A SUCCESSFUL TRANSFORMATION

JACQUES ASCHENBROICH
CHAIRMAN & CHIEF EXECUTIVE OFFICER
A SUCCESSFUL TRANSFORMATION
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WE CREATED #1 POSITION IN ELECTRIFICATION AND ADAS

THANKS TO 12 NEW KEY TECHNOLOGICAL PLATFORMS

EXPANDING OUR COMPETITIVE EDGE THROUGH HIGH BARRIERS TO ENTRY

LEADING TO A STRONG INCREASE OF OUR CONTENT PER CAR

~5 PTS SALES OUTPERFORMANCE

FOCUS ON PROFIT & CASH
A SUCCESSFUL TRANSFORMATION

IN ELECTRIFICATION

2 OUT OF 3 EUROPEAN OEMs HV LAUNCHES IN 2019-2022 EQUIPPED WITH OUR HV SOLUTIONS

IN ADAS

1 OUT OF 4 PRODUCED VEHICLES IN 2019 EQUIPPED WITH OUR ADAS SOLUTIONS
WE HAVE INVESTED TO CREATE UNIQUE TECHNOLOGICAL PLATFORMS WITH HIGH BARRIERS TO ENTRY

ELECTRIFICATION

High voltage
- E-MACHINE & E-AXLE
- INVERTER
- ON-BOARD CHARGER

E-thermal
- BATTERY COOLING
- E-THERMAL INTERIOR
- HEAT PUMP

48V
- E-MACHINE & E-AXLE
- DCDC

ADAS

- FRONT CAMERA
- LIDAR SCALA®
- DRIVER MONITORING
- AUTONOMOUS POD
MARKET PUSHES TOWARDS

- ELECTRIFICATION
- SAFER MOBILITY
- SMART MOBILITY
MARKET PUSHES TOWARDS ELECTRIFICATION
MARKET PUSHES TOWARDS ELECTRIFICATION

REGULATIONS PUSH
~1 million electric cars in EU in 2020 to avoid CO₂ penalties

CITIES ARE NEW REGULATORS
700 city access regulations in UE

OFFER IS READY
>300 new xEV models until 2024

CONSUMERS INCREASINGLY OPEN
42% of consumers would consider an EV for their next car

SOURCE: www.urbanaccessregulations.eu
McKinsey ACES survey 2019
MARKET PUSHES TOWARDS ELECTRIFICATION

- CO₂
- DIESEL

= + ELECTRIFICATION
MARKET PUSHES TOWARDS ELECTRIFICATION FOR BOTH 48V & HIGH VOLTAGE SOLUTIONS

- **MARKET PULLS TOWARDS ELECTRIFICATION FOR BOTH 48V & HIGH VOLTAGE SOLUTIONS**

* Incl. 48V and 12V+12V
** Incl. HV BEV, PHEV, FCEV & FHEV
Source: IHS McKinsey Valeo estimation
WE HAVE DEVELOPED SUCCESSFUL NEW KEY TECHNOLOGICAL PLATFORMS ALREADY IN SOP IN 2019

<table>
<thead>
<tr>
<th>48V ELECTRIFICATION</th>
<th>&gt;40%</th>
<th>MARKET SHARE 48V IN 2022</th>
<th>7.5bn€</th>
<th>CONTENT PER CAR RATIO X2</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-THERMAL SOLUTIONS</td>
<td>1/3</td>
<td>EUROPEAN OEMS HV LAUNCHES IN 2019-2022 EQUIPPED WITH OUR HV E-THERMAL SOLUTIONS</td>
<td>2bn€</td>
<td>CONTENT PER CAR RATIO X2</td>
</tr>
<tr>
<td>HIGH VOLTAGE ELECTRIFICATION</td>
<td>1/2</td>
<td>EUROPEAN OEMS HV LAUNCHES IN 2019-2022 EQUIPPED WITH HV VSEA SOLUTIONS</td>
<td>11bn€</td>
<td>CONTENT PER CAR RATIO X9</td>
</tr>
</tbody>
</table>

* Incl. 48V and 12V+12V
** Incl. HV BEV, PHEV, FCEV & FHEV
MARKET PUSHES TOWARDS SAFER MOBILITY
1.35 million people die in traffic accidents every year, as if an Airbus A320 with 150 people on board was crashing every hour of every day, every month in the year.

J. KRAFCIK (Waymo CEO)
MARKET PUSHES TOWARDS SAFER MOBILITY

REGULATION

GLOBAL NCAP

Active safety push

TECHNOLOGY

Technology is ready

CONSUMER PUSH

50% of consumers recognize High safety standards as biggest driver

SOCIETAL GOAL

No fatalities or serious injuries through road accidents

SOURCE: McKinsey ACES survey 2019
SAFER MOBILITY WILL BE DRIVING ADAS MARKET GROWTH

LEVEL 1
DRIVER ASSISTANCE

LEVEL 2
ADVANCED PARTIAL AUTOMATION

LEVEL 2+

LEVEL 3
CONDITIONAL AUTOMATION

LEVEL 4
HIGH AUTOMATION

CONTENT PER CAR

1
TYPE OF SENSORS

2
TYPES OF SENSORS

3
TYPES OF SENSORS

1
TYPE OF SENSORS

2
TYPES OF SENSORS

3
TYPES OF SENSORS

1
TYPE OF SENSORS

2
TYPES OF SENSORS

3
TYPES OF SENSORS

4
TYPES OF SENSORS

CAMERA OR RADAR

RADAR

RADAR

RADAR

CAMERA

CAMERA

CAMERA

THERMAL IMAGING

LIDAR

LIDAR

LIDAR

UP TO €200

€500

€2 000

€10 000+

ADAS

ADAS

ADAS

AD
A FAST GROWING MARKET

- **2019**: 10-12 bn€
  - Level 2
  - Level 2+
  - 5-star NCAP
  - 3-star NCAP
  - Park Assist only

- **2022**: 15-20 bn€
  - Level 2
  - Level 2+
  - 5-star NCAP
  - 3-star NCAP
  - Park Assist only
  - Driverless

- **2030**: 35-40 bn€
  - Level 2
  - Level 2+
  - Level 3
  - Level 4
  - Driverless
  - 5-star NCAP
  - 3-star NCAP
WE BUILT SUCCESSFUL PLATFORMS FOR ADAS

SYSTEM
SOFTWARE
COMPONENT

CUMULATED ORDER INTAKE 2017-2019
>€11Bn

18% CAGR 2019-2022

~€3.2Bn SALES IN 2022

1 OUT OF 4 PRODUCED VEHICLES IN 2019 EQUIPPED WITH OUR ADAS SOLUTIONS
WE BUILT SUCCESSFUL PLATFORMS FOR ADAS

CUMULATED ORDER INTAKE 2017-2019

>€11Bn

18% CAGR 2019-2022

~€3.2Bn SALES IN 2022
MARKET PUSHES TOWARDS SMART MOBILITY
MARKET PUSHES TOWARDS SMART MOBILITY

MOBILITY NEEDS ARE INCREASING

- PKT* is expected to grow by 30% between 2010 & 2050

DIFFERENT BUSINESS MODELS Emerge

- 46% of US vehicle trips are < 5km

INVESTMENT FLOW IS INCREASING IN DIGITAL MOBILITY

- $35Bn invested in 2018 in venture transportation technology

ROBOTAXIS ARE A REALITY

- Waymo launched first rides in Phoenix without safety drivers

*PKT: PASSENGER x KM TRAVELLED
source: McKinsey ACES Survey 2019
SMART MOBILITY OFFERS MANY OPPORTUNITIES TO LEVERAGE OUR PLATFORMS

- LAST MILE DELIVERY
- E-MICROMOBILITY
- ROBOTAXIS
- ROBOSHUTTLES

COOPERATIONS
FIRST ORDERS
FIRST ORDERS
FIRST ORDERS
INCREASING IN EBITDA

EBITDA IN % OF SALES
2019*

12.8%

>15%

EBITDA IN % OF SALES
2022

*estimated 2019
DOUBLING OUR FREE CASH FLOW GENERATION
SMART TECHNOLOGY FOR SMARter MOBILITY
A SUCCESSFUL TRANSFORMATION

CHRISTOPHE PERILLAT
CHIEF OPERATING OFFICER
VALEO DELIVERS LEADING SOLUTIONS & SYSTEMS IN ELECTRIFICATION
HIGH VOLTAGE ELECTRIFICATION: GROWTH IS THERE

€11Bn ORDER INTAKE
VALEO-SIEMENS IS ACCELERATING

Launches on 90 vehicles up to 2022


Volvo V60  BMW i3  Volvo XC90  Renault ZOE  Chevrolet Malibu  Renault Kangoo ZE  GMC Sierra Chevrolet Silverado  LEV TX5  BMW 3.30e  BMW 5.30e  Renault Master ZE  GAC Trumpchi GE3  BAIC EU400  Cadillac XTS  eGO Life  Volvo XC60  eGO Life  Volvo S90  Volvo V90  Renault ZOE2  DS7 Crossback e-tense  Peugeot 3008  Opel GrandLand X  BAIC C10  Tata Nexon  Renault Clio  Land Rover Discovery  Renault ZOE2  Renault Captur  2020 and Beyond

And 60 more to come
48V e-MACHINE PLATFORM

>300 000 Machines shipped

>40% Market Share in 2022

Key enabler for CO₂ reduction
NEXT GENERATIONS ARE BASED ON THE SAME PLATFORM

- Starter Generator
  - 4-12 kW

- Electric motor
  - 15 kW

- Full Electric rear axle
  - 25 kW
SMART e-MOBILITY BASED ON 48V PLATFORM

Same 48V e-motor
WE ARE ALREADY ENTERING SMART e-MOBILITY MARKET

- European OEM: SOP Q1 2020
- Indian OEM: SOP Q2 2020
- European OEM: SOP Q3 2020
- Expected in 2021
WE ARE ALREADY ENTERING SMART e-MOBILITY MARKET

ELECTRIFICATION KITS

ON-THE-SHELF OFFER
AUTOMOTIVE QUALITY
COMPETITIVE PRICE
CONTINUOUS INNOVATION
VALEO DELIVERS LEADING SOLUTIONS & SYSTEMS FOR SAFER MOBILITY
THE BROADEST SENSOR PORTFOLIO ON THE MARKET
FOR EXTERIOR AND INTERIOR COCOONS

INTERIOR COCOON
Driver and cabin monitoring

EXTERIOR COCOON
Perception and Situational Awareness
Adversarial Entropy minimization for Unsupervised Domain Adaptation

Introducing WoodScape
Multi-sensor multi-task fisheye dataset

Confidence Estimation in Deep Learning

(a) Input Image
(b) Ground Truth
(c) Prediction
(d) Model Errors
(e) Contourline
(f) MCP

200+ AI Experts

ARTIFICIAL INTELLIGENCE IS POWERING VALEO’S PERCEPTION SYSTEMS

Valeo.ai
LIDAR SCALA® PLATFORM

>100,000 Valeo SCALA® shipped

€500mio order intake

Key enabler for safe automated driving
LIDAR SCALA® PLATFORM

SCALA 1
SCALA 2
SCALA 3
NEAR FIELD LIDAR
LIDAR IS A KEY ENABLER FOR SAFE AUTOMATED DRIVING

Valeo SCALA® can detect

- overhead objects
- road debris
- road markings
- offset static objects
FRONT CAMERA PLATFORM

>€4bn order intake since 2017

50 model launches in 2019/2020

World’s 1st Stand-alone SAE Level 2 in 2019
VALEO’S SMART FRONT CAMERA LEVEL 2 ADAS SYSTEM

Honda’s Fit abolishes millimeter-wave radar, changed from Bosch to Valeo

Nikkei Automotive Technology
2019, October 1st

Camera Frontend

Computer Vision

Host Computer

Adaptive Cruise Control

Lane Centering System

Automatic Emergency Braking

Vehicle Steering/Braking

Developed / integrated by Valeo
SURROUND VIEW CAMERA PLATFORM

- **35%**
  - Market share in 2019

- **XtraVue Trailer**
  - System launched in 2019

- **12%**
  - Camera CAGR 2019-2022
INTUITIVE AND FUN TO USE...
DRIVER MONITORING PLATFORM

World’s 1st A-pillar Driver Monitoring System

World’s 1st Emotion Detection System

Selfie Function for 2021 SOP
DRIVING IS SAFER WHEN VALEO IS ON BOARD
WE ARE A KEY PARTNER TO NEW MOBILITY PLAYERS

ENSURING AVAILABILITY OF SERVICE THROUGH AUTOMOTIVE GRADE QUALITY
WE ARE A KEY PARTNER TO NEW MOBILITY PLAYERS

« ...Proud to count Valeo as a partner... »

J. KRAFCIK (Waymo CEO) - IAA 2019
VALEO DELIVERS LEADING SOLUTIONS & SYSTEMS IN SMART MOBILITY
SMART SOLUTIONS PROVIDING IMMERSIVE EXPERIENCE

Valeo Voyage

Come & see our teleportation experience on the Strip
Come & see our teleportation experience on the Strip
BUT SMART MOBILITY IS MORE THAN CARS
LEVERAGING OUR PERCEPTION PLATFORMS FOR NEW USE CASES
INTRODUCING eDELIVER4U

ELECTRIC AUTOMATED DELIVERY BY VALEO
VALEO ELECTRIFICATION & MOBILITY KITS AVAILABLE

MOBILITY KITS

SCALA - GENERIC KIT

- User manual + technology overview, basic of operation, specs, installation procedure and data communication
- 3D CAD files (sensor and holder)

ON-THE-SHELF OFFER

AUTOMOTIVE QUALITY

COMPETITIVE PRICE

CONTINUOUS INNOVATION
IT IS JUST

THE BEGINNING