



Smart Commercial Buildings

open | fast | secure | expandable



myGEKKO helps your building run intelligently and improve people's lives



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The future is smart.
For the good of our planet.

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A look at our work



myGEKKO also thinks and directs in the heritage-protected villa near Bruneck (South Tyrol), today the headquarters of Ekon Ltd.

The future is smart. For the good of our planet.

Buildings are responsible for 40% of the world's resource consumption and around a third of CO₂ emissions. Reducing both is a global necessity and therefore not a question of who and when, but a duty we have to future generations. All of us. Right now.



“ Our vision is ...
... to use technology to make
all our lives in buildings and cities
more and more simple, sustainable
and livable.

In order for new buildings to meet the requirements of a modern world and for existing buildings to continue being useful, we must reduce resource consumption and CO₂ emissions significantly, even down to carbon-neutral, if possible. This can be achieved using the kind of networked, intelligent, centrally controlled building automation that we have been working with for more than 30 years.

When we founded Ekon Ltd in 1991, there was hardly any talk of intelligent systems or sustainability, yet we could already see the future in smart building technology. For property developers, businesses and our environment. We didn't just jump on the train when it was already at full speed, we helped get it up and running.

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In terms of technology, everything's changed since we started in 1991 and only our vision has remained the same: to use technology to make our lives easier, more sustainable and more livable. Today, this not only means providing users with fully automated, smart buildings in which all systems and components are networked and can communicate and interact with one another. The goal is for buildings to collect and evaluate data to continuously and autonomously learn.

Ekon's answer to the challenges of digitalization is the myGEKKO software concept. Conceived 20 years ago, it is constantly being further developed and has thus become leading software for intelligent building automation. myGEKKO controls residential buildings and hotels, shops and clinics, commercial buildings and entire neighbourhoods. It makes them intelligent and user-friendly, easy to maintain and inexpensive to manage, energy-efficient and future-proof.

Welcome to a smart, green future!

Hartwig Weidacher, CEO myGEKKO | Ekon Ltd

Why the gecko?

Geckos are long-lived, versatile and flexible creatures. And by eating annoying insects, they provide a welcome service in buildings without ever drawing attention to themselves. So it's no coincidence that our building digitalization concept is named after the gecko. After all, myGEKKO technology is long-lasting, versatile and flexible when it comes to installation. myGEKKO also works as inconspicuously and efficiently in the background as our namesake does.

myGEKKO in numbers

Main markets

Germany
Austria
Italy
Switzerland



Experience

30 years of experience in building automation

Employees

30+

Marketplace

80+

Active systems

15,000



Realizing our tomorrows today



Smart Commercial Buildings

Buildings are so much more than just shells to protect us against cold, wind and rain. They should offer users an optimal environment that stimulates exchange, creates community and, above all, promotes productivity. They also need to be both ecologically and economically sustainable.

Technology, especially the Internet of Things, is giving us the opportunity to create intelligent buildings or make existing buildings intelligent. We create smart buildings, i.e. buildings that think: with you, for you and, ideally, ahead of you.

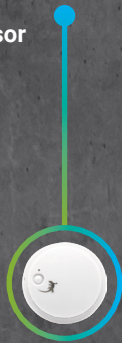


Smart Home



Smart Hotel

RAUMBUS multi-sensor



RAUMBUS frameless
8-way switch



Intelligent
floor lamp

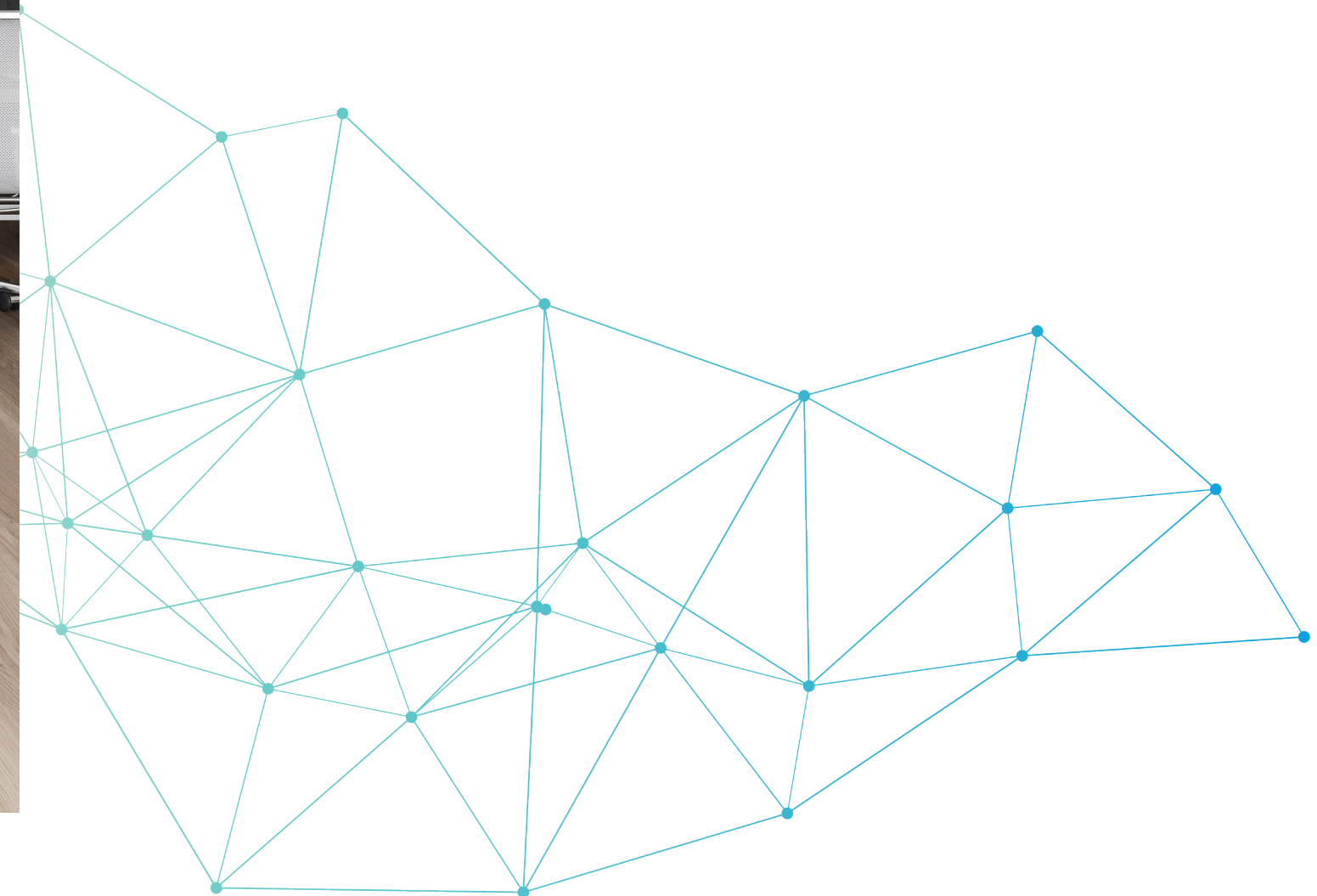


Intelligent, not (just) automated

The terms “automation” and “digitalization” are often used interchangeably, with the former sold as the latter. One forgets that the automation of building technology is only the first step. It’s merely the foundation for digitalization and smart buildings.

Fully automated buildings are now standard for new construction. But automated building systems are not enough; there should be plans in place for the future.

And this future will be digital.



Automation

The automation of building technology allows buildings to control themselves.

Building automation aligns all technical systems with two goals: efficient operation and the best possible support for everyone who works and lives in them. Human intervention is reduced to a minimum and, ideally, even superfluous. The added value of such automation is obvious:

- › Use of buildings becomes easier and more efficient.
- › Human error is eliminated.
- › Lower costs of managing and operating buildings.

Digitalization

An automated building isn't a smart one just yet. It's digitalization that gives a building its intelligence.

This involves collecting, processing, and providing information from all the sensors and actuators in the building in a standardized fashion. This allows the data to be easily evaluated and enables virtual tours of buildings and building systems.

Efficient building operation is therefore no longer designed for the status quo. Buildings instead learn independently, develop dynamically and are always open to innovation.

- › Digitalized buildings can be easily and centrally controlled.
- › They can react flexibly to new requirements and uses.
- › Problems or malfunctions can be identified and rectified at an early stage (predictive maintenance).
- › The complete data overview guarantees cost transparency and efficiency.



The advantage of myGEKKO

myGEKKO does not stop at automation, but instead combines it with the advantages of digitalization. myGEKKO automates and digitalizes buildings in a single step, making them smart and fit for the future.



- › Sense of well-being due to optimal working conditions
- › Better health due to indoor air regulation
- › Higher employee satisfaction and loyalty
- › Optimal combination of life, work and community



- › New digital offers and business models
- › Higher productivity thanks to comfort and sense of well-being
- › Fewer sick days, lower staff turnover
- › Increased attractiveness as an employer
- › Low operating and administrative costs



- › Efficient use of resources
- › Minimal energy consumption
- › Reduced CO₂ emissions
- › Significantly smaller ecological footprint

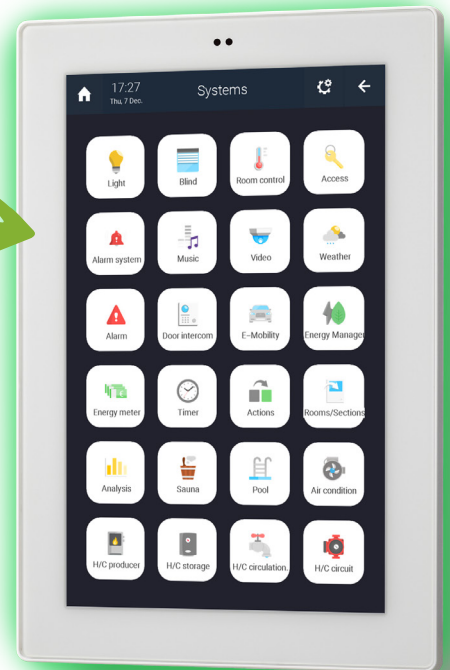
What smart commercial buildings can do



We don't just have answers. We are the answer.

Making buildings smart is complex. You need knowledge of both each individual component and of all areas and components. You also need someone to do the programming for digitalization. All this costs money and creates dependencies.

myGEKKO is
the solution.



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Who can do what?

Every installation, every device, every system in a building functions in its own unique way and follows different logics. To understand this, you need tremendously detailed knowledge that only experts have: experts in lighting, experts in heating, ventilation, cooling, access or security technology, energy management, shade and workplace management. All of this knowledge is not only difficult to organize, but would also cost a lot of time, effort and money without myGEKKO.

myGEKKO has integrated all of this detailed knowledge into the system. Our concept consists of ready-made modules for each individual component, with standardized controls and reduced electrical installation effort.



Who takes care of what?

Specialists for individual systems, professionals for installation systems, experts for programming: when a problem arises, it can be difficult to know who to contact. And it becomes even more difficult to solve the problem in a timely manner. In addition, the solution depends on the cooperation of all the companies that have contributed to the building's automation and digitalization.

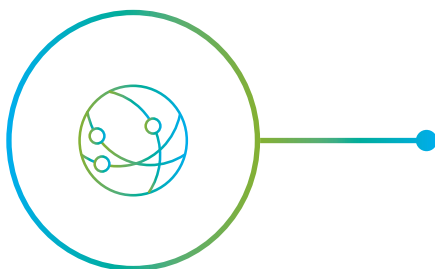
myGEKKO bundles detailed knowledge of all the components, knows the common installation systems and converts all of this information into standardized data that's easy to use. That's why myGEKKO will become your first and central point of contact whenever you have any questions or problems.



Where's the standardization?

Experts for the individual components get them up and running and automate them. In addition, there are professionals for the individual installation systems who ensure the devices are communicating with one another. There's also a need for programmers to create a central brain to record and process all the different impressions and information gathered in the building. This requires a tremendous amount of programming if you don't have an innovative solution.

myGEKKO arranges its modules for the individual components into a comprehensive system. This ensures quick and easy connections, uses global industrial standards and doesn't require any programming effort. In addition, all information from the building converges in the central brain and is translated into standardized data. myGEKKO not only automates a building, but it also digitalizes it.



What does it all cost?

If the automation and digitalization of a building were approached from scratch, this would all be highly complex. The complexity is often shown by the fact that the goals of digitalization are unclear, diverge among individual stakeholders and take a long time to define. It also requires a massive programming effort that can be hard to quantify in advance. All of this makes it difficult to calculate the costs precisely in the planning phase.

Thanks to its specially developed modules for all components, myGEKKO is easy to implement and thus noticeably reduces investment costs. Since automation and digitalization also take place in a single step, the costs are easy to calculate in the planning stage and remain transparent throughout every phase of the project.



The answer's called BAM

The Building Automation Model (BAM) is the answer to the challenges associated with the digitalization of buildings. We developed myGEKKO to implement this new concept and made it easy to install and use, customizable, expandable and scalable at any time, and not restricted to certain technologies.

myGEKKO automates and digitalizes buildings in a single step. This means that all systems, components and devices, regardless of type and manufacturer, are managed using a shared, standardized interface. This is made possible by the fact that our software already contains the logics of all the systems in the building. The corresponding algorithms have been developed, tested and standardized for all components.

This makes adjustments and optimization just as easy as extensions. In this way, all components can be connected regardless of the installation protocol used. After all, in addition to the most common protocols, such as KNX, SMI, Modbus or EnOcean, myGEKKO has actually mastered a total of 15 protocols.

myGEKKO's standardization of the data model for all systems, components and devices has a number of advantages:

- › Specialists for the individual installation systems and interfaces are no longer necessary.
- › Support is simplified because every system element in myGEKKO follows the same standards in terms of user interface and functionality.
- › Automation, digitalization and maintenance become scalable. New devices and systems can be easily connected and buildings of all dimensions can be controlled: from smart offices to smart districts.

IOT

{REST API}

expandable and secure



The building



User interface



myGEKKO^{OS}
The platform

Office spaces

Systems rooms



Shade, sun protection



Individual room controls



Lighting, sensors



Access control



MSR technology



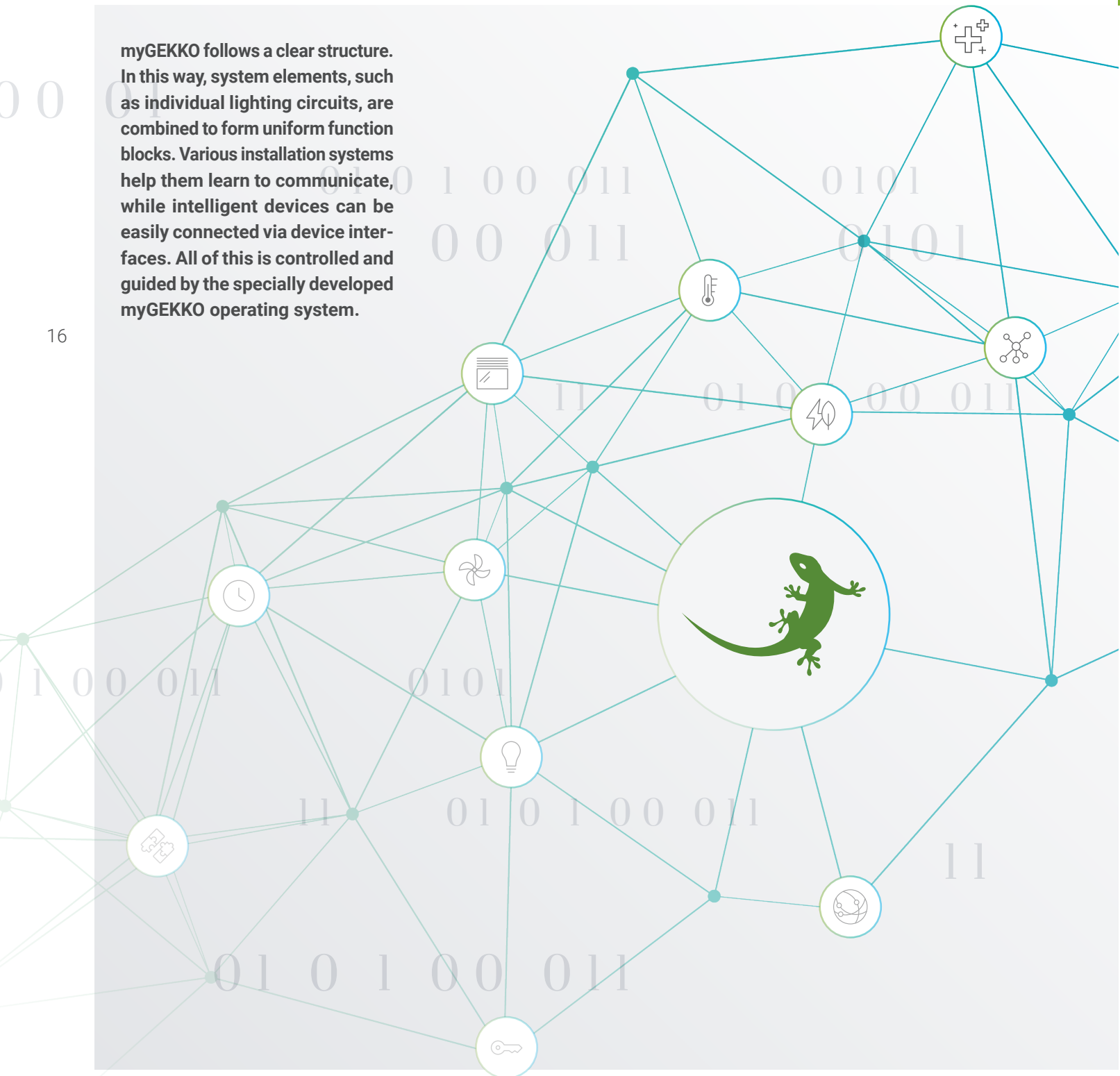
Energy monitoring EMS



How does myGEKKO work?

myGEKKO follows a clear structure. In this way, system elements, such as individual lighting circuits, are combined to form uniform function blocks. Various installation systems help them learn to communicate, while intelligent devices can be easily connected via device interfaces. All of this is controlled and guided by the specially developed myGEKKO operating system.

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Intelligence needs control

The myGEKKO OS

myGEKKO OS forms the brain of a smart building. Since it already contains all the algorithms for every device, component and system, it allows them to be networked via a uniform control system. Third-party products can also be easily connected to myGEKKO via various installation systems or device interfaces. This makes myGEKKO OS the brain behind building automation.

As we already know, myGEKKO does not stop at automation, but also handles the building's digitalization. Just like the brain, all

the nerves come together in the myGEKKO OS.

All impressions, data and information from every sensor and actuator in the building are collected, processed and standardized there.

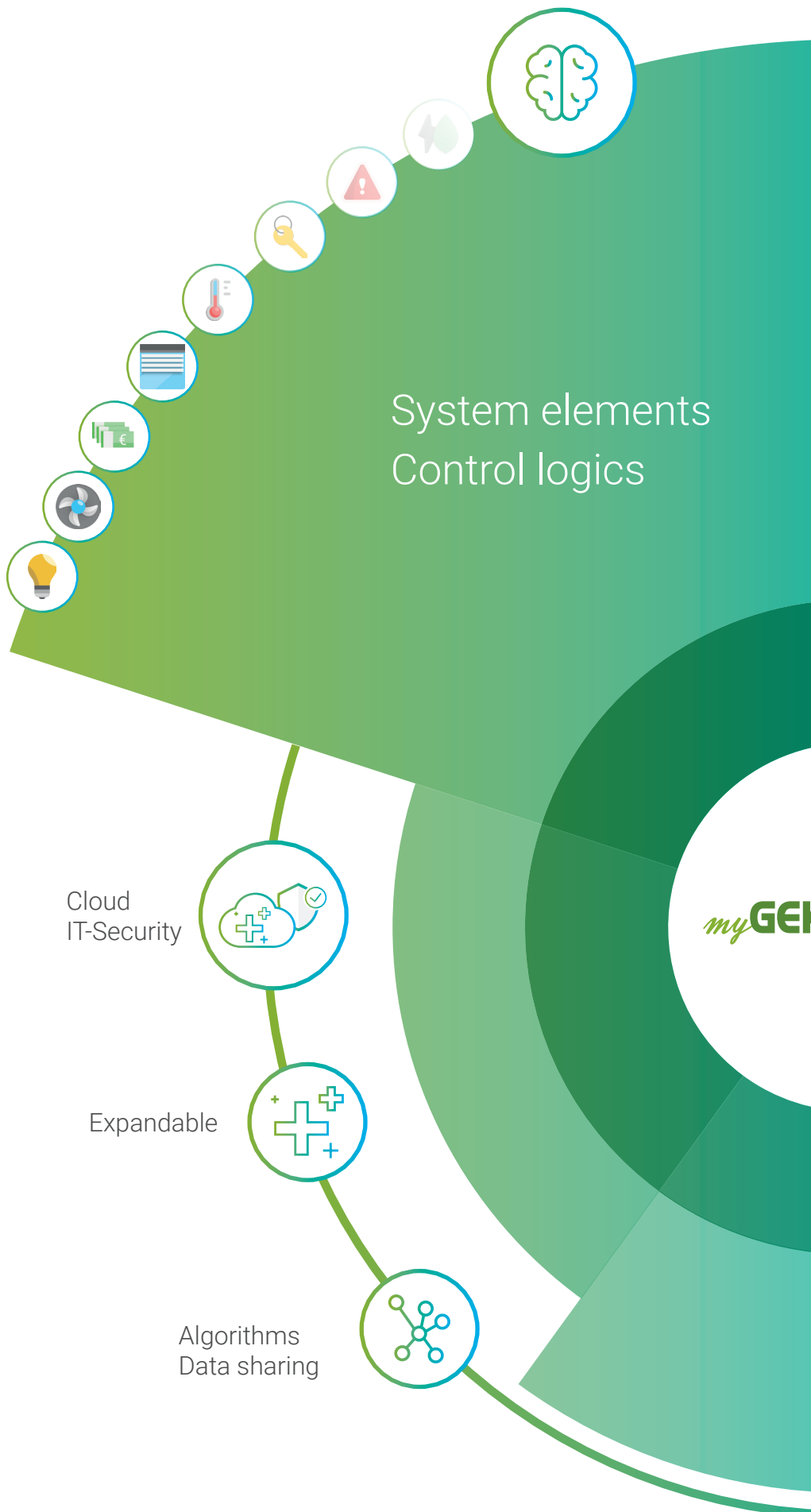
This data is not only available to all users in an understandable and clear manner, it is also used by myGEKKO OS itself. After all, the system has the artificial intelligence to continue developing independently. It learns to react quickly and sensibly to the impressions it has collected and can also be upgraded at any time.

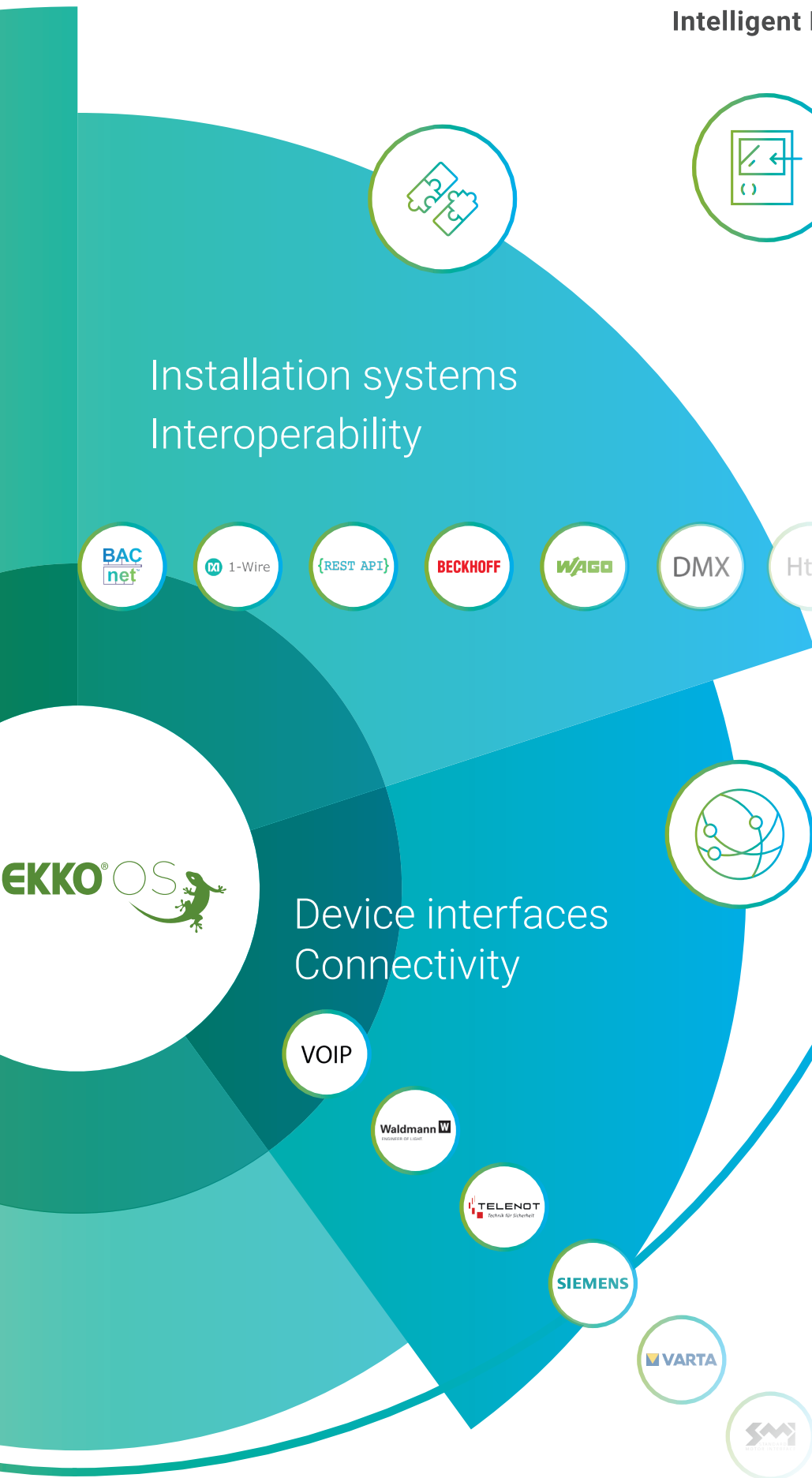
“ The goals pursued by myGEKKO OS for the entire building are clear: economic efficiency, sustainability and simple, intuitive and therefore user-friendly operation.

The technology

The myGEKKO OS ...

- › is customizable, expandable and scalable at any time
- › networks all components and systems via a uniform control concept
- › is easy to install by a trained electrician thanks to plug&play compatibility
- › uses modern user interfaces
- › contains all algorithms for the automated regulation, control and optimisation of the various systems
- › allows interaction with users in all phases (installation, operation, maintenance, expansion)
- › offers interfaces to the most important installation systems on the market
- › interacts with third-party products via the installation system or device interfaces
- › determines target values using BIM simulation and aligns the building with them in advance
- › is based on the open-source software standard Linux
- › is growing through continuous development and therefore future-proof in the long term





To make overview and control easy, the myGEKKO software and hardware (e.g. in the form of the building controller) form a unit.

The technology

See and manage everything

A complex system doesn't have to be complicated to use. On the contrary, the myGEKKO software and hardware form an optimally coordinated unit accessed via the myGEKKO building controller, while the myGEKKO user interface provides the necessary overview.

The myGEKKO Building Controller

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Mainline Smart Building Solution

- › 10.1" Full HD display
- › CPU iMX.8
- › KNX, RS485, EnOcean, LAN
- › RS485 interface
- › Audio, VOIP

Compactline Smart Control Solution

- › 5" display
- › CPU iMX.8
- › RS485, LAN, RS232, USB extension, EnOcean, BlueRange, KNX, WLAN

BASE

Highlights

- › Digital outputs
- › Digital inputs
- › Analog outputs
- › Analog inputs
- › RS-485 interfaces
- › KNX interface
- › Ethernet ports



EDGE

Highlights

- › Front display with control buttons
- › USB ports
- › RS485 COM port
- › Ethernet ports



NODE

Highlights

- › BASE board USB
- › RS485 COM port
- › Ethernet ports

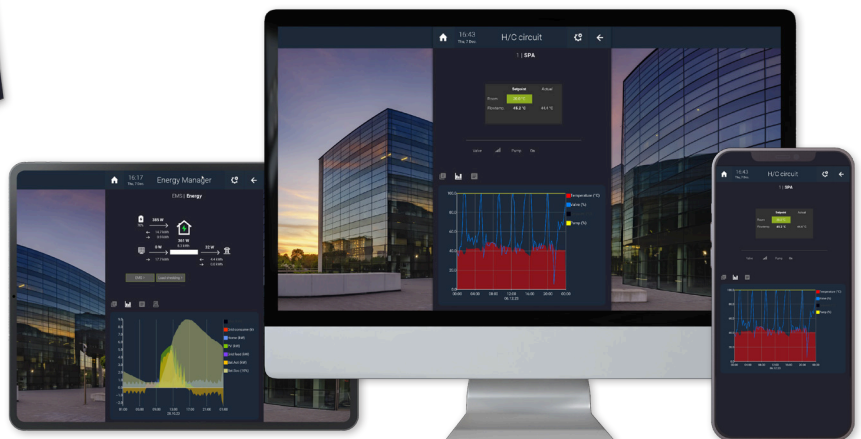


... and many more

The myGEKKO user interface



- › Zero programming
- › 100% personalizable
- › Display all components
- › Different access levels for operators, technicians and maintenance
- › In-house and remote



The technology

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Intelligence evolves

Our function blocks, elements and algorithms



The smallest module in the myGEKKO concept are the system elements. A single lighting circuit is one such element. Each of these circuits takes on different tasks, each operated in its own way. This in turn means that each follows its own control logic, sensors and actuators are assigned to each and each is optimized using the defined parameters. The myGEKKO system elements combine all of this: the control logic including operation and the corresponding configuration of the sensors and/or actuators.

All related system elements are combined into function blocks. To stay with our example: All of the lighting circuits in a building form the lighting circuit function block. What is unique about myGEKKO is that all of the elements within a function block are raised

to a common, standardized level, in other words, are identical in operation, control and parameterization. In the myGEKKO concept, the integration of the individual elements into the overall system has a fixed price. The costs for each function block can therefore be calculated transparently and precisely as early as the planning phase. This means that the costs for the automation and digitalization of the entire building are also fixed from the outset.

What sounds simple is highly complex. myGEKKO combines all control logics, operations and configurations into individual function blocks. We're going to use four examples to illustrate what this means in concrete terms: shade, lighting, energy and climate.

The technology

Shade

The shade function block provides the control of roller blind and external venetian blind circuits to provide the perfect mix of daylight and artificial light. The shade can be controlled by timers or sensors, by the press of a button or by voice command; it can be automated to change based on the weather or the amount of sunlight.

- › Can be operated from a single button
- › Manual control via button/display
- › Wind or rain-dependent control
- › Time-dependent control
- › Control via events (e.g. triggering of the fire alarm system)
- › Control via scenarios
- › Control based on requirements
- › Position display of overall and tilted position
- › Any control logic via logic links
- › Combination of any roller blinds into groups



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Lighting

The lighting circuits function block includes the control of all lighting circuits in a building. A lighting circuit can be switchable, dimmable between 0 and 10 V, but also switchable and dimmable via DALI individual or group addresses.

Each circuit can therefore fulfil the following functions:

- › Manual light control via button/display. Switching and dimming functions can be assigned to separate buttons or combined on a shared button.
- › Continuous RGB
- › Time or dusk-dependent lighting control
- › Central lighting control
- › Lighting control via scenarios
- › Lighting control via motion detectors, also dusk-dependent
- › Lighting control via events (e.g. triggering the alarm system)
- › Lighting control via light sensors (brightness control)
- › Lighting control via a time-of-day dimming curve
- › Blocking contact
- › Stairwell function
- › Rolling blackout
- › Any control logic can be implemented using logic modules
- › Combination of any number of lighting circuits into groups



Energy



Energy consumption must be constantly monitored for a building to run energy-efficiently. The energy meter function block, which includes freely definable energy meters, ensures transparency.

Each of these meters can monitor the following functions:

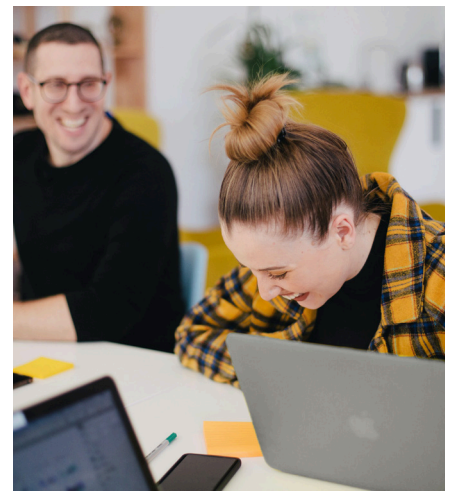
- › Display of current consumption
- › Current consumption today and in the current month
- › Display as a trend curve
- › Display of total consumption
- › Supported meter types: physical meter via M-BUS or with pulse generator, measuring transducer with analogue inputs
- › Virtual meter with cross-component data collection, for example in the form of the instantaneous output of the entire lighting system, ventilation or other groups and components
- › Virtual meter (calculated consumption sums) with totals: calculation based on the power allocation used during the duty cycle of any output

HVAC

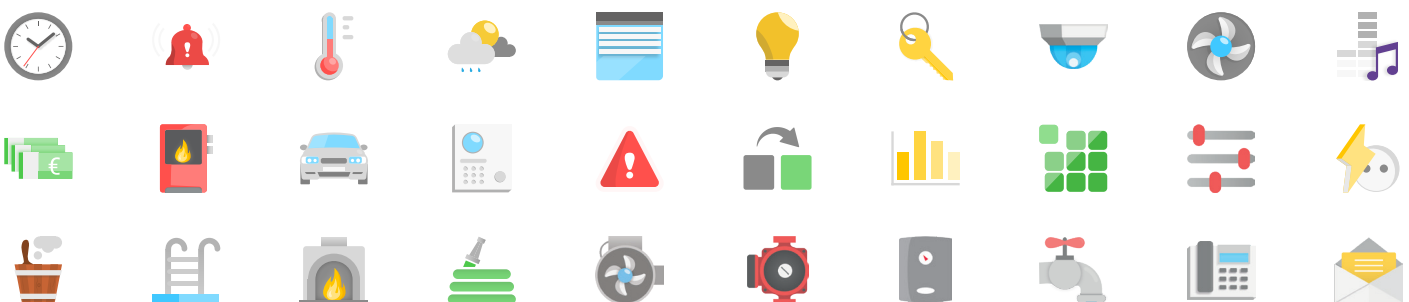
Up to four professional HVAC systems can be operated using the climate control function block.

The module can take on the following functions:

- › Volume flow control: separate control for supply and exhaust air including frequency converter control
- › Cooling and heating registers
- › Humidity control
- › Heat recovery
- › Frost protection
- › Allocation to individual rooms
- › Manual control via button/display
- › Time-dependent control
- › Control via scenarios
- › Control via events
- › Control via requirements
- › Blocking contacts
- › Rolling blackout
- › Any control logic can be implemented using logic links

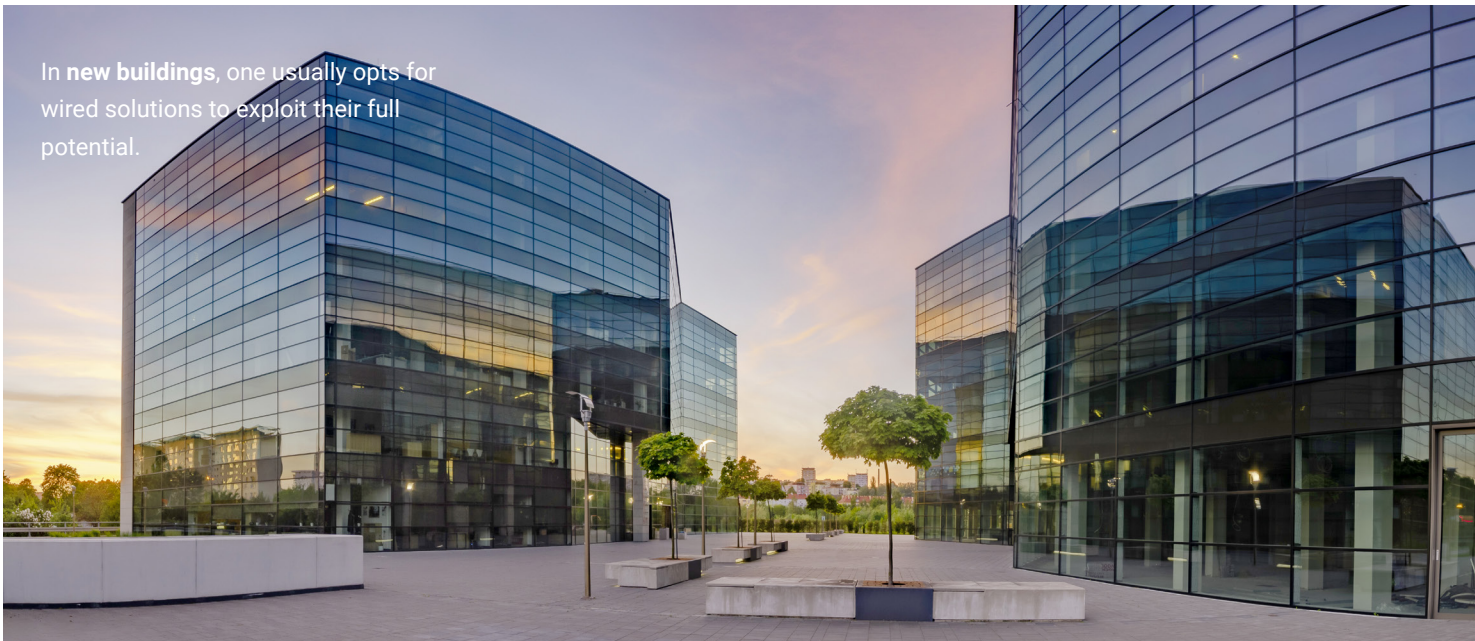


Our function blocks cover the full range of building systems.



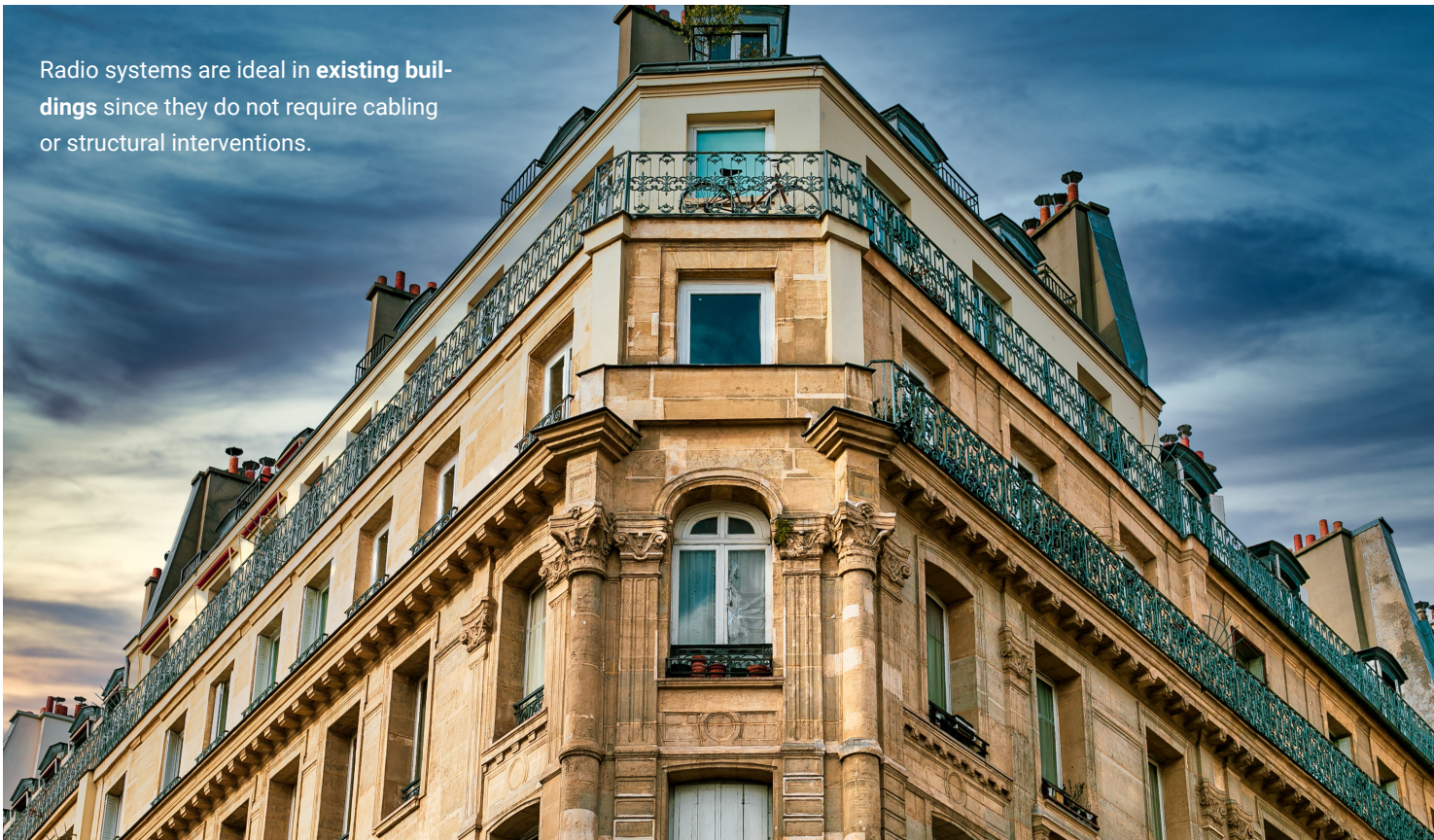
The technology

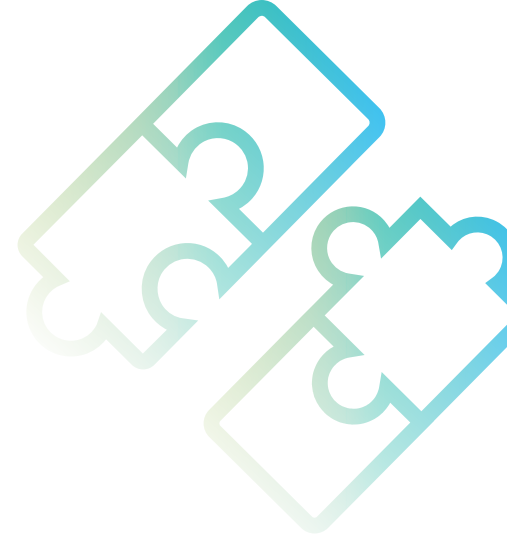
In new buildings, one usually opts for wired solutions to exploit their full potential.



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Radio systems are ideal in **existing buildings** since they do not require cabling or structural interventions.





Intelligence communicates

The installation systems

In the myGEKKO concept, elements and functional modules form the foundation for the automation and digitalization of buildings. They combine the control logic, the operation and the configuration of sensors and actuators. In practice this also means: sensors and actuators have to communicate and exchange signals with each other. This the purpose of the installation systems.

There are a large number of such installation systems on the market. Most of them are device- and manufacturer-independent. To stick with our example of lighting: switches and fixtures can communicate via the installation systems, but also fixtures from different manufacturers.

The common installation systems can basically be divided into three categories:

- 1 Centrally wired installation systems (e.g. RIO, WAGO or Beckhoff)
2. Installation systems wired in a bus or strand form (e.g. SMI, KNX or Raumbus)
3. Radio installation systems (e.g. EnOcean, BlueRange or WiFi)

Which installation system you choose depends on various factors. In new buildings, for example, wired solutions are primarily used; in existing buildings, radio systems offer decisive advantages because they do not require any structural changes and thus result in far lower costs. However, cost is only one factor in choosing the right installation system. In addition, there are factors such as ease of maintenance or flexibility in expansion.

Different installation systems score points for different factors, so they all have their strengths and weaknesses. myGEKKO therefore brings all of the common installation systems together and develops the optimal solution from their combination. The system mix makes use of their strengths and eliminates their weaknesses. In addition, thanks to this approach, myGEKKO is technology- and manufacturer-neutral, giving planners, project developers and users the widest possible scope with no dependencies

“ The optimal installation system is chosen based on the respective component, the installation effort, costs, support and available expansion options.

It would be pointless to limit oneself to a single installation system. This is also shown by the example of the five most common systems that we introduce below

The technology



Today, KNX is one of the most common bus systems in the field of building automation because it makes operation of any type of electrical consumer quick and easy. However, the costs associated with KNX are comparatively high, because KNX requires larger distributors. In order to be able to use the versatility of KNX, myGEKKO has a specially developed interface allowing a KNX line with actuators and sensors to be connected to the myGEKKO OS with little effort. The myGEKKO system can both read sensors and contacts and also control and visualize actuators, all depending on how the project stakeholders decide. So myGEKKO OS can be used as a complete control system with KNX components. However, it can also only take care of the visualization and control selected central actions.

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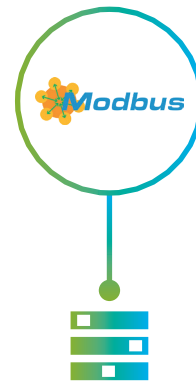
The acronym DALI stands for „Digital Addressable Lighting Interface“, which, as the name suggests, is a protocol for controlling devices that manage the lighting of a building. Switching power supplies, electronic ballasts or electronic power dimmers communicate via DALI. The strength and also the weakness of DALI lie in its sole focus on lighting.

myGEKKO uses DALI in the lighting circuits function module and has developed its own drivers for this. These enable the operation of up to 32 DALI gateways with 64 lights each, which can thus be integrated into the myGEKKO system and, thanks to the myGEKKO OS, can be controlled centrally and intelligently.



Today, the Modbus protocol is the global standard communication protocol, especially in industry. It is based on master/slave or server/client architecture and allows several slaves to be connected to one master.

In the myGEKKO concept, a PC or the myGEKKO building controller act as the master. One can connect either the measurement and control systems or a wide variety of devices in the building, thus making central control is possible.



EnOcean is a manufacturer-independent standard for batteryless wireless sensors. Like all wireless installation systems, EnOcean shows its strengths primarily in retrofitting, since neither structural interventions nor complex cabling are necessary.

myGEKKO uses a specially developed stick to connect EnOcean-compatible radio devices to the myGEKKO OS and thus integrate them into the building automation system. This applies to sensors, such as temperature sensors or buttons, as well as to actuators such as dimmers.

BlueRange works on the basis of Bluetooth technology. While the latter only couples two devices at a time, BlueRange makes it possible to link several devices at the same time. Like EnOcean, BlueRange falls into the category of wireless solutions in the field of automation and digitalization of buildings. The use of BlueRange in myGEKKO is based on similar requirements as those of EnOcean. Here, too, a dedicated BlueRange stick was developed to allow BlueRange-capable devices to connect to the myGEKKO OS. In this way, they become part of the smart building control system too.



When it comes to installation systems, myGEKKO is an all-rounder:



The technology

Intelligence knows no boundaries

The device interfaces

With the optimal combination of installation systems, myGEKKO is able to link devices from different manufacturers and control them via the myGEKKO OS.

This creates a uniform, standardized automation and digitalization system. If complex, even smart devices are to be integrated into this system, myGEKKO will use specific device interfaces.

Especially when complex devices extend over several function blocks within myGEKKO and have their own intelligence, we connect them to the myGEKKO OS via corresponding device interfaces. Unlike the installation systems described above, however, these interfaces are not manufacturer-independent. Rather, they are developed in close cooperation with the respective manufacturers and continuously kept up to date.

The integration into the myGEKKO control system has several advantages. The myGEKKO OS ensures that the devices connected via the device interface don't remain isolated in their own universe,

but instead communicate and interact with all other devices. If an outside sensor is necessary for the efficient operation of a device, it does not have to be attached specifically for each device. Thanks to the myGEKKO OS, the systems can access the data collected by a single (and central) outside sensor.

Integration into the central automation and digitization system not only makes the installation easier, but building managers, operators and users do not also have to deal with different systems during operation, instead being able to use a uniform, integral interface.

“ The myGEKKO OS can simply and intuitively operate the systems and adapt them at any time.



Our partners:

2N	Pluggit
Amazon Alexa	Proxon
BMW i	RTI
Bose	Siemens
Buderus	Sonos
DoorBird	Stiebel Eltron
E3DC	SunSpec
ekey	Thies
Elsner	Tecalor
Carlo Gavazzi	TELENOT
Keba	Varta
my-PV	Waldmann
Phoenix Contact	Westaflex

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BOSE

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elsner[®]
elektronik

HELIO THERM
Die Wärmepumpe



Die Wohnraumlüftung

VOIP



SSS SIEDLE

SONOS

STIEBEL ELTRON
Technik zum Wohlfühlen

tecalor
Wärme wird grün



Technik für Sicherheit

VARTA

alpha innotec



DoorBird

ekey
YOUR BRIDGE YOUR KEY

MPV
Wärmepumpe & Heizung mit Photovoltaik

westaflex

Efficient interaction

Like any intelligent system, the building technology in a smart commercial building also consists of hardware and software. The software side is covered by myGEKKO with its myGEKKO OS operating system, while the myGEKKO platform handles the integration of the hardware.

An integrated, all-round standardized and thus centrally and intelligently controllable system of building technology is highly complex. The myGEKKO platform gives structure to this complexity. This is where automation and digitalization control software like the myGEKKO OS and the necessary hardware solutions come together: from the heat pump or ventilation system down to the individual lighting fixture or socket. myGEKKO limits its hardware solutions to controllers and visualization tools.

All of the other hardware components come from specialist third-party suppliers who spearhead the development. myGEKKO was developed as an open concept and not as a system.

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As a manufacturer- and technology-neutral operating system, the myGEKKO OS offers planners, developers, property developers and users tremendous advantages:



Products from a wide variety of manufacturers can be integrated into the overall concept via installation systems or device interfaces.



This integration does not require any additional programming effort.



Access to innovative products is unrestricted.



Unlimited freedom to use hardware of your choosing

The myGEKKO platform links the hardware and software levels. myGEKKO provides the software, while you can choose from a wide variety of specialist manufacturers for the hardware. We present three of them here.

One of our partners: Siemens

Everything under control

SIEMENS

Together with our partner Siemens, we offer the solution for smart protection. Siemens has developed the first compact, wireless-networked line and fire protection switch that also handles energy monitoring and other measurement functions.

The measurement data is recorded with high precision at the various circuits and wirelessly forwarded to the myGEKKO OS. There, the data from the circuit breakers is integrated for a clear presentation on the dashboard. If the data deviates from the setpoints, users are alerted immediately so they can react to the anomalies. This prevents damage to systems as well as their failure and the high costs that both could entail.



Siemens 7KN Powercenter 1000



Secure availability of data



Preventive monitoring-
cost savings



Cost transparency



No additional wiring

The platform

One of our partners: TELENOT

When it comes to security

More than ever, every building has high demands for reliable and modern security technology.

The optimal protection against burglary, fire, technical hazards and the optimal organization of all access rights play an important role in every commercial and industrial building.

The topic of security with all its specific requirements, norms, guidelines and massive quality standards for the protection of

- › people,
- › property,
- › stored goods and products,
- › intellectual property and
- › the building itself,

in interaction with other components is of tremendous importance.

With its certified and standard-compliant security solutions, TELENOT offers the best solution for every application. With TELENOT, you can rely on innovative strength and the highest level of system reliability, sustainability and interoperability.

The myGEKKO platform enables the optimal interaction of the TELENOT security solutions, which are recognized by the police and property insurance companies. The networking and interaction of the sensors from the security technology with other components can on the one hand considerably improve energy efficiency, while on the other implementing various scenarios when the security system is armed/disarmed. Perfect, secure and effective coordination of security-relevant aspects with those for energy efficiency and comfort is essential.

TELENOT security systems protect smart commercial buildings from break-ins, hold-ups, unauthorized access, fire, water or gas damage.

The myGEKKO OS not only allows them to be controlled centrally and intelligently, but also to be linked to other systems (light, heating, air conditioning,...).

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Zertifiziert gemäß DIN EN ISO 9001
Nr. S 897069



Verband Schweizerischer
Errichter von Sicherheits-
anlagen

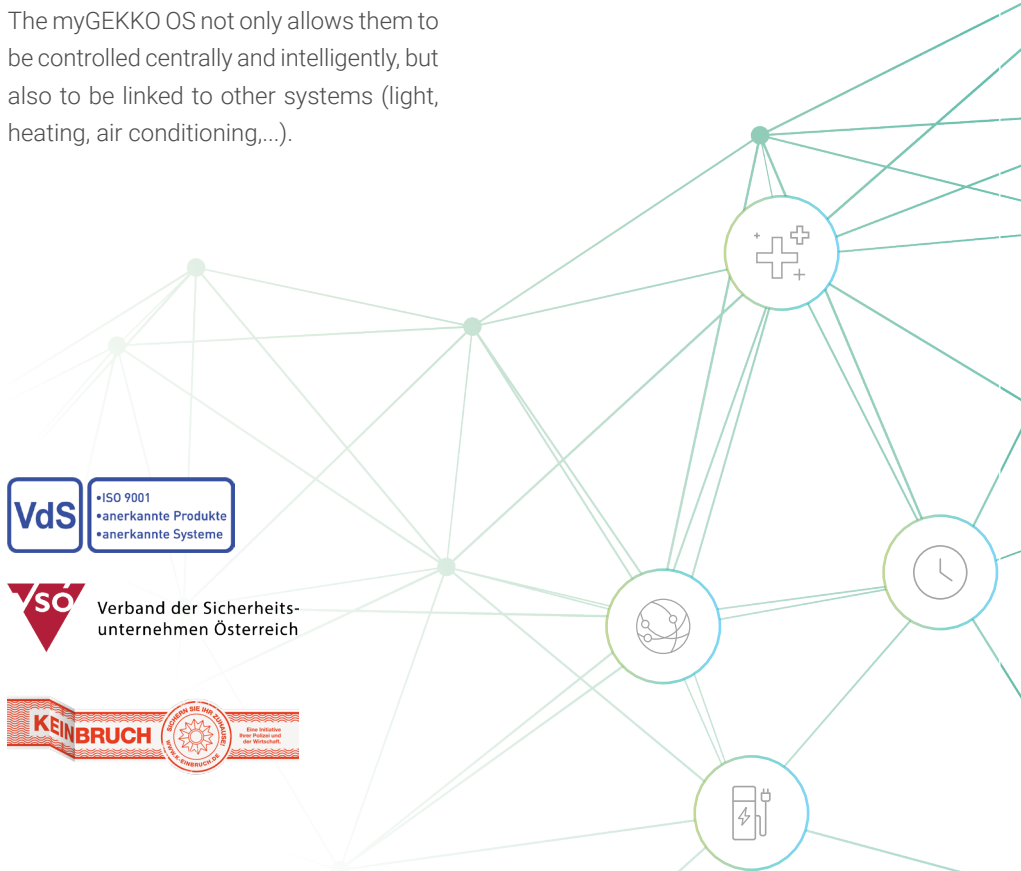
Anerkannt von Polizei und
Gebäudesachversicherungen!



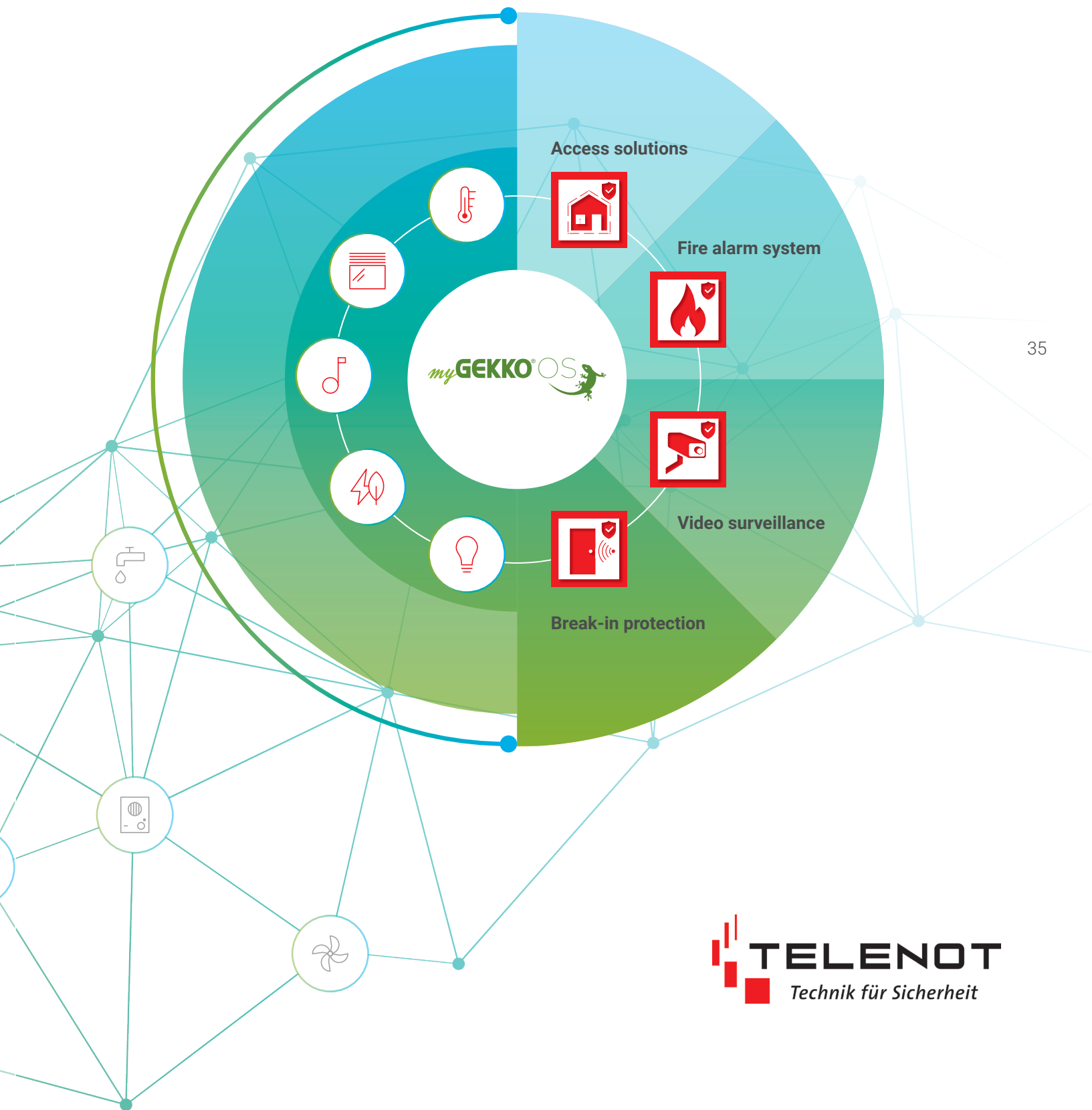
•ISO 9001
•anerkannte Produkte
•anerkannte Systeme



Verband der Sicherheits-
unternehmen Österreich



TELENOT and myGEKKO for secure smart commercial buildings



The platform

One of our partners: Waldmann

Optimal conditions for the workplace



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Together with our partner Waldmann, we ensure optimal lighting conditions in the workplace. For over 90 years, Waldmann has been developing some of the best lighting systems in the world from its home in the Black Forest. For Waldmann, lighting is not an end in itself, but instead serves to create optimal conditions in the workplace, from early in the day to late at night for productive work and even relaxation.

Lighting systems from Waldmann are also characterized by the highest quality and optimal user-friendliness, especially in combination with myGEKKO. The goal is for people to be able to do what they want to do thanks to the latest German technology and the intelligence of myGEKKO.

Office light, next level

YARA

Waldmann **W**

ENGINEER OF LIGHT.



YARA single



YARA single

What can digitalization offer?

The digitalization of buildings opens up a number of new possibilities: from efficient building management and remote access to the entire building to predictive and therefore cost-saving maintenance.

Big Data & IoT ...

... make buildings intelligent and allow them to learn and evolve.

... form the basis of the building management system (BMS) that can visualize all the processes in the building and how to control even more efficiently.

... allow all conditions, processes and costs incurred in the building to be analyzed at any time, thus ensuring comprehensive transparency.

... enable access to all systems in the building, at any time and with any device.

... recognize deviations from target values and thus signal malfunctions before they develop into a problem.

... make predictive and therefore far less costly maintenance possible.

... enable support experts to access the systems remotely, thus enabling problems to be resolved immediately.

... open the system to third-party applications such as smart office administration, facility management, monitoring and optimizing energy consumption or smart cleaning.

... provide the data basis for the certification of buildings in terms of energy efficiency, sustainability, health protection, workplace safety, etc.



Building management system

Analyses

Controlling

Artificial intelligence

Predictive maintenance

Energy management

Data ownership

Platform

Smart contract

Data sharing

Performance management

Room booking

Smart parking

Smart desk sharing

Monitoring

Facility management

Dashboards

Data monetization

Access management

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Noticeable benefits for everyone

A closer look at the myGEKKO automation and digitalization concept reveals that all stakeholders can benefit from it: planners and architects, general contractors, investors and project developers, system integrators and, last but not least, the users.

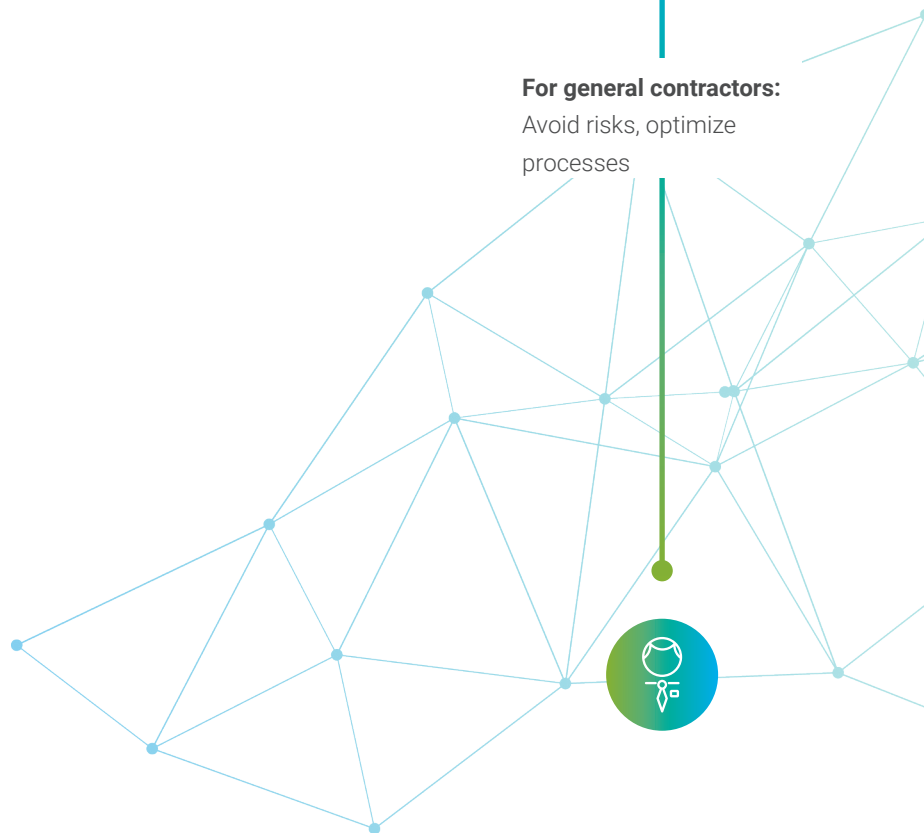
The automation and digitalization of buildings, i.e. the transformation of simple commercial buildings into smart commercial buildings, can be achieved in one step with myGEKKO. myGEKKO not only ensures central control of all components, systems and devices, but also collects and standardizes all building data and makes it available for further use.

Both offer all stakeholders measurable added value in the form of an efficient, flexible, dynamic, self-learning building that offers security, health and sustainability. And full cost transparency and control in every phase.

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For general contractors:
Avoid risks, optimize processes





For planners and architects:
New business opportunities,
no limits



**For investors and project
developers:**
Predictable costs, future-
proof investment



For system integrators:
Simple, open, flexible and
versatile



For users:
More convenience, energy
efficiency and sense of
wellbeing



The added value

For general contractors

Avoid risks, optimize processes



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Reliability through standardization:

A mature, well-tested, standardized system for the automation and digitalization of buildings provides security and eliminates possible imponderables.

Decreased risk: Since automation and digitalization take place in a single step, you avoid the risks of undertaking digitalization on your own. You also get precise cost calculations before the work starts.

Scalability: The scalability of myGEKKO guarantees that buildings of all dimensions and for every purpose can be completely digitalized.

Process optimization: Automation and digitalization of smart commercial buildings not only take place at the same time, but also without any additional programming effort thanks to myGEKKO. This allows the work to be easily integrated into the processes.

One contact: myGEKKO acts as your point of contact for all questions relating to automation and digitalization

For planners and architects

New business opportunities, no limits

Innovative office concepts: Modern technologies in digital buildings allow the implementation of new office concepts. You have more creative freedom when planning since there is no need for the lighting and operating concepts of old with buttons and sensors.

Simple cost calculation: A uniform solution for automation and digitalization, which is also based on fixed costs for a standardized product, allows simple and reliable calculation of costs.

Retrofit as a potential: Currently only around 2% of all buildings are intelligent. Conversely, this means that 98% of all buildings are not using their potential to the fullest and are lagging behind the standards for efficiency, sustainability and workplace quality. Digitalization thus presents a huge opportunity for planners and architects.

New requirements, new solutions: Demands for workplaces are changing rapidly. Smart offices, desk sharing and a new workplace management system, plus the increasing demands when it comes to health and safety in the workplace can all be achieved in smart buildings with a manageable amount of effort.

Compatibility creates planning security:

The manufacturer- and technology-neutral solution allows the greatest possible scope in planning and ensures compatibility with all common technologies and systems. At the same time, dependencies on manufacturers and system integrators are avoided.

Future security: myGEKKO is freely scalable and applicable to any purpose. It can also be updated and expanded at any time. That is why it is future-proof as a concept.



The added value

For investors and project developers

Predictable costs, future-proof investment



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Energy efficiency and sustainability:

Around 40% of the world's CO₂ emissions come from buildings, so increasing their energy efficiency and sustainability is a necessity and an opportunity for investors and project developers.

Setting new standards: New demands on the world of work require new, flexible, dynamic buildings. Automation and digitalization are therefore becoming the standard for new buildings and retrofitting existing buildings is a future-oriented investment.

Increase in value: myGEKKO helps bring buildings up to current ecological and sustainability standards, and not just those required by law, but those that will noticeably increase the value of a property thanks to corresponding certifications.

Prepared for the future: Projects must be developed with an eye to the future. myGEKKO is therefore technology- and manufacturer-neutral, upgradeable and expandable at any time.

Optimization and development: The collection of all information and data from the building, its processing and standardized provision open up opportunities for optimization and development (big data, artificial intelligence, IoT solutions, predictive maintenance, etc.).

Cost transparency: myGEKKO is a standardized product with fixed costs that can be easily and reliably calculated in advance, allowing the costs for ad hoc projects to be calculated in advance.

Cost minimization: myGEKKO reduces the effort for operation, maintenance and day-to-day work in the building. This also significantly reduces operating and maintenance costs.

Predictive maintenance: The constant evaluation and control of all data makes predictive maintenance possible. In the event of deviations from target values, faults can be quickly identified and rectified before they are even perceived as problems by users.

For system integrators

Simple, open, flexible and versatile

Always up-to-date: myGEKKO offers a variety of device interfaces that have been developed in close cooperation with the manufacturers. You're always up to date with support available directly from the manufacturer.

Intuitive operation: myGEKKO brings together the different components with their different tools, systems and user interfaces and makes them easily and intuitively accessible via a single control element.

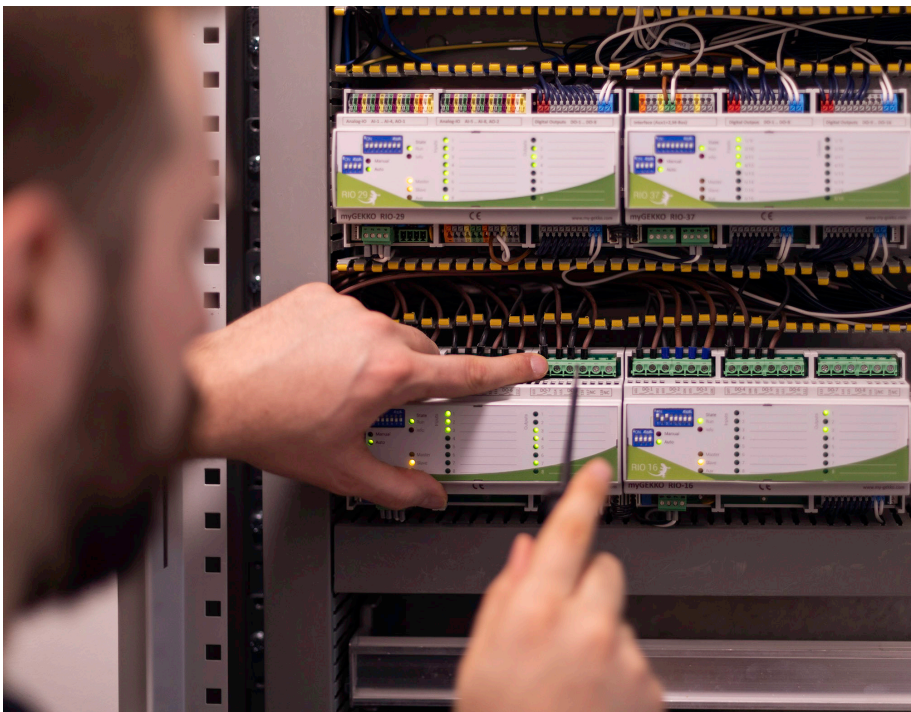
Autonomy: myGEKKO is easy to install, and since it involves no programming effort there is no need for or dependencies on programmers.

Flexibility: As a manufacturer and technology-neutral concept, myGEKKO is extremely flexible in installation and can quickly and easily integrate all devices and systems, regardless of the manufacturer.

All-rounder: It's not possible to be a specialist for all installation protocols and interfaces, but with myGEKKO you don't have to be. The myGEKKO OS knows the 15 most common installation systems and all algorithms are already integrated into the myGEKKO function blocks.

System optimization: myGEKKO standardizes the data from the most diverse sources in the building without additional effort, processes them and makes it usable for further applications and the optimization of the system.

Support: All systems in the building are maintained using a uniform product concept. Even without knowing the system in detail, it can still provide support because all the system elements follow the same standards.



The added value

For users

More convenience, energy efficiency and sense of wellbeing





Uniform operation: The digitalization and interconnection of all components enables uniform operation and adaptation of all systems. For example, room temperature, lighting and shade can all be set and controlled via the same interface.

More convenience: Linking the components increases convenience as they communicate and interact. If, for example, a sensor detects the presence of an employee, the workstation management software is notified that the workstation is occupied, the lights are switched on and the HVAC system switched on as required.

Efficiency: The smart office ensures energy efficiency and relieves those present. All relevant parameters (air quality, temperature, lighting, shade) are automatically optimally regulated without anyone having to fiddle around with settings.

Well-being: To optimally regulate all parameters relevant to comfort means adapting them to the wishes, requirements and needs of the respective employee. Thanks to digitalization with myGEKKO, everyone can be granted personal access, which in turn makes it easy to adjust all parameters individually.

Efficient use of workplaces: In the smart office, efficient use of workplaces will be possible and the utilization of workplaces and meeting rooms will be optimized.

Monitoring: The monitoring of all relevant data and their constant comparison with target values enables deviations to be recorded at an early stage. In this way, disruptions and system failures that are unpleasant for users, but also expensive, can be prevented.

Security and privacy: myGEKKO facilitates compliance with all cybersecurity and data privacy requirements and enables new business models by standardizing all data.

The future

Two processes, one solution

What distinguishes myGEKKO from other products for digitalizing building technology is its model, the “Building Automation Model”, or BAM for short.

BAM allows two separate processes to be combined into one via the myGEKKO platform: automation and digitalization.

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In addition, thanks to its technology neutrality and independence from manufacturers, the integration of all common installation systems and the constant development of device interfaces, myGEKKO can be superimposed over all objects. The clearly defined and standardized data model from myGEKKO provides the basis for any scaling.

Intelligent Buildings

Predictive Maintenance – Energy Management – Dashboards – Data Ownership – Platform – Smart Contract – Data Sharing – Performance Management Building – Management System



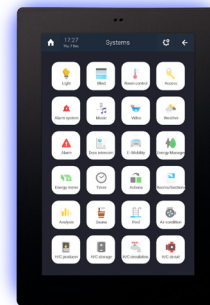
STANDARDIZED

myGEKKO



IT SECURITY

BUILDING AUTOMATION MODEL (BAM)



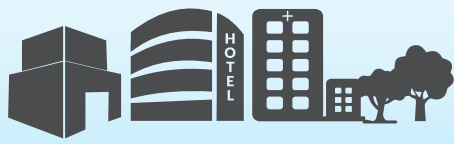
CONTROL



INTEROPERABILITY



DEVICES



S

Analyses – Controlling – Artificial Intelligence –
 Room Booking – Smart Parking – Smart Desk
 Sharing – Monitoring – Facility Management –
 Data Monetization – Access Management



TOUCHPOINT/ACCESS



LOGICS



CONNECTIVITY



DEVICES

CLOUD

OPEN – FAST – SECURE – EXPANDABLE

What can be controlled using myGEKKO?

Offices/workplaces (also individually regulated)

Booking and work station management

Sensors

- › Temperature, humidity, CO₂ saturation and incidence of light

Heating and cooling

- › Definition of usage zones and operating times
- › Communication with ventilation and shade
- › Trend determination
- › Alarms
- › Integration of a weather station

Shade and sun protection

- › Regulation by automatic sun control by angling blind
- › Communication with heating/cooling systems
- › Trend determination
- › Alarms

- › Integration of a weather station

Ventilation

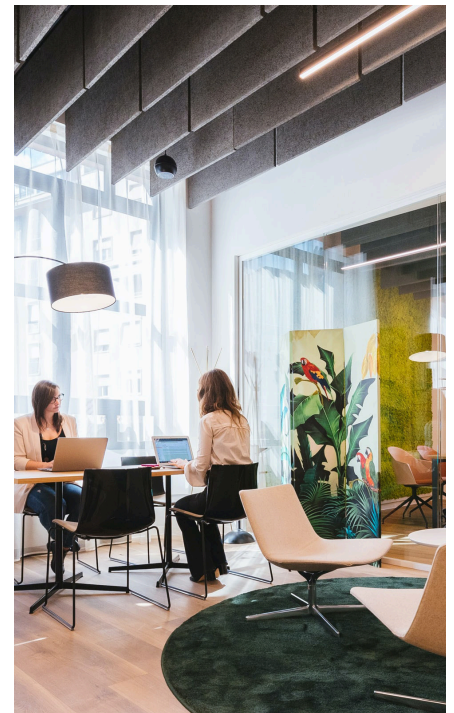
- › Monitoring of the most important parameters
- › Self-learning regulation
- › Trend determination
- › Alarms

Lighting and sensors

- › Dynamic presence detectors
- › Daily and demand-dependent control
- › Time switch
- › Trend determination
- › Alarms

Computers, etc.

- › Integration of electrical devices into the system
- › Time switch



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Common areas and building services



Centrally controlled management of common areas

(bathrooms, kitchenettes, gym, canteen, etc.)

MRS technology

Energy monitoring and management

- › Summary of all consumption (electricity, cold, water, heat)
- › Graphic display of all consumption

Alarm system



Entrance and reception



Conditions in the entrance area

- › Light staging
- › Optimal room temperature and air quality

Access control

- › RFID reader
- › Assignment of access rights Video buzzer system
- › Electronic buzzer system with integrated HD camera
- › External intercom via VOIP
- › Internal intercom and door opening via SIP-capable telephone system or table-top unit



Conference rooms / team workstations

Booking & conference room management

Optimal room quality

- › Sensor-controlled temperature, incidence of light, relative humidity
- › Communication with heating/cooling, lighting, shade

Conference technology and multimedia

- › Integration via Rest API

Differentiation between presence and presentation mode

- › Needs-based control of lighting, darkening, ventilation, projectors, micros, etc.
- › Setups for video & telephone conferences
Optional Alexa voice control



Outside areas and parking spaces



Parking management

- › Access via RFID reader
- › Access for visitors via QR code
- › Management of authorizations and priorities for entry
- › Management of e-charging stations

Irrigation systems

- › Determination of effective soil moisture
- › Sensor-controlled watering of plants in offices and outside areas as needed



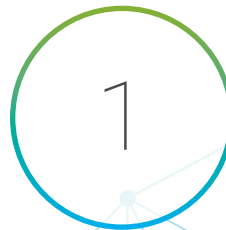
At your side

We are at your side throughout the central project phases to ensure that your smart commercial building, be it existing or newly built, is a success.

Needs assessment

In the initial phase, the aim is to determine the wishes and requirements of the building owners and users. This usually takes place as part of a workshop for all stakeholders in the entire building. The ideas and rough concept are then checked and the costs for the entire life cycle of the building are estimated.

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User orientation

Once the ideas and objectives of builders and users have been defined, we seek out useful and user-oriented solutions. The myGEKKO platform offers almost unlimited possibilities for this.



Implementation

Once the digitalization project has been worked out in detail, we search the myGEKKO platform for suitable devices, systems and partners for implementation. The previously defined guidelines are mandatory for choosing the partners. No compromises have to be made during implementation



Risk assessment

Since every project is as individual as its clients and users, the risks for each project are also assessed in detail. The myGEKKO platform also offers tailor-made solutions for this.

Get in touch!

+49 8921 5470711

hello@my-gekko.com

A look at our work

How myGEKKO works, what the concept does and how versatile it is, can best be demonstrated by showing you actual smart commercial buildings using our platform.

Campus Loddenheide

A multi-use campus was built in Münster's Loddenheide business park to meet tomorrow's requirements for work, life and energy supply/efficiency today.

The goals set by myGEKKO during the planning phase were:

- › Simple, flexible and dynamic workplace management,
- › comfortable workplaces and a community atmosphere,
- › a simple energy management geared towards efficiency and savings,
- › convenience, economy and security.

Fact sheet

- › Münster, Gewerbepark Loddenheide
- › Landmarken plc
- › New construction, started in January 2020
- › 11,600 m²
- › Offices, restaurants, exhibition areas, conference facilities
- › Outdoor facilities with campus character, generous parking spaces for cars, bicycles and e-vehicles

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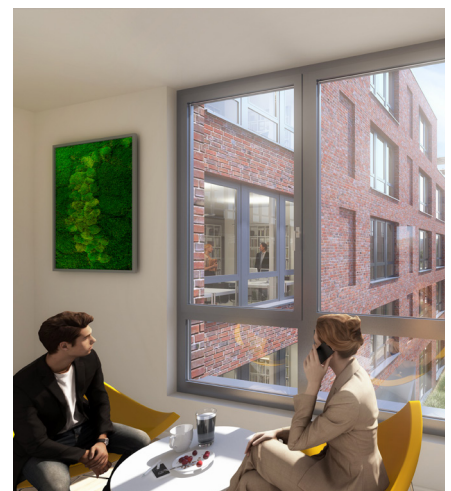


Due to the complexity of the project, it was important that myGEKKO was involved in the project from the start. We were able to contribute to the planning and thus implement our ideas of an efficient, individually and easily controllable building automation system that encompasses all areas and components both indoors and outdoors:

- › Access control, video buzzer and alarm systems,
- › energy monitoring,
- › HVAC,
- › parking management,
- › workplace lighting and shade,
- › music system,
- › automatic irrigation system.



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“ With the Calo, we implemented our first smart building, with the aim of building a healthier, more sustainable and self-regulating building for users. Our top priority was the automatic control of the building’s technical systems and room automation, which enable the user to save at least 15-30% energy and to visualize consumption transparently. In connection with other functions that increase user convenience in the building, the myGEKKO system has proved to be a very easy-to-configure solution for planning and implementation as well as for users and facility management in operation.

Julian Schain, Head of Digital Office, Landmarken plc

References

Kite Loft

Landmarken plc wanted its Kite Loft project in Cologne to offer flexible, open, dynamic office space. Because flexibility and dynamism can best be achieved with modern building automation and digitalization, the company opted to work with myGEKKO from early on.

Mit myGEKKO wird

- › achieved the networking of all components and systems,
- › integrated energy monitoring,
- › a significant reduction in CO₂ emissions,
- › option to control the entire building via app.

Fact sheet

- › Cologne
- › Landmarken plc
- › New building, ready for occupancy in 2023
- › 5,500 m²
- › Offices, co-working spaces, meeting rooms, restaurants
- › Design lobby, roof terrace



The requirements for the project were clear: the Kite Loft was supposed to be an intelligent building that would promote the health of those working in it. In addition, the building should encourage exchange between all users and, last but not least, leave the smallest possible ecological footprint. myGEKKO therefore handled

- › access control via RFID,
- › energy monitoring and energy management,
- › individually optimized room climate,
- › lighting and shade,
- › e-charging options,
- › remote access to the entire building technology.



“ Sustainable, digital, communicative: our SPIRIT OFFICE kiteLoftKöln is the future of work. The sustainable networking of top architecture, material and people is standard here.

Landmarken plc



helps your building run intelligently and improve people's lives

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„Smart Commercial Buildings“
Art. Nr. myGEKKO – MRK.HAN.SCB.EN01

myGEKKO supports the conscious use of energy,
responsible living for people and the environment