



lixtec®

dynamic light solutions

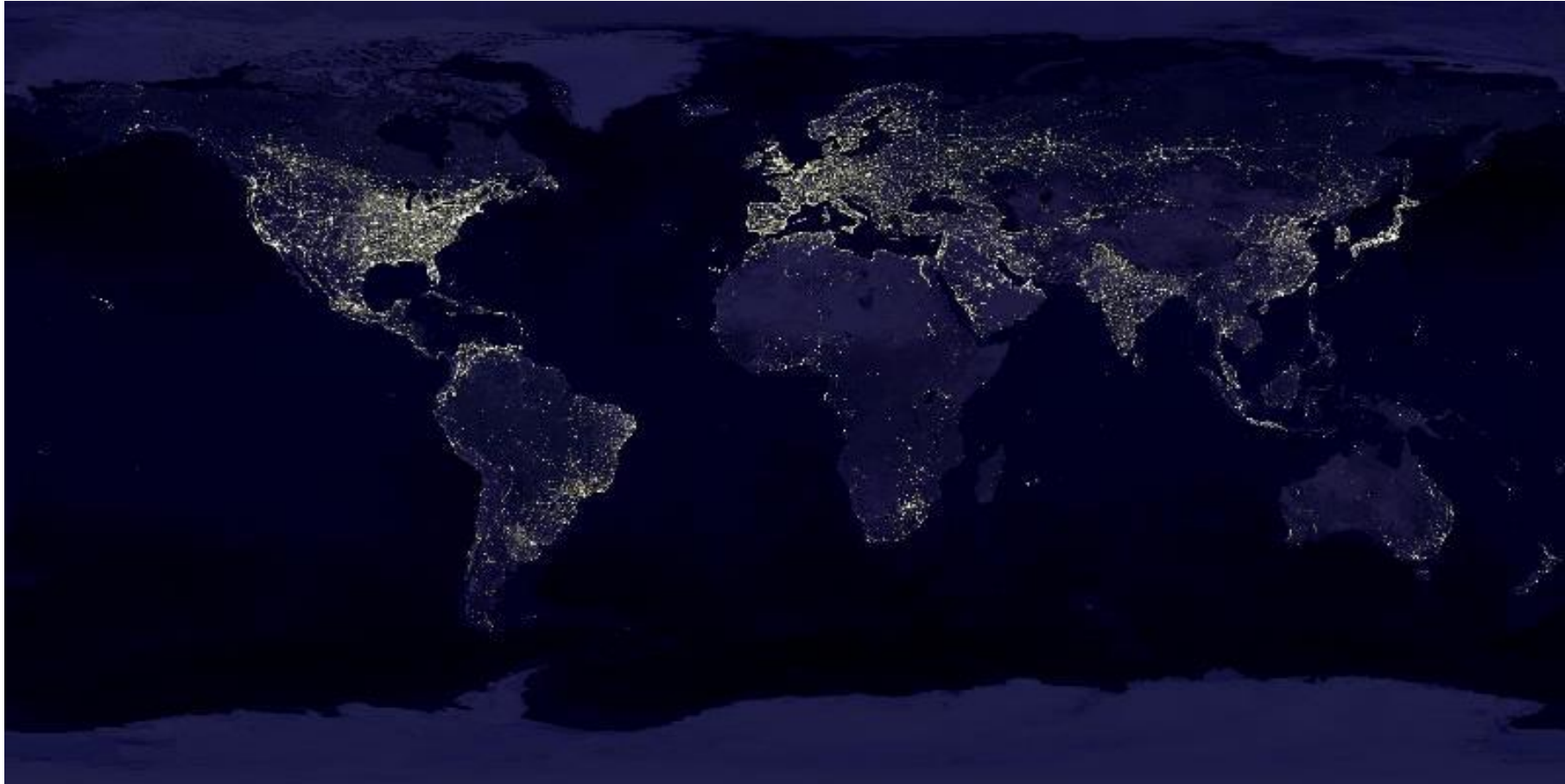


Foto: NASA

night view



**Energy conservation**

Up to 85% energy savings



**Lower light pollution**

Benefit for humans and the environment



**Sense of security**

Light when needed

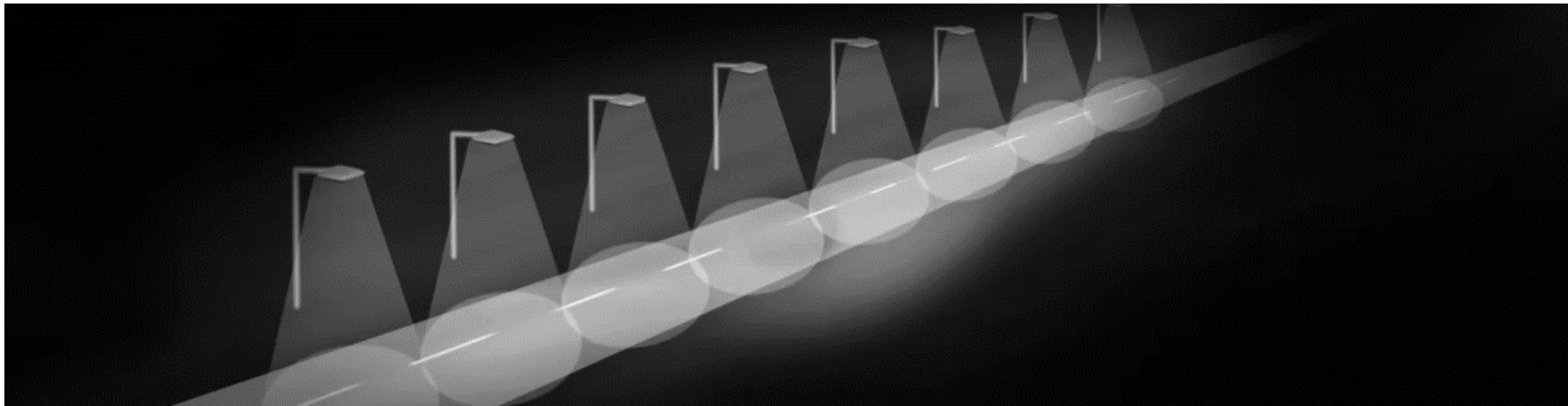


**Increased service life of street lights**

Enhanced life of LED and ballast modules

LED street light + lix.detect = intelligent, demand-oriented street light

concept



potential

## Key benefits and the answer to energy preservation

### Challenge

Climate goals

Light pollution

The cheapest energy  
is unused energy



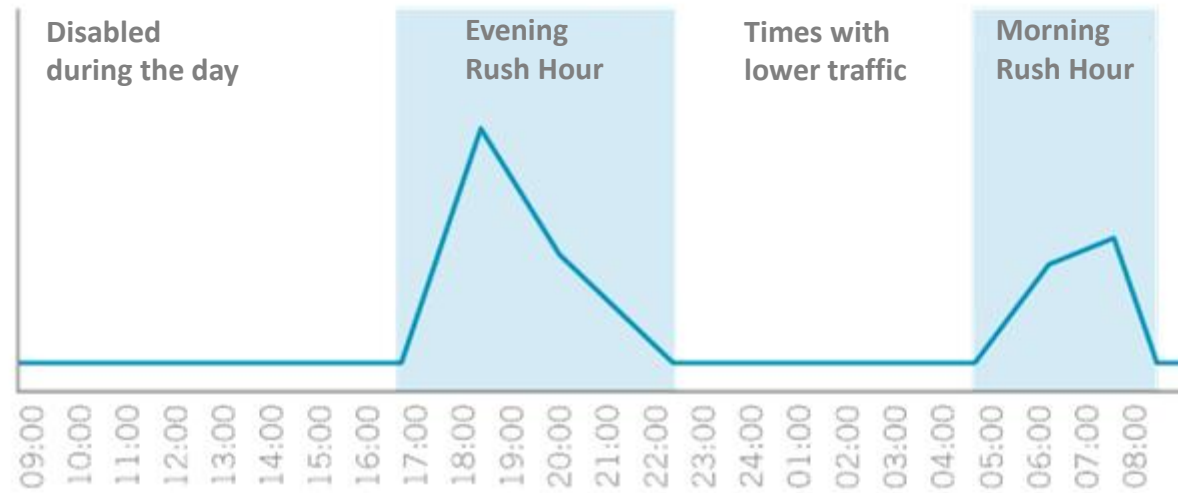
### Solution

lix.detect

- Maximum energy conservation without loss of comfort
- Substantial reduction of light pollution
- Contribution to reaching the climate goals

use case: demand driven lighting

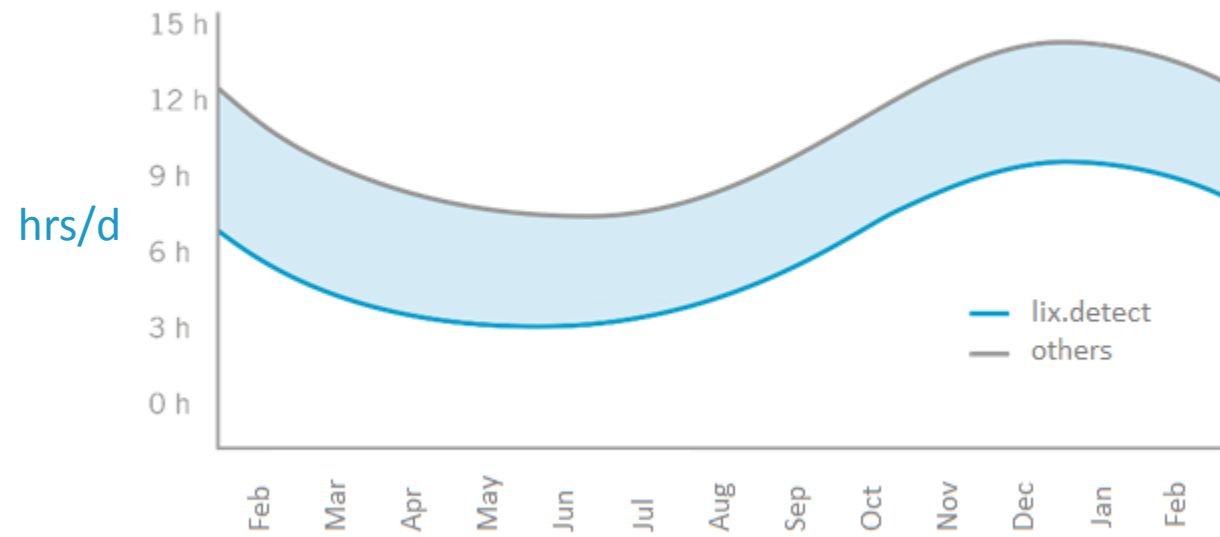
## Traffic over time



Safety does not need permanent full illumination

traffic situation

## Seasonal duration



Preserve energy all year long

seasonal differences

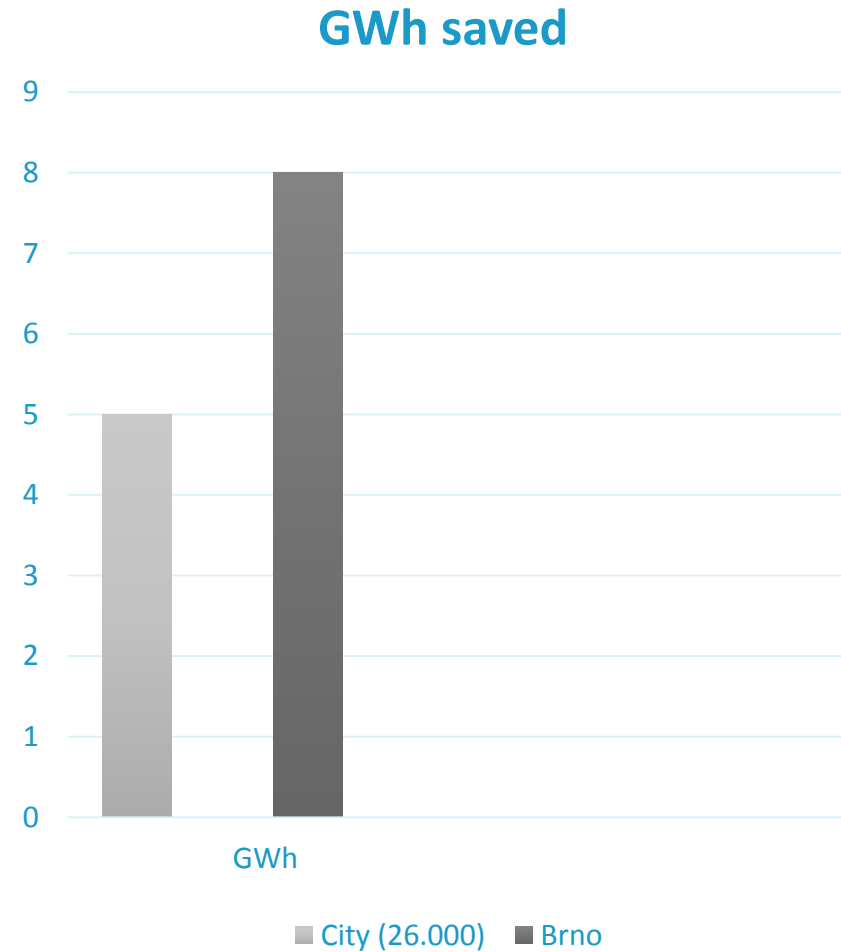
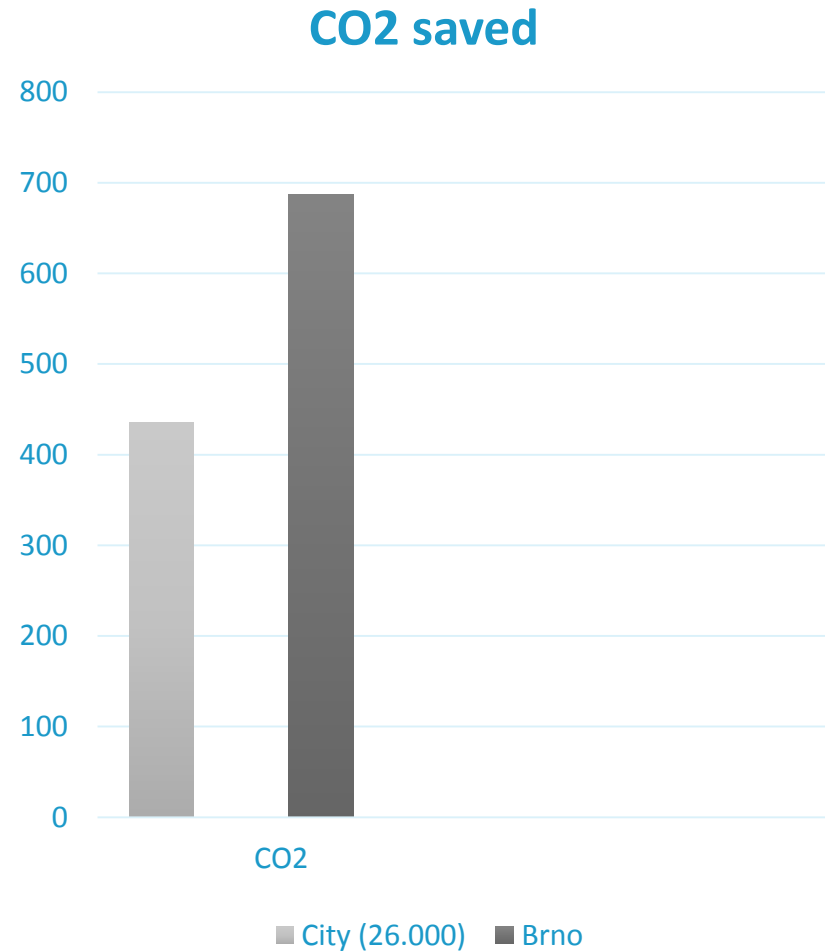
In Austria, energy consumption for street lights amounts to

7%

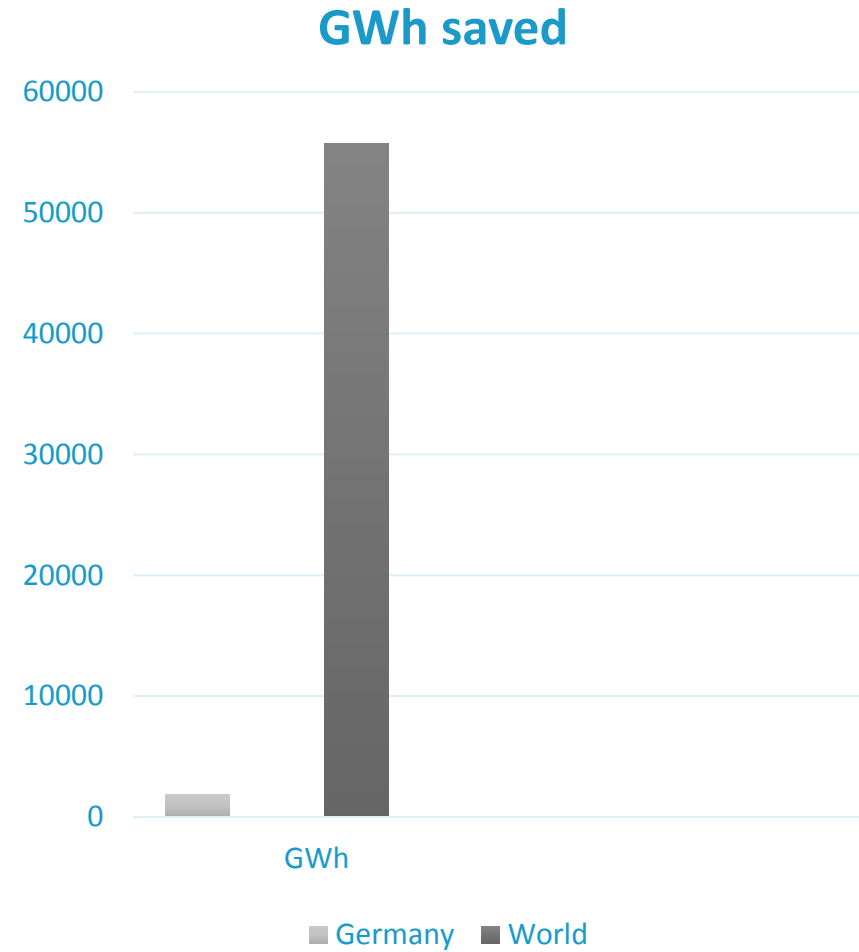
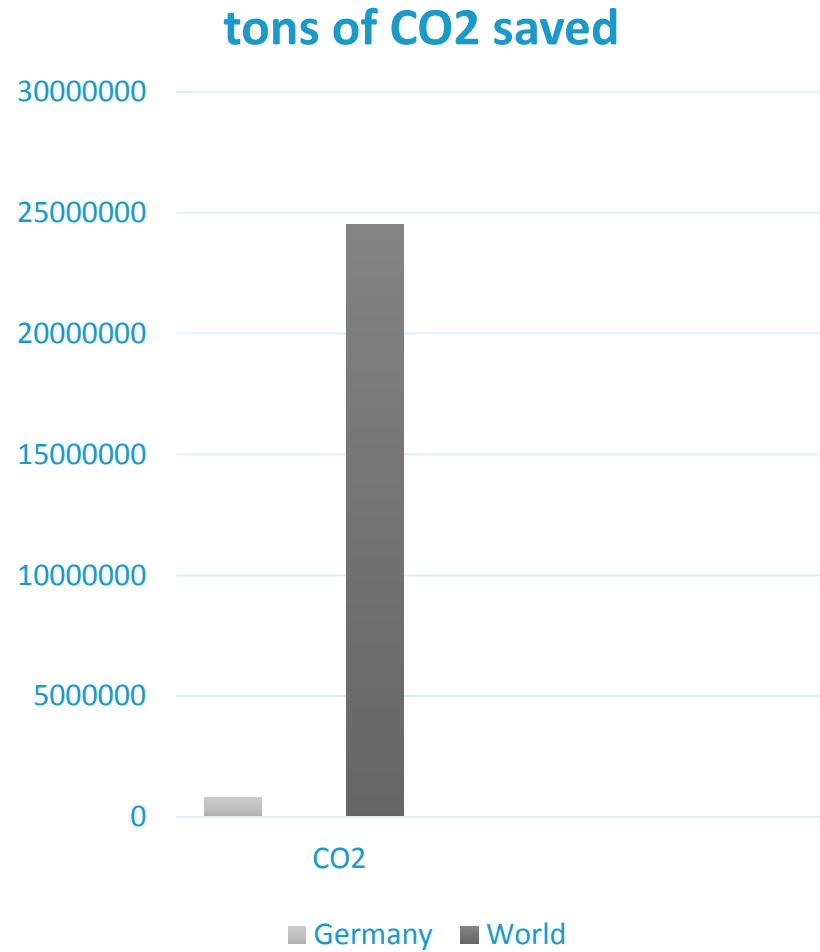
of the total energy consumption.

potential

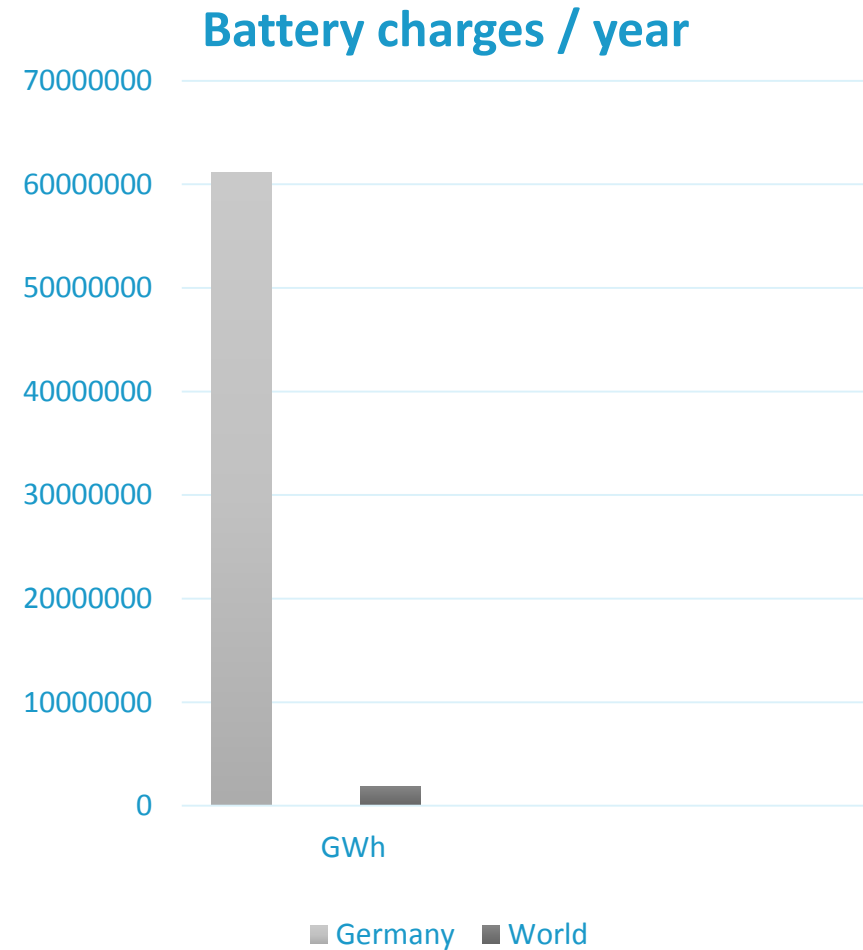
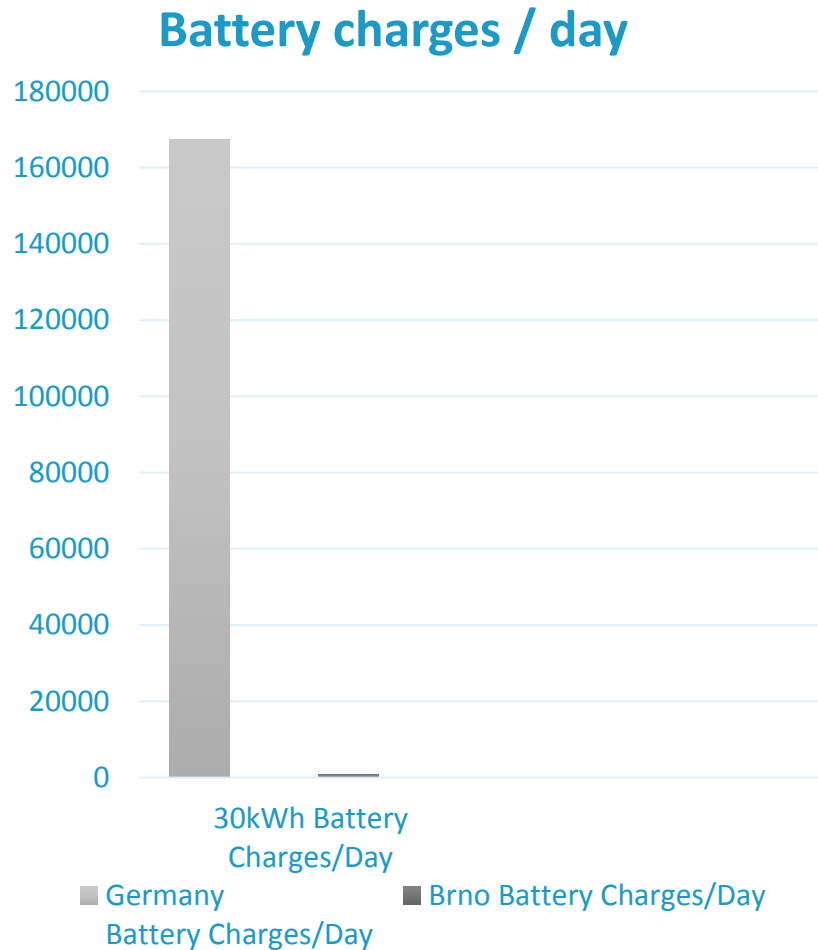




potential on city scale



potential on country / global scale



potential on country / global scale

## Which solution can work and why?

### Challenge

Limited energy from sun, stored in  
LiFePO4 batteries

Little sun and long nights during  
winter time



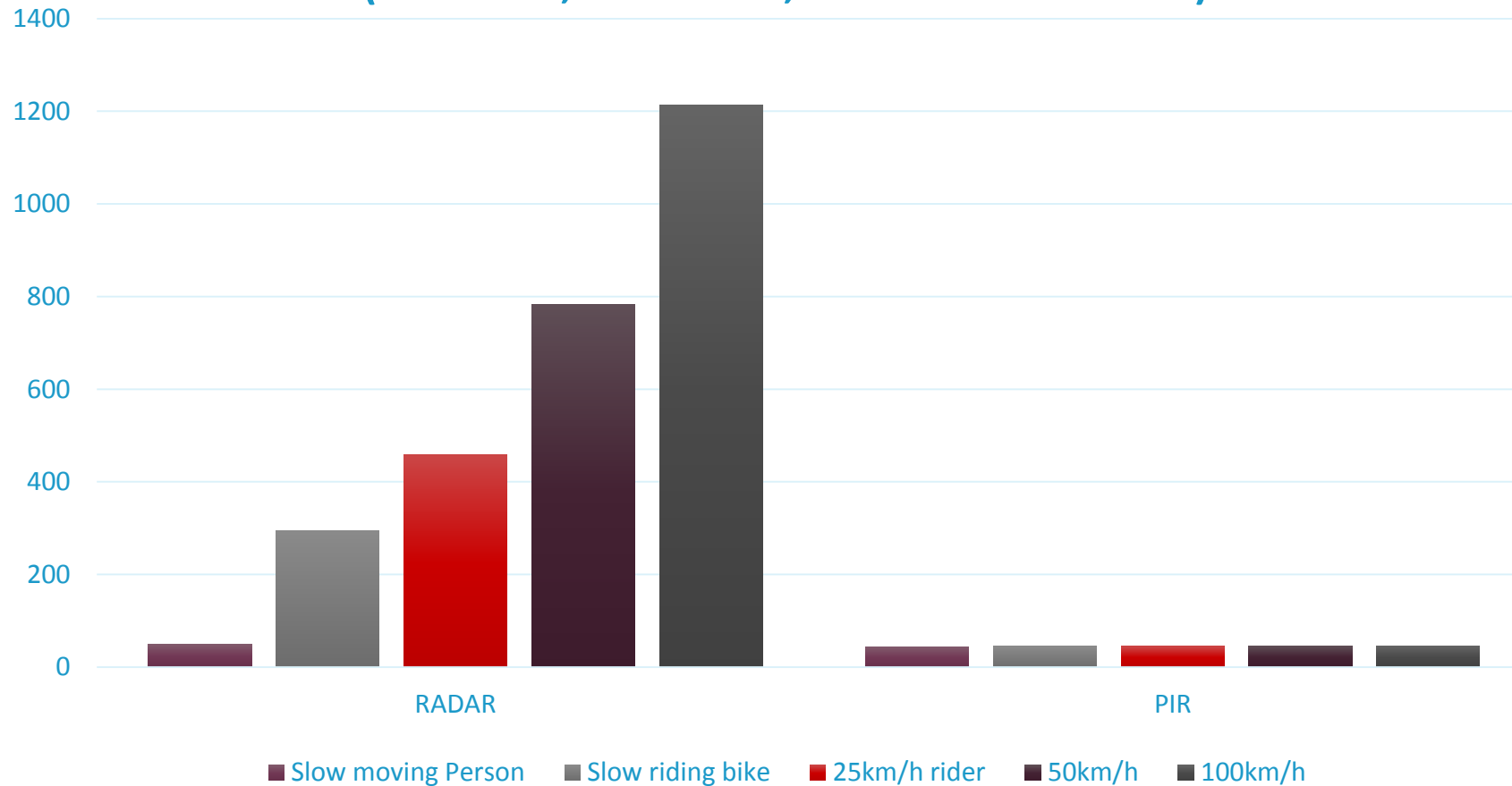
### Solution

Dimming to save energy

Demand orientated lighting (PIR  
sensor, radar based systems)

use case: off grid autonomous lighting

## Number of vehicles/people that can be illuminated per night (Frankfurt, December, worst case scenario)



the answer to the battery/pv challenge

### Limitations of passive infrared (PIR) sensors

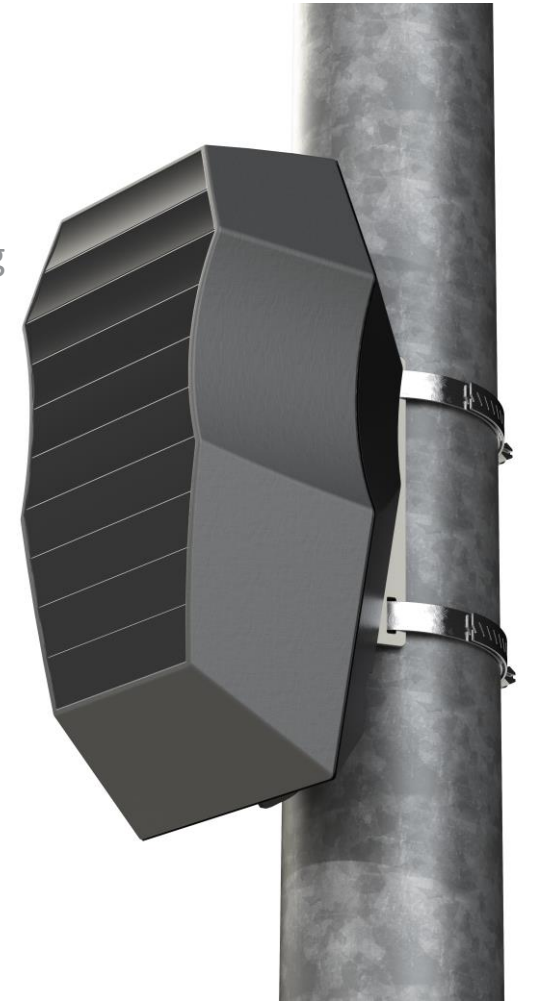
- High temperatures
- Low temperatures
- Limited detection range

### Core benefits of radar sensors

- Temperature independent
- Quality of detection (digital signal processing and filtering)
- Excellent detection range for persons, even topped for vehicles and trucks
- Range is key for max. energy savings

technology comparison

- lix.detect is the evolutionary step after years of experience with lixtec LOD
- Fully integrated system for demand-oriented luminaire control with radar sensors and radio networking
- Compatible with any modern LED street lights through standard interfaces (DALI, 1-10V, PWM)
- Vendor independent
- Fully configurable lighting profiles
- Luminaires can be configured as single luminaires or in freely combined groups
- Plug-and-play solution, optional cloud-based management
- 100% compatible with all products of our Swiss partner 



solution

The screenshot displays the eSAVE sIControl web interface. At the top, there is a navigation bar with 'Demo Account', 'Leuchtstellen', 'Leuchten', and 'Gateways'. The main area is divided into a left sidebar, a central map, and a right-hand data panel.

**Left Sidebar (Filter / Legende):**

- Gruppieren nach Status: [Dropdown]
- Verfügbar (Online) [checked]
- Nicht verfügbar (Offline) [checked]
- Inaktiv [checked]
- Störung [checked]
- ausser Betrieb [checked]
- Konventionelle Leuchten [checked]
- In Reparatur [checked]
- an Lager [checked]
- Gateways [unchecked]
- Nachbarleuchten [checked]
- Mesh-Netzwerk [unchecked]
- Heatmap [unchecked]

**Map:** Shows a street layout with several streetlights. A specific lamp is highlighted with a green circle and connected to a gateway by a green line. Other lamps are shown in various colors (orange, blue, green).

**Right Panel (Lamp 02 Details):**

- Status:**
  - Leuchte: Lamp 02
  - Status: Verfügbar (Online)
  - Letzte Aktualisierung: 25.07.2018 09:34
- Netzwerkstatus:**
  - Verbindungsqualität: 99 %
  - Letzte Verbindung: 25.07.2018 09:33
- Aktuelle LED-Leistung:**
  - Helligkeit: 1 %
  - Leistungsaufnahme: 1.8 W
- Temperatur:**
  - Steuerung: 46.0 °C

optional cloud-based management



## lix.detect

- Nomination for Global Energy Award Styria 2019

## lixtec LOD

- iF product design award" for lixtec LOD 2013
- Participation and top placement in state prize for innovation 2013
- Nomination for the state prize for environment and energy technology with the title "Energy and Efficiency“ 2012
- Upper Austrian federal state prize for environment and sustainability 2012
- Upper Austrian federal state prize for innovation 2012

lixtec awards

Gerold Meininger  
Marketing & Sales

M: +43 660 22 00 414

E: [g.meininger@lixtec.com](mailto:g.meininger@lixtec.com)

thank you