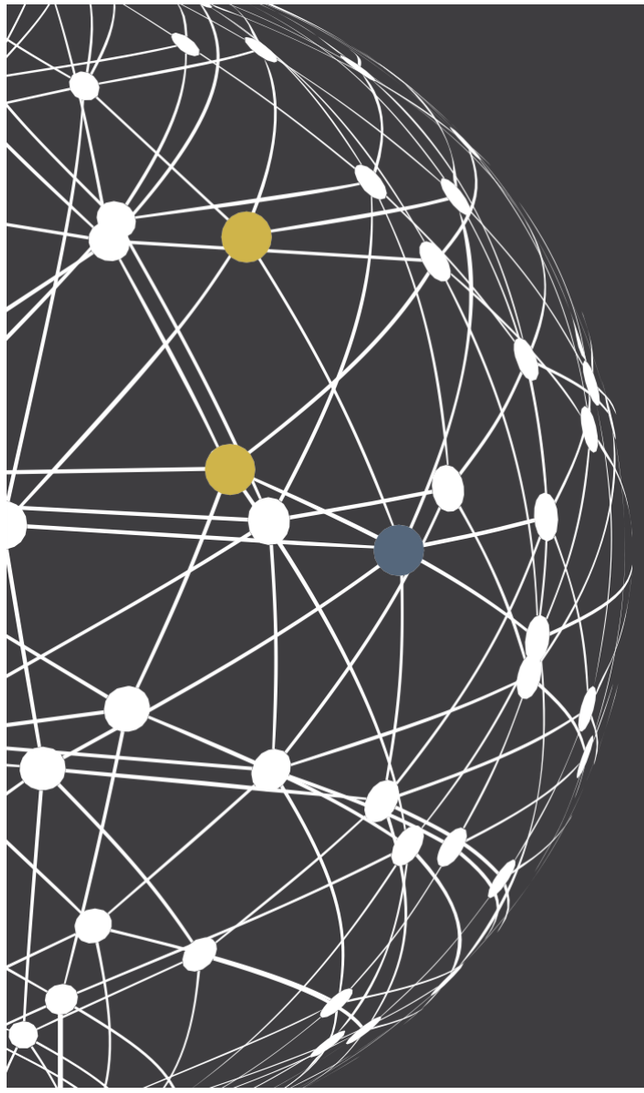


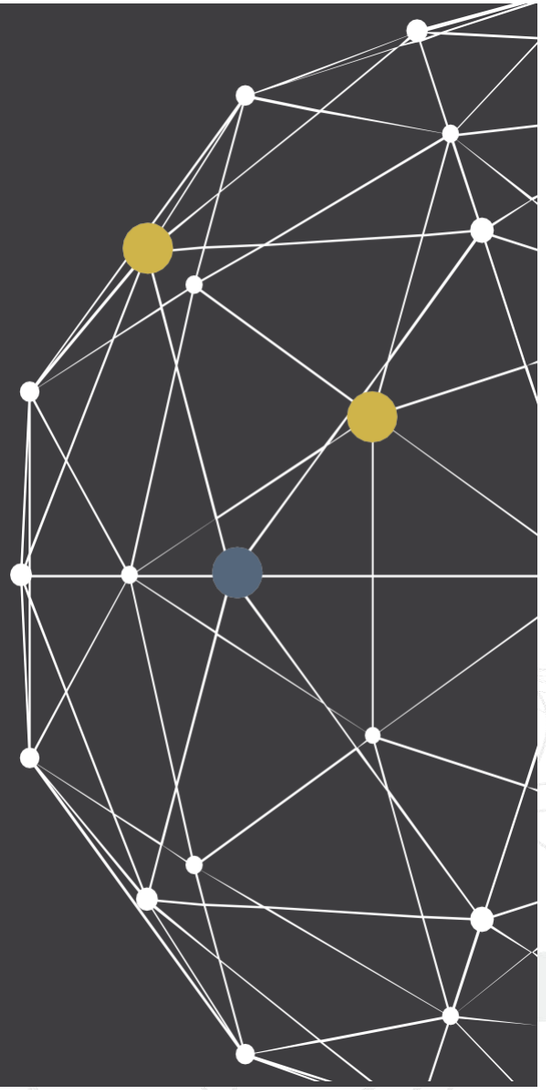
SMART SUSTAINABLE BUILDINGS NEED SMART PLATFORMS

IoT technology that transforms the market for building automation and enables As-a-Service concepts

CHESSWISE
SOLID IN WIRELESS

What’s the problem?

If IoT is the solution, so what’s the problem?



How to define?

Sustainable development:
A process for achieving a harmonious blend of the elements “People – Planet - Profit” without compromising the ability of future generations to meet their own needs.

Green Building:
A building which efficiently uses (energy) sources, while improving users health, wellbeing and their productivity. Reducing environmental pollution.

Circular Construction – Cradle to cradle:
High quality use and re-use of resources and materials to reduce the impact on the environment.

IoT:
A network of smart communicating devices connected with the internet.

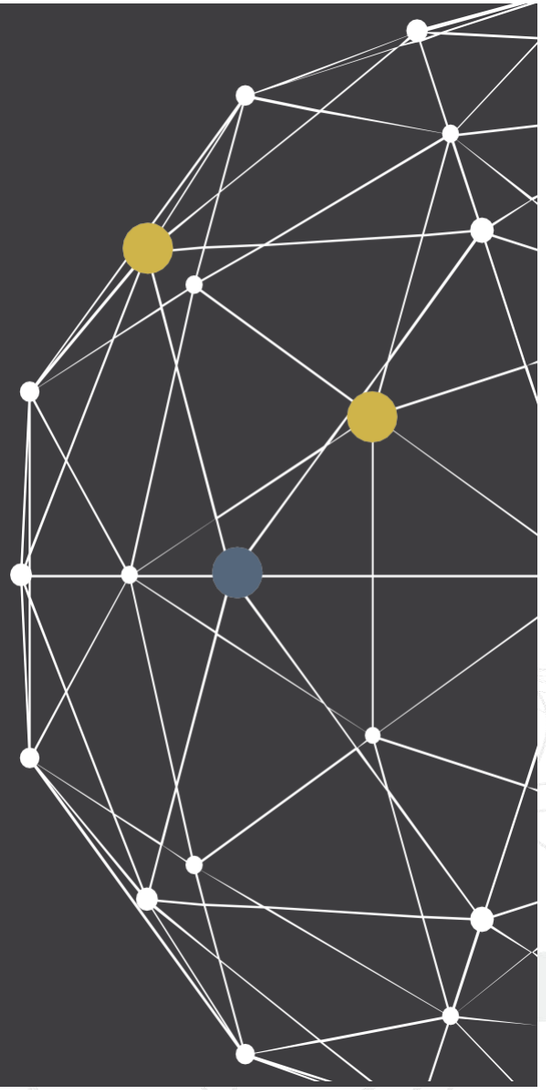
Smart Building:
ICT concept to connect and integrate systems in a building.

Smart Building Design Model

If IoT is the solution, so what's the problem?

Transition to a green sustainable future

The building, seen a complex adaptive system



Smart Building technology:

The network technology to collect data for improvement of system control strategies and decision-making processes.

How to apply?

Smart Building Design Model

1. In the centre: The user of the building

2. User influencing factors **(sensor layer)**

3. Effect on function of the building **(control layer)**

4. Effect on sustainability **(economic layer)**

Single Purpose Network **Example**

Motion sensor

Sends data to:
- Lighting system

Impacts:
- Energy costs
- Productivity user

1. In the centre: The user of the building
2. User influencing factors **(sensor layer)**
3. Effect on function of the building **(control layer)**
4. Effect on sustainability **(economic layer)**

Multi Purpose Network **Example**

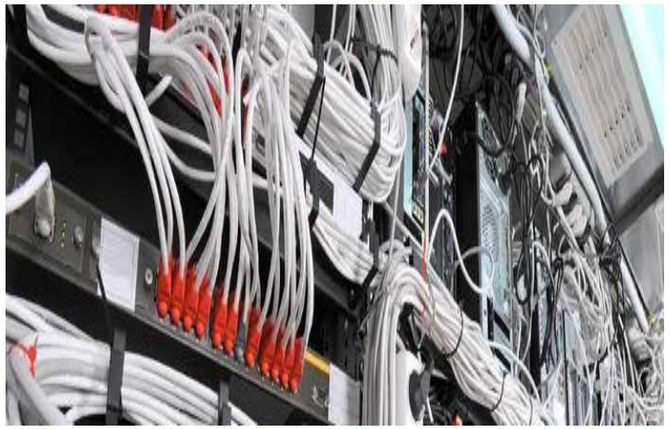
Motion sensor

Sends data to:
- Security system
- Cleaning planner
- Climate Control System
- Lighting/blinds system
- Workspace manager

Impacts:
- Security levels
- Operational costs
- Rental costs
- Energy costs
- Productivity user

1. In the centre: The user of the building
2. User influencing factors **(sensor layer)**
3. Effect on function of the building **(control layer)**
4. Effect on sustainability **(economic layer)**

Current situation



>100 network protocols (wired & wireless) for Building Automation

Single & multi purpose network integration with interfaces (topology and protocol)

Result: Complex system

Desired situation

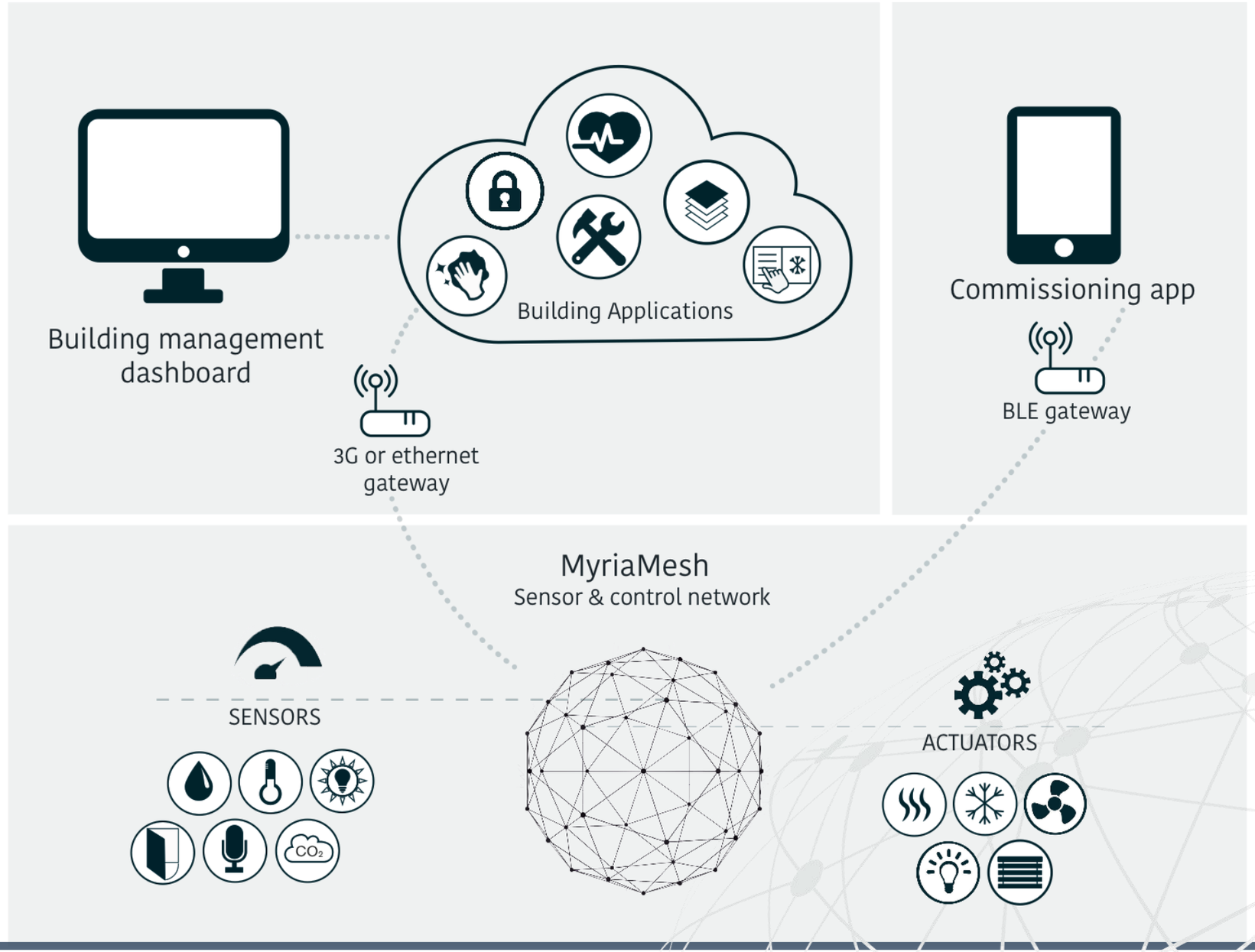
Just one sensor & control network required for Building Automation;

No interfaces, modems required to scale-up the system;

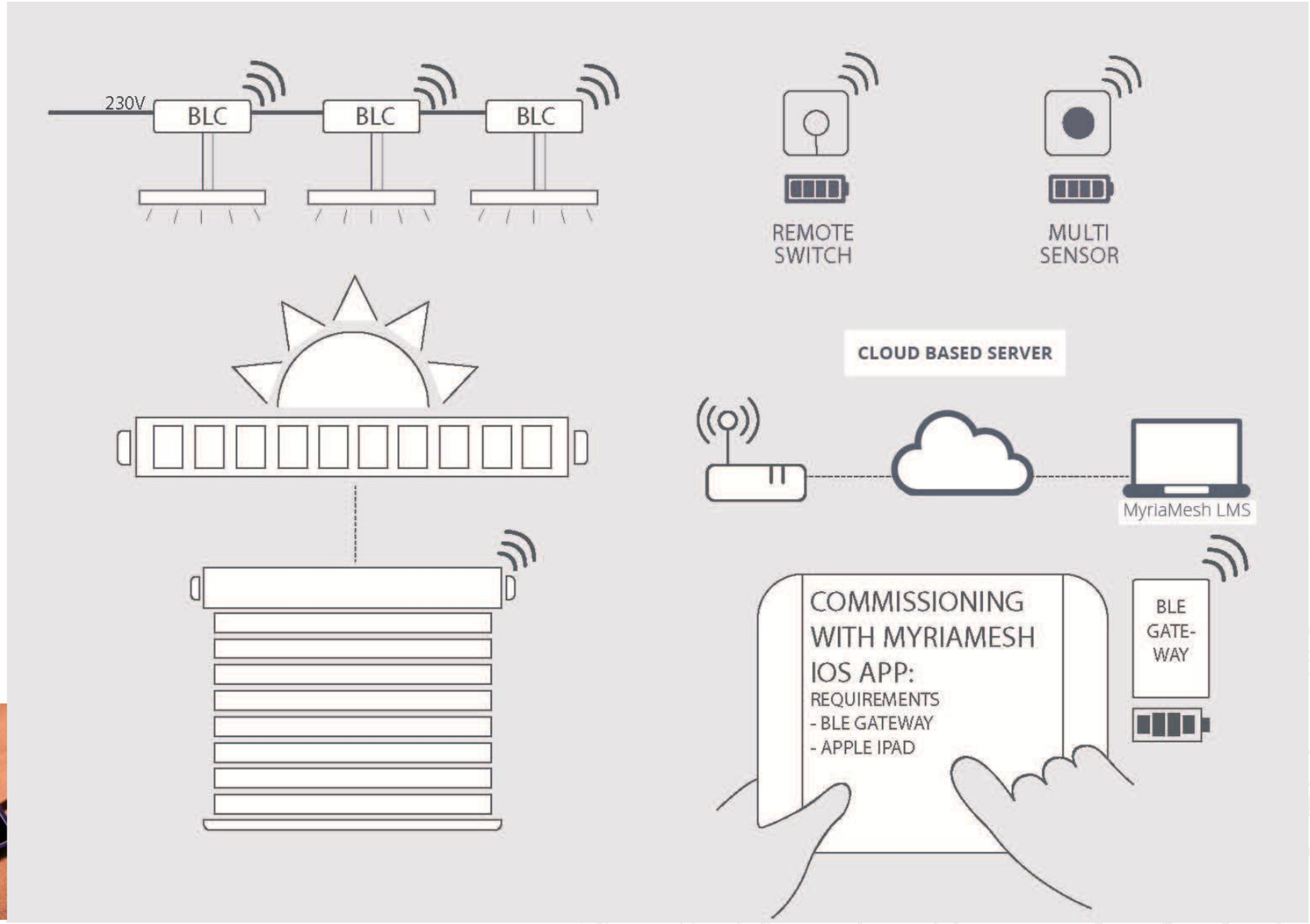
Wireless

A network with unlimited flexibility and scalability.

MyriaMesh - Platform for Building Automation

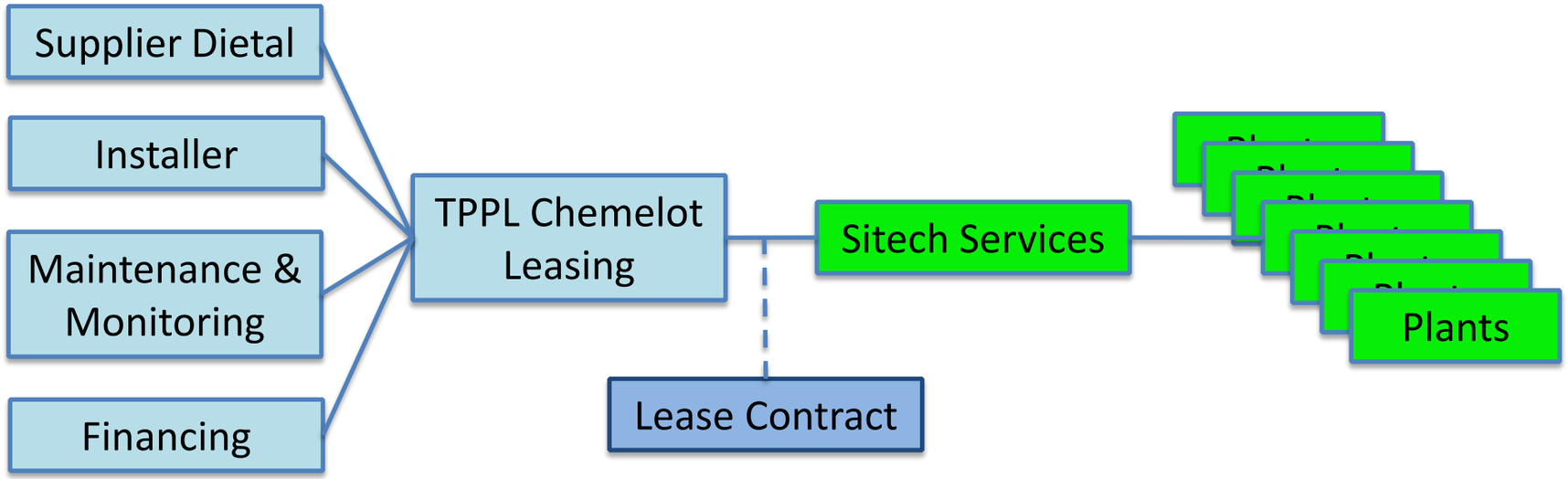


Smart Lighting & Wireless Blind Automation



Case: Chemelot Plant

Dietal TPPL®-EX series

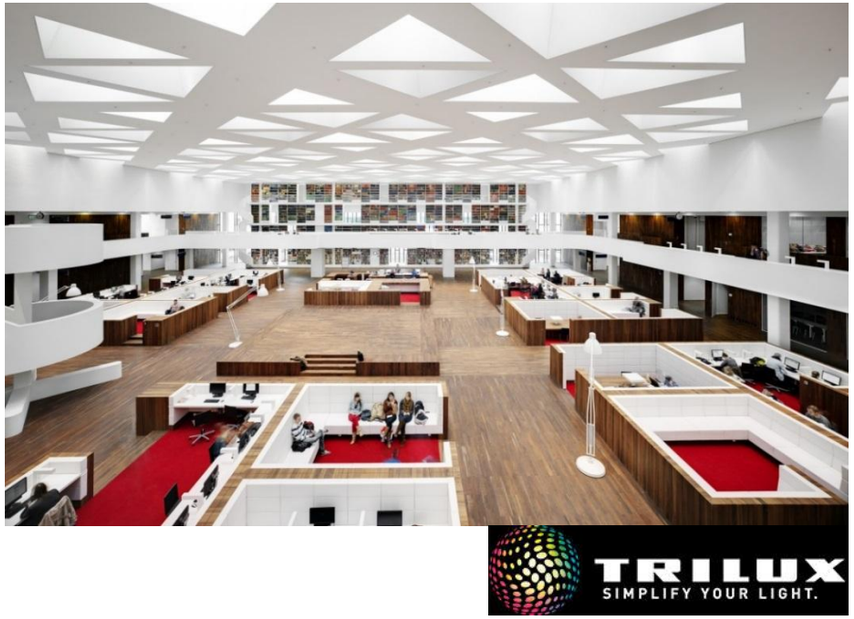


Maintenance, management & control of 15.000 LED lighting fixtures in one network

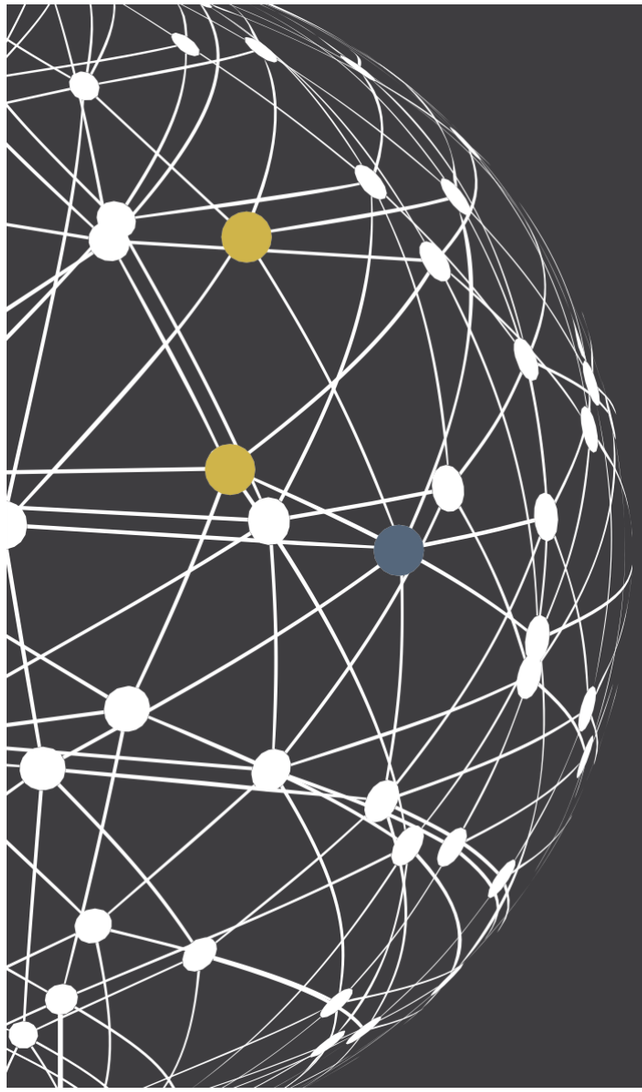
Examples

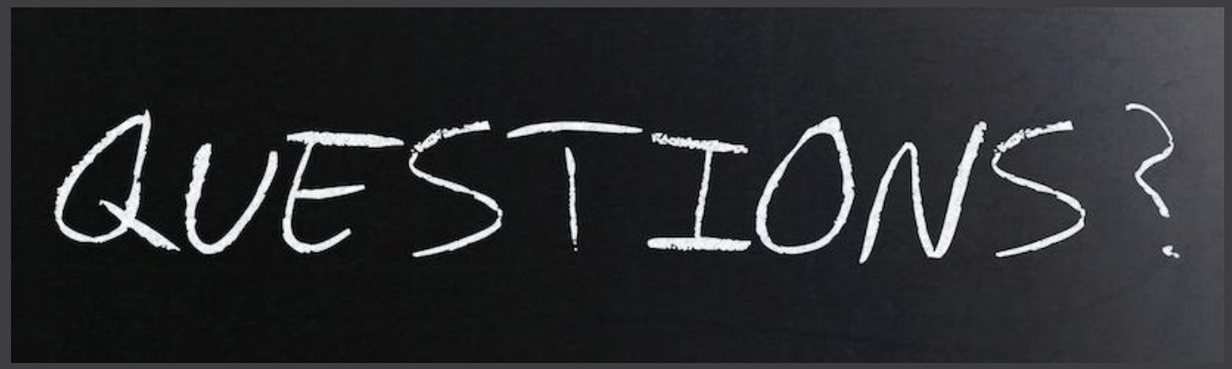
Luminext

LEDSGOGREENER



Verosol®





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