Corporate presentation

TOP LIGHTING SOLUTION INTEGRATED IN INFRASTRUCTURE TO DELIVER QUALITY INFORMATION FOR LIFE AND BUSINESS

FOLLOW THE RIGHT WAY
A global professional smart solution provider of digital technology, which provides high quality luminaires that can be expanded with additional sensor parts, making them a source and data generating location with available connectivity whenever and wherever customer needs.

OMS belongs to the leaders in its field by combining the unbeatable solutions in Smart technology and offering a huge complex elements in Smart solutions.

OMS, a.s. FOCUS ON:
- Smart Technology
- General Lighting and Luminaires
- Projects and Lighting Solutions
- High Customisation Level

OMS is one of the leading lighting companies in Europe.

OUR VALUES:
INNOVATION
FLEXIBILITY
PROFESSIONALISM
COOPERATION
CREDIBILITY
## WHO WE ARE

**OMS, a.s.**
- **Established**: 1995
- **Number of employees**: 600
- **Export**: 87%
- **Production surface area**: 103,100 m²
- **LIC surface area**: 810 m²
- **Office surface area**: 2,460 m²

### OWNERSHIP STRUCTURE

<table>
<thead>
<tr>
<th>Ownership</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Grafobal Group, a.s.</td>
<td>70%</td>
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<tr>
<td>Vladimír Levársky</td>
<td>30%</td>
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</tbody>
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- **Grafobal Group, a.s.**
  - **Consolidated turnover**: 980,000,000 €
  - **Number of employees**: 6,200

**Innovation, Flexibility, Professionalism, Cooperation, Credibility**
TECHNOLOGIES
We invest in continual technological development, from the software and tools used by designers and engineers through the high-tech automated robots used in production to the stringent testing protocols used to ensure superior quality.

SPECIAL REQUEST FACTORY
Our special request factory provides us with unrivalled flexibility, which allow us to make very small and precise parts with ease and at speed.

LED PRODUCTION
All of our LED chips are soldered using the selective wave method, and all components and final products are thoroughly tested using precision equipment in line with stringent ISO 9001 technical standards.
ONE OF THE BEST LIGHTING INDUSTRY R&D DEPARTMENTS IN EUROPE

**INDUSTRIAL DESIGN**
All the pre-production processes that lead to a fully functional prototype

**OPTICAL DESIGN**
Selection and refinement of appropriate optical parts using vast practical experience and theoretical knowledge

**THERMAL DESIGN**
Characterisation of every product to ensure the reliability of every product and research and development of innovative concepts

**ELECTRONIC DESIGN**
Advanced system level designs, DALI compatibility and long-term performance tests performed in-house

**MECHANICAL DESIGN**
More than 20 years of experience in the mechanical design and customisation of luminaires and precision tools

**LAB SERVICES**
Optical, thermal, electronic, mechanical, and pre-certification tests and measurements

**FULL LUMINAIRE DEVELOPMENT**
One of the best-equipped and staffed R&D departments in Europe, delivering seamless industrial, optical, thermal, electronic, and mechanical design, and custom product development

**IN HOUSE R&D DEPARTMENT**
Innovation, Flexibility, Professionalism, Cooperation, Credibility
LIGHTING QUALITY STANDARD

Lighting Quality Standard helps lighting professionals and customers understand how to choose the perfect luminaire.
Innovation, Flexibility, Professionalism, Cooperation, Credibility

Products
Lighting projects
Smart solutions

areas

R&D & CUSTOMISATION
TOP PRODUCTS
BASIC PRODUCTS

ARCHITAINMENT
HEALTH & CARE
HOTEL & GASTRO
SPORT

RETAIL
OFFICE & EDUCATION
STREET & URBAN
INDUSTRY

CitySys
ShopSys
WorkSys
CUSTOMISATION CAPABILITY

CUSTOMIZED SOLUTIONS READY TO MEET ALL REQUIREMENTS

- **CRI**
  - 70, 80, 90, Any Other

- **CCT**
  - 2700K, 3000K, 4000K, 4500K, 5000K, 5700K, 6500K, Any Other

- **CCT special color**
  - Bread, Meat, Fish, Fruits, Vivid, Gold, Enhanced White, Any Other

- **Tunable White**
  - (2700-6500)K

- **Im/W**
  - 100, 110, 120, 130, 140, 150, Any Other

- **Lighting distribution**
  - Narrow, Deep, Wide, Asymmetric, Double Asymmetric, Street Lighting (L1-L18), Any Other

- **SDCM**
  - 3, 5, Any Other

- **Sensor**
  - yes, no

- **Dimming**
  - 1-10, DALI, PhaseDimm, PowerLine, Wireless, no, Any Other

- **Intelligence**
  - CLO, Astrodim, Special Program Autonomous, Special Program via LMS, no, Any Other

- **Lifetime**
  - LxBy 50.000hrs, LxBy 100.000hrs, Any Other

- **Ambient Temperature**
  - 25˚C, 35˚C, 45˚C, 55˚C, Any Other

Innovation, Flexibility, Professionalism, Cooperation, Credibility
PRODUCTS

Comprehensive portfolio of products suitable for every application and ready for use in the most complex projects.
IMPLEMENTING MOST ADVANCED LIGHTING TECHNOLOGIES

PRODUCTS SUITABLE FOR USE IN THE MOST COMPLEX PROJECTS

Innovation, Flexibility, Professionalism, Cooperation, Credibility
IMPLEMENTING MOST ADVANCED LIGHTING TECHNOLOGIES

PRODUCTS SUITABLE FOR USE IN THE MOST COMPLEX PROJECTS

IoT sensors allow to manage objects remotely and allocate required data through its network infrastructure.

Creative Pi-LED colour space can be set individually to any value within the Pi-LED triangle while keeping the CRI constantly high (90+).

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Tunable white technology allows to adjust the lighting with regards to the displayed products; their colours can be highlighted as needed.

Human centric lighting is based on the idea of enabling the regulation of light direction, colour temperature and level according to need and desire to positively influence alertness and relaxation, mood, visual acuity and productivity.

Buildings with already existing wirings, especially with easy installation where is needed to change fixtures, for more advanced – DALI / tunable white.

Innovation, Flexibility, Professionalism, Cooperation, Credibility

* In progressing
COMPREHENSIVE PRODUCT PORTFOLIO

PRODUCTS SUITABLE FOR USE IN THE MOST COMPLEX PROJECTS

PRETTUS PI-LED

NOVIEL PI-LED

HAMO PI-LED

DECLAN II

EDYN

ELYS TW

ELYS FOOD

ELYS FASHION

RELAX H

CAYLA

Innovation, Flexibility, Professionalism, Cooperation, Credibility
PROJECTS

Special lighting solutions using comprehensive portfolio of products.
PROJECTS – LIGHTING SOLUTIONS

INNOVATIVE LIGHTING SOLUTIONS EASY TO SELL, SIMPLE TO IMPLEMENT AND BENEFICIAL TO USE

INNOVATION, FLEXIBILITY, PROFESSIONALISM, COOPERATION, CREDIBILITY
SMART SOLUTIONS

Implementation of innovative solutions for improvement of safety and quality of our lives.
SMART SOLUTIONS

INNOVATIVE AND SUSTAINABLE SOLUTIONS

SMART CITY
- Energy management, monitoring and optimisation
- Security monitoring
- Environment monitoring
- Reporting, Alerts
- Manual/automatic control
- Failure detection
- Real time analytics
- Activity reports
- Emergency call
- E-charging

SMART INDUSTRY
- Energy management, monitoring and optimisation
- Video monitoring
- Daylight harvesting
- Movement detection
- Remote control
- Fire detection
- Environment monitoring
- Personal settings
- Productivity monitoring
- Manual/automatic control
- Reporting, Alerts

SMART RETAIL
- Traffic monitoring
- Demographics monitoring
- Real time analytics
- Dynamic lighting
- True colours
- Queue monitoring
- Counting people
- Measurement history

PLATFORM
- Open Platform Communication
- Integration of Smart Technology
- Communication network by Lighting
- Data Visualisation
- User Friendly Interface
- Customizable widgets, rule engine and plugin system
- REST API or BigData integration support
- Third-party systems using existing protocols

Innovation, Flexibility, Professionalism, Cooperation, Credibility
SMART SOLUTIONS

INNOVATIVE AND SUSTAINABLE SOLUTIONS

CitySys

WorkSys

ShopSys

Innovation, Flexibility, Professionalism, Cooperation, Credibility
Innovation, Flexibility, Professionalism, Cooperation, Credibility
LEADERS IN RESEARCH AND APPLICATION OF TECHNOLOGICAL AND LIGHTING TRENDS

**HUMAN CENTRIC LIGHTING**

Use modern lighting technologies to support health and well-being, performance, and comfort at school and in the workplace.

**RETAIL PSYCHOLOGY**

Understand how light affects our perception of and engagement with the world around us.

**LIGHT & SAFETY**

Modern street lighting saves energy and makes our night-time environment safer by increasing visual acuity and improving psychological perception.

**ENERGY SAVING**

Lighting accounts for the majority of the energy used in our built environment, but there are many ways to reduce consumption, costs and environmental damage.

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Innovation, Flexibility, Professionalism, Cooperation, Credibility
In conjunction with smart phones, the lights use the latest technology to accurately search / map people with high precision (10 cm).

Sensors that become affordable and lights connected to the internet, luminaires begin to produce, along with sensors not only related to lighting, but also to temperature and air quality.

Li-Fi is a light connection, it can move data 100 times faster than Wi-Fi through light modulation. This means that large files or movies can be downloaded in seconds rather than minutes using Wi-Fi.

Camera lighting controls make use of infrared, ultrasonic or microwave sensors to detect movement, which is one of the most cost effective, simple and affordable solution.
LEADERS IN RESEARCH AND APPLICATION OF TECHNOLOGICAL AND LIGHTING TRENDS

INTEGRATED STREET LIGHTING

Street lights nowadays serve as a space for advertising leaflets but they will be filled with technologies from CCTV systems, PA speakers, Wi-Fi transmitters or serve as a place for charging an electric vehicle in the near future.

POWERLINE COMMUNICATION (PLC)

Powerline communication (PLC) will win the war with the protocol. The PLC uses mains wires to transfer data over. The PLC has many benefits as high security level (as remote connection is not possible), easy installation, and also offers bigger distance between two neighbour luminaires. In 2018, it is expected that this PLC and even Bluetooth will lead to the interconnection of IoT lighting in retail, warehouses, offices and other spaces.

CONTROLS OUTSIDE EDB

The light controls were stored in a large black box that was in the EDB. In 2018, we can expect that artificial intelligence moves into light systems. The interface will become standard on devices using Bluetooth.

WELL BUILDINGS WILL BECOME A STANDARD

WELL Buildings will be the standard in terms of both working conditions and productivity.
WHY DO BUSINESS WITH US?

- The strong position at lighting market
- In-House Research and Development Centre
- Customer Oriented Company
- Quality Products with High Efficiency and Warranty Period
- In-House Innovation Centre
- Ability to Respond Quickly to Customer Requirements
- Ability to Produce Rapid In-house Prototypes
- A Short Time to Develop New Products
- A Quick Delivery
- Ultra-Competitive Price to Quality Ratio