

siteco

# Lighting control SITECO Connect Wireless.

Energy savings, nature conservation and safety in  
perfect harmony thanks to intelligent lighting control.

Intelligently  
expand, control and  
monitor city lighting:

**with SITECO  
Connect  
Wireless**





## Why lighting control? Because everyone benefits!

Save energy. Reduce CO<sub>2</sub> consumption.  
Transparently monitor your installation.  
Increase safety for the general public.  
Do something good for nature and wildlife.

Time-based and situational lighting control with SITECO Connect Wireless provides towns and cities as well as companies with impressive usage options that ultimately result in one thing: **a lighting solution that benefits everyone.**

Average of  
**-60%**  
additional savings

Immediate  
**savings**  
from day 1

How can a control system benefit you financially? We'd be happy to find out for you. We will assess your installation on site and determine how much you can save. Register now for an energy-savings check: [siteco.com/solutions/light-audit](https://siteco.com/solutions/light-audit)



# What is the benefit of lighting control? Significant savings!

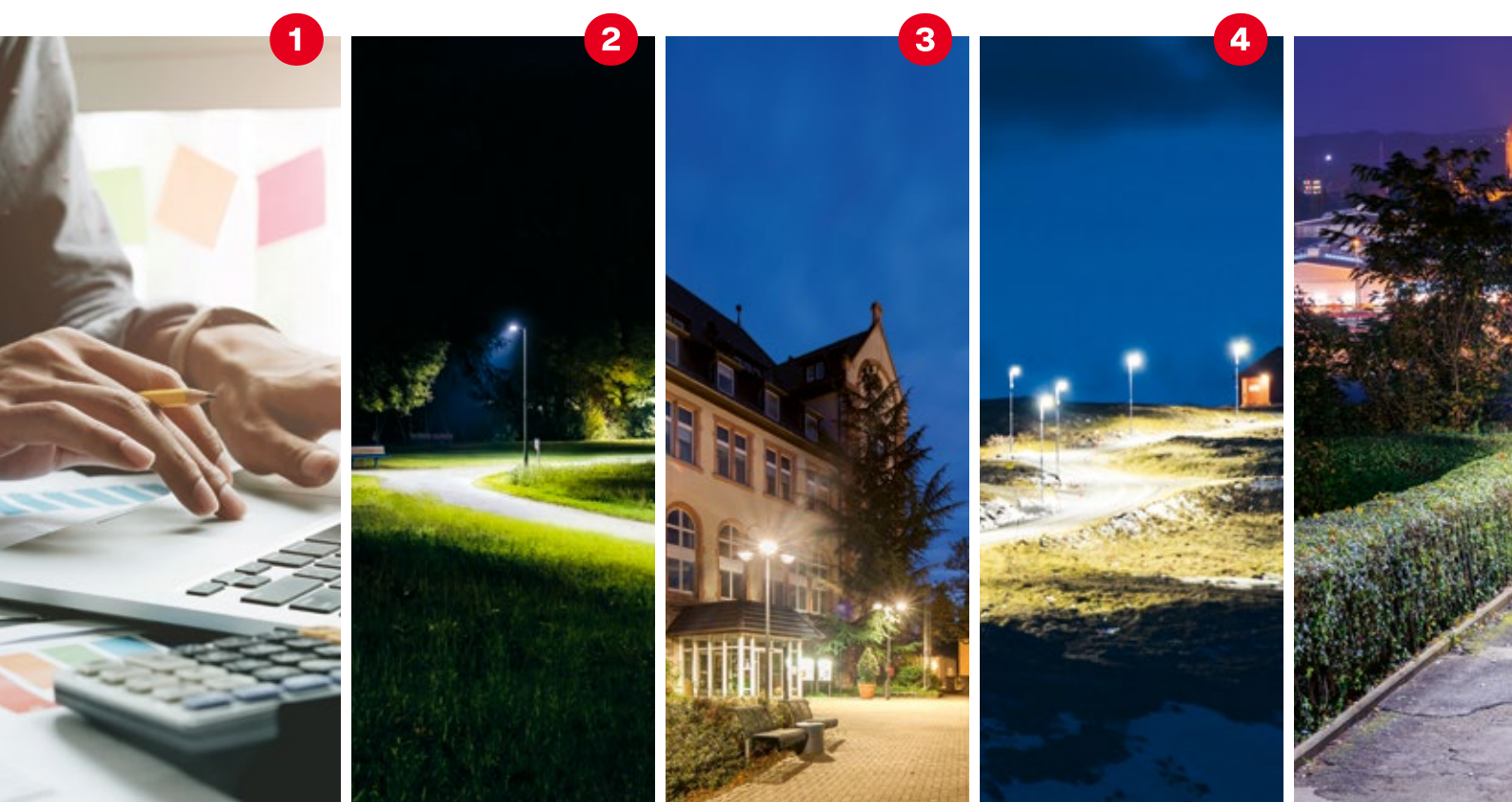
**Dimming pays off. Also compared to switching off temporarily or in certain areas.**

Dimming combines traffic and personal safety with high energy savings. By up to 77 % in the example given below. Dimming ensures the uniformity of your lighting. Also, obstacles and small or unlit road users are easier to detect and better protected.

A comparison based on the example of Streetlight 11 micro LED with 3,700 lumen, 3,000 Kelvin and Smart-Interface (5XC1A51E08DE).



# 9 reasons for lighting control with SITECO Connect Wireless.



1

## Save energy

Systematic dimming and temporarily switching off luminaires where possible pays off in three ways: you save **valuable energy**, have total control of costs and increase the service life of the luminaire.

2

## Protect nature and wild life

Dimming in the dark of night **reduces light pollution**. Nocturnal animals, particularly in parks and nature reserves, are less disturbed in their natural behavior.

3

## Adapt the lighting

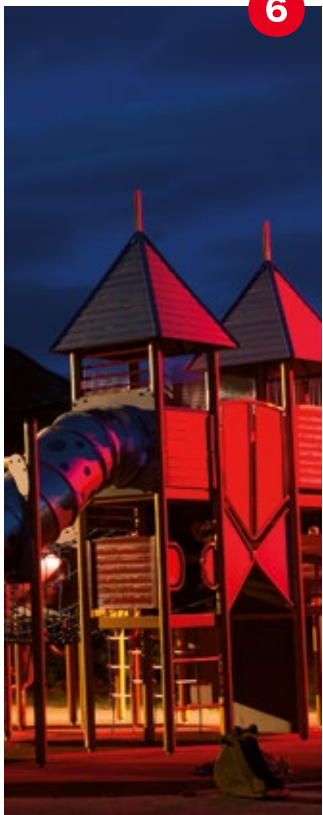
In locations with changing usage, e.g. town squares and marketplaces, the lighting can be **automatically dimmed up and down**, for example during events.

4

## Protect the climate

Where there is little activity at night, e.g. on rural roads, lighting intensity can be selectively reduced. This has a direct impact on the **CO<sub>2</sub> balance**.

Intelligently expand, control and monitor city lighting:  
**with SITECO Connect Wireless**

5

**Increase safety**

Adjusted lighting levels increase safety in critical neighborhoods and streets. **Good visibility** is also required for rescue operations. Brighter means safer.

6

**Reduce vandalism**

Vandals can only remain undetected in the dark. **Motion sensors protect** municipal institutions, sports facilities and schoolyards.

7

**Optimize operation**

Central documentation, switching, monitoring and diagnosis of the system **saves costs** and enables the **targeted planning of maintenance** if required.

8

**Apply for funding**

Modern lighting control makes it easy to implement **environmental guidelines**. This is the necessary precondition when applying for **subsidies**.

9

**Automate illumination**

Sights and landmark architecture determine the character of a town or city. These attractions can be **automatically illuminated**, creating a unique atmosphere.

# When does the future begin? Decide for yourself.

With us, you lay the foundation for a future-proof infrastructure. That's because SITECO outdoor luminaires offer standard connectivity for all control requirements thanks to Smart-Interface. They allow plug & play integration of sensors or help you to manage your power consumption and reduce costs with radio-based control solutions and demand-driven lighting concepts. SITECO Connect Wireless offers the right combination of options for every requirement.

When and to what extent you use these options for greater efficiency, connectivity and sustainability is entirely up to you. Either directly from installation, or upgrade flexibly when you feel the time is right.

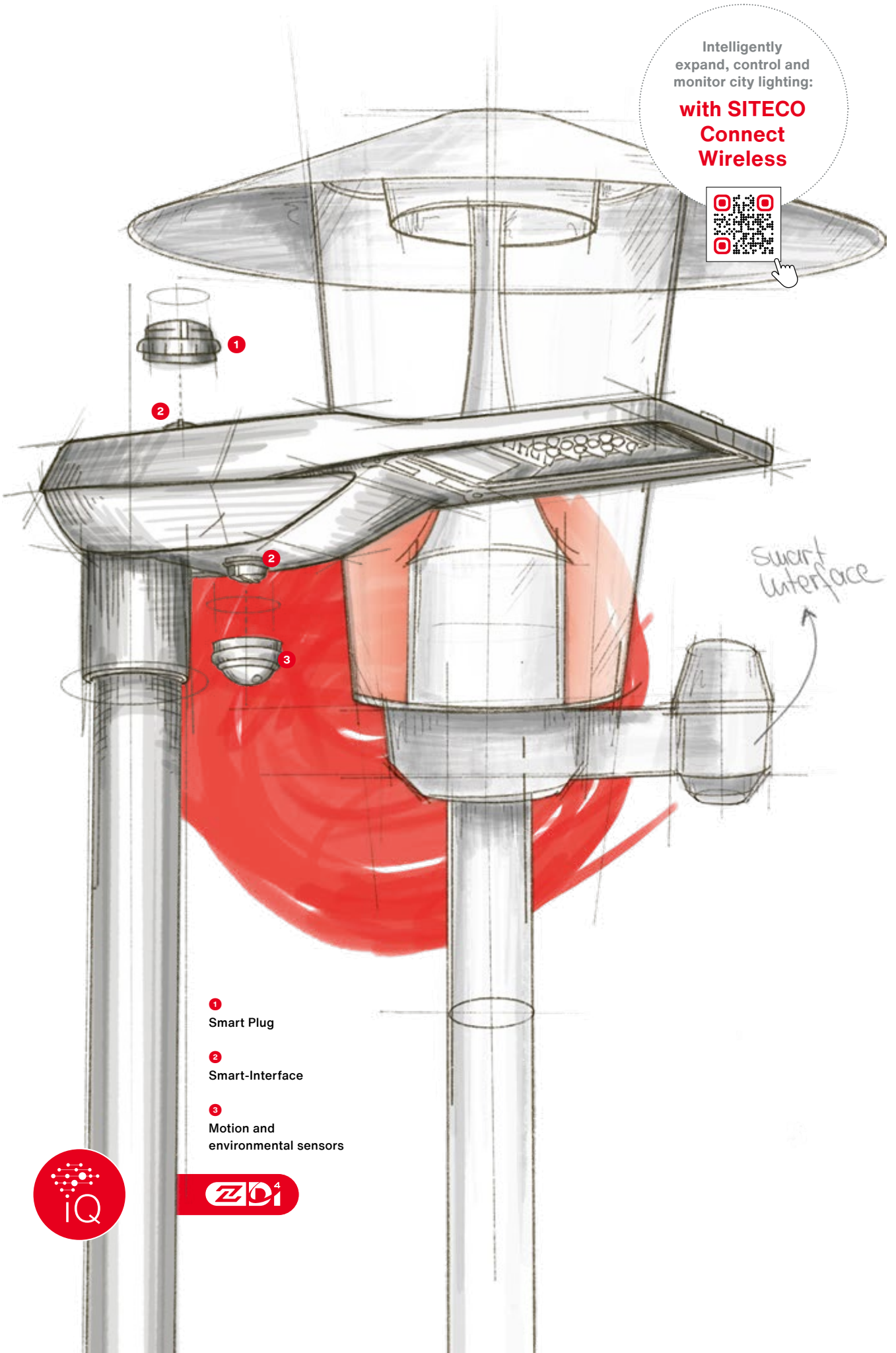
**Your light is ready.**

**From simple control of individual luminaires  
to fully networked systems.**

- **Maximum compatibility** between Zhaga / D4i-certified luminaires from SITECO and the control system and sensors
- **Maximum freedom of choice** thanks to standardized interfaces (Zhaga Book 18 and D4i or NEMA)
- **Maximum future reliability** thanks to expansion options in case of later need
- **Maximum flexibility** in application – from simple to fully networked
- **Maximum convenience** thanks to plug & play installation of radio control systems and sensors

Intelligently  
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Connect  
Wireless**

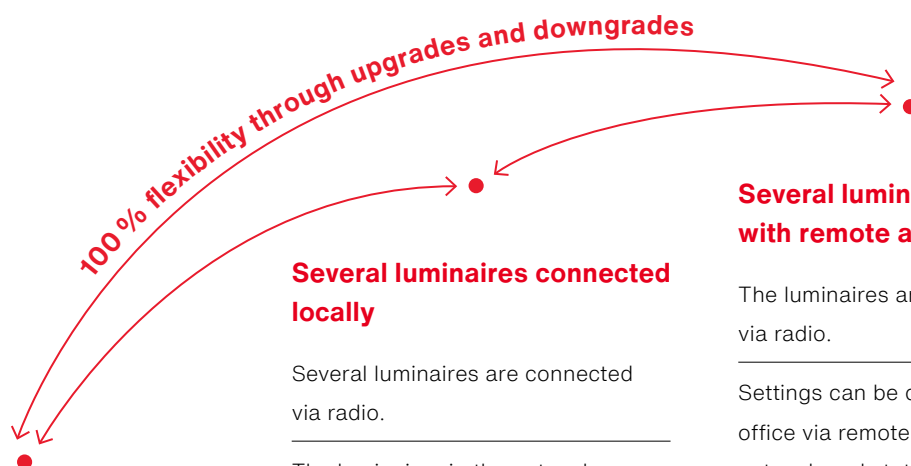


- 1 Smart Plug
- 2 Smart-Interface
- 3 Motion and environmental sensors



# How do you begin?

## Start off simply, upgrade flexibly.



### Single luminaire

Single luminaires are switched or dimmed with a local motion sensor.



**Example:** The motion sensor activates just one luminaire.

### Several luminaires connected locally

Several luminaires are connected via radio.

The luminaires in the network communicate and synchronize with one another.

The luminaires are synchronously or continuously switched or dimmed.



**Example:** The motion sensor also switches on neighboring luminaires via radio link.

### Several luminaires connected with remote access

The luminaires are connected via radio.

Settings can be defined from the office via remote access over the network and status messages sent automatically.

Existing inventory and workflow systems, such as LuxData by sixData, can be used as a master.



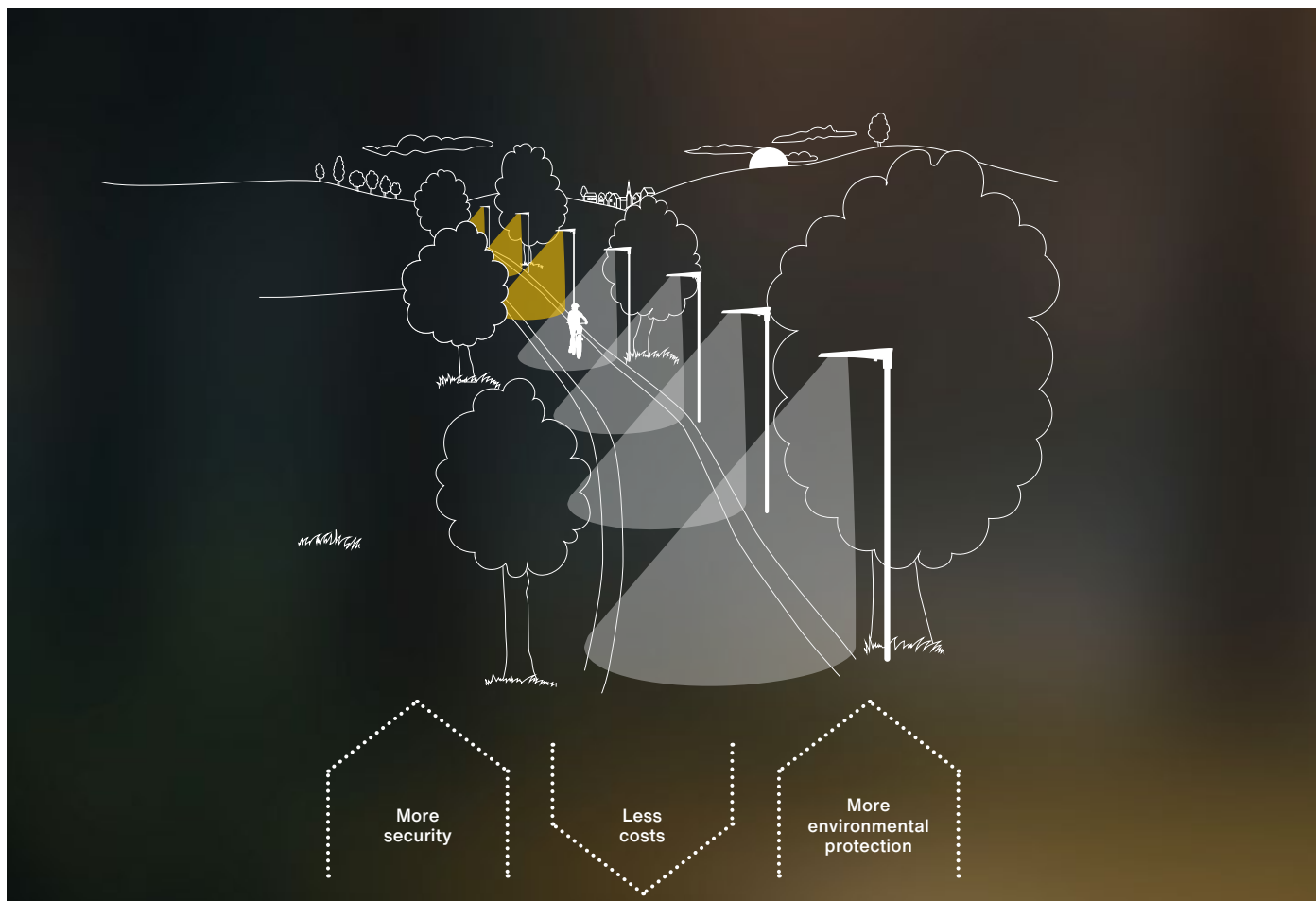
**Example:** The network of luminaires functions synchronously and is monitored remotely.

# Control light colors? Your luminaires are ready!

A future-proof infrastructure also means being able to respond flexibly and effortlessly to future changes: Which light colors will be specified in the future? You don't have to worry about that:

## **SITECO Connect Wireless takes care of it for you!**

In places with special nature conservation requirements, for example, connected motion sensors can automatically switch between dimmed, warm white lighting when not in use and brighter, whiter lighting when there is traffic.



More security

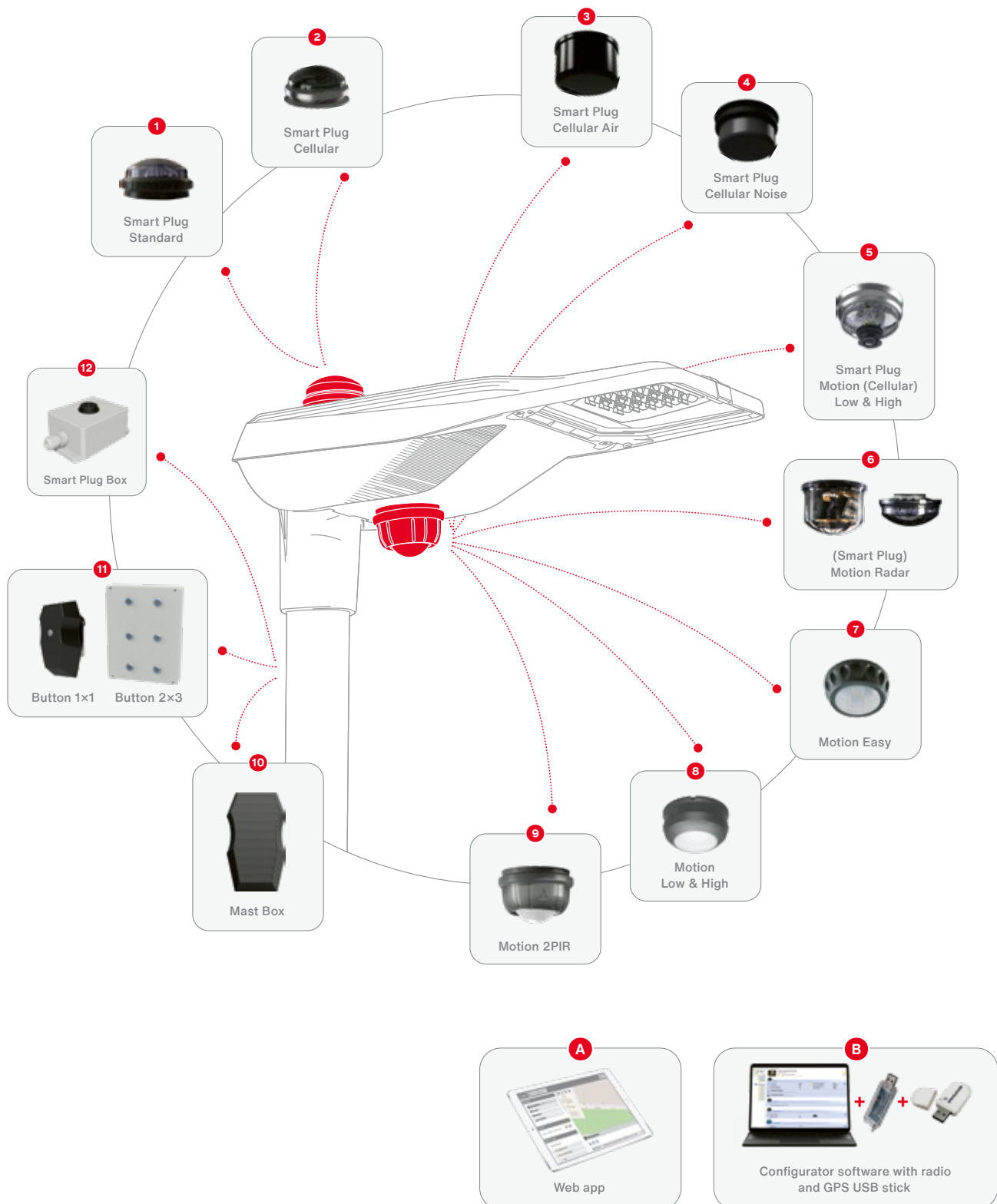
Less costs

More environmental protection

Motion detectors switch from warm white to cool white when there is traffic.

Situational light: **3 × strong.**

# SITECO Connect components for Smart-Interface.



## Overview of components for Smart-Interface:

### Smart plugs

Control and wireless networking of luminaires with Zhaga- / D4i-compatible luminaire controllers. With remote access or as a purely local radio network. Control by time, day of the week and daylight. Local storage of the switching and dimming calendar for safe operation. Colour-Switch control possible.

1	Smart Plug Standard, local operation and networking, optionally with remote access by adding one Smart Plug Cellular per 100 Smart Plugs Standard and the usage fee 5EA0EC60 per Smart Plug Standard.	5EA3AM00001
2	Smart Plug Cellular: Remote access included with 60 credits (equivalent of 60 months), radio clock, GPS	5EA3CM00001
3	Smart Plug Cellular Air: Luminaire controller with environmental sensor for monitoring particulate matter, nitrogen oxide, volatile organic compounds, humidity, temperature, position, mast inclination. Built-in radio-controlled clock and GPS. Remote access included with 60 credits (equivalent of 60 months).	5EA44EE01
4	Smart Plug Cellular Noise: Luminaire controller with noise sensor for monitoring the noise level. Built-in radio-controlled clock and GPS. Remote access included with 60 credits (equivalent of 60 months).	5EA44EN01

### Motion detectors

Lighting control depending on movement, daylight, day of the week, time. Autonomous or networked operation (running light). Various setting options for dimming level, run-on-time, ramp-up / ramp-down speed.

#### Wireless motion detector Low & High

Oval detection area, freely adjustable, e.g. for paths and driveways. Built-in wireless controller (Smart Plug Standard or Cellular). Colour-Switch control possible.

5	Smart Plug Motion Low: Mounting height below 6 m, detection range at a height of 5 m up to 8.80 m, at a height of 6 m up to 10 m	5EA40EL01
5	Smart Plug Motion High: Mounting height above 6 m, detection range at a height of 6 m up to 10 m, at a height of 10 m up to 17 m	5EA40EH01
5	Smart Plug Cellular Motion Low: Mounting height below 6 m, detection range at a height of 5 m up to 8.80 m and at a height of 6 m up to 10 m. Built-in radio-controlled clock and GPS. Remote access included with 60 credits (equivalent of 60 months).	5EA40ELC01
5	Smart Plug Cellular Motion High: Mounting height above 6 m, detection range at a height of 6 m up to 10 m and at a height of 10 m up to 17 m. Built-in radio-controlled clock. Remote access included with 60 credits (equivalent for 60 months).	5EA40EHC01
	Motion stick alignment lever	5EAU0H00001

#### Radar motion detector

Very wide detection range and reliable detection of electric vehicles. For roads, paths and areas. With and without built-in wireless controller (Smart Plug Standard or Cellular).

6	Smart Plug Motion Radar: Detection range trucks from 70 m, people from 25 m	5EA40RC01
6	Smart Plug Motion Radar Down: Detection area at a height of 5 m: 16 m × 8 m.	5EA40RCP01
6	Smart Plug Cellular Motion Radar Down: Detection area at a height of 5 m: 16 m × 8 m. Built-in radio-controlled clock and GPS. Remote access included with 60 credits (equivalent of 60 months).	5EA40RPC01
6	Motion Radar: Detection range for trucks from 70 m, people from 25 m (without radio, can only be used together with Smart Plug Standard or Cellular)	5EA40RS01
6	Motion Radar Down: Detection area at a height of 5 m: 16 m × 8 m (without radio, can only be used together with Smart Plug Standard or Cellular)	5EA40RSP01
4	Accessories: Motion Radar RF Stick for customizing advanced settings	5EA40RF01

#### Easy motion detector

Preset PIR motion detector. ON / OFF at 30 lux. Idle state 20 %, on movement 100 % with 2 min hold time. Optionally networkable. Large detection area to the right and left of the luminaire. Can be restricted with the enclosed cap, e.g. for paths.

7	Motion Easy: Mounting height from 5 to 8 m, Detection area at a height of 5 m up to 30 × 6 m	5EA40TE01
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#### Motion detector Low & High

PIR motion detector with round detection area. Can be restricted with the enclosed cap, e.g. for surfaces.

8	Motion Low: Mounting height below 4.60 m; Detection range at a height of 2.40 m up to 6 m	5EA40LLO1
8	Motion High: Mounting height above 4.60 m; mounting range at 4.60 m height up to 12 m, at 8 m height up to 24 m and at 12 m height up to 30 m	5EA40LHO1

#### Motion detector 2PIR

PIR motion detector with long detection area to the right and left of the luminaire, e.g. for residential streets.

9	Motion 2PIR: Detection range at a height of 4 m up to 17 m and at a height of 8 m up to 35 m (can only be used together with Smart Plug Standard or Cellular)	5EA40M000201
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### Mast boxes

Mast Box for controlling and networking DALI luminaires without Smart-Interface. With remote access (when operated with Smart Plug Cellular as an accessory) or as a purely local wireless network. Control with wireless push-button, by time / weekday (GPS version) and by movement (Motion version). Local storage of the switching and dimming calendar for safe operation.

10	Mast Box Standard	5EA3BS01
10	Mast Box GPS	5EA3BG01
10	Mast Box Motion Low: Mounting height below 6 m. One PIR sensor downwards with detection range at a height of 5 m up to 8 m, at a height of 6 m up to 10 m	5EA3BEL01
10	Mast Box Motion High: Mounting height above 6 m. One PIR sensor downwards with detection range at a height of 6 m up to 10 m and at a height of 10 m up to 17 m	5EA3BEH01
10	Mast Box Motion GPS Low: With GPS/radio clock, mounting height below 6 m. One PIR sensor to down with detection range at a height of 5 m to 8 m, at a height of 6 m to 10 m	5EA3BGL01
10	Mast Box Motion GPS High: With GPS/radio clock, mounting height above 6 m. One PIR sensor to below with detection range at a height of 6 m up to 10 m and at a height of 10 m up to 17 m	5EA3BGH01
10	Mast Box Motion 2×PIR Low: Mounting height under 6 m, detection area at a height of 5 m: 14 × 8 m	5EA3BEL02
10	Mast Box Motion 2×PIR High: Mounting height above 6 m, detection area at a height of 8 m: 22 × 14 m	5EA3BEH02
10	Mast Box Motion 2×PIR GPS Low: With GPS/radio clock, mounting height below 6 m, detection range at 5 m height: 14 × 8 m	5EA3BGL02
10	Mast Box Motion 2×PIR GPS High: With GPS/radio clock, mounting height above 6 m, detection range at 8 m height: 22 × 14 m	5EA3BGH02
10	Mast Box Motion Radar: Detection range trucks from 70 m, people from 25 m	5EA40RB01
10	Mast Box Motion Traffic: For traffic counting, with GPS / radio-controlled clock	5EA3BER01
10	Mast Box Standard Relay: without DALI, with one 10A relay output	5EA3BRS01
10	Mast Box GPS Relay: without DALI, with one 10A relay output and GPS	5EA3BRG01
10	Wall bracket for mast boxes	5EA9EW01

### Wireless push-buttons

Wireless push-button for individual lighting scenes, e.g. manual switching during rescue operations.

11	Button 1x1: 230 V, pole mounting. Wall bracket 5EA9EW01 available as an accessory	5EA3EB01
11	Button 2x3: 230 V, wall mounting	5EA3EB03

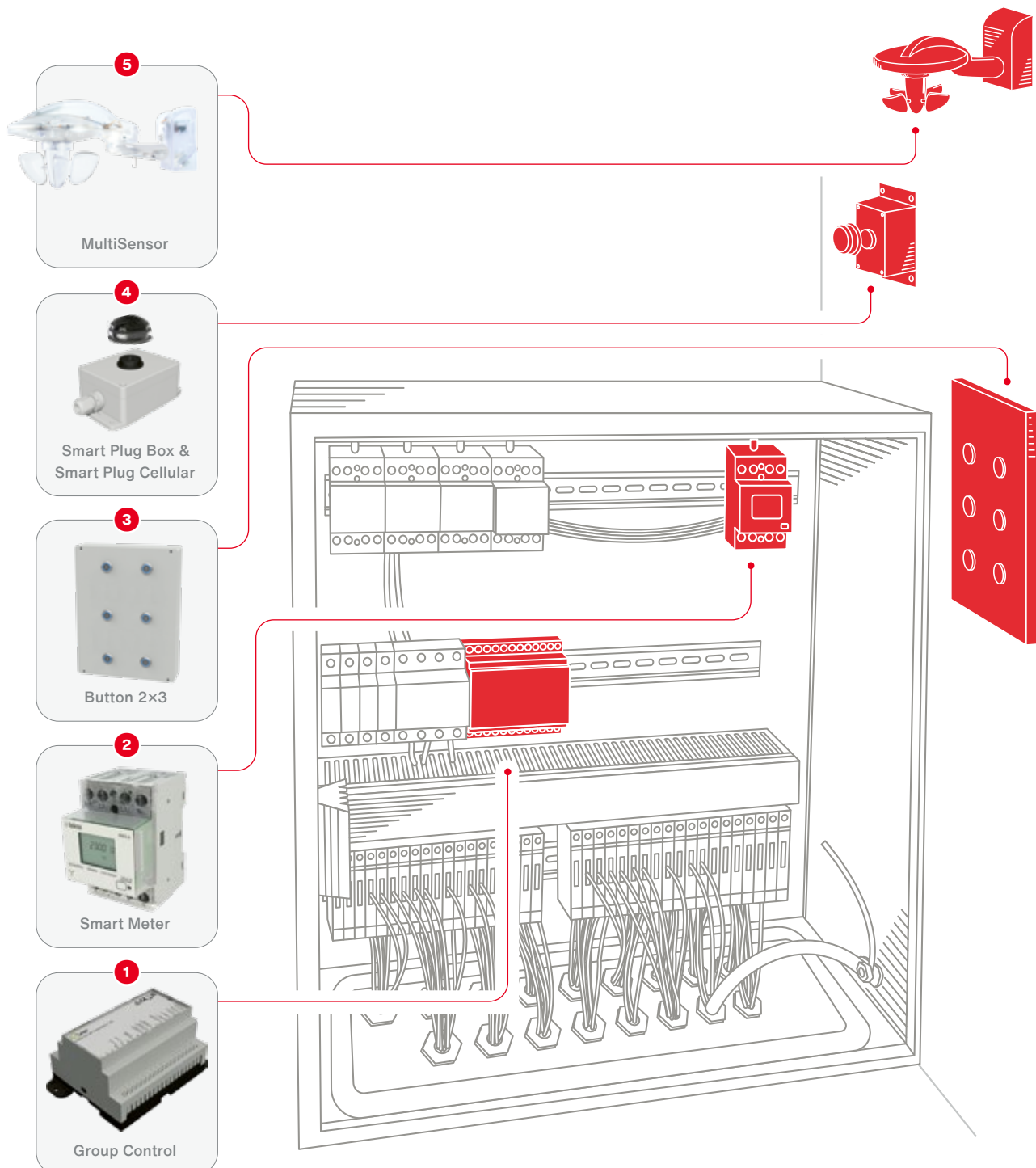
### Mounting external to the luminaire

Zhaga interface for placing additional motion detectors at inputs/outputs, for setting repeater or light sensor locations.

12	Smart Plug Box	5EA3BH01
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# SITECO Connect Group control for the control cabinet.

For central switching and dimming of lighting or for modernizing the ripple control system: SITECO Connect is the innovative and highly functional lighting control system for installation in control cabinets.



## Radio group control / Radio ripple control for switch cabinets

3 relay outputs for connection to contactor or control wires, for example. Local access via wireless USB stick and additional remote access via mobile radio. 5 years remote access included. Automatic switching according to time of day, day of week and astro clock. Motion detectors, daylight sensors, other Group Control devices and Smart Plugs can be integrated wirelessly. RS485 interface for connecting a smart meter. Radio-controlled clock, astro clock and GPS. Very easy to install.

1	Group Control with <b>integrated antenna</b> . Remote access included with 60 credits (equivalent of 60 months)	<b>5EA1ECL01</b>
1	Group Control with <b>external antenna</b> . Remote access included with 60 credits (equivalent of 60 months)	<b>5EA1ECL02</b>
<b>Accessories:</b>		
	3-in-1 puck antenna for mobile radio, mesh and GPS with <b>0.5 m cable</b>	<b>5EA1EAT01</b>
	3-in-1 puck antenna for mobile radio, mesh and GPS with <b>5 m cable</b>	<b>5EA1EAT02</b>
2	Smart Meter / Electricity meter	<b>5EA1EM02</b>
3	Button 2x3	<b>5EA3EB03</b>
4	Smart Plug Box & Smart Plug Cellular as wireless twilight switch	<b>5EA3BH01 &amp; 5EA3CM000001</b>
5	Multisensor / Wireless weather station	<b>5EA1EW01</b>

# Commissioning and configuration of Smart-Interface and Group Control

## Setting and operation

### Central commissioning and management via remote access

Remote setup, administration and monitoring of Group Control and Smart Plugs Cellular (or, alternatively, of up to 100 neighboring Smart Plugs Standard or Motion via a Smart Plug Cellular) are carried out via a web application. The usage fees for the web application and data transmission for Cellular and Group Control devices are already included in the end-device price in the form of 60 credits (equivalent of 60 months) and can be additionally purchased for Standard devices and longer periods as credit points using the order numbers listed below. The credit points are loaded into a credit pool and are consumed equally by all devices within the system. Per device (Standard or Cellular), one credit point is consumed from the pool each month. By default, data is transferred every 15 minutes. In the Light model, data is only transmitted when the device is switched on and then every 8 hours from 00:00 (the measurement data is also not displayed in a more granular form).

A	Standard: Advance payment of usage fee per end device for 60 months each in the form of 60 credit points (credits)	<b>5EA0EC60</b>
A	Light: Advance payment of usage fee per end device for 60 months each in the form of 30 credit points (credits)	<b>5EA0EC30</b>

Note: Remote access for systems whose credit points have been used up ends automatically. The system continues to operate as configured even without remote access and can be configured using the USB stick. Remote access can be reactivated at any time using order number 5EA0ECR01. The fee must be paid per end device.

### Local commissioning and management

#### Wireless USB stick with software

For adjusting and checking the devices of the lighting control system on site.

B	Configurator software with USB stick	<b>5EAU0A000001</b>
B	GPS USB stick	<b>5EAU0G000001</b>

## Services

SITECO will be happy to support you with the planning and commissioning of your individual SITECO Connect system. The following services support you during setup and operation. Via video conference or on-site service.

**Training:** Software and system training for up to 3 participants, 1.5 hours, via video conference or on site.

<b>Training</b>	<b>5EA0DES01</b>
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**System configuration:** Basic configuration per system or construction, via remote access or on site.

<b>System set-up</b>	<b>5EA0DEA01</b>
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#### End device configuration:

Configuration per end device, via remote access or on site.

<b>Device Configuration</b>	<b>5EA0DEE01</b>
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#### On-site service:

On-site support from the SITECO service team.

<b>Per kilometer driven</b> There and back incl. travel time, costs and expenses	<b>5AE0DER01</b>
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<b>Per overnight stay</b>	<b>5EA0DEH01</b>
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Note: Billing is based on actual effort expended.

# Ready for the next step?

## Lighting control as part of digital operational management.

### Control, monitor and manage SITECO Connect via luxData.

The future means not only intelligent luminaires and control systems, but smart operational management as well. Forget about stacks of paper and manual processes. How about managing everything centrally instead? Manage, maintain and service. Using a single interface.

Yet digital operational management with luxData by sixData can do even more: it allows a number of telemanagement systems or lighting controls to be operated. In addition, luxData.Control also shows the status and measured values of the luminaire controller, which are sent by the different control systems. This means you only need to operate one software solution and save time on training and using interfaces. This is extremely practical if you are managing several control systems in parallel.

## luxData by sixData can ...

... manage all objects in towns and cities.

... monitor lighting and send fault reports.

... be filled easily like Excel.

... record all data from the date of installation to power consumption.

... measure power consumption.

... provide custom dashboards for maximum transparency.

... create decision-making reports at the touch of a button.



# Lighting control in practice.

The roundabout that  
thinks for **itself**.

**Nature conservation and safety ideally combined.**

**The project →**

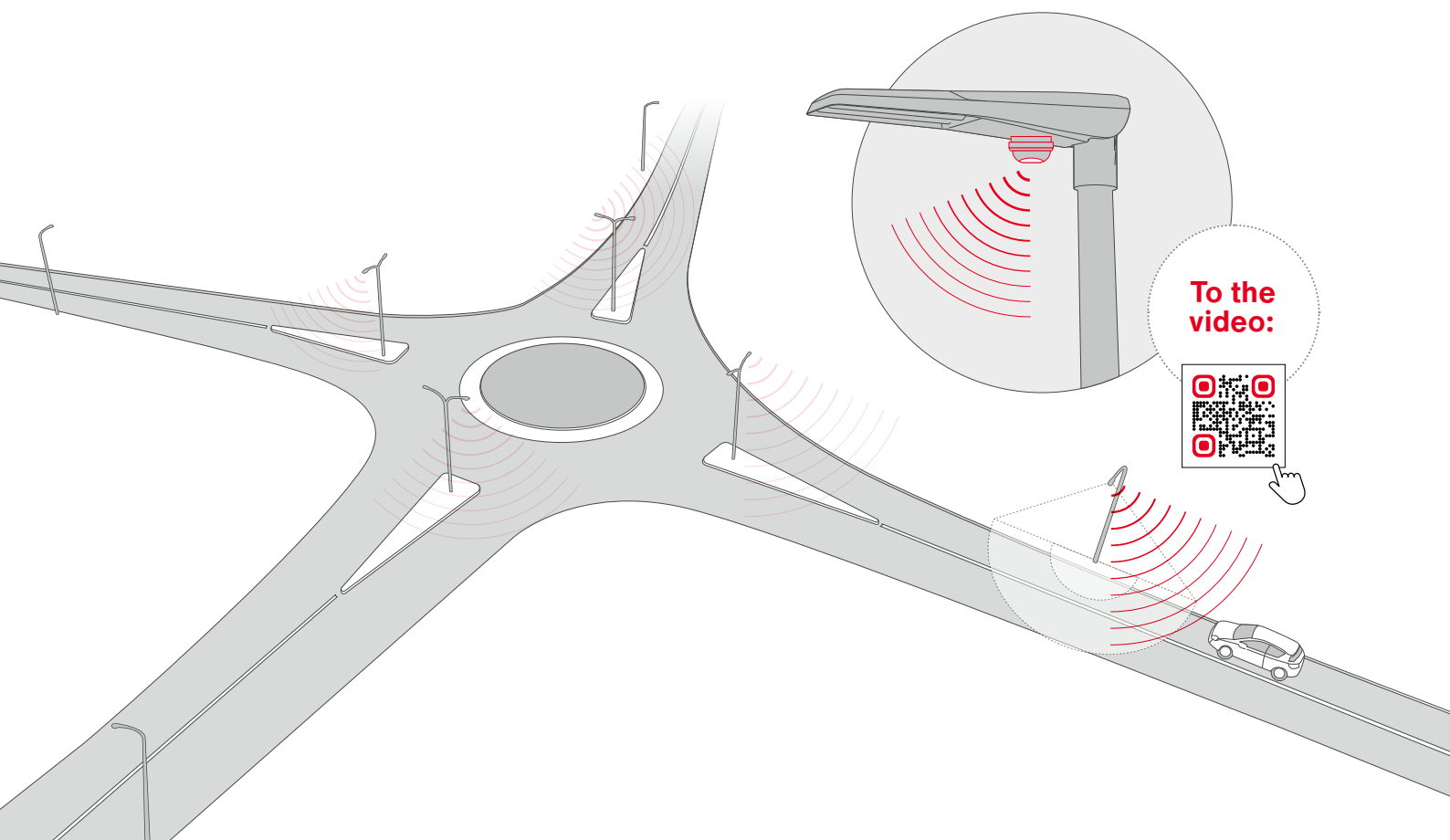
Roundabout in the community of Aschbach, Austria

**Our solution →**

Streetlight SL 21 with SITECO Connect 21 including radio-networked motion sensors

**Details:**

- Reduction of light pollution in nature
- High safety for road users with reduced energy consumption
- In an idle state, without traffic: 15 % lighting level
- Detection of vehicles at a distance of 70 to 100 m: increase to 100 % lighting level
- Small animal filter blocks out detection of birds, squirrels, etc.



# Safety for road users. And for wildlife too.

## Protection of wildlife and road safety cleverly combined.

**The project →**

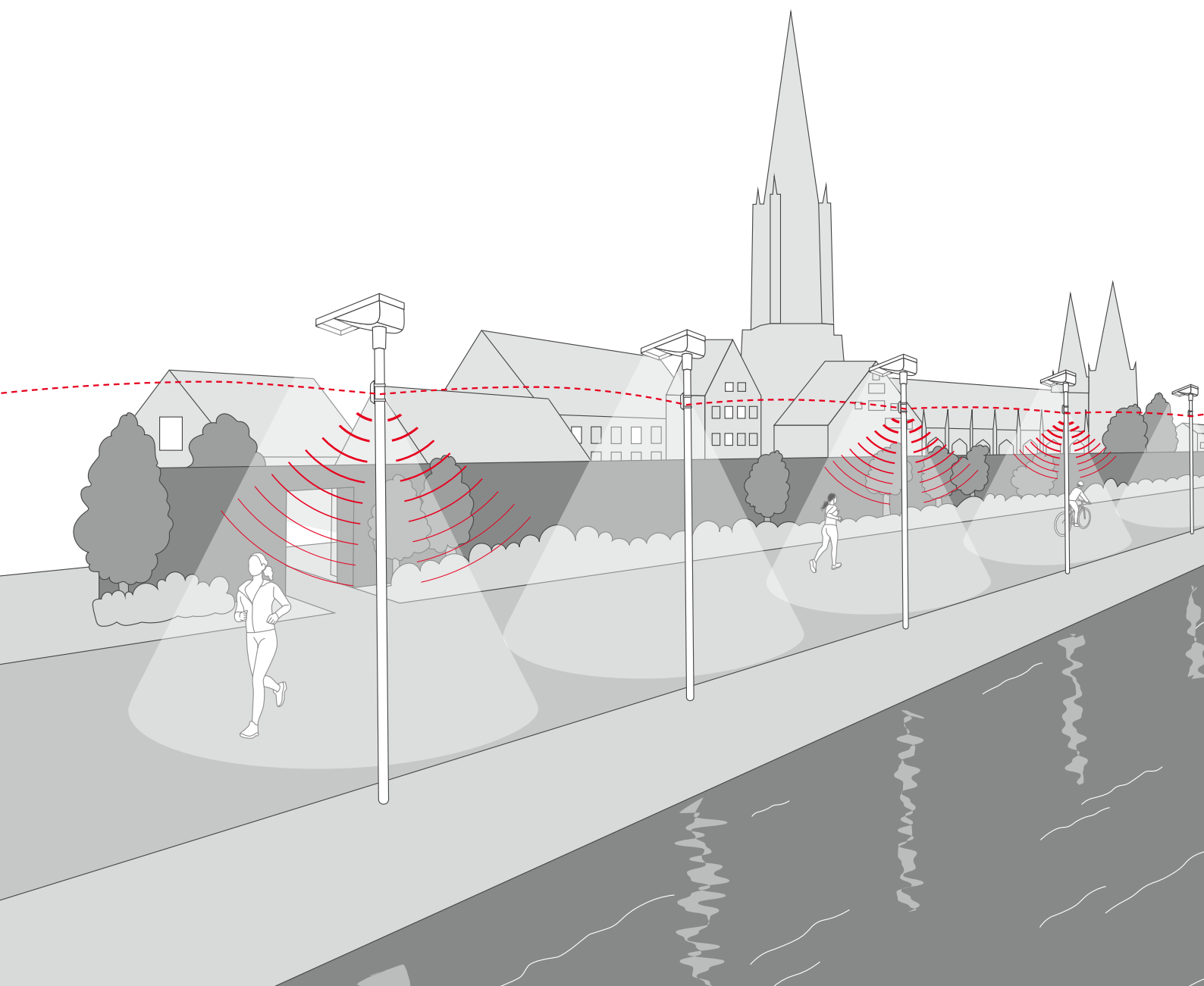
“Donauradweg” cycle path in Ulm, Germany

**Our solution →**

Streetlight SL 21 with SITECO Connect 11 including radio-networked motion sensors

**Details:**

- Maximum dimming in idle state without cyclists / runners
- Increase in lighting level when motion is detected
- Running light that precisely follows the position of the cyclist / runner
- Focus on the need for safety, especially of female runners in the evening hours
- Reduction of light pollution and minimal disturbance of nocturnal flora and fauna
- Switching/dimming scenarios can be adjusted individually at any time



# Control station car parks and P&R car parks through motion activation.

## Energy savings at top speed.

**The project →**

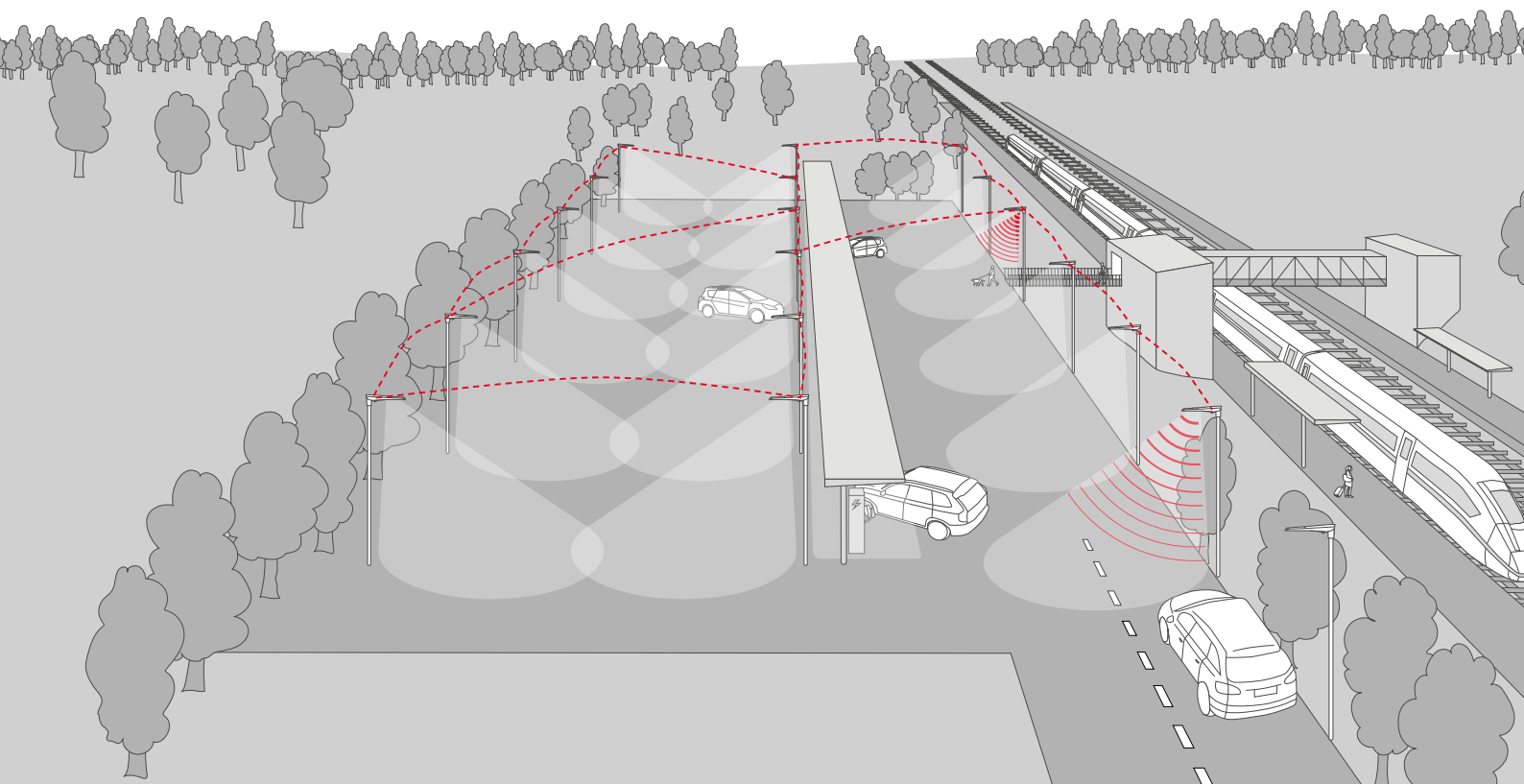
Community of Merklingen, Germany

**Our solution →**

Streetlight SL 11 luminaires with SITECO Connect 11 including radio-networked motion sensors

**Details:**

- Fixed and remotely adjustable night-time power reduction
- Increase in lighting level when motion is detected
- Radio-networked luminaires for switching and dimming in groups
- Remote maintenance and central access to all luminaires in new residential areas
- Fine-tuning on demand: continual monitoring and optimization of lighting as regards energy savings, traffic safety, light pollution and environmental protection



# Restful nights and safety for tired truck drivers.

## Rest and safety zones harmoniously combined.

### The project →

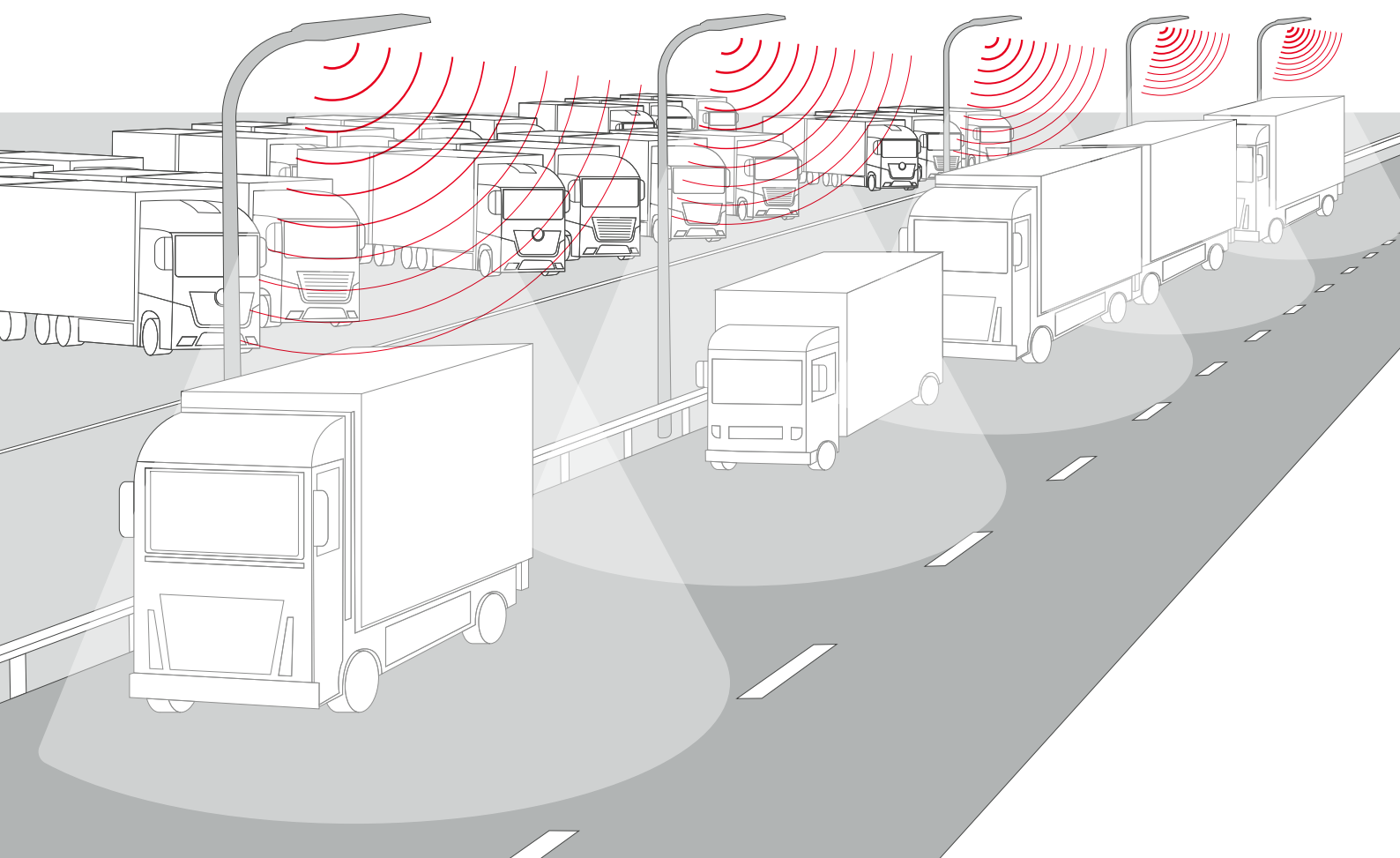
Industrial estate in Berlin-Schönefeld, Germany

### Our solution →

Streetlight SL 21 with Smart-Interface and SITECO Connect 11 including radar and PIR motion sensor

### Details:

- Demand-driven light with radio-networked motion sensors for commercial areas with waiting and rest zones for truck drivers
- High sense of security without dark corners
- At the same time, optimal conditions for truck drivers to rest and sleep with dimmed light
- Individual adaptation of switching and dimming values by the customer
- Monitoring via email and notifications



# Motion-activated control of street blocks. Ensuring personal and traffic safety.

## Keeping all energy-saving options open.

**The project →**

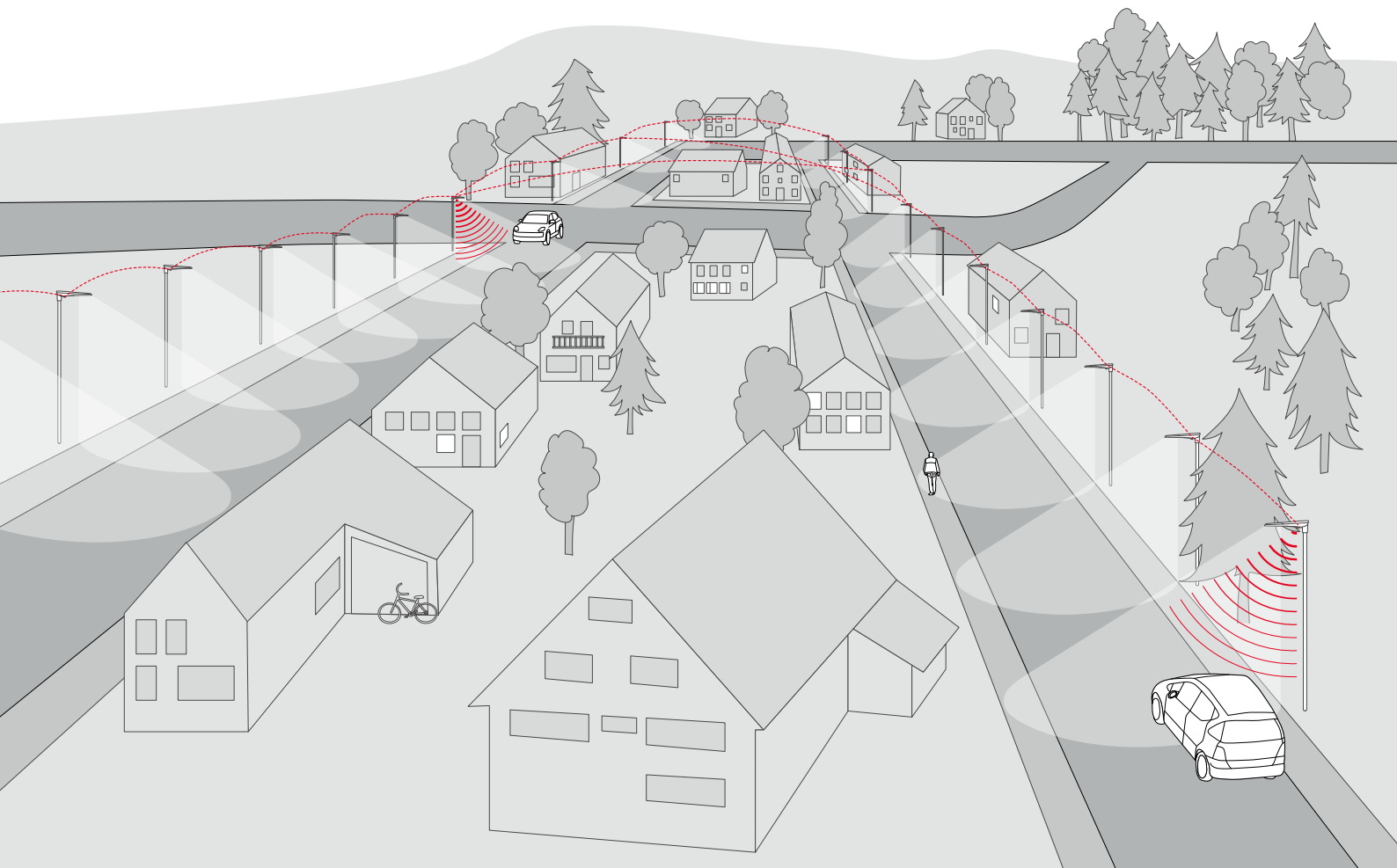
Community of Steinheim am Albuch, Germany

**Our solution →**

Streetlight SL 11 with SITECO Connect 21 including radio-networked motion sensors

**Details:**

- Demand-driven lighting for the entire district with all road types
- Individually programmed night-time power reduction with 20 to 30 % background lighting
- Increase in lighting level when motion is detected
- High-speed radio network ensures the luminaires ahead are illuminated
- Compliance with state environmental laws with environmentally friendly 3,000 K light color
- Additional savings potential thanks to increased dimming and partial switching off



# Quantum leap lighting solution.

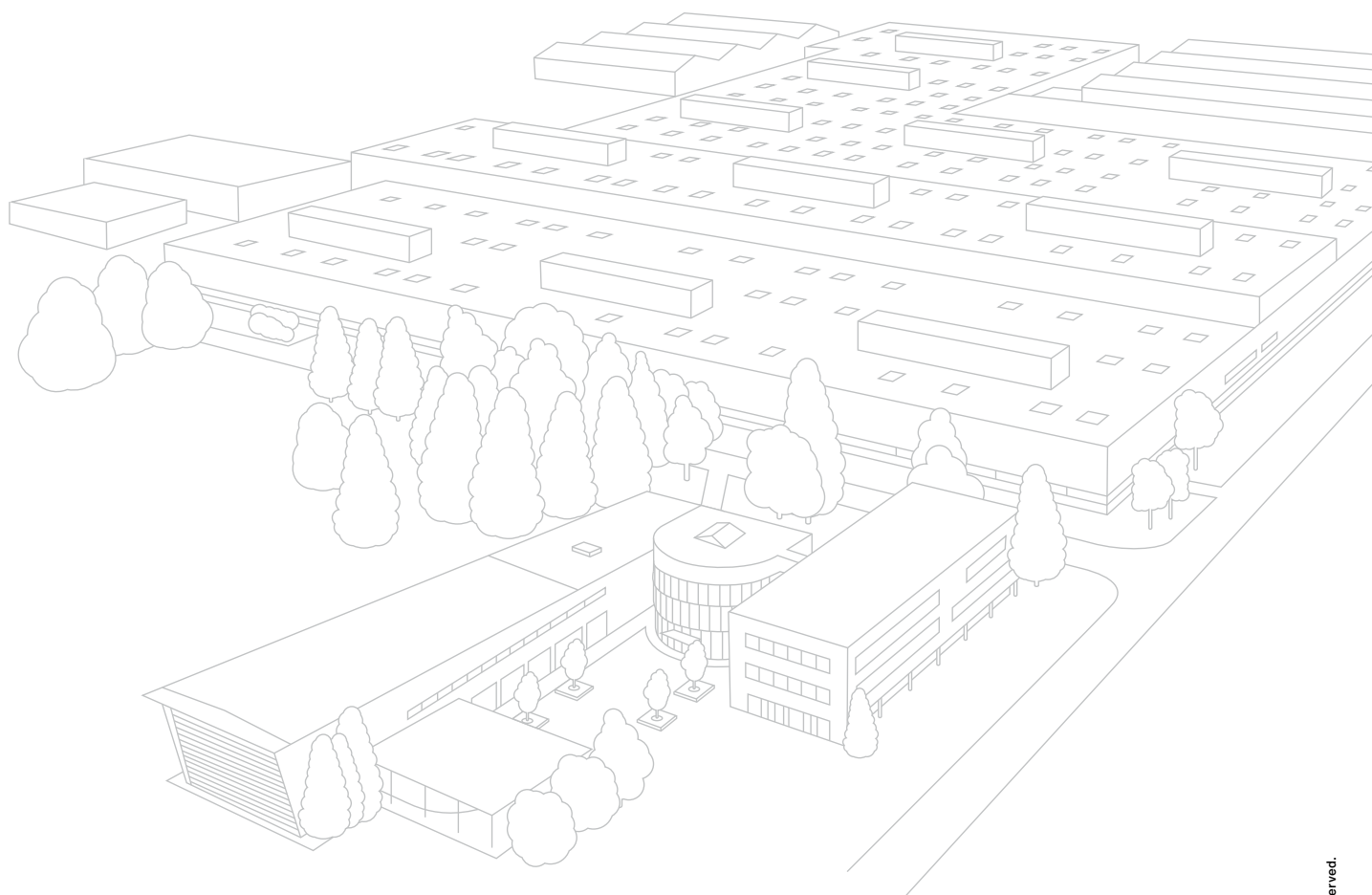
Made in  
**Traunreut**

SITECO develops lighting solutions that set standards.

Our unique combination of expertise in lighting, control, project

and operation creates solutions that are more than just light:

they are your competitive edge. For over 160 years.



## Contact.

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