

A photograph of a modern, multi-story office building with a glass and metal facade. The building has a prominent 'ELBA' sign on its side. The image is partially obscured by a blue overlay on the right side.

ELBA | ●●●●
Lighting technology

General company presentation

Four small, solid-colored circles arranged horizontally: purple, cyan, lime green, and orange.

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Discover us and our way of delivering quality with every project

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Why partner with us?



INTRODUCTION

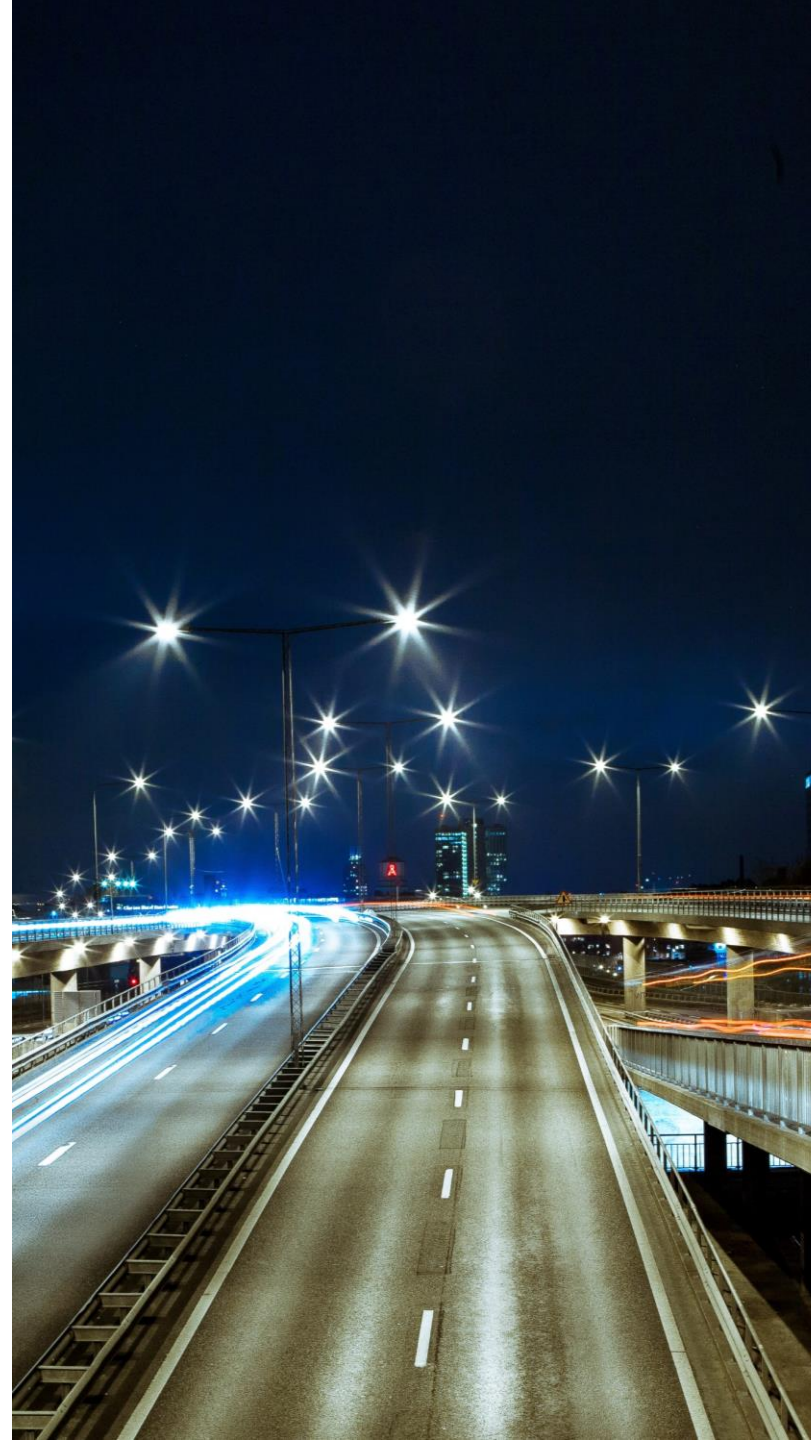
Romania's one of the main lighting fixture manufacturers



The product range consists of automotive lighting products and general technical lighting fixtures.

ELBA is located in Timisoara, one of the main cities in the west side of Romania.

It is located not far away from the Romanian highway A1 –linked with EU highway network



Tradition in the industry

Our story started in 1921 . Since then, we have grown, we have evolved and embrace the new technologies in order to manufacture high quality products.



Our Vision and Mission

Tradition and Performance for Sustainable, Successful Development



Founded in Timișoara, with a tradition spanning over 100 years, ELBA is the leading lighting fixture manufacturer in Romania.

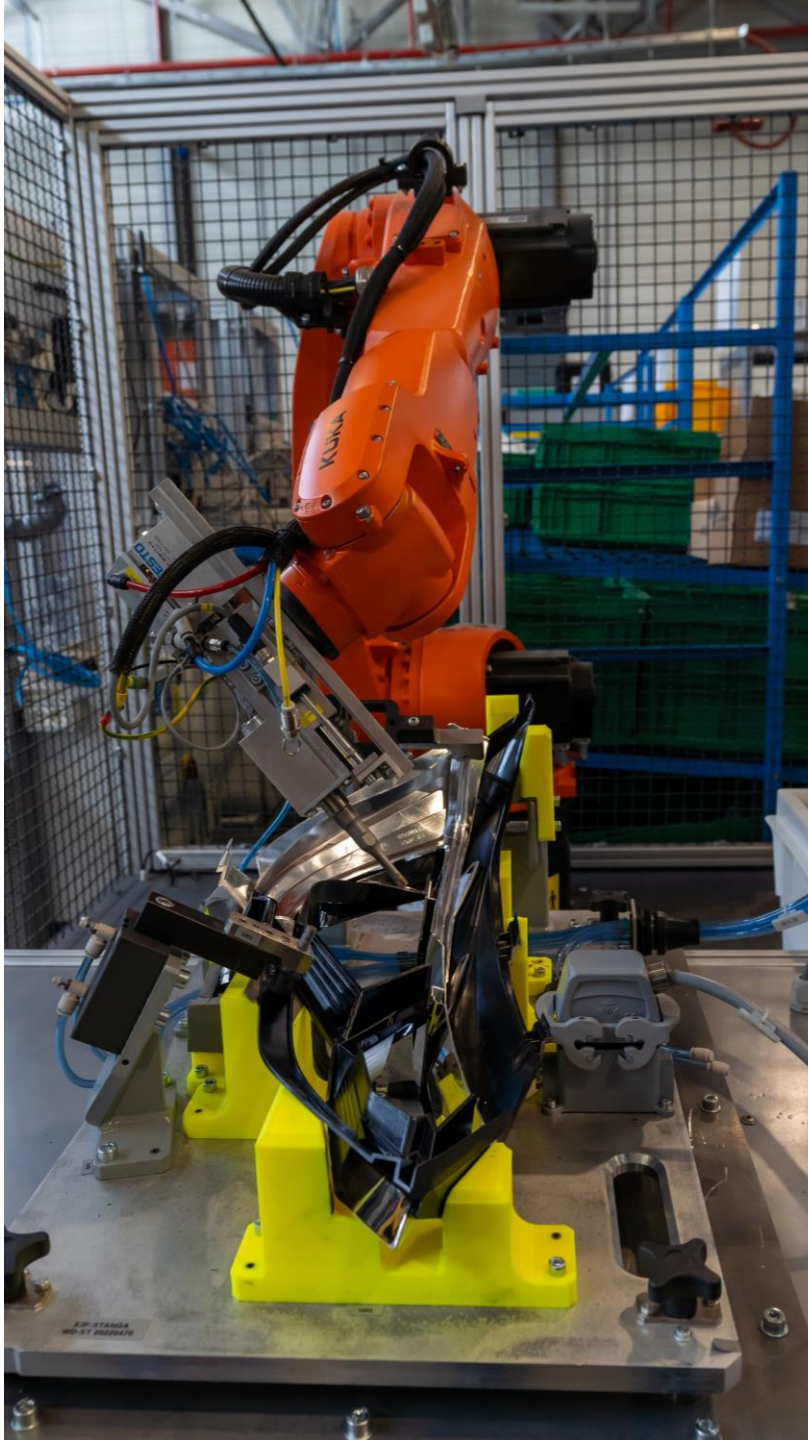
The prestige we have earned has constantly motivated us to persevere and establish partnerships based on trust and reliable products with excellent value for money. ELBA actively contributes to improving daily life by developing lighting solutions that align with production regulations. These solutions ensure safety and quality through the use of environmentally friendly alternatives.

In 2010, the company underwent its most significant transformation with the inauguration of a modern factory in the Freidorf Industrial Park. This new facility meets urban and environmental standards, integrating seamlessly into the urban development plan of Timișoara City Hall and aligning with the area's architecture.

The adopted vision and its implementation reaffirm ELBA's status as a key manufacturer, focusing its efforts and resources on the benefit of its customers and the environment. A private company with 100% Romanian capital, ELBA stands as the strongest example of successful MEBO privatizations in Romania.



As a benchmark player in the lighting industry, ELBA's activities are guided by well-defined values and principles, both in product development and in relationships with partners and employees. Innovation is our working style. Respect in dealings with partners and employees is a cornerstone of our policy, while efficiency, safety and quality are integrated at every level of activity.



**We Support
Innovation,
Promote Safety,
Develop Quality**

Over 100 years of tradition and innovation in the lighting industry



In 1884, Timișoara became the first city in Europe to have electrically lit streets. It is no coincidence that the first company dedicated to manufacturing components for lighting fixtures was established in this city, continuing to serve as a benchmark for traditional Romanian companies. All the transformations ELBA has undergone throughout its existence have been shaped by objective circumstances—economic crises, war, technological advancements and the evolution and sophistication of market demands.

An overview of the key moments that laid the foundation and led to the consolidation of today's ELBA company

1921

Establishment of Dura

DURA's primary activity was manufacturing components for lighting fixtures. This company laid the foundation for the current ELBA company.

1923

Foundation of "Rudolf Kissling & Son"

In 1923, another company was established that would later converge with ELBA. Known as "Rudolf Kissling & Son," it was renamed in 1925 to LUMINA – The Romanian Factory of Chandeliers and Metal Goods S.A.

1930

Merger of Dura and Lumina

In 1930, during the economic crisis, the two companies, DURA and LUMINA, merged under the name "Uzinele Dura."

1948

Nationalization of Dura

During the interwar economic crisis, DURA merged with other companies in the same field. In 1948, it was nationalized and became known as ELECTROBANAT.

1990

ELBA Name Adoption

Shortly after the fall of the communist regime, in 1990, the company was renamed S.C. ELBA S.A. Five years later, it became fully privatized.

1997

Philips and Elba Street Lighting Formation

In 1997, ELBA co-founded a joint venture in street lighting with the Dutch conglomerate Philips, establishing Philips and Elba Street Lighting S.R.L.

2000

Partnership for Plastic Components Expansion

ELBA partnered with the French company Plastique du Val de Loire, founding Elbromplast for plastic injection production.

2002

Collaboration with Dacia-Renault

ELBA became a trusted partner of Dacia-Renault, playing a key role in delivering reliable, cost-effective lighting systems for a range of models.

An overview of the key moments that laid the foundation and led to the consolidation of today's ELBA company

2004

Partnership with Valeo

This partnership marked ELBA's entry into high-volume OEM automotive production, benefiting from Valeo's engineering support and access to global design standards.

2010

Inauguration of the New Factory in Freidorf

The company opened a modern factory in Freidorf Industrial Park, Timișoara. This relocation marked a significant milestone, enhancing production capacity and integrating into the city's urban planning.

2012

Collaboration with Volkswagen Group

Elba starts deliveries of its products to the Volkswagen Group, marking the beginning of a new supply partnership

2015

Expanded Collaboration with Dacia-Renault

ELBA deepened its collaboration with Dacia-Renault, becoming a key supplier of lighting solutions for Renault models

2017

Development of Intelligent LED Solutions

ELBA expanded its presence in the smart lighting market by developing LED-based solutions for offices, commercial spaces and architectural lighting

2021

ELBA Celebrates 100 Years of Innovation

In 2021, ELBA celebrated a century of activity, emphasizing innovation and excellence in lighting and the automotive industry

2024

Collaboration with Stellantis Group

ELBA secured its first project with the Stellantis Group and was ranked in the Top 3 at the Stellantis 2024 Supplier of the Year Awards



ELBA

Consists of 4 main divisions

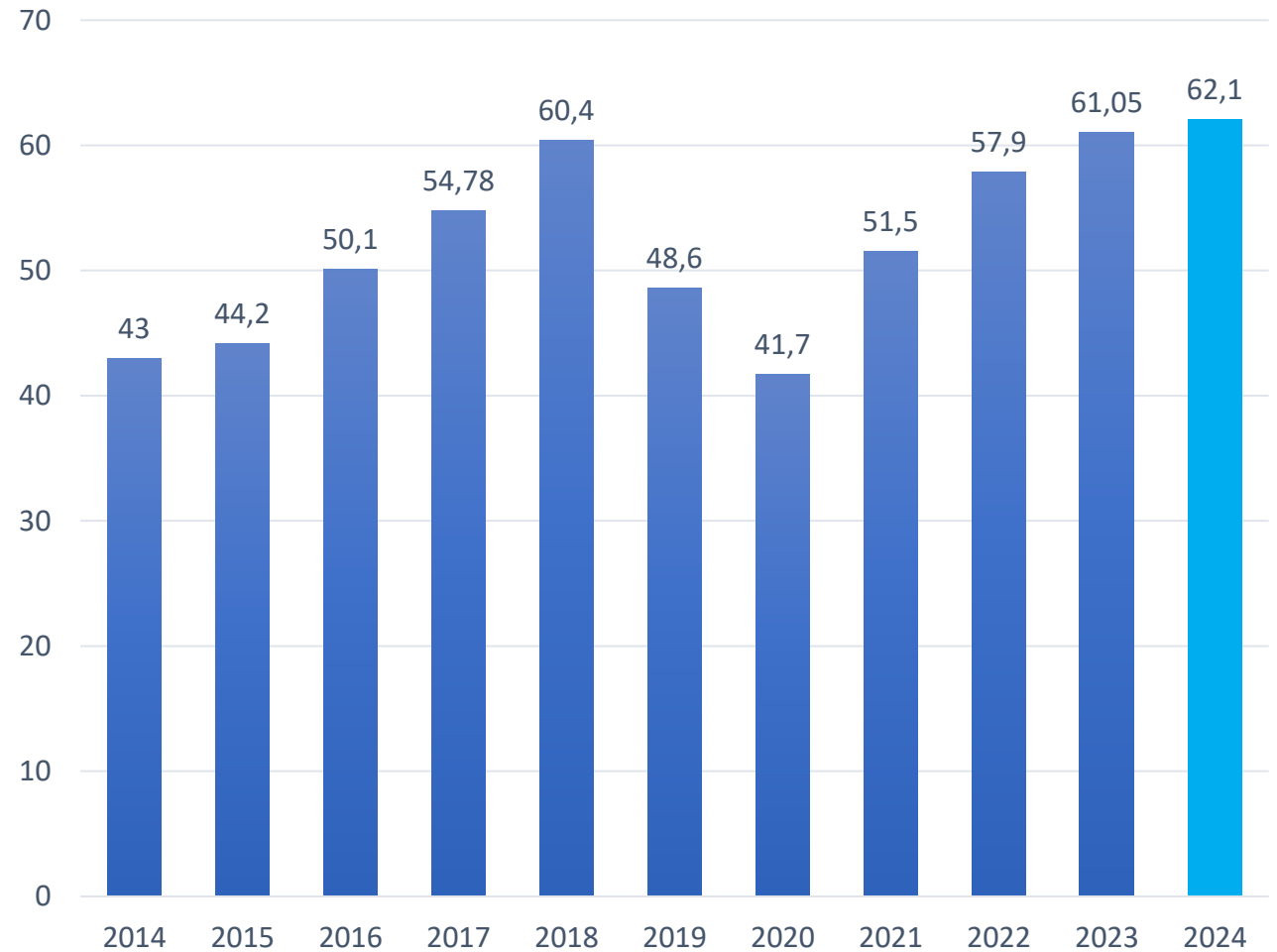
AUTOMOTIVE: automotive lighting products: head lamps, rear lamps, small lamps and other parts.

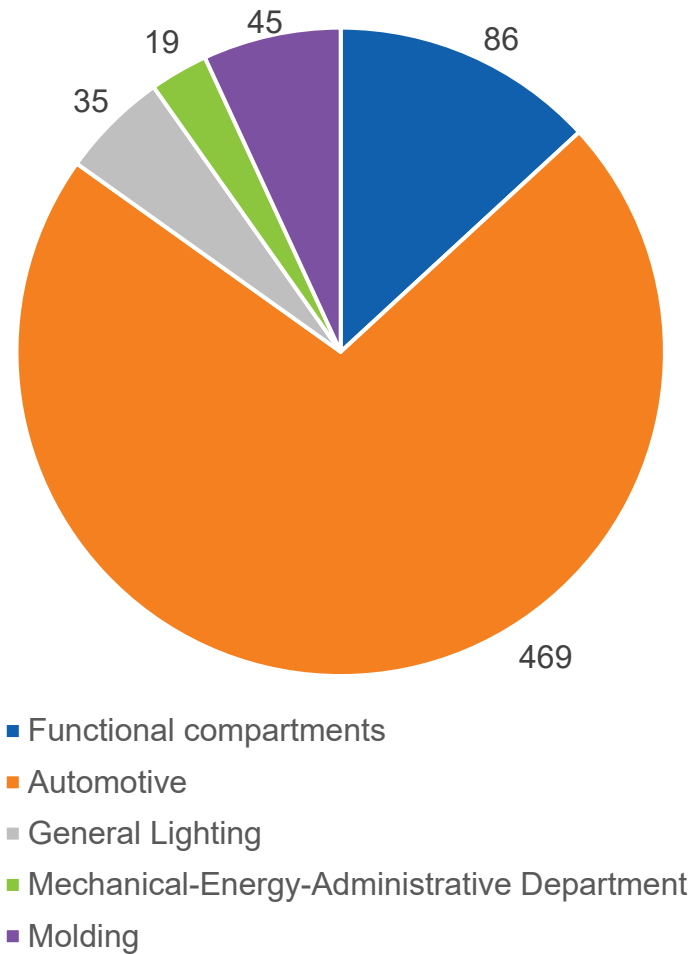
TOOLING: molding factory, specialized in designing and production of tools and molds, especially for plastic injection.

LABORATORIES: Validation for photometric, electromechanical, chemical and metrological conformity.

LIGHTING: Lighting fixtures and systems for the residential and industrial sectors

Turnover evolution 2014-2024 (mil. EUR)





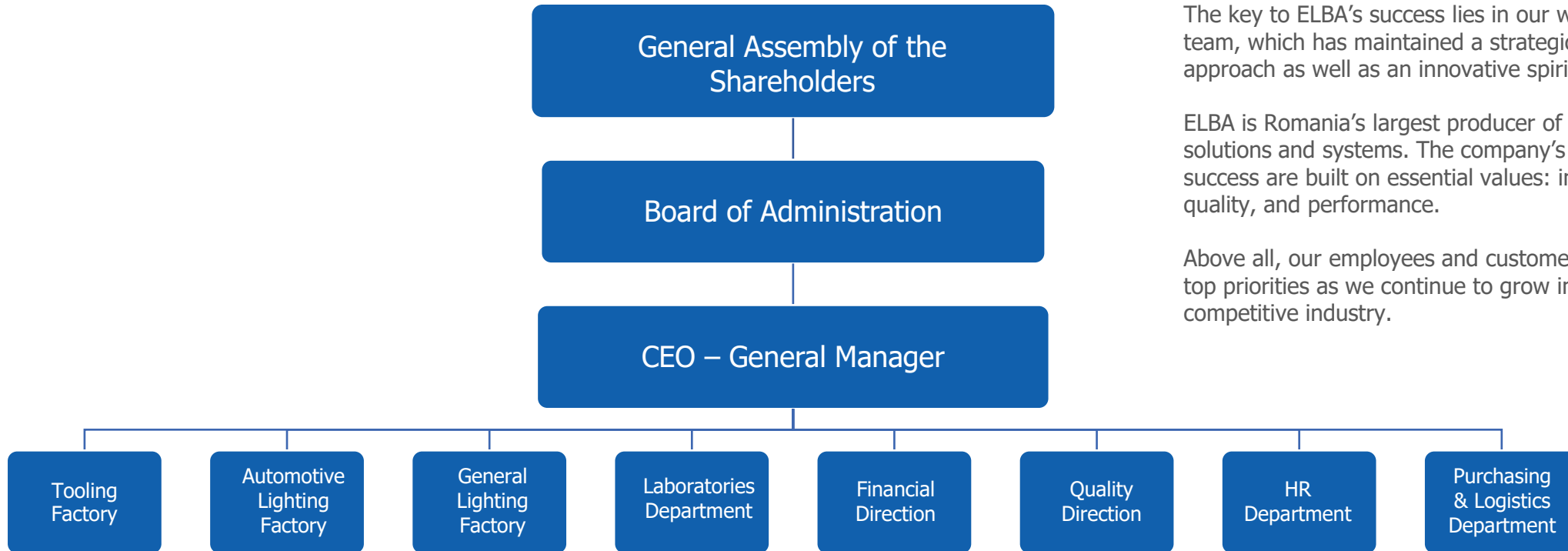
EMPLOYEE DISTRIBUTION

ELBA counts 650 employees, for the whole company activities and over 45% of women ratio; more than 10% are dedicated to R&D activities for automotive, technical lighting and tooling





Management Chart



The key to ELBA’s success lies in our well-coordinated team, which has maintained a strategic and coherent approach as well as an innovative spirit over time.

ELBA is Romania’s largest producer of lighting solutions and systems. The company’s longevity and success are built on essential values: innovation, quality, and performance.

Above all, our employees and customers remain our top priorities as we continue to grow in this highly competitive industry.





ELBA AUTOMOTIVE

Product portfolio
R&D Capabilities
Project management

Manufacturing
Capacity
Technologies

Orientation
Directions
Overall Strategy

Over 50 Years of Experience as an Automotive Supplier

Headlamps - examples of latest products from our manufacturing program



Ford Turneo Connect



Renault Espace



Renault Taliant



VW Caddy



Dacia Logan



Headlamps 3D Product Design and Manufacturing



PRODUCT PORTFOLIO



Over 50 Years of Experience as an Automotive Supplier

Rear Lamps - examples of latest products from our manufacturing program



DACIA Duster



DACIA Sandero



SKODA Fabia



Over 50 Years of Experience as an Automotive Supplier

Small lamps - examples of latest products from our manufacturing program:



DACIA Logan

DACIA Duster

DACIA Duster



Rear lamps 3D Product Design and Manufacturing

PRODUCT PORTFOLIO



Rear lamps 3D Product Design and Manufacturing



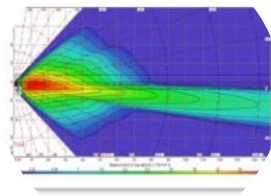
R&D Technical Capabilities

OVERVIEW



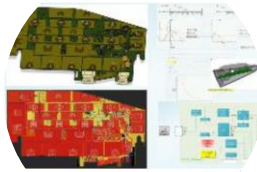
Project management

Software: MS Project, MS Office.
Secured data transmission
(Ex: KVS, Connect, Bilbao)



Conception optical simulation

Software: Lucidshape: Speos



Electronic concept for PCBA

Software: PADS; Fusion 360;
Eagle



Specialized 3D printer – 2 machines

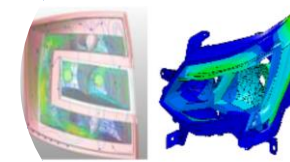


Dedicated prototype workshop



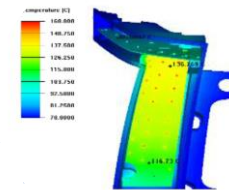
3D, 2D Conception

Software: Catia V5 R24,
AutoCAD



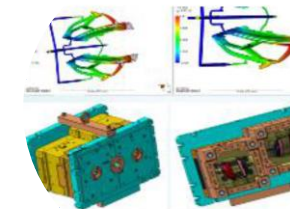
FEA simulation

Vibration, condensation, sun
load etc.



Thermal simulation

Software: Fluent, Icepak



Rheological analysis

Software: Moldflow, Moldex,
Autodesk





Production Capacity

Warehouse area
5.000 sqm

Production area
14.000 sqm

-
-
-



Headlamps
30.000
pcs/week



Rear lamps
50.000
pcs/week



Small lamps
67.000
pcs/week

Main Customers in the Automotive Industry



Delivery sites worldwide

- Mexico
- Columbia
- Brasil
- Argentina
- Morocco
- Algeria
- South Africa
- Germany
- France
- Spain
- Poland
- Czech Republic
- Slovakia
- Romania

Customers as 1st Tier Supplier

- Headlamps
- Rear lamps
- Retroreflectors
- Centre high mount stop lamp
- Turn indicator lamps
- Other plastic parts



Customers as 2nd Tier

- Automotive lighting parts
- Other plastic injection parts



Production technologies



Plastic injection

Up to 3k injection machines between 50TF and 1600 TF BMF injection with automated burr removal

Varnishing

Automated flow coating and spraying for headlamp lens
Spraying with robots for reflectors

Metallization

Metallization installations/machines with high vacuum aluminization

Welding

Assembly by vibration/hot element/ultrasonic welding/laser welding

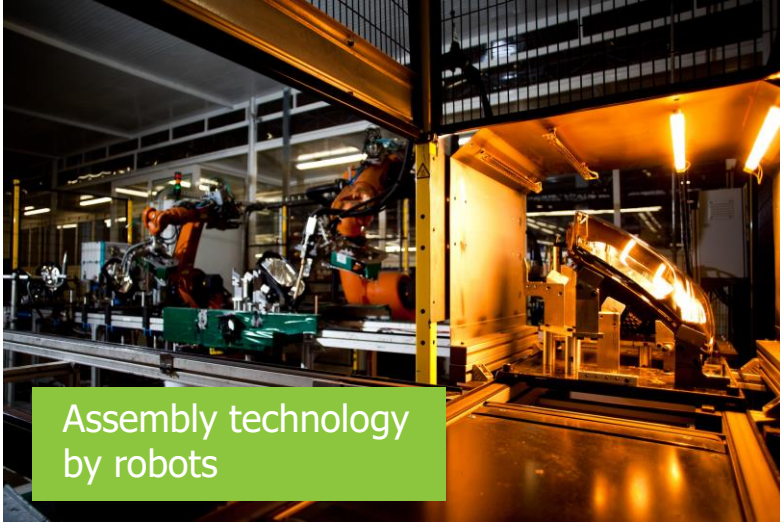
Automated assembly

Assembly by robots
ESD compliant assembly lines



Production technologies . . .





Assembly technology by robots



Laser welding



Ultrasonic welding robot



3D geometrical conformity checks

Analysis – ELBA Technical Level for Rear Lamps



ELBA capabilities for RL Developments
and Market Development Trends

Legend:

- Concept in series production
- Concept available in 2024 and technology to be developed in 2025
- Concept in early stage of analysis target of 2025 as prototype concept



RL with bulbs;
optical on lens



RL with bulbs, optical on
reflector and clear lens



RL partially with
LEDs tail



RL FULL LEDs



RL FULL LEDs Dynamic
TI and animation

RL with O LED



Analysis – ELBA

Technical Level for HL



ELBA capabilities for HL Developments
and Market Development Trends

Legend:

- Concept in series production
- Concept available in 2024 and technology to be developed in 2025
- Concept stage analysis – target 2025 as concept (prototype)
- Concept in early stage of analysis target of 2026 as prototype concept



HL with halogen



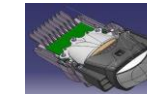
HL HB/LB halogen
DRL POS with LED



HL HB/LB halogen
DRL POS with LED



HL Elba Module
LED LB



HL with FULL LED



PCBA
manufacturing



HL MATRIX



Overall Strategy – Main development orientations for 2025 - 2027

Customer portfolio development

- ✓ Stellantis
- ✓ Renault Group
- ✓ VW Group
- ✓ Mind
- ✓ Other customers

Technological orientations – lighting LEDs, technologies and robotics

- ✓ RL FULL LEDs, Dynamic TI and animation
- ✓ HL with FULL LED
- ✓ Improve production flow





ELBA TOOLING

Main customers

Specialized mainly in the Automotive Industry, the Tooling factory is recognized for its competencies for the high-end precision sector.



ELBA – for its own products

- ✓ Tools for the Automotive lighting sector (as tier 1, mainly for Renault Group and VW Group);
- ✓ Toole for Technical lighting sector.



Other automotive Tier 1 customers



Other Industrial sector customers

A high level of expertise in Automotive and Lighting sectors

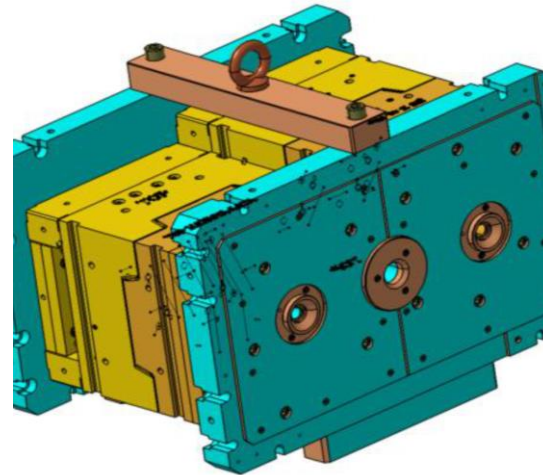
Product range, capacity

In-house design and Conception



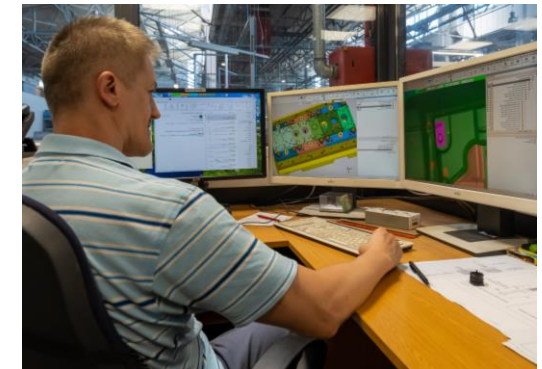
- Injection mould for thermoplastic materials:
 - 40-45 moulds/year;
 - Dimensions max:900 x 1200 x 1400 mm.
- Injection mould for thermo rigid materials;
- Die casting for Aluminium alloys;
- Cold working tools (stamps);
- Assembling / Mounting devices;
- Control devices;
- Service and maintenance for different types of tools.

End-to-end process for tool conception and production



- Tool project management;
- Technical requirements analysis;
- Tool Conception (CAD);
- Synchro with customer product design team (3d data analysis, choice of injection points, graining definition, rheology study etc.)

Software and hardware capabilities



- 10 Cimatron & Autocad
- FTP server for IGES, PRT (ProE), Catia, DXF, DWG files, STEP;
- Tools are designed using AutoCAD, Cimatron (CAD & CAM).

Product examples: headlamp and rear lamp parts, like lenses, reflectors, bezels, bodies, screens, caps, etc.

A machine park adapted for conception and the production of high precision tools, specifically for Automotive and Lighting

Machine snapshots



5 Axes CNC milling



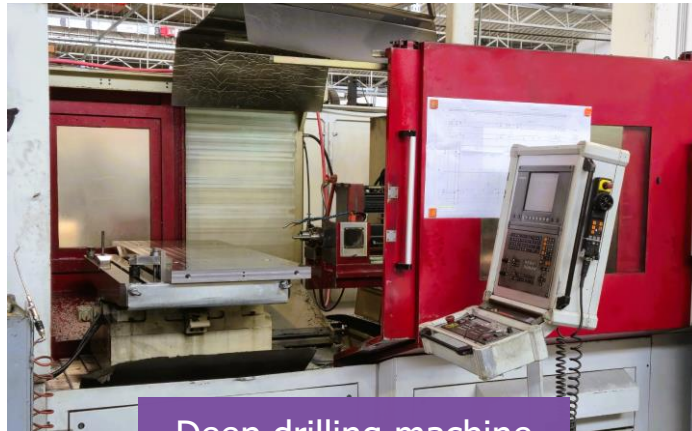
Wire cutting erosion



4 Axes CNC boring/milling



Electro erosion center



Deep drilling machine



Grinding machine

Quality control

Quality control and high precision achievement is realized through the actions starting from the conception and design phase

Tool quality is ensured by several services available on request:

- ✓ 3D / Optical Tool measurement through dedicated machine and Romer mobile arm;
- ✓ High precision Laser GOM measurement for sensitive parts;
- ✓ Part injection check possible in house for 50 up to 1.200 TF injection and up to 3K injection technology;
- ✓ Thorough gap analysis between project data.





ELBA LIGHTING

ELBA General Lighting



A product portfolio covering a large scale of technical lighting based on LED technology



Industrial



Office & Commercial



Exterior & Pedestrian



Safety



Architectural



ATEX

- Energy consumption reduction through LED technology – LED lighting retrofit projects result in a 60-75% improvement in the overall energy efficiency of the facility's lighting, with a quick recovery of the investment – 1-2 years.
 - Product design from concept to series life Partnership Cree, Philips, Osram.
 - Our products are compatible with telegraphy technologies (DALI, 0-10V etc.) and on-demand, can be equipped with emergency lights to maximize the benefits of smart lighting.
-
- Automated assembly line for LED;
 - ESD compliant assembly zone;
 - Plastic injection (PC, PMMA, BMC);
 - Varnishing and painting installation;
 - Mechanical transformation process;
 - Chemical polishing.



Industrial area



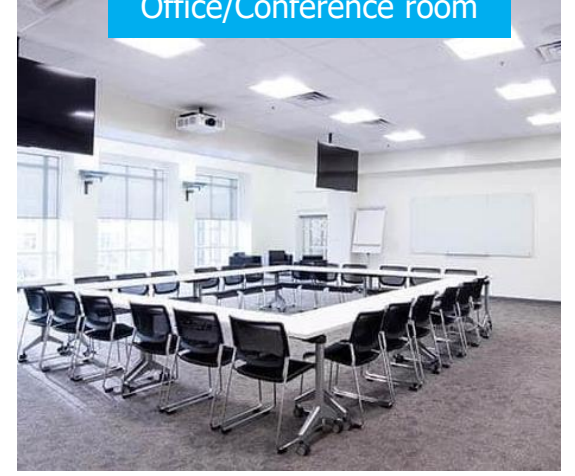
ATEX



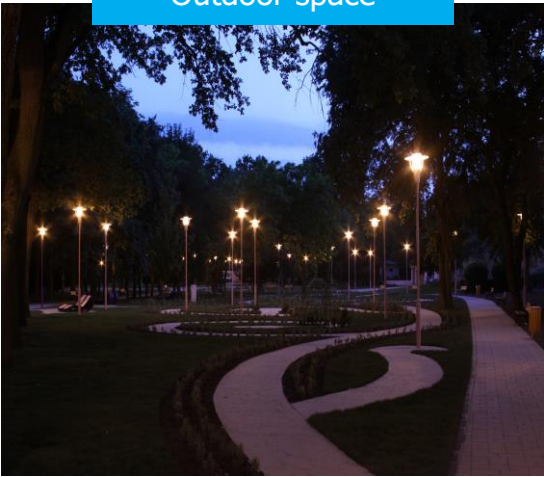
Industrial (indoor)



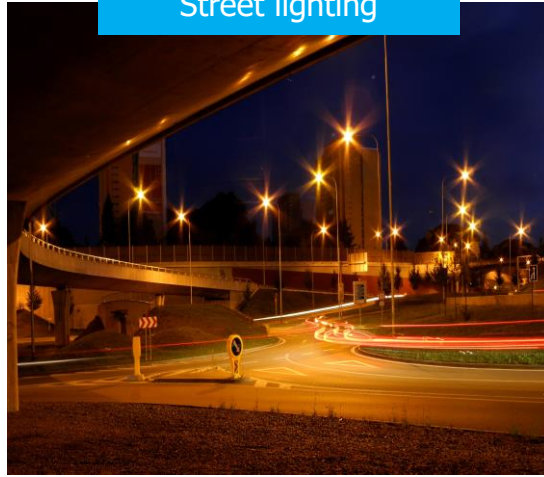
Office/Conference room



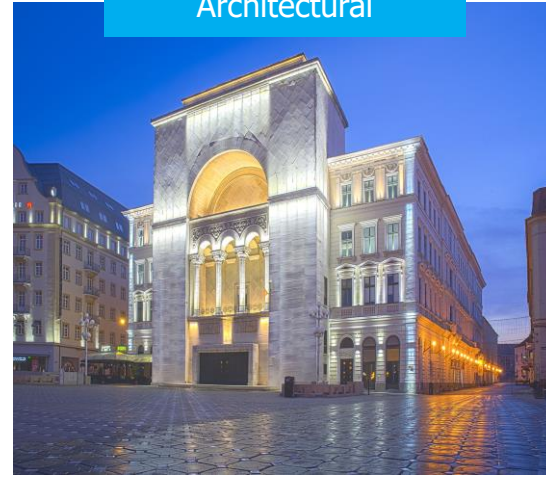
Outdoor space



Street lighting



Architectural



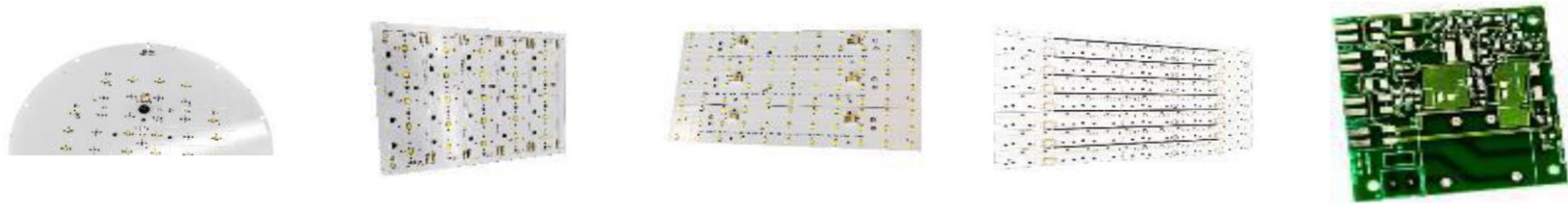
Underground parking



A portfolio of over 500 active references with LED based technology



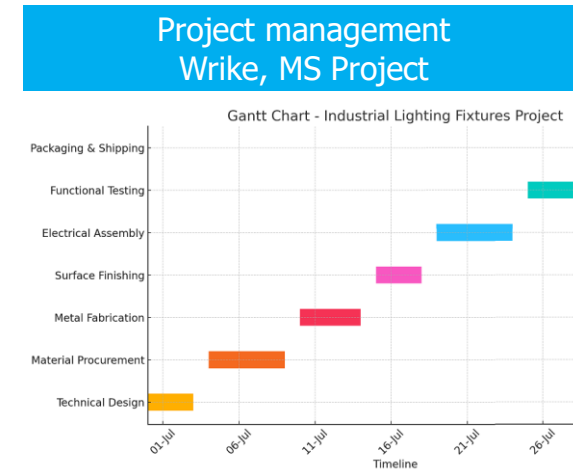
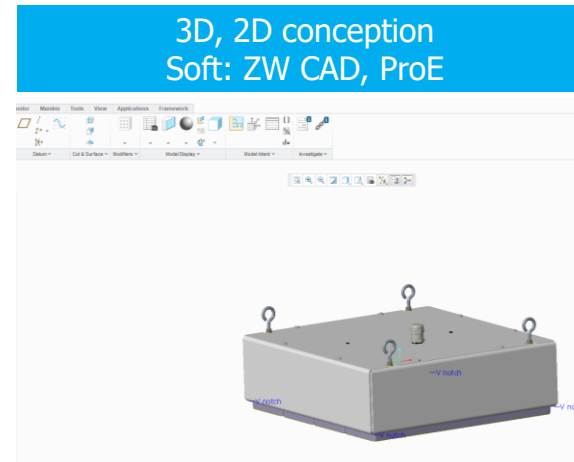
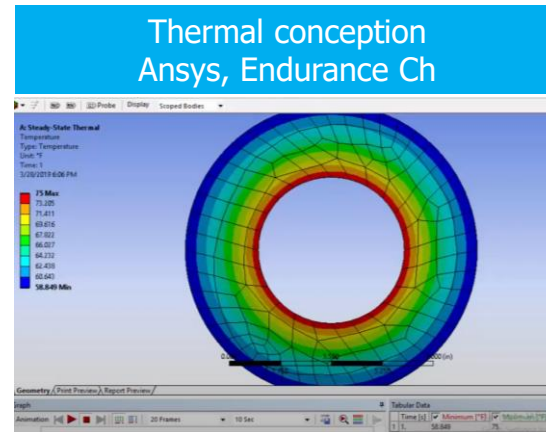
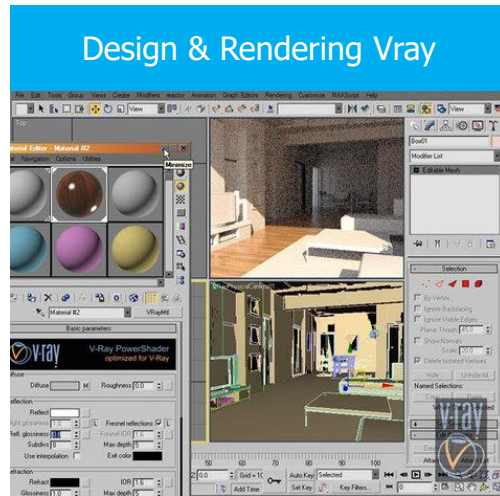
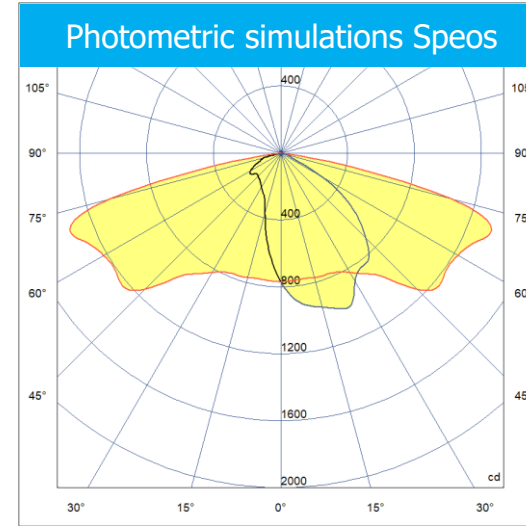
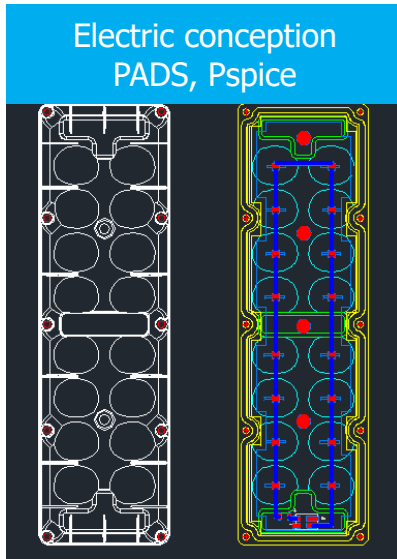
Over 90% of the LED based circuits for technical lighting are manufactured in-house



End to End Project Development with experience in LED Technology

Complete R&D capabilities, delivering the next generation of lighting technology

R&D Capabilities





Production technologies general lighting



Plastic injection

Monocolor machines with clamping forces between 50tf and 1300tf, up to 3 colors, BMC and Termoplast technology for high temperature applications

Painting, coating, varnishing

Automated painting installation
ChemAutomated varnishing
Chemical polishing

Metal transformation

CNC machines for metals
Sequential stamping & bending
Automated drilling machines

ESD Compliant zone Electronics manufacturing

Automated Pick & Place PCB assembly for LED
ESD compliant assembly of LED products





ELBA LABORATORIES

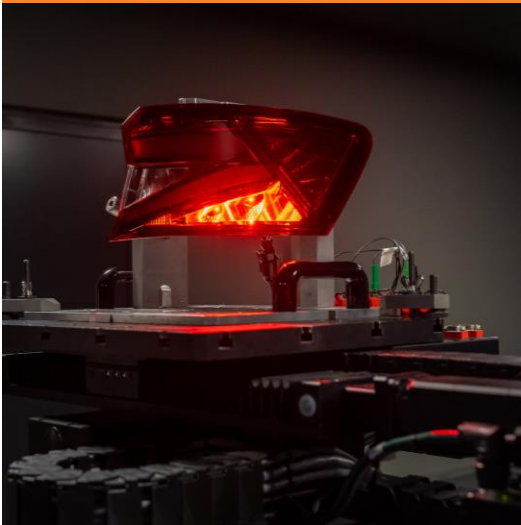
ELBA Laboratories

Accreditation at European level

A broad range of essays with focus on automotive and lighting industry



Photometric - 1972



Following tests:

- Photometry, colorimetry;
- Determining optical properties of materials;
- Dimensional and electric: verification of light sources etc.

Electromechanical - 1957



Following tests:

- Electrical, mechanical, climatic endurance, vibration;
- Protection degree;
- Corrosion & noise resistance etc.

Metrology - 1959



Following tests:

- Standard size;
- Interior and exterior measuring;
- 3D measuring through palpation scanning mechanical and digital.

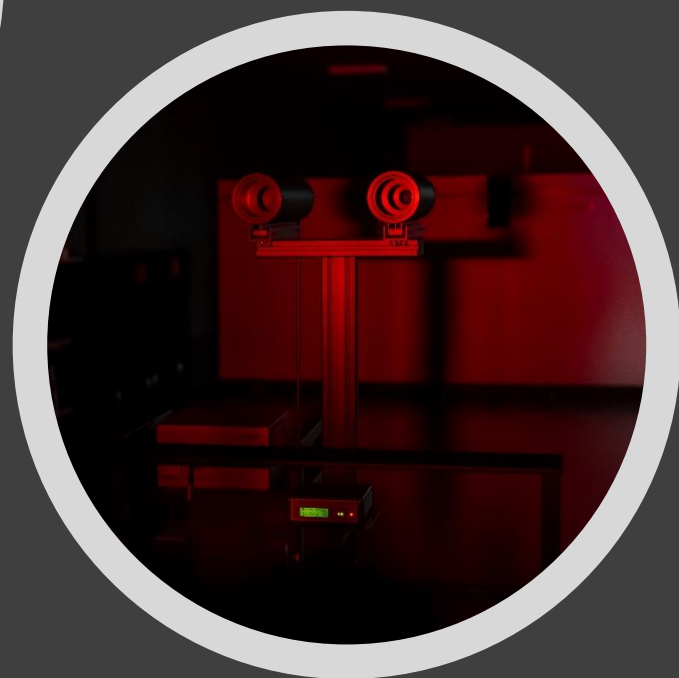
Chemical - 1964



Following tests:

- Chemical and physio chemical analysis;
- Gravimetric, spectrometric (IR), pix-metrics;
- Surface deposit, adherence tests;
- Water control etc.





Lighting distributions. Light sources. Retroreflectors.
Colorimetry. Automotive measurements.



Measurements capabilities

Emission and immunity



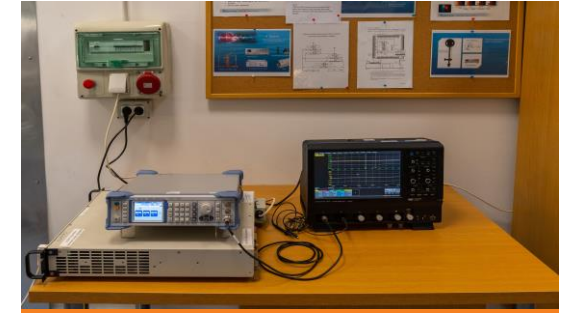
Antena Van der Hoofden
Antena Van Veen Loop (triaxial)



Test receiver for conducted and radiated emissions measurement



Immunity to magnetic field 100 A/m



Generator Rohde&Schwartz



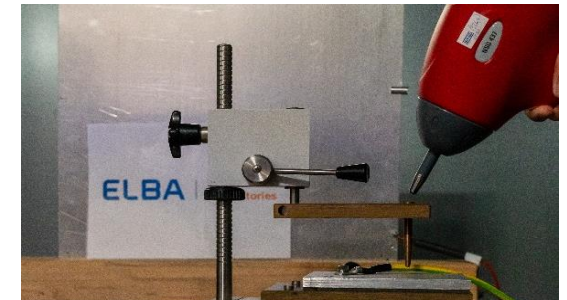
Immunity to conducted radio frequency. Generator meter and amplifier



Multigenerator EM Test: surge burst, power fail, magnetic field.



Harmonics and flicker



ESD immunity up to 30KV



Reasons to be your partner:

1. Tier 1 manufacturer and supplier with expertise;
2. Very short management decision chain (head office, R&D, production and support processes in the same location);
3. Quality ISO/IATF management systems implemented;
4. Own laboratories for products tests & homologation;
5. Own design & manufacturing plastic injection molds;
6. Own design & manufacturing of jigs, checking devices for laboratories;
7. Own molds shop for maintenance during serial production;
8. Quick reaction to customer's requests & good communication skills.





THANK YOU!

