

UNVEILING OUR BRIGHTES CHAPTER:

The evolution of LOTUS lighting for safety, communication and emotions in EVs

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IN CASE YOU DON'T KNOW LOTUS



Roger Moore



Richard Gere



Sharon Stone



Esprit SE

1977

The Spy Who Loved Me
Action / Adventure
UK



Esprit S1

1990

Pretty Woman
Comedy / Romantic
America



Esprit SE

1992

Basic Instinct
Thriller
America

AGENDA

- I EV MEGA-TRENDS AND NEW OPPORTUNITIES FOR LIGHTING SYSTEMS
- II PAST AND PRESENT
- III BRAND CHARACTER
- IV FUTURE AND LIGHTING STRATEGY
- V LOTUS ELETRE LIGHTING SYSTEM
- VI SUMMARY & OUTLOOK

EV mega-trends and new opportunities for lighting systems



EV MEGA-TRENDS

01
AUTONOMOUS
DRIVING

02
CONNECTED
CAR

03
PERSONALIZATION

04
SUSTAINABILITY

NEW OPPORTUNITIES FOR LIGHTING SYSTEMS

01 SAFETY

- AFS / ADB
- Headlamp performance
- Predictive light functions (AI)
- Pedestrian detection
- Collision warning
- Adaptive signal functions
- Lane-Keep-Assist
- Symbol Projection
- Pedestrian light guidance
- Proximity warning
- Battery management signal function

02 COMMUNICATION

- V2X / V2V / V2P / V2D
- AD status signal
- Charging status
- Malfunction signal
- Adaptive / regenerative brake signal
- Swarm-lighting
- Eye-tracked lighting

03 EMOTION

- Personalization
- Projections Animations
- Vehicle dynamics response
- Sustainable materials
- Nature inspired lighting
- Ad-Display projection
- Gaming
- Race track light
- Power-saving-mode
- Classic cars beam patterns
- Wellness & relaxation
- Walk-up sequence / goodbye light
- Light signature
- Branding / visual identity
- Aesthetical light functions
- Choreography
- Special events

August, 29th 2023 – DVN Congress San Francisco

LOTUS[®]

LOTUS - PAST AND PRESENT





LOTUS CINEMA
TIME: 00:00:00

LOTUS PAST – PRESENT

OUR HERITAGE



1951 Mark 3



1956 Eleven



1963 Type 25



1975 Esprit



1987 Type 99T



1990 Carlton /
Omega



1996 Elise



2000 Exige



2009 Evora



2022 Emira

LOTUS - IDENTITY



LOTUS BRAND CHARACTER

REBELLIOUS

PIONEERING

SOPHISTICATED

TRACK CAPABILITIES

AERODYNAMIC

LIGHT WEIGHT

INTELLIGENT ENGINEERING

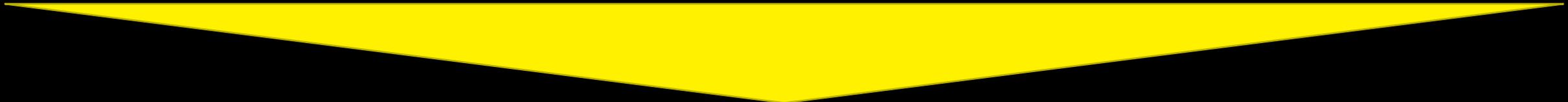
(DRIVING) EXPERIENCE

ICONIC DESIGN

INNOVATION

PERFORMANCE

EXCLUSIVITY



FOR THE DRIVERS

LOTUS - FUTURE AND LIGHTING STRATEGY



LOTUS FUTURE – A NEW ERA BEGINS

HYPERCAR LOTUS EVIJA (2019)



First all-electric british hypercar
2000 HP
1704 NM TORQUE
9.10s from 0-186 MPH (300 km/h)

Iconic design with unique features
(air tunnel)

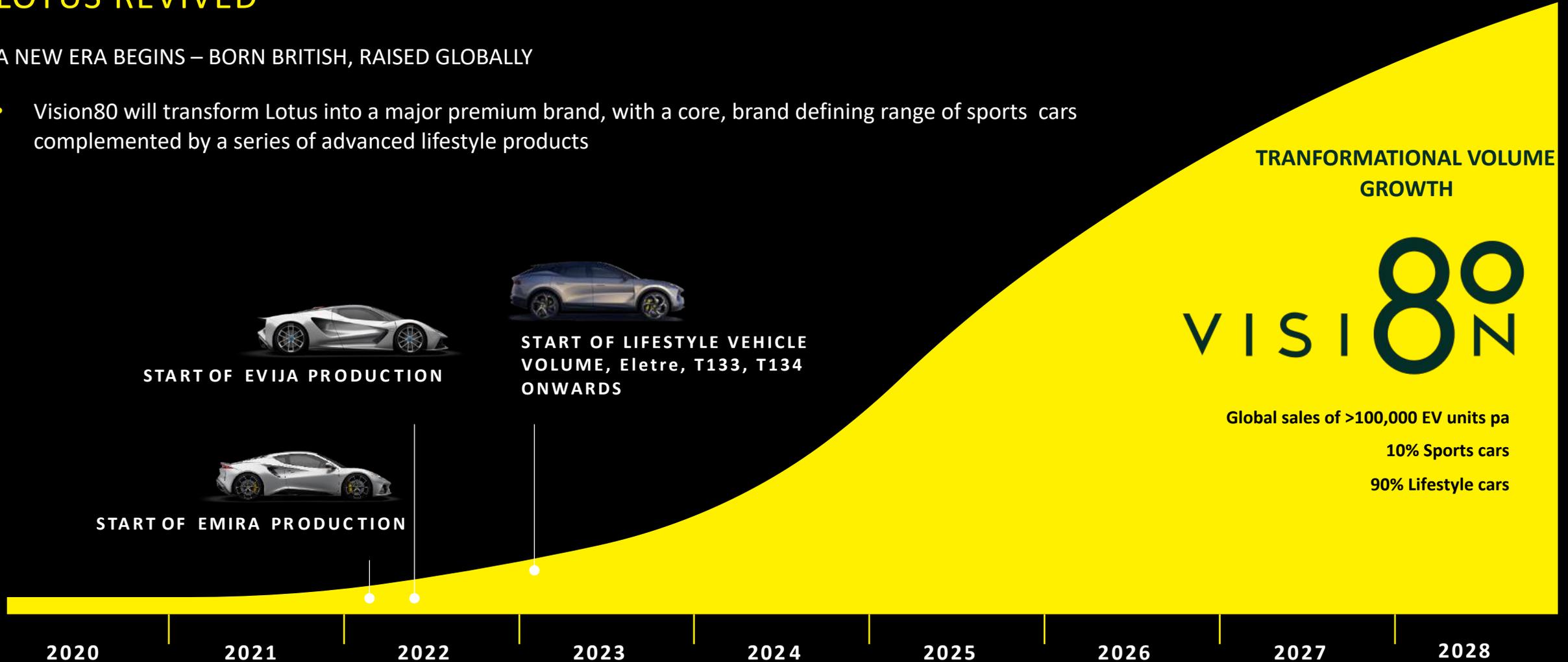
First vehicle worldwide with
Full laser headlights
(dipped beam + driving beam)



LOTUS REVIVED

A NEW ERA BEGINS – BORN BRITISH, RAISED GLOBALLY

- Vision80 will transform Lotus into a major premium brand, with a core, brand defining range of sports cars complemented by a series of advanced lifestyle products



FROM HYPERCAR TO HYPER SUV

LOTUS ELETRE



First Lotus Hyper SUV
up to 900 HP
0-62 mph in 2.95 sec.
¼ mile in <11 sec.

Luxury design and sustainable
materials

800 V technology – 350 kW DC
10-80% in 20 minutes
up to 373 miles range (WLTP)

Active-aerodynamics &
world-class ride & handling

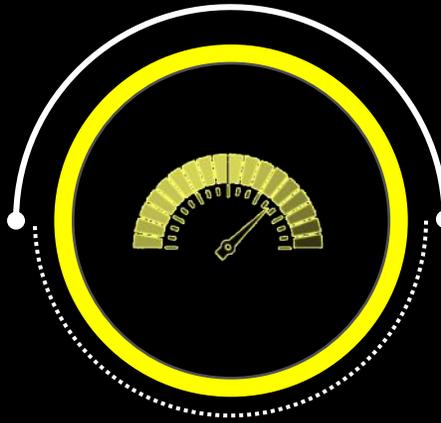
Future-Proof for ADAS L4
OTA
Connected Hyper OS



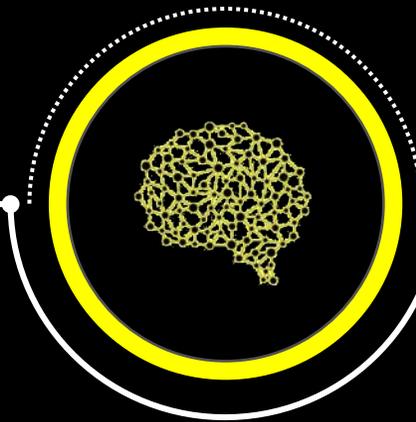
FROM BRAND-DNA TO LIGHTING STRATEGY

LOTUS LIGHTING PILLARS

PERFORMANCE



INTELLIGENCE



EXPERIENCE



FOR THE DRIVERS

LOTUS ELETRE LIGHTING SYSTEM



LOTUS ELETRE HEADLAMP SYSTEM

FUNCTION DESCRIPTION



SIGNAL LAMP
Daytime running light
Position light
Direction indicator

HEADLAMP SYSTEM
(hidden until lit)
Driving beam
Passing beam
Cornering light

LOTUS ELETRE FRONT SIGNAL LAMP

CREATING AN ICONIC AND UNIQUE BRAND SIGNATURE

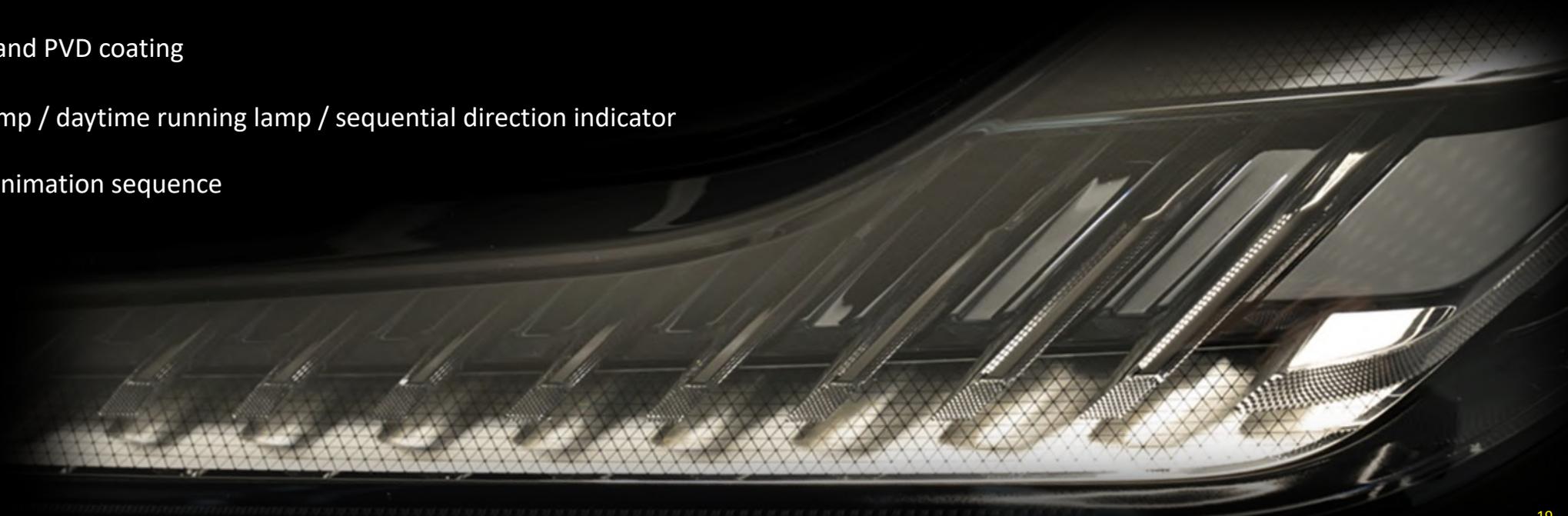
Highlights:

- 19 “U-shaped” light guiding elements
- Hot foiling technology for masking
- High-detail texturing and PVD coating
- Combined position lamp / daytime running lamp / sequential direction indicator
- Welcome / farewell animation sequence

ICONIC DESIGN

EXPERIENCE

EXCLUSIVITY



INTELLIGENT ENGINEERING

PERFORMANCE

EXPERIENCE

TRACK CAPABILITY

LIGHT WEIGHT

INNOVATION

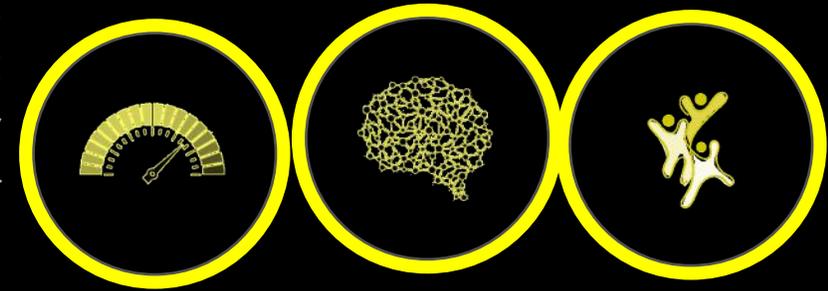
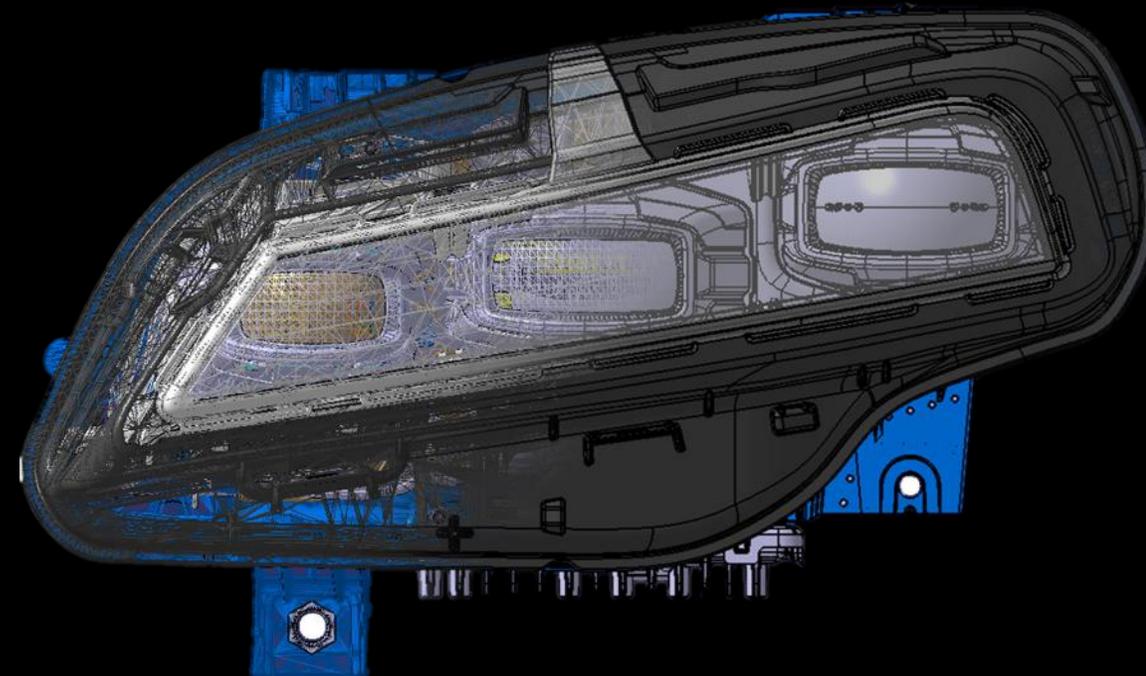
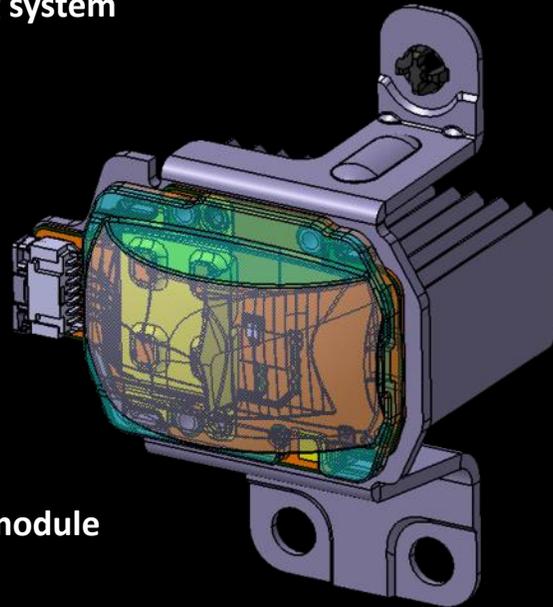
LOTUS®

LOTUS ELETRE HEADLAMP

INTELLIGENT PERFORMANCE FOR THE DRIVER

Highlights:

- **First LOTUS ever with an intelligent lighting system**
Class C
Class V
Class E
Static + dynamic bending light
Adaptive driving beam
- **High performance driving beam**
4000 lm total flux on the road (LH+RH)
3 high beam light engines
>200 lx per headlamp
500 m road reach
- **LOTUS-unique high beam/cornering lamp module**
Light weight <180g
minimized complexity



LOTUS ELETRE REAR LAMP SYSTEM

FUNCTION DESCRIPTION

Combined rear position
lamp / sequential
direction indicator

Stop lamp

Rear position lamp /
Charging status indicator

Rear reflex

Reverse / rear fog

CHMSL



LOTUS ELETRE REAR LAMP SYSTEM

A UNIQUE EXPERIENCE

Highlights:

- **Homogeneously combined rear position / direction indicator**
two-edge light concept
light diffuser technology
highly detailed surface finish on top
- **Hidden until lit stop lamp**
deep positioned edge light
smoked outer lens
- **Welcome / farewell animation sequence**
incorporating charging status indication
SoC dependent graphics and colours

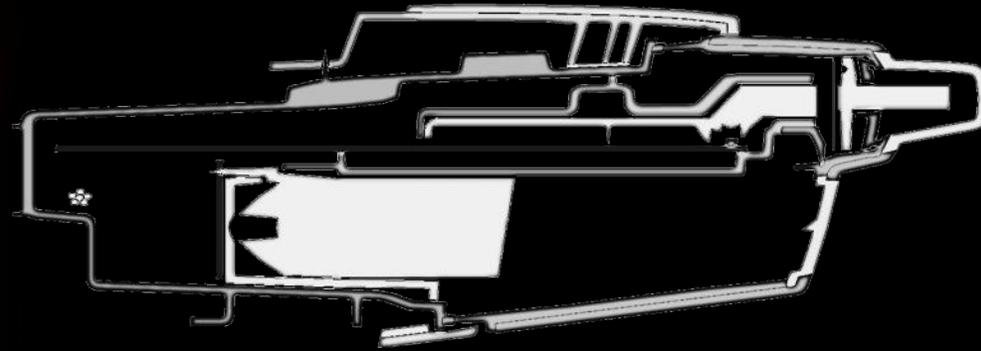
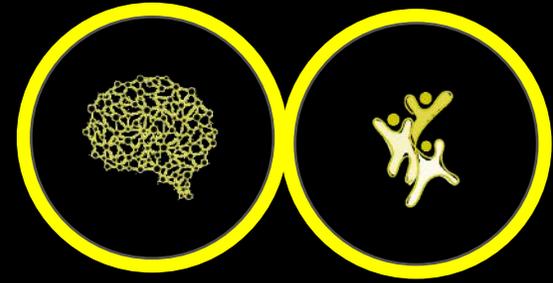
INTELLIGENT ENGINEERING

EXPERIENCE

EXCLUSIVITY

ICONIC DESIGN

INNOVATION



WV SUMMARY & OUTLOOK



SUMMARY & OUTLOOK

01

FOR THE DRIVERS

ENABLER

- New technologies
- Software
- Advance electronic architectures

02

SAFETY: PERFORMANCE & FUNCTION

03

INTELLIGENCE: LIGHTING SYSTEM & ENGINEERING SOLUTIONS

CHALLENGES

- Customer market requirements
- Regulatory market requirements
- Balance between „new“ and really „useful“ features and functions

04

EMOTION: EXPERIENCE / UNIQUE (DESIGN) FEATURES

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THANK YOU.

