provides real and easy modularity of the home or building automation system: new protocols or smart devices on the network will be detected and easily linked to the existing KNX system." Via the free Ubie-Cloud application, the user has one single overview of the underlying KNX and other coupled systems: he views and operates his smart home/building, creates scenarios, sets clock times and alarms, manages users... via any smartphone, tablet or PC from anywhere in the world.

**Contact:** [www.ubiebox.com](http://www.ubiebox.com)



### KNX-DIM21 - Dimming actuator

**SATEL SP. Z O.O.** KNX-DIM21 is a universal two-channel dimming actuator (up to 300 W per channel). It supports light sources supplied directly from the 230 V AC mains or through a transformer. Automatically detects loads as low as 2 W, determines their type (resistive, inductive or capacitive), and selects the appropriate control characteristic. Provides smooth light control: can turn the light on/off, dim it down/up, set the power by using a predefined scene or another function via the KNX bus. Detects damage to the light source and sends notification about these events. The front panel allows direct control of each channel and visualisation of its status.

**Contact:** [www.satel.eu](http://www.satel.eu)

### Sation room thermostat

**SATION TECHNOLOGY CO., LTD** Multifunction Thermostat Panel SATION-PM1421.86, with Room temperature controller and 8-fold push button. Finishing brushed metal, aluminium color. The dimensions are: 172\*80/86\*30mm. The temperature and humidity can be measured by an internal integrated sensor and processed by KNX. Get the temperature just right and keep energy usage low with a programmable smart thermostat.

**Contact:** [www.sation.com.cn](http://www.sation.com.cn)



### ScreenTronic® weather station

**SCREENTRONIC** The weather station consisting of the sensor ST4281 for outdoor installation and the DIN rail module ST4234 for the measurement and forwarding of weather information (GPS, sun position, brightness, rain, wind, temperature) in a local area network (LAN) is the professional sensor for the subsequent display and processing of the measured values in the blind control centre ST41xx. The ScreenTronic® weather station in conjunction with the ScreenTronic® blind control centre offers the optimum solution for automatic shading with sun tracking of shading systems with KNX actuators.

**Contact:** [www.screentronic.com](http://www.screentronic.com)



## Universal dimmer N554D31

**SIEMENS AG** The new universal dimmer N554 in the new design of DIN rail mounted devices expands the Siemens GAMMA instabus product range in lighting control. The new product with four independent channels allows seamless dimming adjustment of dimmable LED retrofit lamps and those in all other dimmable categories, with no minimum load. With the front panel of the universal dimmer, it is easy to check and operate. Through channel bundling, outputs can be combined, so the load can be increased up to 1000 V A.

**Contact:** [www.siemens.com](http://www.siemens.com)



## HPD2 KNX counts people

**STEINEL VERTRIEB GMBH** As the world's first human presence detector, the HPD2 KNX uses optical sensor technology not only to detect human presence but also to count seated or standing persons regardless of whether they are moving or not. To detect human presence, as many as five zones can be defined with precision in an area of 10 x 10 m and can also be changed at any time. Integrated state-of-the-art image recognition delivers information on the number and position of people in real time. This means that the HPD2 KNX not only coordinates building management systems but can also be used to organise and optimise processes in a corporate environment, such as desk-sharing solutions or room occupancy management.

**Contact:** [www.steinel-professional.de](http://www.steinel-professional.de)

## Make your Ethernet device speak KNX

**TAPKO TECHNOLOGIES** Connecting network devices to the KNX bus has never been easier. Any end device having suitable IP connectivity can be converted to a real KNX device. SIMip provides all the necessary functions. The KNX bus thus becomes easy accessible for non-KNX applications. No complex handling is needed. The original application needs no change. The KNX-certified TAPKO communication system is the basis for smooth communication. A generic ETS database entry for individual adaptation is freely accessible. A web frontend provides remote firmware updates and the possibility to identify the SIMip in the KNX network.

**Contact:** [www.tapko.de](http://www.tapko.de)



## KNX touch panel in IP 65

**TCI GESELLSCHAFT FÜR TECHNISCHE INFORMATIK MBH** With C70-XS, tci presents a 7-inch touch panel with an IP 65 front and integrated KNX visualisation. It was developed for installation in control consoles and control cabinets and can be used in all applications where a robust industrial device is required for the operation of KNX-controlled building technology. For example, the touch panel in the control room of a school building or sports hall can replace a series of buttons and switches. Thanks to protection class IP 65, the touch panel is also ideal for KNX installations in swimming complexes, central heating systems and other harsh environments.

**Contact:** [www.ambiente.de/en](http://www.ambiente.de/en)

## Eyeswitch – portrait

**TENSE** Eyeswitch, an elegant and handy iPad mount designed by the Belgian designer Tense. This universal iPad mounting system has an integrated charger and a dedicated LAN connection which is combined with an 8-fold KNX Intensity touch button. Slide any of the current iPads horizontally or vertically in place, thanks to the adjustable connector. In a few seconds your iPad becomes wall-mounted. Thanks to the KNX Intensity switch, you can directly operate your KNX home automation, even when the iPad is not present. If necessary, it is easy to unmount the iPad and supporting bracket while maintaining a sleek designer look thanks to the 8-fold Tense Intensity. This product is available in both white and black aluminium.

**Contact:** [www.tense.be](http://www.tense.be)



## HMT 6 S/ 12 S KNX

**THEBEN AG** The new HMT6S/12S KNX heating actuators from Theben can be fitted in the heating circuit distributor via mounting rails. Each channel can be used as a heating actuator or heating controller. Each output can control actuators via 24 V or 0-10 V. Thanks to automatic calculation of the maximum actuating value, the flow temperature can be adjusted to the actual demand in an energy-efficient manner. An integrated switching relay enables a heating circuit pump to be controlled based on demand.

**Contact:** [www.theben.co.uk](http://www.theben.co.uk)



## thePassa KNX

**THEBEN HTS AG** ThebenHTS presents the new thePassa KNX corridor sensors with a rectangular detection area totalling 5 x 30 m and two detection zones that can be switched on and off separately. They are quick and easy to configure via the theSenda Plug app and the theSenda B remote control with in-built lux meter. thePassa KNX has two light and presence channels. One light measurement per light channel is available for optimum constant lighting control. Further comfort functions include chaser light, aura effect and walking direction recognition. The protection class IP 54 also allows use in damp rooms.

**Contact:** [www.theben-hts.ch](http://www.theben-hts.ch)



## thanos KNX – Touch room operating unit

**THERMOKON – HOME OF SENSOR TECHNOLOGY** The touch room operating unit "thanos" is used for temperature and humidity detection as well as for the intuitive operation of HVAC, lighting and blinds. The operating functions can be flexibly used depending on the room requirement. The housing colours of white and black as well as the types "L" and "S" in vertical and horizontal design are available. Due to the high-quality optics, the device is particularly suitable for design-oriented facilities.

**Contact:** [www.thermokon.de/en](http://www.thermokon.de/en)



## Thinknx K: the advanced 4.3" room controller

**THINKNX** "Thinknx K" is the elegant and intelligent room controller that can work as a standalone server controllable through its app or as a client of the Thinknx supervision system. Thanks to the KNX TP connection and the integrated Ethernet port, it can be used as a KNX IP router. Easily configurable and highly customisable, the Thinknx K can be installed in different fields from residential to hospitality, hotels and commercial buildings. The 4.3" high resolution capacitive touch screen, the embedded temperature and humidity sensors as well as the RGB night light enhance its performance. It can be installed in portrait or landscape mode and with frames of different colours (black, white, grey and brown).

**Contact:** [www.thinknx.com](http://www.thinknx.com)



## New trivum FLEX: the SC344 v2

**TRIVUM TECHNOLOGIES GMBH** The new trivum "SC344 v2" is a four-zone multi-room player with four independent streaming clients, four FM tuners, four line-in, four line-out and four built-in stereo power amplifiers with 30 W each. Amplifiers connected to the line-out can be switched on and off with the trigger outputs. The music streaming services Spotify Connect, TuneIn, Deezer, Tidal and Qobuz as well as audio playback via AirPlay are supported. Music files in the most common formats can also be played from a network share (NAS). The "SC344 v2" is controlled via the built-in web visualisation with any web browser, via one of the two trivum TouchPads (4.3" or 7"), the free iOS trivum App, via a KNX environment or via LUTRON key fields.

**Contact:** [www.trivum.com](http://www.trivum.com)

## New KNX pushbutton with actuator for roller shutters

**VIMAR SPA** Vimar's KNX range of control units has been recently expanded with the addition of new modules with more functions. The range now includes 2- and 3-module devices in three different versions: without actuator, with actuator or with roller shutter actuator. Specifically, the new control unit with roller shutter actuator is a major technological development, specifically designed to meet current market needs. One of the main novelties of this new control unit is that it can be connected directly to the motor of the shutter, thus allowing for more streamlined and immediate wiring, which makes things easier for the installer who no longer has to connect the wiring to the electrical panel.

**Contact:** [www.vimar.com](http://www.vimar.com)



## MOMI 4x steel touch button with temperature controller

**VIVO SUISSE** "The Vivo® MoMi" KNX 4-fold touch button is a KNX device for switching loads on/off, dimming lighting devices, controlling motor drives or other programmable switching and control functions. Thanks to the integrated temperature probe, it can serve as a room or area temperature controller. It is equipped with an integrated KNX bus communication module and is designed for wall installation on a flush mounting box. The device has one RGB LED for each channel which is configurable for example as a status signal or orientation night light (via parameters).

**Contact:** [www.vivoknx.com](http://www.vivoknx.com)



## VoxiorLink – Secure remote access

**VOXIOR INC.** Modern assistance for the modern day smart home owners. Remotely monitor and manage your customers' smart homes to enhance your customer service, proactively prevent issues, increase efficiency and save time by reducing the need for on-site visits. ETS and home server programming, network management, voice control and IoT integrations implemented using secure, end-to-end communication. Simple deployment enables professionals to quickly obtain a complete overview of all managed smart homes from one easy-to-use dashboard.

**Contact:** [www.voxior.com](http://www.voxior.com)



## Warema KNX SA app

**WAREMA RENKHOFF SE** Warema has a Bluetooth LE interface for all KNX SA actuators in surface-mounted housings. This allows easy commissioning and uncomplicated testing in hard-to-access installation locations such as suspended ceilings and double floors. The manual override and programming button, function check and direction of rotation test can be operated with the app. Very user-friendly: the clear checklist of the tested drives can also be exported. All the information is stored in the actuator, which means it can be called up independently. App access is password-protected, and the Bluetooth function can be deactivated in the ETS.

**Contact:** [www.warema.com/en](http://www.warema.com/en)

## KNX compact IO dimmer

**WEINZIERL ENGINEERING GMBH** The KNX compact IO series has grown in the field of lighting control: The KNX IO 530 is a dimmer for 230 V and additionally offers two binary inputs. The KNX IO 532 is a combined dimming and switching actuator with a PWM output for dimming LED. The KNX IO 534 model offers four PWM outputs for dimming LED with functions for RGB/RGBW and TW (Tunable White). The KNX IO 546 is a dimmer for 0-10 V with a relay output. All variants offer powerful functions, including scenes, staircase control, snooze function and sequencer. Two buttons and three LED allow local operation and visualisation of the respective device status.

**Contact:** [www.weinzierl.de](http://www.weinzierl.de)



## DIMinBOX DX1

**ZENNIO AVANCE Y TECNOLOGÍA S.L.** DIMinBOX DX1 is a universal dimming actuator (RLC, LED, CFL) for DIN rail (2u) with one channel for loads up to 300 W at 230 V AC (200 W at 110 V AC). It includes the possibility of automatic load type detection for conventional lamps (RLC) and of defining a custom dimming curve for LED and CFL. Besides, it allows manual control of its output thanks to the push buttons on the cover. Moreover, it includes automatic error detection which is notified by means of the LED indicators (short circuit, power surge, overheating, frequency disruption, power failure, parameterisation error) and a module with ten independent logical functions.

**Contact:** [www.zennio.com/en](http://www.zennio.com/en)



## National Groups

### Good representation of KNX Belgium at Batibouw

**BELGIUM** From 22<sup>nd</sup> February to 4<sup>th</sup> March, KNX Belgium was present at Batibouw 2018. The exhibition about the home and building sector includes experts and suppliers from all sectors within the construction industry. KNX was there with a booth that featured ten manufacturers and six system integrators, each with their own panel, on which they presented KNX solutions and products.

**Contact:** Rob Van Mil | [info@knx.be](mailto:info@knx.be) | [www.knx.be](http://www.knx.be)



Booth at Batibouw



### KNX training in high demand

**CHILE** KNX Chile can proudly look at the latest achievements regarding certified KNX training. Especially the high demand for certified KNX basic courses which did not come as a surprise, since KNX Chile had to deal with many training enquiries. Thanks to Víctor Caviedes, KNX training has gained ground in Chile and further certified courses have been scheduled, which are also almost fully booked.

**Contact:** Gerald Esparza | [info@knx.cl](mailto:info@knx.cl) | [www.knx.org](http://www.knx.org)



Training for a better career thanks to KNX

### KNX China dominates GEBT

**CHINA** Members, partners, training centres, governmental organisations as well as KNX Association representatives, all in one place! But GEBT did not only gather the most important players in the country, GEBT once again let KNX shine in the best possible way. Being the first contact point for smart home and building solutions, KNX impressively showcased its importance in China.

**Contact:** Shen Pu | [info@knxchina.org](mailto:info@knxchina.org) | [www.knxchina.org](http://www.knxchina.org)



Usual amount of participants at the KNX booth



Students exploring the ETS



### KNX Croatia gives lecture about basic principles

**CROATIA** KNX National Group Croatia extended the training opportunities at “Strukovna škola Vice Vlatkovi”, an institute spreading knowledge about KNX, from now on even via certified KNX training. With a guest lecture by KNX Croatia, the students learned about KNX and the configuration in ETS5. KNX Association is happy to welcome a new institute in the world of KNX training.

**Contact:** Ana Tomić | [info@knx.hr](mailto:info@knx.hr) | [www.knx.hr](http://www.knx.hr)

### Best KNX Project Competition in the Czech Republic

**CZECH REPUBLIC** During the Conference of the Intelligent Building held in Brno at AMPER 2018, KNX Czech Republic presented awards to the best KNX projects implemented in the years 2016 and 2017. The KNX installation at M-TECH building in Prague won first prize thanks to the use of KNX devices to control all building functions. Installation, programming and commissioning of the installation was ensured by CABLEX.

**Contact:** Josef Kunc | [eibsyst@volny.cz](mailto:eibsyst@volny.cz) | [www.knx.org/cz](http://www.knx.org/cz)



CEO of CABLEX receives the award for best KNX project



Jan Jensen new secretary of KNX Denmark



### More events for KNX Denmark than ever

**DENMARK** KNX Denmark can proudly look at major achievements during the last couple of years. But with growth also comes greater responsibility. In order to carry out all the new tasks and promote KNX on a new level, KNX Denmark welcomed Jan Jensen as new Secretary, who will support the activities of KNX in Denmark. More events than ever in Denmark are soon to come.

**Contact:** Martin Mortensen | [martin.mortensen@dk.abb.com](mailto:martin.mortensen@dk.abb.com)  
[www.knxdenmark.dk](http://www.knxdenmark.dk)

### KNX France launches new video

**FRANCE** KNX France launched a video, explaining the essentials of KNX. In addition to demonstrating how KNX improves buildings regarding energy management, the video also highlights the advantages of KNX, training opportunities and a new leaflet. Also the novelties of KNX find their place in the video. Concluding with cyber security, IoT and partnerships, the video provides the best introduction for the French community.

**Contact:** Amel Karim | [contact@knx.fr](mailto:contact@knx.fr) | [www.knx.fr](http://www.knx.fr)



Video to be found on YouTube



House by IIT-Bombay for the competition with KNX



### KNX the chosen technology for Solar Decathlon

**INDIA** The famous IIT-Bombay, one of the world's best colleges for engineering, chose KNX as the technology to be used in the next Solar Decathlon Competition, which will be held in China. Not only does KNX meet all requirements, the fact that IIT-Bombay chose KNX shows that KNX is not only a technology out of many, but the top technology for India and the world.

**Contact:** Bhavesh Doshi | [info@knx.in](mailto:info@knx.in) | [www.knx.in](http://www.knx.in)

### KNX Italia participated at MCE Exhibition

**ITALY** KNX Italia participated in MCE Exhibition in Milano, the renowned biennial show, at which eight panels with KNX applications were presented. KNX Italia also participated in various seminars, amongst them the "That's Smart: Home and Building Automation, Smart Metering and Electric Mobility" panel. KNX Italia delivered a presentation about Energy Transition with KNX, about KNX Italia and the KNX Award.

**Contact:** Silvia Siliprandi | [segreteria@knx.it](mailto:segreteria@knx.it) | [www.knx.it](http://www.knx.it)



Booth in new corporate identity



Full event for the 5th anniversary



### KNX Japan celebrates 5th anniversary

**JAPAN** The 5th anniversary of KNX Japan took place at the Hilton Hotel in Daiba. Guest speakers from Mitsubishi and Amazon highlighted the topics of KNX Secure, but also artificial intelligence for smart homes and buildings. Within five years, KNX Japan has developed KNX to a leading technology in the market. KNX Association thanks the Japanese national group for this tremendous achievement.

**Contact:** Takayuki Shintani | [knxjapan@itrco.jp](mailto:knxjapan@itrco.jp) | [www.knx.org](http://www.knx.org)

### New era for KNX training in Korea

**KOREA** KNX Korea is under preparation for a local KNX tutor course in August to provide more active KNX tutors for stimulating KNX training activities in Korea. Main purpose is to satisfy the growing demand and need for KNX training, due to the rising demand for KNX projects. Besides the foundation of various KNX Training Centres, KNX will also become an official part of Ajou University's Electronic Engineering Department Curriculum, which is responsible for the WorldSkills's competitors' training.

**Contact:** Daniel Lee | [info@knx.or.kr](mailto:info@knx.or.kr) | [www.knx.org/kr](http://www.knx.org/kr)



Strong Korean KNX community





Students at CNFPC and Light + Building

### KNX Luxembourg 4 Young

**LUXEMBOURG** Students, parents and everybody interested in vocational studies gathered at Village des Métiers at the KNX Training Centre CNFPC. Next to the presented job opportunities, the tools for KNX created a high level of interest, as they demonstrated the simplicity of the technology. Thanks to KNX Luxembourg, the students also had the chance to visit Light + Building and learn more about KNX at first hand.

**Contact:** Thomas Plein | [info@knx.lu](mailto:info@knx.lu) | [www.knx.lu](http://www.knx.lu)

### KNX Mexico at Construction Summit Guadalajara

**MEXICO** Due to the focus on “Smart Cities”, the spotlight of the construction summit Guadalajara was put on KNX Mexico. Not only did KNX Mexico participate in the conference about “Smart City Technologies”, the event was rounded off with a KNX workshop about smart homes and buildings. With participants from various fields, KNX Mexico can look back at another highlight!

**Contact:** Maribel Pacheco | [info@knx.mx](mailto:info@knx.mx) | [www.knx.mx](http://www.knx.mx)



KNX Workshop during the Summit



Participants from all over the Netherlands

### Presentations and discussions at KNX Netherlands meeting

**NETHERLANDS** On 19<sup>th</sup> June, KNX Netherlands held a meeting for all KNX members. During the meeting, three keynote speakers spoke about trends and innovations within the sector of building automation, project management and the implementation of KNX Secure. Afterwards the attendants had the opportunity to provide feedback on the concept of a new online platform for KNX Professionals.

**Contact:** Rob van Mil | [info@knx.nl](mailto:info@knx.nl) | [www.knx.nl](http://www.knx.nl)

### KNX Norway entering a new era at ELIADEN

**NORWAY** Eliaden, the biggest fair in Norway for industry, energy and electrical installation/construction, is an exciting combination of being a meeting place, a source of inspiration and a professional arena. Eliaden took place in Lillestrøm from 29<sup>th</sup> – 31<sup>st</sup> May. KNX Norway was present with a prestigious booth close to the entrance. The fair was a great success, with the highest numbers of visitors ever.

**Contact:** [info@knx.no](mailto:info@knx.no) | [www.knx.no](http://www.knx.no)



Successful KNX Norway Booth



KNX Portugal Award Ceremony

### KNX Portugal Award for McDonald's

**PORTUGAL** KNX Portugal held the KNX Portugal Awards this year. 26 projects from different areas competed in three categories. Amongst the applications, there were projects such as hotels, restaurants, industrial buildings and residential homes. Winners were Domotica Solutions with the McDonald's Restaurants project, Melo Rordigues Engenharia won the award for projects and Finiluz won the award for integration.

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

### KNX basic training continues at KNX Romania

**ROMANIA** KNX Romania intensifies its focus on certified training at the internal KNX Training Centre. Training sessions and courses were organised in Bucharest and Cluj. With the support of local KNX partners, the next session will be held in Piatra Neamt, in the Eastern region of Romania. This will cover all three historical regions of Romania. KNX Romania delivers its appreciation to all the supporters.

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



Proud students and tutor



KNX Russia heading towards a bright future

### "KNX Russia 2.0"

**RUSSIA** KNX National Group Russia ushered in a new era in June 2018. With a new strategy, focussing on marketing and training, KNX Russia is happy to be able to count on the support of various major KNX members. Upcoming projects include the participation at two fairs, the conducting of a survey to understand the market better as well as the support of WorldSkills Russia and the spreading of training opportunities in Russia.

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

### Active participation in the IV. Smart Buildings Congress, Madrid

**SPAIN** KNX Spain participated as bronze sponsor at the "IV. Smart Buildings Congress", held on 19<sup>th</sup> June at the Official College of Architects of Madrid. At the booth, the congress participants were informed about the latest developments in the field of KNX technology. Furthermore, a presentation on cybersecurity in building automation was offered and how the KNX Secure concept offered by KNX helps eliminate these risks.

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



Cybersecurity and KNX Secure: top topic of the congress



#techworkshop educating the market

### KNX Swiss #techworkshop

**SWITZERLAND** KNX Swiss organised the second edition of the KNX Swiss #techworkshops. The workshops were held all over Switzerland. Topics this time were KNX gateways. Four manufacturers presented their solutions. Aim of the #techworkshops is to present the benefits and possibilities of single applications to a small selected group of very interested technical KNX Partners of KNX Swiss.

**Contact:** René Senn | [knx@knx.ch](mailto:knx@knx.ch) | [www.knx.ch](http://www.knx.ch)

### KNX Taiwan creating headlines

**TAIWAN** During his presidency, Solomon Lee elevated KNX to new dimensions. Apart from KNX being on the curriculum of three technical colleagues and more than 30 technical schools, KNX has also been brought to the government. During the press conference by KNX Taiwan and the Taiwanese Government, KNX impressively showcased a KNX showroom. Highlighting the handling of all applications, KNX set new ground in Taiwan.

**Contact:** Solomon Lee | [solomonk@ms48.hinet.net](mailto:solomonk@ms48.hinet.net) | [www.knx.org/tw](http://www.knx.org/tw)



Solomon Lee (3<sup>th</sup> from right) representing KNX Taiwan

### KNX Thailand registered

**THAILAND** After the official kick-off in the beginning of 2018, KNX National Group Thailand leaped impressively forward. Not only have all members agreed on the common strategy, more importantly the KNX National Group has been officially registered as a Thai association, making it now possible for the group to proceed with the first independent events! Visit KNX Thailand at Thailand Building Fair in November.

**Contact:** Nuttanicha Navy | [netty@phuket-technology.com](mailto:netty@phuket-technology.com)



Members of KNX Thailand

### KNX UK awards show breadth of members' expertise

**U.K.** The winners of the 2018 UK KNX awards show how it is increasingly recognised by architects, M&E engineers and integrators as providing the tools they need to put creative, flexible and efficient intelligence into their projects. Winners ranged from academic buildings and award-winning offices to exciting residential projects involving creative use of AI. All demonstrated how easily KNX fits into any project workflow.

**Contact:** Tara Gartland | [admin@knxuk.org](mailto:admin@knxuk.org) | [www.knxuk.org](http://www.knxuk.org)



Iain Gordon presenting the KNX UK Awards



## Userclub / Professionals

### Nice networking possibility for KNX Professionals Belgium

**BELGIUM** KNX Professionals Belgium hosted both, the general meeting as well as a networking meeting. At the beginning were two keynote presentations. The topics of these presentations were how to realise energy savings through integrated building automation and which innovations and new products are available on today's market. The manufacturers were also able to show innovations that were presented at Light + Building.

**Contact:** Rob van Mil | [info@knx-professionals.be](mailto:info@knx-professionals.be)  
[www.knx-professionals.be](http://www.knx-professionals.be)



Networking at its best



Group picture in front of hotel



### 20<sup>th</sup> anniversary celebrated in Freiburg

**GERMANY** Freiburg hosted the gathering of the KNX Professionals in Germany. Besides its main focus on extending and exchanging knowledge, the spotlight was on the festive for the 20<sup>th</sup> anniversary of the local association. Next to interesting presentations, representatives from various companies, association and institutes delivered their best wishes and expressed their interest to continue the cooperation.

**Contact:** Dirk Müller | [info@knx-professionals.de](mailto:info@knx-professionals.de)  
[www.knx-professionals.de](http://www.knx-professionals.de)

### KNX UC Malaysia putting KNX on the curriculum

**MALAYSIA** On 15<sup>th</sup> May KNX Userclub Malaysia signed an MOU with focus on education and training with the German-Malaysia Institute. The aim is the bridging of the KNX industry with education in order to provide trainers and students with internship programmes and joint certified KNX training. The next step will be to develop more KNX training programmes and putting KNX on the curriculum of the diploma programme.

**Contact:** PW Siew | [pw\\_siew@yahoo.com](mailto:pw_siew@yahoo.com) | [www.knx.org](http://www.knx.org)



Proud after signing the MOU





*Intensive discussions by KNX Professionals*

### Working on a new platform for KNX Professionals Netherlands

**NETHERLANDS** KNX Professionals Netherlands are working on a new online platform, on which members can interact with one another and all kind of specialists in the world of smart homes and buildings. The platform presents all kind of post descriptions of different topics and projects they worked on. The exact details of the website's content are yet to be determined. According to plans, the beta version will be launched in September.

**Contact:** Ineke van Erp | [info@knx.nl](mailto:info@knx.nl) | [www.knx-professionals.nl](http://www.knx-professionals.nl)

### Webinar ETS Inside

**SPAIN** KNX Professionals Spain offered a webinar about ETS Inside, the new KNX tool that allows installers and integrators who are new to the world of home automation, to realise small and medium projects, in a very simple and economical way. More than 40 attendees received the latest news of this revolutionary tool. The numerous questions show the high interest among the participants.

**Contact:** Michael Sartor | [michael.sartor@knx.es](mailto:michael.sartor@knx.es)  
[www.knx-professionals.es](http://www.knx-professionals.es)



*ETS Inside - a revolutionary tool for installers*

## KNX SECURE ROADSHOW SEPTEMBER 3<sup>RD</sup> – NOVEMBER 30<sup>TH</sup> 2018



**Don't miss your chance and register now!**

Find all events of the KNX Secure Roadshow at <https://roadshow.knx.org>





## New Training Centres



### **AFPA Formation Cantin**

France

[georgesmartin335@gmail.com](mailto:georgesmartin335@gmail.com)

[www.afpa.fr](http://www.afpa.fr)



### **CEDIA Training**

United Kingdom

[alevin@cedia.org](mailto:alevin@cedia.org)

[www.cedia.co.uk](http://www.cedia.co.uk)



### **ESD PERFORMANCE**

Tunisia

[mbm@esd.tn](mailto:mbm@esd.tn)

[www.esd.tn](http://www.esd.tn)



### **esiee amiens**

France

[maximilien.leclercq@free.fr](mailto:maximilien.leclercq@free.fr)

[www.esiee-amiens.fr](http://www.esiee-amiens.fr)



### **FORTE CHANCE PIEMONTE**

Italy

[trainingknx@fortechance.it](mailto:trainingknx@fortechance.it)

[www.fortechance.it](http://www.fortechance.it)



### **Mcm GmbH**

Germany

[andree.czybulski@mcm-project.de](mailto:andree.czybulski@mcm-project.de)

[www.mcm-project.de](http://www.mcm-project.de)



BACtraining

**Modusnefer, Sistemas de Engenharia, Lda**  
Portugal  
medvasc@gmail.com



**Roskilde Technical College**  
Denmark  
rkf@rts.dk  
www.rts.dk



**SYDDANSK ERHVERVSSKOLE**

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bk-installation@hotmail.com  
www.sde.dk

**blue knx**

**Smartity Ltd.**  
Bulgaria  
zdravko.donkov@smartity.com  
www.smartity.com



Svendborg Erhvervsskole & Gymnasier

**Svendborg Erhvervsskole**  
Denmark  
nejep@yahoo.dk  
www.sesg.dk

**Robotix.be**

Your Partner & Shop for IOT and Building Automation



**Top-It Solutions**  
Belgium  
nicky.wessels@top-it-solutions.be  
www.robotix.be



KNX Secure



**KNX Secure**

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



## New Scientific Partners



### Atatürk Mesleki ve Teknik Anadolu Lisesi

Turkey

[cetincandan@hotmail.com](mailto:cetincandan@hotmail.com)

[www.ataeml.meb.k12.tr](http://www.ataeml.meb.k12.tr)



### Hochschule Ansbach

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[www.hs-ansbach.de](http://www.hs-ansbach.de)



**Hogeschool van Amsterdam**  
Amsterdam University of Applied Sciences

### Hogeschool van Amsterdam

Netherlands

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[www.hva.nl](http://www.hva.nl)



**I I S**  
PACINOTTI

### IIS A. PACINOTTI

Italy

[marco.perzolla@vodafone.it](mailto:marco.perzolla@vodafone.it)

[www.iispacinnovative.it](http://www.iispacinnovative.it)

### Start@KNX

Are you looking to expand your knowledge about KNX? "Start@KNX" offers an overview of the various training options, accompanying material and identifies how teaching materials and methods can effectively be used in order to increase knowledge about KNX. Find all info at <https://start.knx.org>





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Tunisia  
 lotfi\_lassoued@yahoo.fr  
 www.iit-nau.com/



**ITESM CCM**

Mexico  
 senatuch@hotmail.com  
 www.itesm.mx



**Jubail Industrial College**

Saudi Arabia  
 mansi.shadi@gmail.com  
 www.jic.edu.sa



**MMI - RWTH Aachen**

Germany  
 rossmann@mml.rwth-aachen.de  
 www.mml.rwth-aachen.de



## 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](http://development.knx.org)

# KNX at International Conferences and Fairs



## KNX co-organises large KNX training conference for HDL staff

**CHINA** One of the long-standing KNX members in China, HDL in Guangzhou, took the initiative of organising a large KNX training conference for its own staff involved in local and international KNX activities. KNX was invited to assist in giving a recap of the KNX basic course knowledge (including practical exercises) and rounding off the conference with the classic two-day KNX tutor crash course, concluding with an exam.

**Contact:** [www.knx.org](http://www.knx.org)

*Some of the lucky freshly certified KNX tutors in the presence of the KNX representative and the HDL CEO*

## First PlugFest of the year - KNX continuing its success in Russia

**RUSSIA** The KNX National Group Russia, KNX Userclub Russia, CIS, The Moscow State University of Civil Engineering and Messe Frankfurt RUS organised the first PlugFest of 2018. The successful event on the 28<sup>th</sup> of February attracted almost 100 participants from various fields. Thanks to the support of various KNX members, the winter edition of the PlugFest was outstanding. The highlights were the many new features of KNX as well as new solutions presented by the KNX members.

**Contact:** [Andrey Golovin | golovin@konnex-russia.ru](mailto:Andrey.Golovin@konnex-russia.ru)

*Participants of the Winter PlugFest*



## CEDIA and KNX join forces for new training opportunities

**UNITED KINGDOM** CEDIA has announced a reciprocal agreement with KNX Association to develop closer collaboration on training and additional initiatives. Integrators in the connected home sector are broadening their skill sets to meet homeowners' demands for entertainment technologies that can be integrated and controlled with HVAC, lighting and security systems on a single platform. In light of this trend, it makes sense for CEDIA to build a stronger alliance with the KNX Association.

**Contact:** [www.cedia.net](http://www.cedia.net)

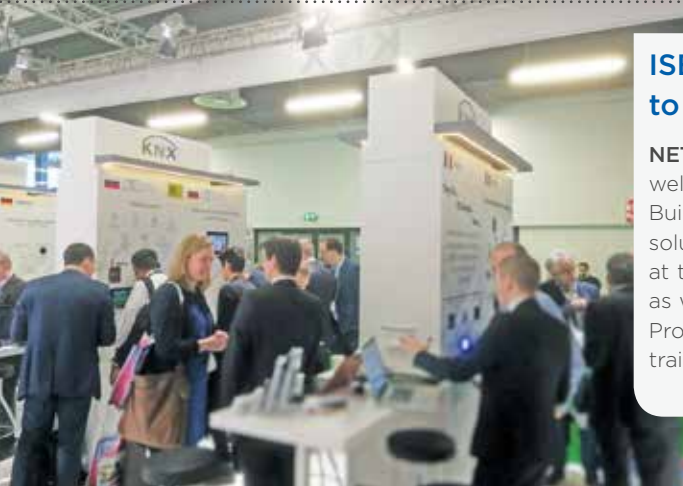
*CEDIA will now offer certified KNX training*

## KNXperience evening at SBM

**BELGIUM** KNX was a guest speaker during the KNXperience evening that was organised by one of the most prominent KNX certified training centres in the Flanders region of Belgium, i. e. the company SBM. KNX provided information about recent Association news (including the new KNX standardised HVAC course), the how and why of the KNX IoT project, the current and future features of ETS Inside and also made a live demonstration of KNX Secure with real KNX Secure TP/RF and IP devices.

**Contact:** [www.sbmopleidingen.be](http://www.sbmopleidingen.be)

*Joost Demarest delivering the KNX Secure presentation*



## ISE 2018 proved to be an unforgettable event for KNX

**NETHERLANDS** The annual system integrations fair in Amsterdam was well attended and visitors quickly found their way to the dedicated Smart Buildings Hall to see the evolutions in KNX IoT and the new products and solutions of the KNX Members exhibiting at the booth. The presentations at the Smart Building Theatre next to the booth aroused a lot of interest as well. In Hall 1, where KNX had a second booth for the first time, Dutch Professionals showed what can be achieved with KNX in projects and local training centres showed how easily ETS Inside can be used.

**Contact:** [www.iseurope.org](http://www.iseurope.org)

*The well-visited KNX booth during ISE 2018*

## KNX Secure presented at HTNG Conference in Dubai

**UNITED ARAB EMIRATES** KNX was a Sapphire Sponsor at the Hotel Technology Next Generation Conference in Dubai. After the speech of the keynote speaker, KNX again highlighted the many advantages of the number one system for home and building automation – also for the area of hospitality – including the newly available KNX Secure. In the exhibition hall, KNX demonstrated KNX Secure to the attendees with a real KNX demo installation, including KNX secure TP/RF and also IP devices.

**Contact:** [www.htng.org](http://www.htng.org)

*KNX Secure demonstrated to the HTNG crowd*



## KNX makes a guest appearance at HDL KNX Technology Forum

**CHINA** HDL invited interested professional installers, integrators and contractors to attend a one-day workshop to hear about the advantages of KNX compared to traditional installation techniques and proprietary solutions. The occasion was also used to officially inaugurate the new accredited KNX test lab at the premises of HDL, making it the second KNX accredited test lab in China. The representative of KNX International explained to the audience the background and history of KNX and also gave a live demonstration of ETS Inside, the ideal tool for making small-scale KNX installations.

**Contact:** [www.knx.org](http://www.knx.org)

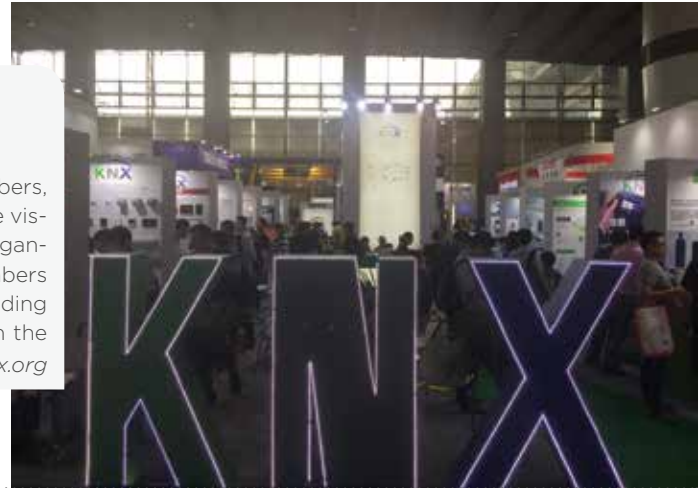
*KNX and HDL representatives cutting the ribbon to officially open the KNX accredited HDL test lab*

## KNX China has the most prominent home and building automation spot in Hall 6.1 at the GEBT

**CHINA** This year, with a delegation of even more KNX China members, the local national group presented its latest KNX developments to the visitors of the annual Guangzhou Electrical Building Technology Fair, organised from 9<sup>th</sup> to 12<sup>th</sup> June 2018. The totems of the different KNX members worked like magnets on visitors interested in integrated home and building automation solutions – products that are clearly in higher demand in the local booming economy.

**Contact:** [www.knx.org](http://www.knx.org)

*A crowded KNX booth at GEBT*



## KNX at Light + Building 2018

**GERMANY** At this year's Light + Building fair in Frankfurt/Main, KNX again underlined in style its strong international position as the worldwide leading technology for smart homes and buildings. At prominent spots in several halls, the distinctive logo with the three letters caught visitors' eyes: for instance, at the well-visited Galleria, on a surface of approximately 700 m<sup>2</sup>, KNX Association erected the KNX Internet of Things city. At this booth, KNX presented topics like "The role of KNX in the Internet of Things", and "Protecting KNX installations with real KNX Secure Devices, showcased by various KNX Secure Panels". We thank you for visiting us and hope you had a great experience.

**Contact:** <https://knxatlb.knx.org>

*Big interest at the KNX IoT city*

## KNX China organises its annual Technical Seminar at GEBT

**CHINA** The KNX China members again invited visitors to the annual Guangzhou Electrical Building Technology fair to attend a technical seminar in the back of Hall 6.1. The whole afternoon, reports were presented on KNX technology, KNX solutions and the KNX testing and certification procedure. A representative of KNX International kicked off the afternoon providing information about the five KNX success factors (a dedicated and ever growing community being one of them), KNX IoT, KNX Secure and the ETS Inside server software which is soon available on Linux.

**Contact:** [www.knx.org](http://www.knx.org)

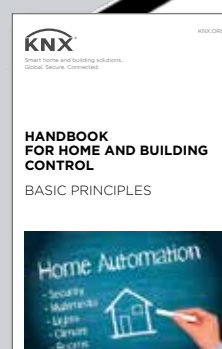
*Full house at the technical seminar*



## KNX books now available as ebooks.

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

If you want to see a list of the KNX books, have a look on this link: <https://my.knx.org/en/shop/ebooks>





# Events and Fairs Schedule



## KNX Secure Roadshow

3. 9. – 30. 11. 2018

### Worldwide

Worldwide events about the importance and benefits of KNX Secure  
[www.knx.org](http://www.knx.org)

NORDIC

## PropertyEXPO

### Northern Property Expo

11. – 12. 9. 2018

### Göteborg (Sweden)

The shape of things to come in real estate  
[www.propertyexpo.se](http://www.propertyexpo.se)

## ENERGETAB

### Energetab 2018

11. – 13. 9. 2018

### Bielsko-Biala (Poland)

The largest energy fair in Central Europe  
[www.energetab.com](http://www.energetab.com)



### Facilities Integrate 2018

25. – 26. 9. 2018

### Auckland (New Zealand)

Facilities Integrate gathers all the major players in the building industry  
[www.facilitiesintegrate.nz](http://www.facilitiesintegrate.nz)



### Euroskills 2018

26. – 28. 9. 2018

### Budapest (Hungary)

European Championship of young professionals of skills  
[www.euroskills2018.com](http://www.euroskills2018.com)



### KNX National Group Conference

3. – 4. 10. 2018

### Helsinki (Finland)

The 14<sup>th</sup> edition of the KNX National Group Conference  
[www.knx.org](http://www.knx.org)



### KNX Training Centre Conference

15. – 16. 10. 2018

### St. Pölten (Austria)

Two-day conference for KNX Certified Training Centres  
[www.knx.org](http://www.knx.org)



### IoT Solutions World Congress

16. – 18. 10. 2018

### Barcelona (Spain)

The leading IoT industry event  
[www.iotworldcongress.com](http://www.iotworldcongress.com)



### KNX Development / Certification Conference

17. 10. 2018

### Vienna (Austria)

Conference for KNX certification coordinators and KNX test labs as well as potential members  
[www.knx.org](http://www.knx.org)



### Elmässan

17. – 18. 10. 2018

### Stockholm (Sweden)

Electrical fair in Sweden  
[www.easyfairs.com/sv/elmaessan-stockholm-2018/](http://www.easyfairs.com/sv/elmaessan-stockholm-2018/)  
[elmaessan-stockholm-2018](http://elmaessan-stockholm-2018)



### KNX Scientific Conference

18. – 19. 10. 2018

### Vienna (Austria)

Conference to encourage co-operation between universities and/or technical institutes and the KNX industry  
[www.knx.org](http://www.knx.org)



### HI-TECH Building

24. – 26. 10. 2018

### Moscow (Russia)

The most important annual event for home and building automation in Russia & the CIS  
<https://en.hitechbuilding.ru>

## belektro

### belektro

6. – 8. 11. 2018

Berlin (Germany)

Trade Fair for electronics  
and lighting

[www.belektro.de/en](http://www.belektro.de/en)

## interlight

MOSCOW

powered by light + building

### Interlight 2018

6. – 9. 11. 2018

Moscow (Russia)

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

<https://interlight-moscow.ru.messefrankfurt.com/moscow/en/exhibitors/welcome>

## thailand building fair

### Thailand Building Fair

8. – 10. 11. 2018

Bangkok (Thailand)

Building automation and electrical  
engineering fair

<https://thailandlightingfair.hk.messefrankfurt.com>



MATELEC

### Matelec 2018

13. – 16. 11. 2018

Madrid (Spain)

International Trade Fair for the  
Electrical and Electronics Industry

[www.ifema.es/matelec\\_06](http://www.ifema.es/matelec_06)

## wireless CONGRESS

systems & applications

### Wireless Congress 2018

14. – 15. 11. 2018

München (Germany)

Major meeting place for the  
wireless community

[www.wireless-congress.com](http://www.wireless-congress.com)

## GET Nord

### GET Nord

22. – 24. 11. 2018

Hamburg (Germany)

Trade fair for Electronics,  
Sanitation and HVAC

[www.get-nord.de/en](http://www.get-nord.de/en)

## Integrated Systems Europe

### ISE 2019

5. – 8. 2. 2019

Amsterdam (Netherlands)

Europe's no.1 show for  
professional AV and electronic  
systems integrations

[www.iseurope.org](http://www.iseurope.org)

## ISH

### ISH 2019

11. – 15. 3. 2019

Frankfurt (Germany)

ISH brings two trade fairs together under one roof: energy, building and air-conditioning technology as well as bathroom solutions

<http://ish.messefrankfurt.com/frankfurt>

## Imprint

### KNX Journal International

The KNX Journal is the international magazine for home and building control based on KNX technology. Experts, practitioners and professionals show the way in applying and developing the KNX standard – from home and building control trends to devices and application projects; from the KNX members and partners to useful information on event stands and publications. Special attention is given to members and activities of the KNX Association International and their national groups.

### Distribution

This bannual and bilingual Journal (English/German) can be ordered free of charge by all members, partners (installers, scientific, training centres, associated, national groups) and by media representatives of KNX Association International. Order the KNX Journal by email from [knx-journal@knx.org](mailto:knx-journal@knx.org).

### Online Distribution

The KNX Journal International is posted as a Portable Document Format (PDF) file to [www.knx.org/news-press/knx-journal/](http://www.knx.org/news-press/knx-journal/).

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**TOOL SUPPORT**  
KNX Help Centre  
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One Tool (ETS)

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7,000 KNX Certified Products

+78,000 KNX  
Partners



in 190 Countries

440 KNX  
Training Centres



in 68 Countries

16 Test Labs



17 Associated  
Partners



45 KNX  
National Groups



140 KNX  
Scientific Partners

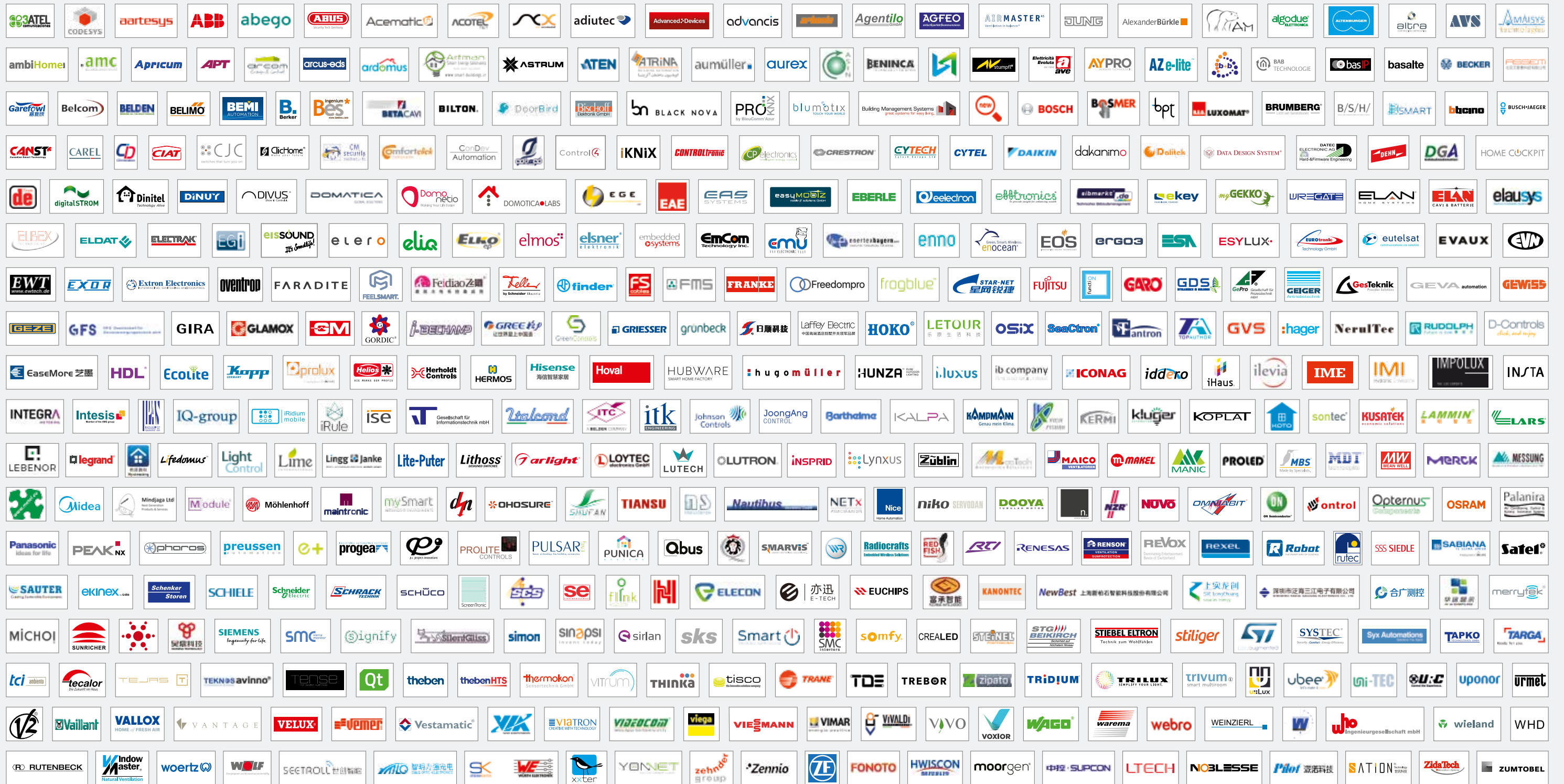


in 33 Countries

21 KNX  
Userclubs / Professionals



in 19 Countries



## KNX MEMBERS | 450 Manufacturers from 45 Countries



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

