



**SylSmart** Energy

**DRIVING EFFICIENT  
& CARBON-FREE  
BUSINESS**

**DIGITAL SOLUTIONS AND SERVICES**

**SYLVANIA**

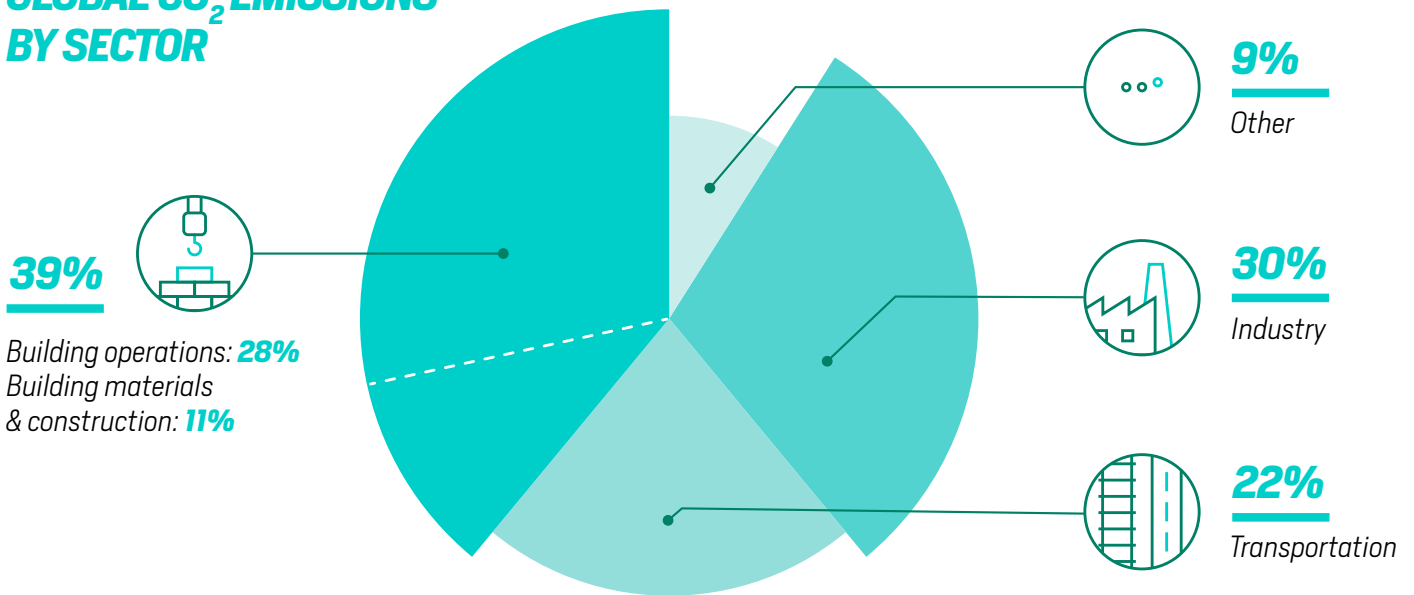
# THE ENERGY AND CARBON CHALLENGE

From heating our offices to powering our industrial machinery, our businesses are consuming energy that undoubtedly produces carbon emission. With business's continuous demand for traditional energy resources, CO<sub>2</sub> emission will only continue to grow and affect the sustainability of our planet. Current estimates indicate that greenhouse gases, including

CO<sub>2</sub> need to be reduced by 45% by 2030<sup>1</sup> to ensure that global temperatures do not rise above the threshold of 1.5 degrees. The increase in environmental disasters we see today highlight the need to act now and act fast. Emissions by buildings need to be a high priority as it represents the largest source of energy consumption and CO<sub>2</sub> emissions (39%).

<sup>1</sup>Source: IPCC Special Report on Global Warming of 1.5°C, 2018

## GLOBAL CO<sub>2</sub> EMISSIONS BY SECTOR



<sup>2</sup>Source: EIA International Energy Outlook 2017

### THE IMPORTANCE OF OPERATIONAL CARBON

#### The emission from a building's energy consumption

Although carbon emitted during the construction of the building are vital to keep under control for new buildings, operational carbon remains a major focus as, according to the IEA, building operations in the EU account for approximately 28% of greenhouse gas emissions mainly coming from the energy consumption of the building.

Accurate emissions measurement and strategic reduction plans focusing on building operations will help a business facing further financial challenges with continual increase in OPEX as the rising price of energy or carbon taxes is unlikely to drop over time. It will also help organisations to comply with EU long term strategy recently translated in Climate Change Law to act the aim for net zero emissions by 2050.

**28%**

Greenhouse gasses emitted by building operations

**30%**

Energy consumed in building by lighting



# HOW TO MEET CARBON TARGETS

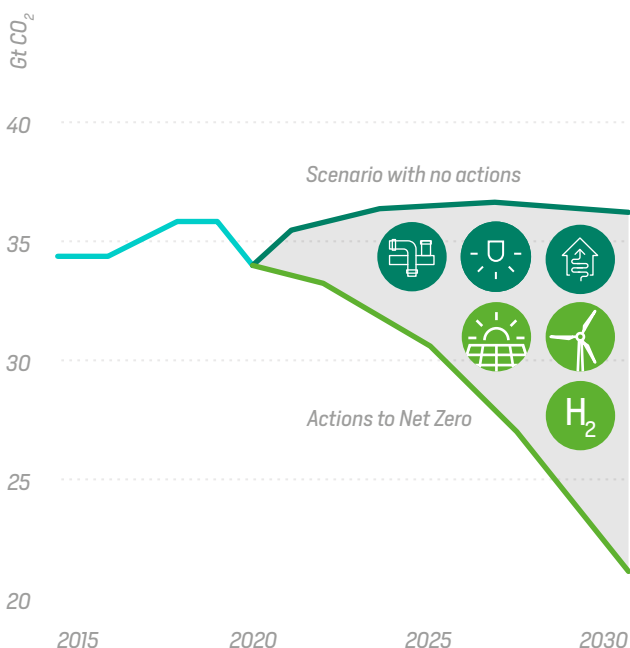
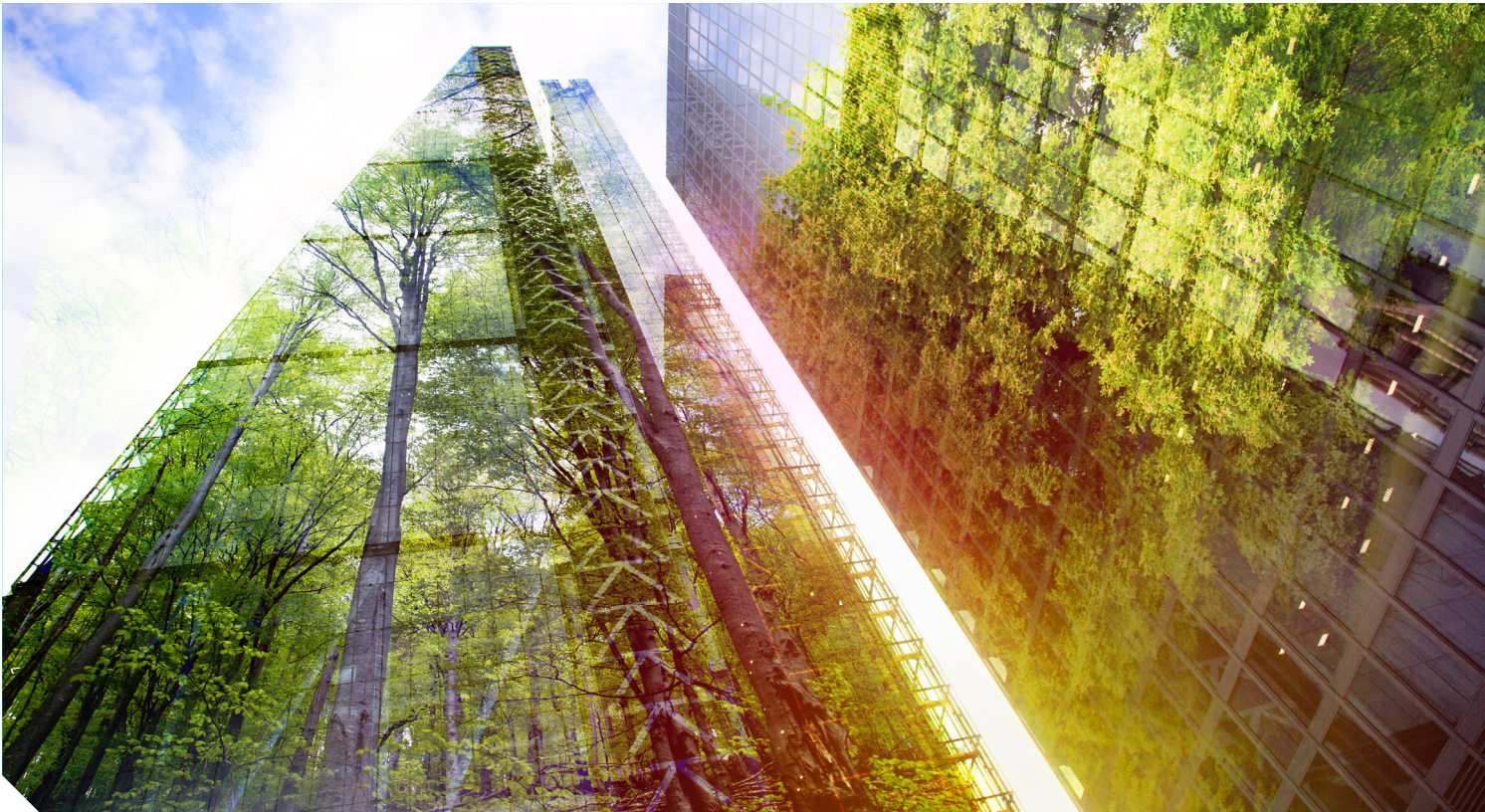
It's typically by a combination of actions that organisations can achieve their energy savings and decarbonisation targets:

- + **Understand your current usage**
- + **Identify areas of potential improvement**
- + **Create and implement energy reduction strategies**
- + **Visualise, Monitor and verify those strategies**
- + **Make the move to green energy sources**

Several technologies and methodologies are already available to support the reduction of energy use and operational

emissions of a building, by improving **the energy efficiency of the existing assets** (lighting, heat pumps, etc.) Additionally, to maximise decarbonisation, digitalisation, smart controls and IOT devices can be utilised to truly understand and control spaces and infrastructure, and offer higher data granularity to develop key insights and support your decision.

Improving your energy mix with **renewable energy sources** also play a key role in the reduction of the carbon footprint of buildings through for example the installation of Solar PV panels to supplement energy used by the grid.



**EDUARDO FUENTES**

**Environment & Sustainability Director - Feilo Sylvania**

"Sustainability is our obsession. With our intelligent SylSmart solutions we help our customers to achieve increased energy savings when compared to LED alone and hence dramatically reduce their carbon footprint. Information is key on the drive to net zero. With the in-depth analytics and advanced visualisations on the SylSmart energy platform it is possible to not only identify inefficiencies in lighting but in all energy related processes."

# POWERING YOUR DRIVE TO NET ZERO

## ABOUT SYLSMART ENERGY

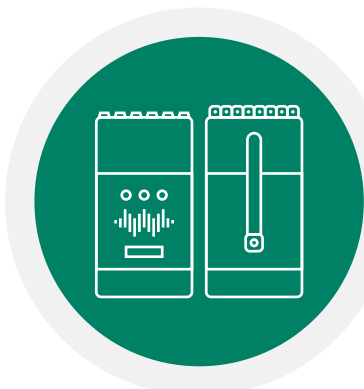
SylSmart Energy is an advanced energy analytics platform that empowers businesses to take action regarding their carbon emissions and energy consumption. Through the use of in depth analytics users can identify the gap between their current carbon emissions compared to their target. Set base-lines, create milestones and formulate action plans and energy reduction strategies in order to meet those targets.

Whether your business requires high granularity of energy data in order to formulate your carbon reduction strategies, or a general overview of the energy consumption of your business, SylSmart Energy can support you through all the different requirements.



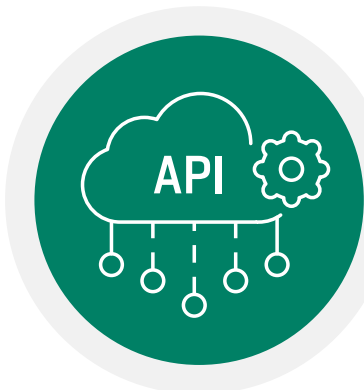
## DATA COLLECTION OPTIONS

## CENTRALISED IN ONE LOCATION



### CONNECTED AUDITORS

High granularity of data gained from monitoring individual circuits.



### AUTOMATED DATA COLLECTION

Gather data from your Energy service providers (3rd party).



### MANUAL INPUTS

Upload your historic energy consumption.



### WEB PLATFORM

A secure, flexible, sophisticated and interoperable environment enabling users to effortlessly interact with their services.

[energy.sylvania-lighting.com](https://energy.sylvania-lighting.com)



“The SylSmart Energy platform is designed to make it easy for users of any type to gain insights ranging from high level summary information to detailed circuit level information, empowering their journey toward Net Zero.”

Stuart Payne – Product Manager  
Digital Solutions & Services

## ACCESSIBLE FROM ANYWHERE

### VISUALISATION FOR EVERY NEED



#### **DASHBOARD & KPI**

High-level overview of your sites' energy and carbon consumption over an adjustable time period.



#### **FOYER DISPLAY**

Gain buy in from your employees and influence behavioural change.



#### **REAL TIME VIEW**

Gain real time insights into the energy signature of your circuits, including KVa, KW and power factor.



#### **FLOORPLAN**

Easily visualise the location of your circuits on each floor plan.



#### **MULTISITES**

Visualise the performance of all your sites from the convenience of one dashboard.

### EASY MONITORING & IN-DEPTH ANALYTICS



#### **MEASURE & VERIFY**

Measure your baseline and verify the efficiency of your new installations or energy reduction strategies.



#### **RULES & NOTIFICATIONS**

Get alerted when excess energy is being used in your site or anomalous operation is detected.



#### **CSR REPORTING**

Exportable in-depth reports on your energy consumption sent directly to your inbox.



#### **GREEN INSIGHTS**

Analyse the performance of your solar installation and easily visualise the carbon emissions of your site(s).



#### **ANALYTICS**

Gain in-depth insight into the energy consumption of your site. Plan and verify your carbon reduction strategies and set your target milestones. Benchmark current performance against base line.

# THE PATH TO DECARBONISATION

## 1. IDENTIFY COSTS

- + Access energy consumption data of site
- + Discover high-cost areas, analyse consumption, oversee your premise

## 2. CREATE STRATEGIES

- + Plan cost saving actions to achieve maximum energy efficiency through infrastructure upgrades
- + Roll out action plan
- + Verify and adjust forecasted savings
- + Report annual performance

## 3. VISUALISE AND MONITOR

- + Share your energy consumption reports and fulfil your obligations for subsidy/ standard acquisition
- + Visualise reduction in OPEX and carbon savings supported by real-time analytics
- + Set short mid long term goal, milestone
- + Activate alerts and notifications to stay always update

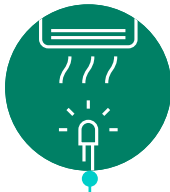
## 4. MAXIMISE DECARBONISATION

- + Develop long term strategy to reach net zero with improved cashflow
- + Embrace sustainable approach with one single digital platform
- + Energy inflow monitoring from solar PV & detailed analysis of carbon emissions
- + Analyse data for long term strategic improvements



### SUPPORTING YOUR ACQUISITION OF ISO 50001, ISO14001 & IPMVP METHODOLOGY

Audit  
(lighting, hvac etc)



ROI by PLAN Tool



SylSmart



Building Automation



### 1. IDENTIFY COSTS

### 2. CREATE STRATEGY & ROLL OUT PLAN

Install  
SylSmart Energy

Define  
actions

Generate  
1st Energy savings

Optimise  
efficiency

Measure ISO  
(machinery, computer,  
HVAC, lighting, other)

### CURRENT ENERGY CONSUMPTION





Smart Finance

Data (IoT) For Optimization

Proactive Maintenance

Solar Energy

Wind Energy



### 3. VISUALISE & MONITOR

### 4. MAXIMISE DECARBONISATION

Reduce OPEX

Continuous energy monitoring

Deploy multisites

Investment in new energy mix

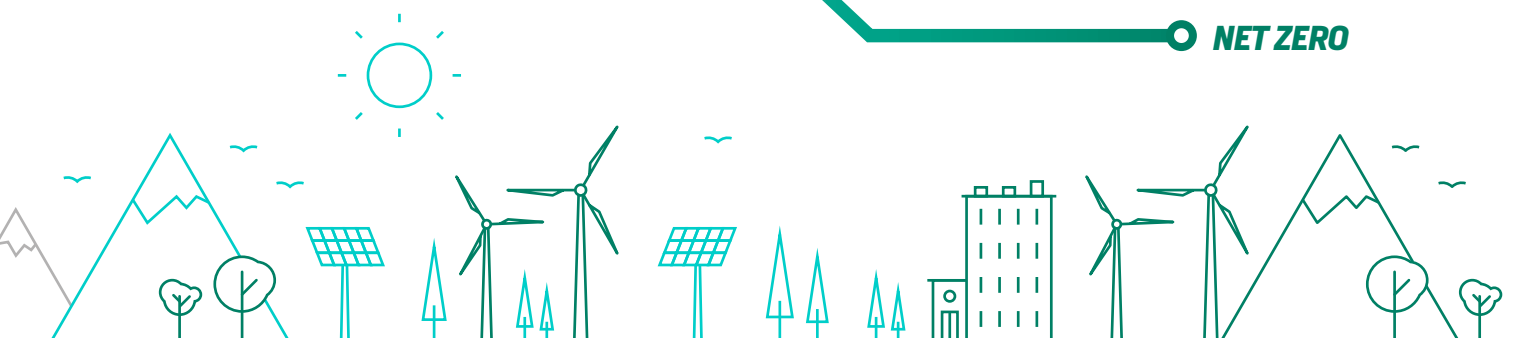
Investment in green assets

Carbon-offsetting

All in one single platform



NET ZERO



# COMPREHENSIVE 360 SERVICES

## FOR COMPLETE PEACE OF MIND

Complementing our offer, SylSmart Energy is a value-packed service, an all-in-one platform for tracking the energy performance of your site, decarbonising your business to meet regulations of CO<sub>2</sub> emission and move to clean energy.

360Services brings together a wide range of perfectly packaged services to offer complete peace-of-mind to our customers. We help assess the customer's challenges using our expertise and offering a wide breadth of service. [e.g. audit, consultancy,

ROI options through digital PLAN tool]. We can Manage the whole project creating a simple "one-stop-shop" experience for our clients, including enabler smarter finance (e.g. funding or regional incentive schemes) options.

Leveraging our internal expertise combined with our wide network of supporting partners, we ensure a full turnkey solution to implement what is needed with minimum disruption.



### ASSESS

Suite of services to help our customers understand their operational challenges and find solutions.

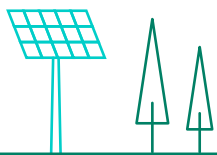
- + Consultancy
- + Audit
- + Design
- + Prototype



### MANAGE

We can manage the whole process and make your investment go further.

- + Project management
- + Local incentives
- + Smarter finance
- + Extended warranty



### AFTERCARE

A partnership lasts a lifetime. Even after we leave your site, we are always there to support you.

- + Reporting
- + Certification
- + Training
- + Maintenance
- + After sales



### IMPLEMENT

Let us do the heavy lifting. Completed to the highest standards and ensuring optimal operation.

- + Metering & verification
- + Installation
- + Commissioning
- + Express shipment



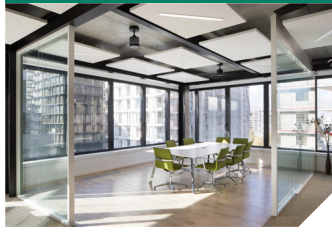
SylSmart Energy



## EDUCATION



## OFFICE



## MUSEUMS & GALLERIES



## RETAIL & DISPLAY



### WHY LIGHTING THE BEST ASSET TO START YOUR JOURNEY?

Lighting to be considered first in building upgrade. 80% of lighting in buildings is obsolete. It is the best asset:

- + To measure energy efficiency, and quickly reducing OPEX
- + Have a positive impact on occupant comfort, e.g. through the sun-like human centric lighting, LumiNature
- + To maximise control savings through SylSmart,
- + Most convenient to control and can provide further insight to your building (IoT).
- + Sylvania offers complete turnkey solutions in all of the major segments.

## LOGISTICS & INDUSTRY



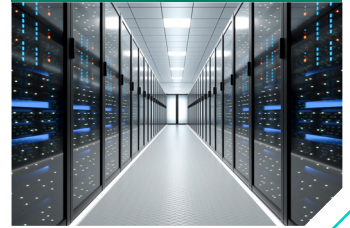
## HEALTHCARE



## HOSPITALITY



## DATA CENTRES



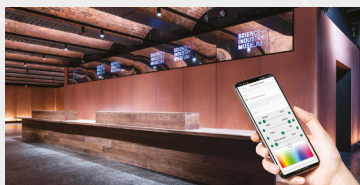
# INTELLIGENT SYLSMART SYSTEMS



## SylSmart Standalone

### MAXIMUM CONTROL MINIMUM INSTALLATION

Most versatile and convenient lighting control system with plug & play installation, ideal for small scale applications.



## SylSmart Connected

### UNLOCK THE INTELLIGENT BUILDING

Modular, scalable, efficient building wide connectivity. Wellbeing and data driven efficiency building solutions. Ideal for large scale warehouses, industry, and multiple interconnected rooms.



# WOLUWE SHOPPING CENTRE – BELGIUM

## ENERGY EFFICIENT AND INTELLIGENT LIGHTING FOR SUSTAINABLE PARKING SPACES

Woluwe Shopping Centre in Brussels, Belgium challenged Sylvania to deliver a powerful, wireless, smart lighting controls system that offered rapid installation and commissioning whilst reducing energy consumption and ensuring that lighting was activated only in the right place at the right time. The project encompassed the complete relighting of parking and outdoor areas, using more than 700 units of the latest generation of SylSmart Connected

enabled Resisto and Street Skyline LED fixtures. Not only did the customer receive Sylvania's state-of-the-art lighting, we also provided our in-depth measurement & verification service prior to installation, to ensure our customer had accurate insights into their ROI and the excellent energy reductions achieved through the introduction of Smart lighting.



62 TONS CO<sub>2</sub>

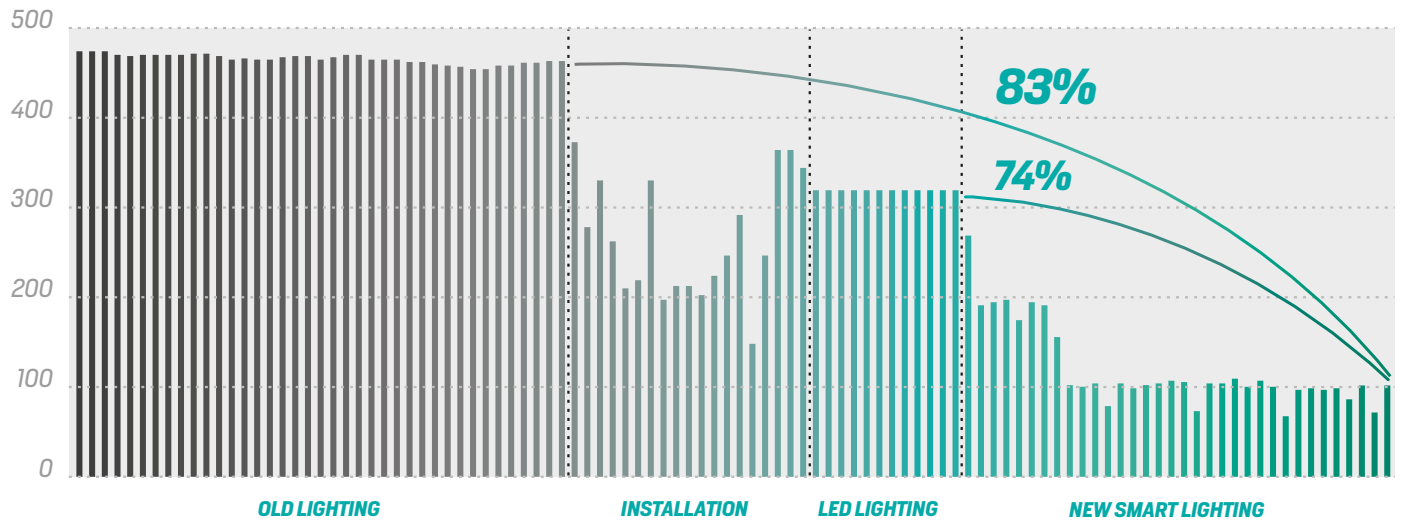
83% ENERGY SAVED / YEAR



## PROJECT ACHIEVEMENTS

- + **Energy savings:** 83% total savings verified by SylSmart Energy, an additional 74% savings beyond LED through SylSmart controls, ROI 1.4 years
- + **Cost savings:** easy installation, no re-wiring required
- + **Rectification:** helped identify faulty timers, achieved cost saving of 30% when the issue was resolved
- + **Visual comfort:** fully optimised, flexible lighting linked to occupancy & daylight harvesting

KWh **PARKING AT WOLUWE SHOPPING CENTRE**



**BEFORE**

**AFTER**



**“WE ARE VERY SATISFIED WITH THE EFFICACY OF THE NEW LIGHTING SYSTEM, SENDING COMMUNICATION TO ALL THE MERCHANTS IN THE SHOPPING CENTRE TO EXPLAIN THEM HOW THE SMART SYSTEM OPERATES, THEY WERE ALSO PLEASED WITH THE NEW VISUAL COMFORT AND FEATURES.”**

Wassim CHADLI, Facility Manager  
at Woluwe Shopping Centre



# SYLVANIA

Although every effort has been made to ensure accuracy in the compilation of the technical detail within this publication, specifications and performance data are constantly changing. Current details should therefore be checked with Feilo Sylvania International Group Kft.

*April 2022*

*A Feilo Sylvania Company*



**sylvania-lighting/energy**