# Building automation

SmartHOME
Solutions

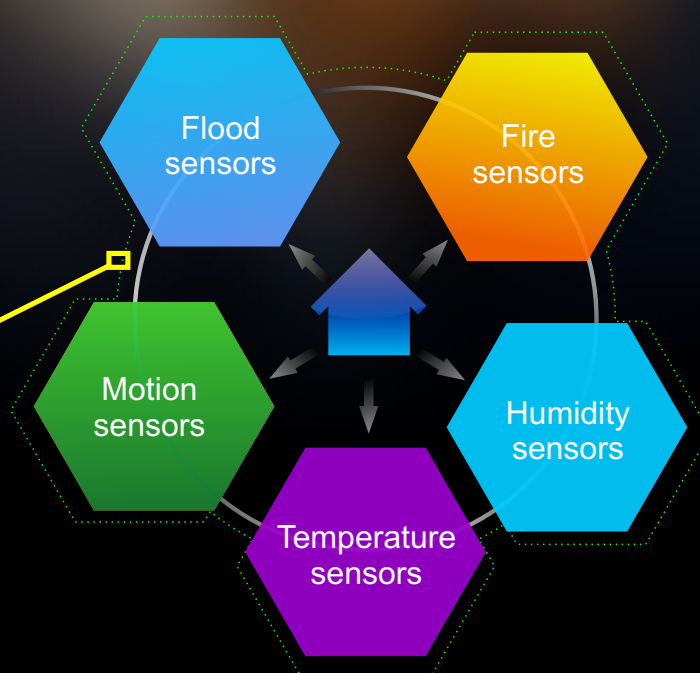## Intelligent home solutions

2014/2015

# Structure of intelligent system

Actuators

Lights

Window actuators

Heating

Alarms

Roller-blinds, sunblinds

HVAC

Irrigation system

Gates

Flood sensors

Fire sensors

Sensors

Motion sensors

Humidity sensors

Temperature sensors

Future's over here

Ensures safety

Adjusts to weather conditions

Guarantees savings

Eco-friendly

Ensures unprecedented comfort

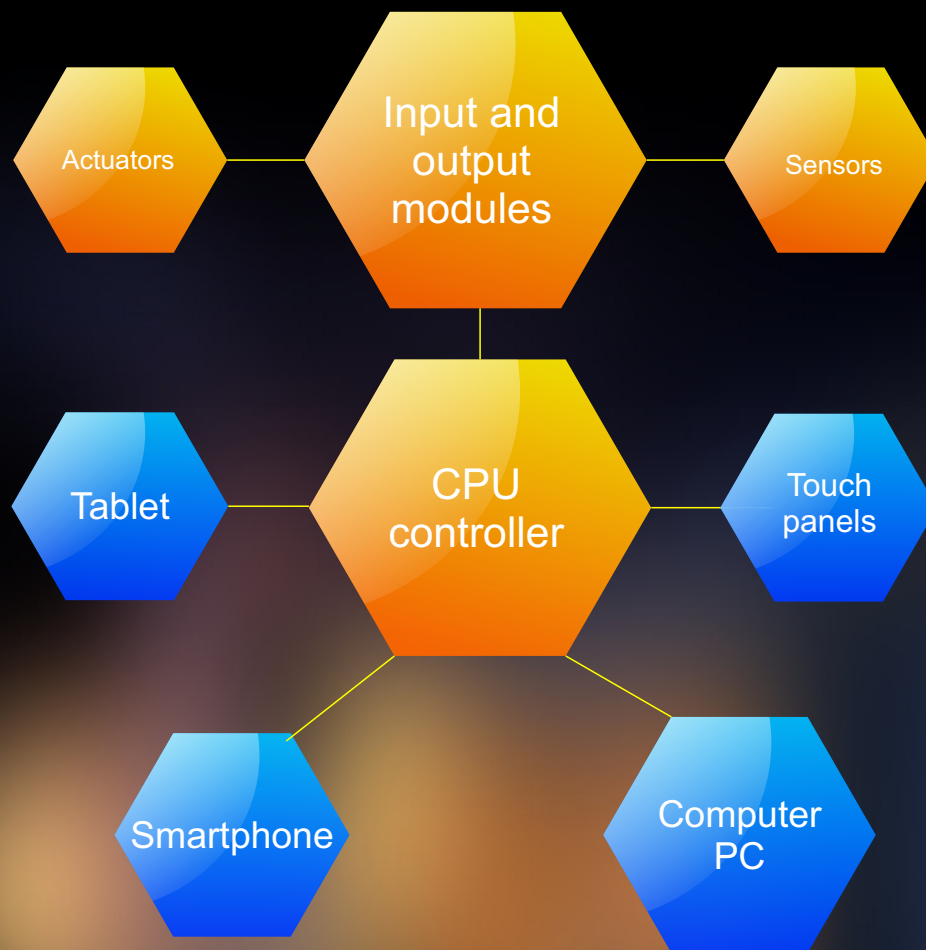Allows for the remote control and management regardless of place

## The idea of intelligent buildings.

Real estate markets exhibits an increase in the number of intelligent homes. Engineers and clients been working for years to make boring household chores more fun or even eliminate them. Smart homes will increase your comfort by taking care of you and your family. Comfort is the driving factor in intelligent systems development. Another is the quest for energy consumption optimization. It helps you save money and reduce environmental impact.

Intelligent buildings comprise wide range of properties from offices to dwelling houses, production halls, public buildings and others. Growing awareness of environmental issues, ever increasing standards of comfort and safety; a need to control your home when you are away created a niche for intelligent home solutions.

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Input and output modules

Actuators

Sensors

CPU controller

Tablet

Touch panels

Smartphone

Computer PC

## What are elements of an intelligent building?

The structure of intelligent system consists of modules divided into three parts. In the first one we can find controller, which is responsible for all analytical and decision-making procedures. All calculation and operations shall be implemented there. The second part consists of entry and exit modules with sensors collecting information about conditions both inside and outside the building and others devices like lights, heating, roller-blinds. This part is responsible for integration with electric wiring. The first and second part are located in one or a couple of switch cabinets.

The third part of intelligent system includes devices which enable interactions with whole system ( touchpad, tablet, computer or smartphone). By using them you can monitor and control building from every place in the world regardless of the platform. Our intelligent system has top-notch devices which can work 24/7. Our technology allows to create intelligent system in many buildings from residential to commercial.
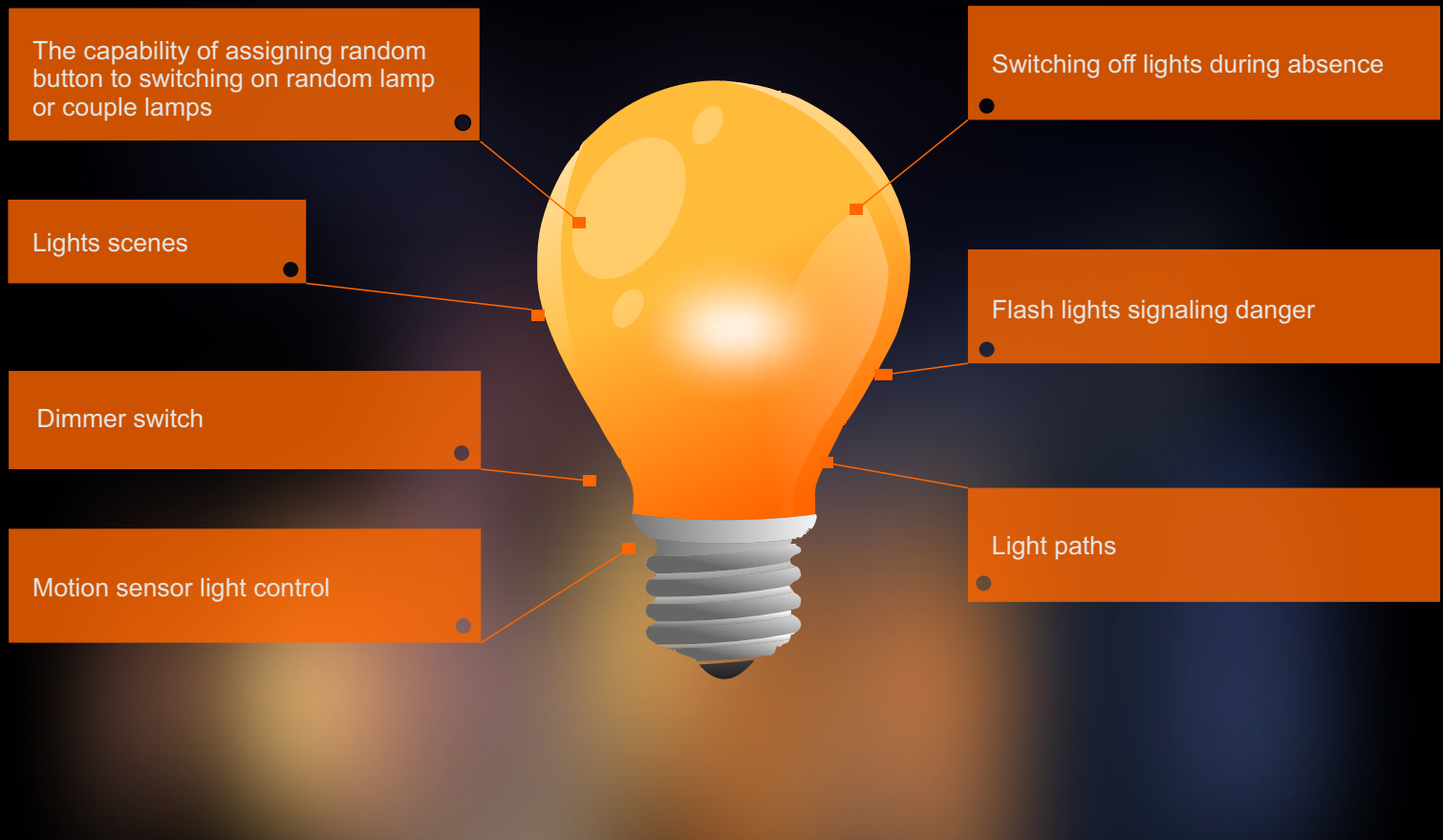
Future's over here

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Tablet

Touch panels

» 21,5"
» 18,5"
» 15,6"
» 12,1"

LIVOLO

2 10°
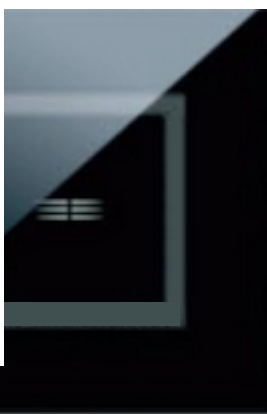
## Wide range of user interface devices

You have a wide range of control devices. We offer standard, touch and multifunctional buttons. You can also choose connectors provided by third parties. The user can track and control all the system processes via mobile device with access to the internet. You have a capability of adding extra touchpads to the system with screen size from 5" by 7",10",15" to 21" depending on your needs.

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The capability of assigning random button to switching on random lamp or couple lamps

Switching off lights during absence

Lights scenes

Flash lights signaling danger

Dimmer switch

Motion sensor light control

Light paths

## Master lights

Our system gives you the wide range of opportunities to operate lighting by using smartphone or computer. Decrease the intensity of lights to 70% and save money and energy. Our modules are compatible with any type of lighting available on the market. One click is enough to switch off the lamps in entire building. Easy to use 2D sketch of your room. or 3D gives your information where the light is switched on. Using our system means the end of the problem with the lights being on all the time. Now you need one click. Intelligent system can also resolve problems with walking in the darkness looking for switch. According to integration motion sensor with control unit your lights will be switched on automatically. While you are away, smart home can imitate your presence by randomly switching on the lights and opening the roller blades. This functionality allows to avoid burglary. In case of danger like fire or burglary our system will signal this by flashing lights.

Central management and monitoring of the heating installation.

The capability of controlling temperature in every room separately.

Scheduling the temperature in every room during the day.

Operating the boiler or pump depends on rooms temperature.

Switching the heating in economical mode in case of absence.

Performance warnings.

Manual control of individual central heating point.

Precise operating the water temperature in bunker and in the exit of mixing valve.

## Heating was never so easy

Our system gives you control over heating system including floor heating, radiators, boiler and heat pumps. Thanks to integrated system you can change temperature in every room via tablet, smartphone or computer. You can keep track of all the heating system parameters. Wherever you are, you can modify temperature or lights behavior by one click or a voice command. You can modify temperature distribution in every room during the day. You can turn on the eco heating mode for one room or whole building during your absence. User-friendly visualization of your heating system performance gives you easy access to all the parameters. Our system allows to set tap water temperature, synchronize boiler performance with renewable energy sources.

# SmartHOME Solutions



Performance warnings.

Setting up the sensors.

SMS warnings. Message includes information about time, place and type of alarming sensor.

Presence simulation during absence.

Presence simulation in case of burglary.

## Security first!

Security system looks after you and your facility. Internal and external alarm systems are integrated for better performance. Control unit works 24/7 monitor all the sensors and in case of emergency will notify you and other users via SMS or email. Lighting integration with safety sensors allows light warnings about a danger. You can follow online sensors and check use of rooms. In the case of flood or fire, the system will cut off power supply, flow of water or turn on sprinkles.

You can set lighting path and in case of fire as well as you can program alarms depending on your procedures.

Automatic closing and opening up roller-blinds while sunrise and sunset.

Automatic closing roller-blinds during strong wind, storms and plenty of sunshine (optional).

Using roller-blinds to simulate presence.

Remote operating roller-blinds and windows' actuators.
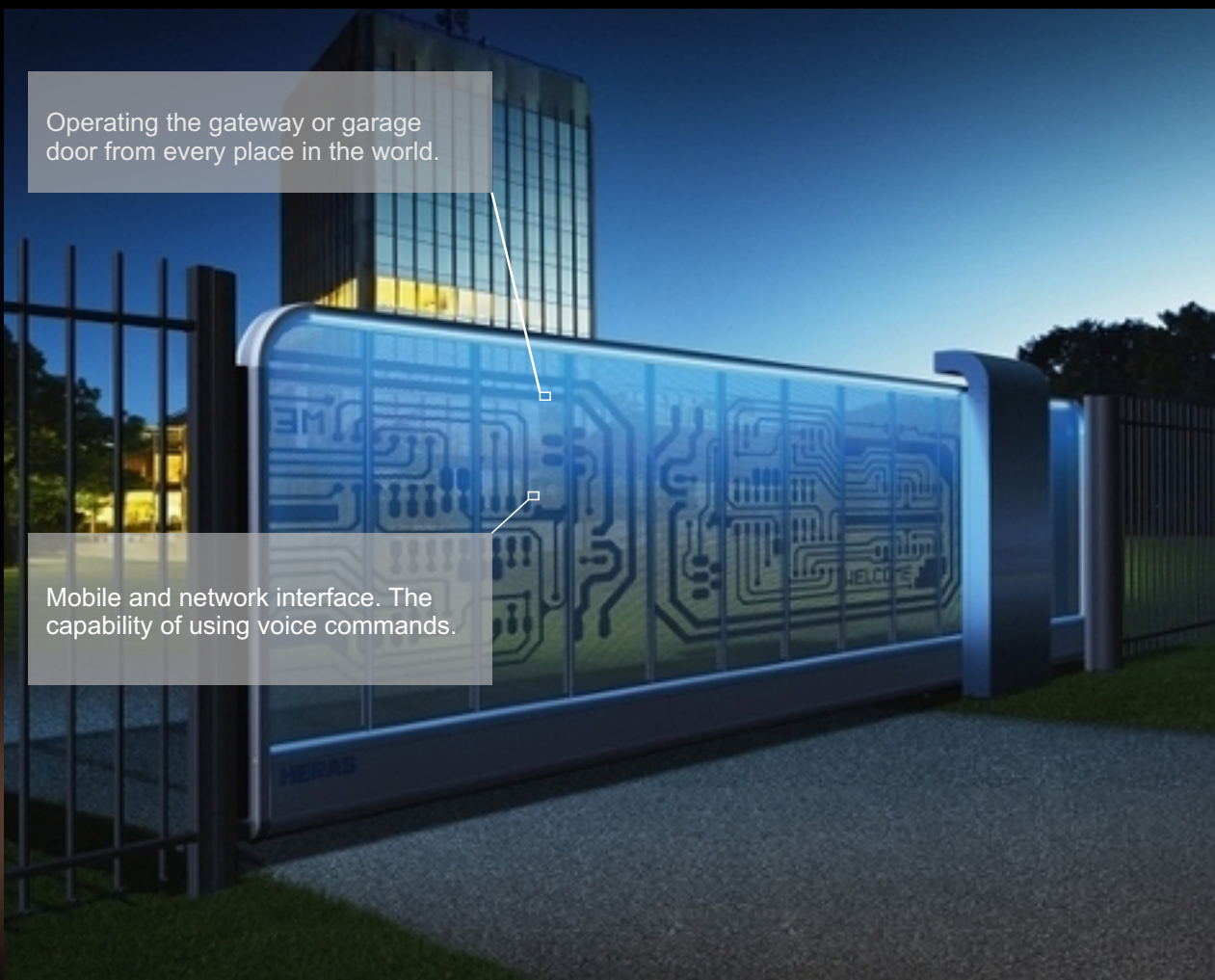
Rooms' ventilation by using windows' actuators.

Closing and opening up all roller-blinds during coming home and long absence.

Control of the devices by voice commands.

## Intelligent system remembers everything.

Can you imagine leaving home in hurry and needs to switching off lighting in every room, closing roller-blinds, putting on temperature and turning on alarm? Our system gives you the opportunity of using one button to do all these activities and prepare house for your leaving or coming back.
You can operate roller-blinds by using intelligent system. You can open or close roller-blinds at a specific time during the day. You can use roller-blinds to set alarm when lights are flashing.
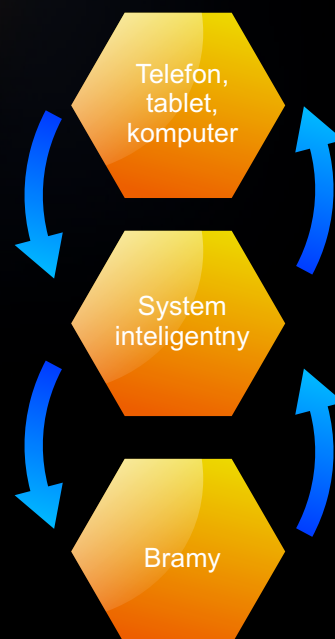
This could catch random people eye. Roller-blinds can protect you against sunlight and high temperature. You can also set partial covered window. You can equip your windows with actuators and set rooms ventilation before you are coming home or in case of bad air.

Operating the gateway or garage door from every place in the world.

Mobile and network interface. The capability of using voice commands.

HERAS

## Ease, simplicity and pleasure.

Nowadays garage doors and gateways are standard, but navigating them by using remote can be really annoying. Can you imagine opening gateway by using one remote, opening garage door by using other and turning on sprinkles by using another one? This could be annoying when you are late or you have important meeting. First you have to find them, then check the right one to appropriate gate. Our intelligent system resolves your problems. You can open gateway by giving voice command to your smartphone as well as to other devices. You can monitor opening and closing gateway.

Telefon, tablet, komputer

System inteligentny

Bramy

Future's over here

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Control over every single valve in the garden.

Automatic or manual control mode.

Irrigation system depends on soil humidity and raining sensor.
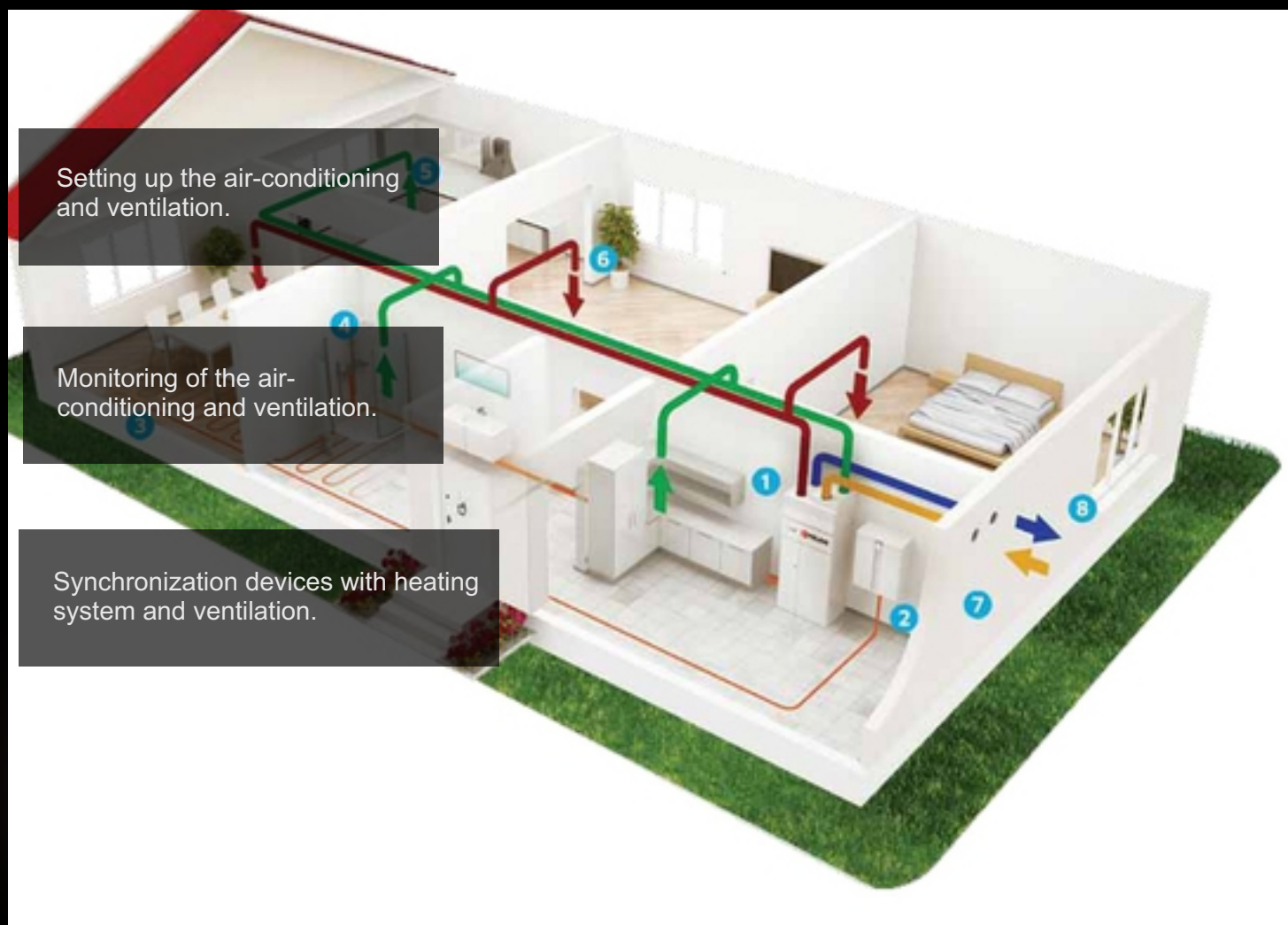
Planning on and off time.

Weekly planning the work of irrigation system.

## Intelligent system remembers everything.

We offer you touchpad to manage garden irrigation and outside lighting. The visualization includes a map of building and positions of fully controllable sprinkles. The irrigation system operates in two modes: manual and automatic. By using manual mode you can control every sprinkle, while automatic mode depends on wheatear conditions. Garden can be watered depending on soil humidity and rainfall. You can set time of turning on sprinkles. Our system guarantees you even more feature that will satisfy even the most demanding clients. We can individually modify both system and software to better serve your needs.

Future's over here

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Setting up the air-conditioning and ventilation.

Monitoring of the air-conditioning and ventilation.

Synchronization devices with heating system and ventilation.

Smartphone, tablet, computer

Main controller

HVAC

## Rozwiązania na zimno i upały

Our devices are integrated with air-conditioning and ventilation system. The user can track the parameters of the system and plan time of cooling. User-friendly visualization of your heating and cooling system. 3d computer graphics available for every device with touch screen.

## Future's over here

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Recording of systems parameters.

Parameter mean values per day, week, month and year.

The capability of viewing parameters on the chart.
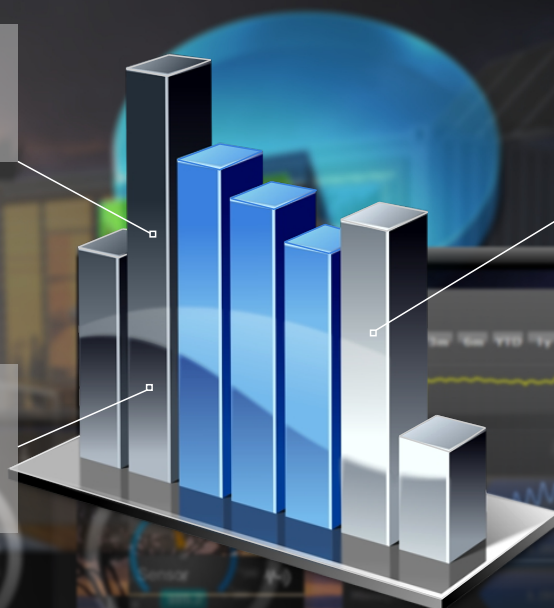
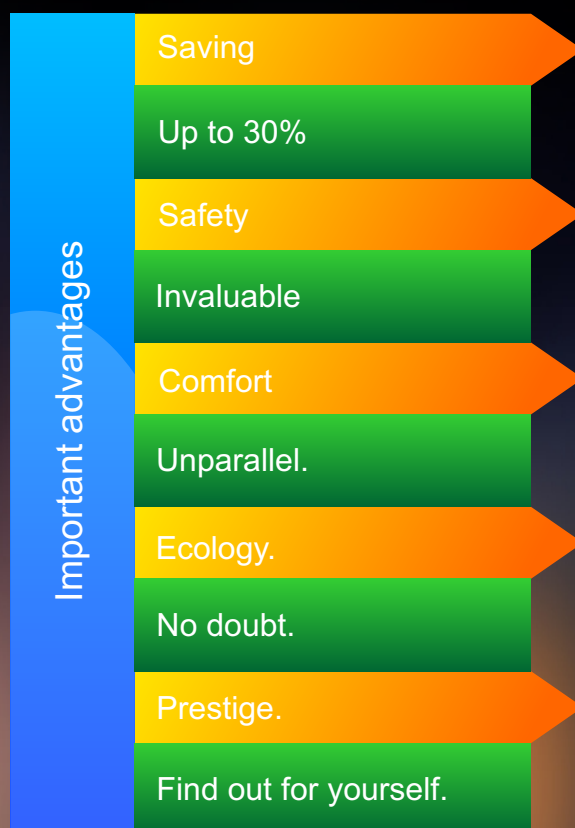## Learn about your needs, analyze and save

Our system records wide range of parameters: temperature, air humidity, atmospheric pressure and displays them on chart. Besides weather condition you can be up to date with consumption of energy, water, gas and watch it on chart. Additional features will show you energy cutoffs. Besides measuring energy consumption, our system can keep track of over 60 parameters of your electrical wiring system. Those parameter describe quality of the power supply, an useful feature in case of power supply-related damage.

Future's over here

B&R input and output modules



Reliability

Savings

Najważniejsze zalety systemu

Compact dimensions

Possible distributed system

Huge potential to improve

open SAFETY

POWERLINK

## Speed, reliability and redundancy.

Our hardware is faze, reliable units tested in various weather conditions. High quality ensures minimum downtime and very low maintenance costs. Another advantage is high scalability of the system. It can be upgraded at any moment, therefore you can get develop your system incrementally, whenever you are ready. Our systems can be equipped with back-up control unit. In case of failure of the primary control unit the system operation will not be interrupted. Stability is another advantage of our control units.

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**Important advantages**

- Saving
- Up to 30%
- Safety
- Invaluable
- Comfort
- Unparallel.
- Ecology.
- No doubt.
- Prestige.
- Find out for yourself.

## Wieloaspektowe korzyści

Using intelligent system is a breakthrough both in wiring and others installations, what provides wide range of benefits. Saving energy reduces costs. Effective energy consumption is becoming required by law. Buying an intelligent system, you take care of your family or employees. You can easily manage your building and monitor every process. You only need one device with access to the Internet internetu, a Twój obiekt będzie naIntelligent system are dominating modern office spaces and production halls. Without a doubt intelligent buildings will be a mark of modern technology in XXI century.

Future's over here

**Smart**HOME
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