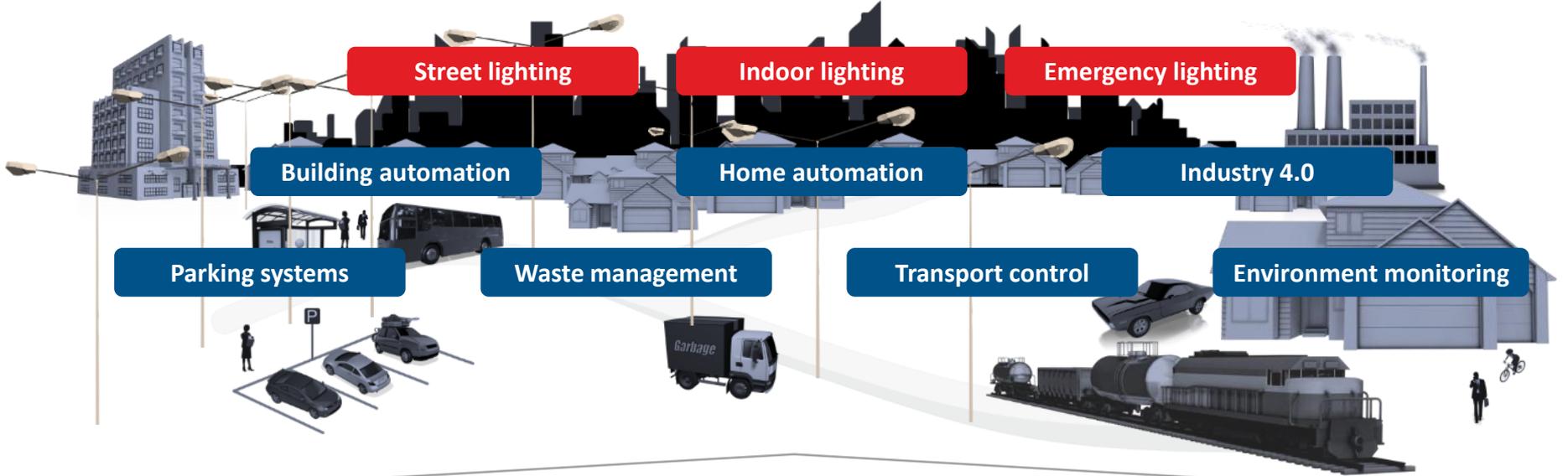


**Get your lights connected. Today.**

# The Lighting Industry has to adapt to market needs for Smart Solutions

Lighting is one component of IoT. If proper communication technology is used, lighting can serve as a **backbone** for other Smart Solutions.



Reliability &  
Robustness

Low or  
No fees

Remote secure  
control

Easy & Quick  
deployment

Modularity &  
Scalability

Big data &  
Analytics

Fundamental market requirements on Smart Solutions

Get your lights connected. Today.

+

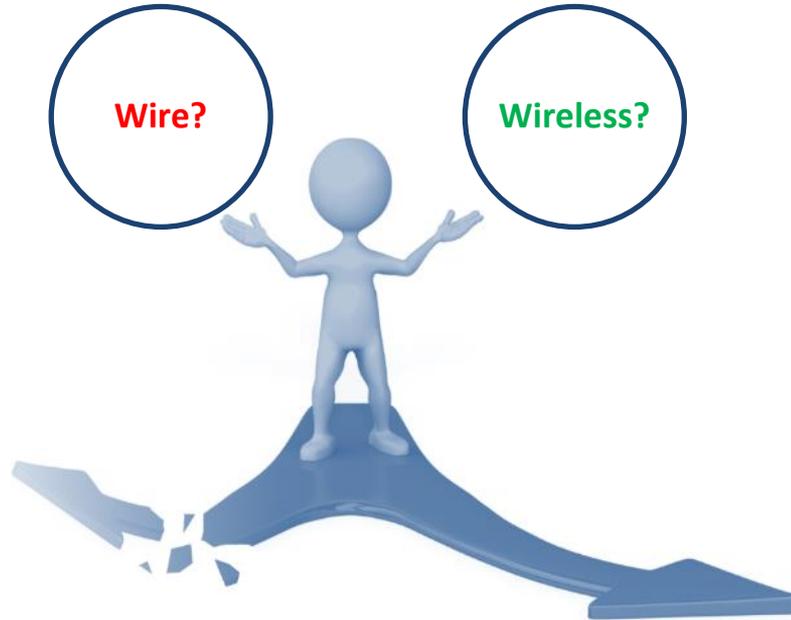
- Fast response
- Transmission capacity

-

- High installation costs/time
- Installation not permitted
- Reinstallation difficult
- Scalability issues

Wire?

Wireless?



+

- Quick installation
- Lower installation costs
- High flexibility
- Scalable solutions

-

- Lower throughput
- Slower response

In the Lighting industry benefits of wireless technologies prevails significantly



## Non-fitting technology?

- Bidirectional communication not possible or not efficient
- Insufficient transmission range, speed and capacity



## High operating, installment costs?

- Operating fees
- Charging per message



## Technical challenges?

- Not covering “difficult” areas (deep indoor, obstacles, ...)
- Long product dev. time (on given technology)
- No remote configuration or upgrades



## Technical promises vs. reality?

- Higher energy consumption than declared
- Reliability & Security issues
- Poor support



## Industrial reliability

thanks to unique IQMESH® routing protocol



## Simple adoption and commissioning

adding wireless connectivity to any device, OTA maintenance



## Ultimate security

based on industrial standards, natively in the IQRF OS



## Interoperability

integrators can easily combine all products



## Technical parameters

50+km<sup>2</sup> coverage in MESH by up to 240 hops / network,  
up to 500 m range / hop, bidirectional network communication ~20 kbps



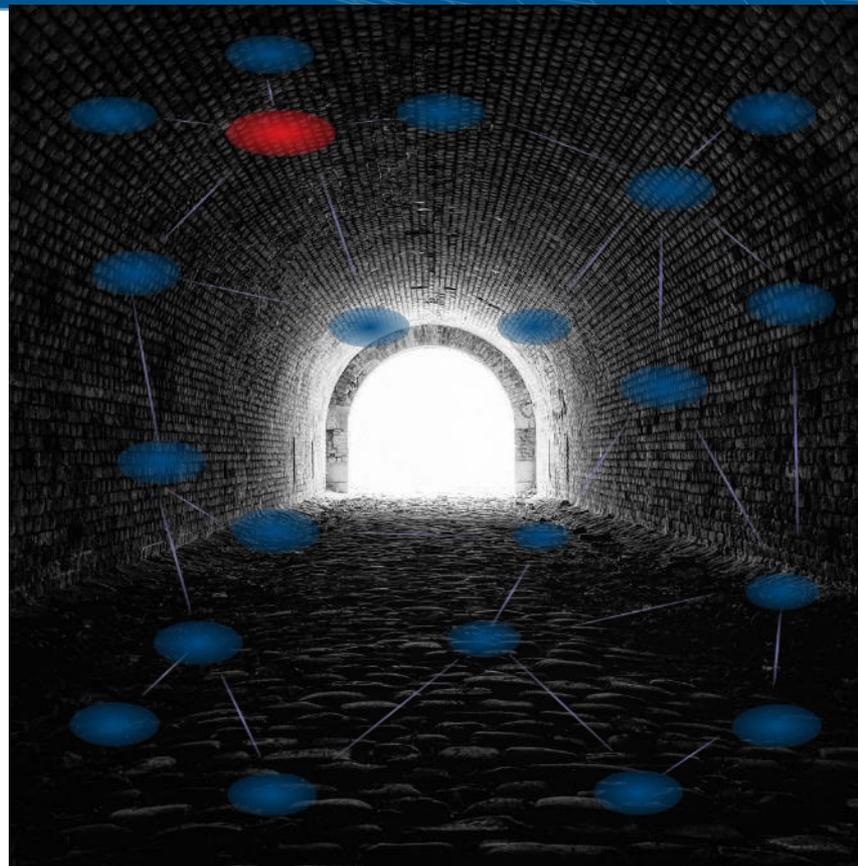
## Open and fully documented

every piece of hardware or software and all protocols



## Efficient costs

no operating fees, no charges per message



We provide solutions from basic connectivity up to end user services

**Applications & Services**



**Remote Services**

Cloud computing, predictions, analyzes, recommendations, alarm messages (using partner services)

**Local autonomy & connection to external systems**



**IQRF Gateway**

Edge computing (autonomous management of local mesh network) + connection to external networks/services

**Control system interface with DALI**



**DALI Bridge**

Reasonable price, immediate connection, ultra-critical autonomous functions

**Basic connectivity**



**IQRF Transceiver**

Reliable and secure wireless connection, integration with our support

Get your lights connected. Today.

# Existing IQRF interoperable applications represent further huge business potential

There is a number of **existing IoT solutions** running on the **IQRF technology** that could further utilize **IQRF lighting infrastructure** as a **backbone** which increases the **attractiveness** and **use** of the lighting solution



## Industrial Solutions

Emergency & Indoor Lighting Vertical



Industrial heating & automation



Safety & Localization



Environmental monitoring



Connected tools



## Smart City Solutions

Street Lighting Vertical



Safety monitoring



Traffic monitoring



Smart parking



Air-quality monitoring



## Smart Building Solutions

Emergency & Indoor Lighting Vertical



Smart heating



Air-quality monitoring



Occupancy sensors



Power metering & control

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# Selected references – Lighting



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Smarter Wireless. Simply.

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