Presentation results FY18
What do we do?

We create innovative micro-electronic solutions for the best imaginable future.
Typical process flow

1. Chip design
2. Wafer probe
3. Final test

1. Idea
2. Wafer fab
3. Assembly
4. Customer

Typical process flow
SUSTAINABILITY AT HEART

Our environmental policy is based on four principles

- Sustainable development
- Prevention is better than cure
- Minimal environmental impact
- Open contacts with all the stakeholders
Melexis strategy

Focus on *innovation* in automotive and adjacent markets

Leadership in *sensing and driving solutions* to our customers’ advantage

Organic growth, selective acquisitions
Common denominator: sensing & driving is everywhere

- Automotive
- Motorcycles and e-bikes
- Industry
- Home
- Consumer
- Healthcare
Melexis supplied in 2018 worldwide > 1.4 billion ICs with an average of 11 ICs / car

Sense & Drive
- Magnetic position sensors
- Inductive position sensors
- Current sensors
- Latch & switch
- Embedded drivers
- Smart drivers

Sense & Light
- Pressure sensors
- Tire monitoring sensors
- Temperature sensors
- Optical sensors
- Sensor interfaces
- Embedded lighting
11 chips in every new car
Over 1500 people on 3 continents

Sales & Applications
Belgium – Ieper, Tessenderlo
Greater China – Shanghai
France – Grasse, Paris
Germany – Erfurt, Dresden
Japan – Yokohama
USA – Nashua, Detroit, San Jose
South Korea – Seoul
Switzerland - Bevaix

Manufacturing
Belgium – Ieper
Bulgaria – Sofia
France – Corbeil-Essonnes
Germany – Erfurt
Malaysia – Kuching

Research & Development
Belgium – Ieper, Tessenderlo
Philippines – Manila
Bulgaria – Sofia
Switzerland - Bevaix
France – Grasse, Paris
Ukraine – Kiev
Germany – Erfurt, Dresden, Düsseldorf
USA – Nashua

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Automotive market trends 2018-2022

- **Vehicle assembly**
  - CAGR 2-4%
  - CAGR 2018-2022: 2.6%
  - (LMC Automotive Q3 2018)

- **Semiconductor content in cars**
  - CAGR 2-6%
  - CAGR 2018-2022: 5.3%
  - (SA Oct 2018)

- **Automotive semiconductor demand**
  - CAGR 5-9%
  - CAGR 2018-2022: 7.5%
  - (SA Oct 2018)
Melexis vs Automotive Trends

Melexis enables edge sensing & edge driving

Melexis engineers small, smart Sensing and Driving nodes supporting in-vehicle edge computing systems
Melexis vs Automotive Trends

Powertrain Systems

Zero Emissions
Zero Traffic Fatalities
User Experience

Electrification

(Zero Emissions) (Zero Traffic Fatalities) (User Experience)

(xHEV & xEV) (Assisted & Autonomous Drive) (Customization)

Chassis, Body & Safety Systems
Powertrain Systems

Levels of Electrification

- Internal Combustion Engine (ICE)
- Internal Combustion Engine (ICE & uHEV)
- 48 Volt Mild Hybrid (mHEV)
- Full Hybrid (fHEV)
- Plug-In Hybrid (pHEV)
- Electrical Vehicle (BEV - FCEV)
Powertrain Systems

Electrification – Segmentation – Market Split

Source: Strategy Analytics and Melexis estimates
Internal Combustion Engine (ICE + uHEV)

48 Volt Mild Hybrid (mHEV)
- DCDC converter
- 12V battery
- Internal combustion engine (ICE)
- 48V Li-ion battery
- 48V integrated Belt Starter Generator (IBSG)

Full Hybrid (fHEV) - Plug-In Hybrid (pHEV)
- ACDC inverter (onboard charger)
- DCAC inverter (eAxle)
- 12v battery
- DCDC converter
- HV battery

Electrical Vehicle (BEV – FCEV)
- Traction inverter
- DCDC converter
- Electrical water pump
- Onboard charger
# Powertrain Systems

## Electrification – Segmentation – TAM

<table>
<thead>
<tr>
<th>Market CAGR</th>
<th>Market (Millions Cars)</th>
<th>Powertrain Systems</th>
<th>TAM for Melexis (Total Available Market - # ICs/car)</th>
</tr>
</thead>
<tbody>
<tr>
<td>-2%</td>
<td>90 81.5</td>
<td>Internal Combustion Engine (ICE &amp; uHEV)</td>
<td>#24 #31</td>
</tr>
<tr>
<td>+42%</td>
<td>11.5 2</td>
<td>48 Volt Mild Hybrid (mHEV)</td>
<td>#37 #45</td>
</tr>
<tr>
<td>+16%</td>
<td>4 8.5</td>
<td>Full Hybrid (fHEV) Plug-In Hybrid (pHEV)</td>
<td>#50 #58</td>
</tr>
<tr>
<td>+25%</td>
<td>1.5 4.5</td>
<td>Electrical Vehicle (BEV - FCEV)</td>
<td>#41 #44</td>
</tr>
<tr>
<td>+2%</td>
<td>97.5 106</td>
<td>Total Weighted TAM</td>
<td>#26 #35</td>
</tr>
</tbody>
</table>

Source: Strategy Analytics and Melexis estimates
Chassis
Breaking – Steering – Suspension

Body
Lighting – HVAC - Others

Safety
(Passive)

Source visuals: BMW
https://www.autozeitung.de/klimaanlage-auto-wartung-funktion-187651.html
http://kertyng.pl/Cremallera-de-direccion-hidraulca-Nissan-Tecnologia-t.html

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Chassis – Body – Safety Systems

Segmentation - TAM

Source: Strategy Analytics and Melexis estimates
Melexis in automotive

Market CAGR

Market (Millions Cars)

Chassis - Body - Safety Systems

Weighted TAM for Melexis (Total Available Market - # ICs/car)

<table>
<thead>
<tr>
<th></th>
<th>Powertrain</th>
<th>Chassis - Body - Safety</th>
</tr>
</thead>
<tbody>
<tr>
<td>#26</td>
<td>#35</td>
<td>#68</td>
</tr>
<tr>
<td>#115</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2018</th>
<th>2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>+2%</td>
<td></td>
</tr>
<tr>
<td>97.5</td>
<td>106</td>
</tr>
<tr>
<td>Total</td>
<td>Weighted TAM</td>
</tr>
<tr>
<td></td>
<td>#94 #150</td>
</tr>
</tbody>
</table>

Source: Strategy Analytics and Melexis estimates
**BMW 530e**

* Chassis - Body – Safety (>30)
* Powertrain (11)

- Time-of-flight for gesture control
- Multimedia GPU
- Cooling fan
- Fragrance fan
- RainLight for automatic wipers
- Interior ambient lighting
- LIN switches
- Anti-theft protection
- Graphics Processing Unit
- Local Interconnect Network
- Variable geometry turbo
- Electric waste gate actuator
- Water valve
- Oil pressure sensor
- Lambda sensor
- Grille shutter
- Engine cooling fan
- Water pump (BLDC)
- Headlight LED matrix mirror adjustment
- SensorEyeC for laser headlight
- LED headlamp fan
- Brake booster
- High pressure brake sensor interface
- Seat motor
- Seat belt buckle
- Window lifter
- EV inverter
Melexis beyond automotive

Sensors & drivers for similar challenges

- White goods – Focus on CO2
- Motorcycles and e-bikes
- Industry 4.0 – Closed loop control
- Robotics – Focus on autonomy
- Drones
- Thermal information – People detection
- Environmental imaging
- Industrial position sensing
- Power monitoring & motor control
Our market position

Automotive semiconductors
# 14

Automotive sensors
# 4

Magnetic sensors
# 3

Magnetic position sensors
Latch & switch
Ambient lighting
# 1

Source: Strategy Analytics 2018 and Melexis estimates
Melexis ranking 14\textsuperscript{th} in automotive semiconductor

![Automotive semiconductor sales 2017 (mln. USD)
5 year CAGR (2012-2017)](image-url)

Source: Strategy Analytics 2018
Melexis ranking 4th in automotive sensors

Automotive sensor sales 2017 (mln. USD)
5 year CAGR (2012-2017)

Source: Strategy Analytics 2018
Evolution financials 2000-2018

**Turnover**
Q4 2018: 141.6 mln EUR  
FY 2018: 569.4 mln EUR

**Gross profit margin**
Q4 2018: 45.3%  
FY 2018: 45.9%

**Operating margin**
Q4 2018: 22.5%  
FY 2018: 24.3%
% ASSP sales

% automotive sales
FY 2018 results at a glance

Sales
569.4m EUR
+11% Y-o-Y

Gross margin
45.9%
261.1m EUR
+11% Y-o-Y

Operating result
24.3%
138.5m EUR
+4% Y-o-Y

Net result
2.86 EPS
115.5m EUR
+4% Y-o-Y

Oper. cash flow
(before wcap change)
175.3m EUR
+14% Y-o-Y

Net debt
0.4m EUR

Outlook
Melexis expects sales in the first quarter of 2019 to be in the range of 112-118 million euro, with a gross profit margin around 41% and an operating margin around 13% at the midpoint of the sales guidance.
Melexis expects its full year 2019 sales level to remain below the previous year. Gross profit margin is expected to be around 43% taking into account a EUR/USD exchange rate of 1.15.
## Profit & loss

### FY 2018 versus FY 2017

<table>
<thead>
<tr>
<th>P&amp;L account (in million EUR)</th>
<th>FY 2018</th>
<th>% of Sales</th>
<th>FY 2017</th>
<th>% of Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>569.37</td>
<td>100.0%</td>
<td>511.66</td>
<td>100.0%</td>
</tr>
<tr>
<td>Cost of goods sold</td>
<td>-308.23</td>
<td>-54.1%</td>
<td>-276.27</td>
<td>-54.0%</td>
</tr>
<tr>
<td>Gross margin</td>
<td>261.14</td>
<td>45.9%</td>
<td>235.40</td>
<td>46.0%</td>
</tr>
<tr>
<td>R&amp;D</td>
<td>-78.01</td>
<td>-13.7%</td>
<td>-69.48</td>
<td>-13.6%</td>
</tr>
<tr>
<td>G&amp;A</td>
<td>-30.07</td>
<td>-5.3%</td>
<td>-23.84</td>
<td>-4.7%</td>
</tr>
<tr>
<td>Selling</td>
<td>-14.58</td>
<td>-2.6%</td>
<td>-11.66</td>
<td>-2.3%</td>
</tr>
<tr>
<td>Other operating result</td>
<td>0.0%</td>
<td>0.0%</td>
<td>2.19</td>
<td>0.4%</td>
</tr>
<tr>
<td>EBIT</td>
<td>138.49</td>
<td>24.3%</td>
<td>132.61</td>
<td>25.9%</td>
</tr>
<tr>
<td>Net financial result</td>
<td>0.25</td>
<td>0.0%</td>
<td>3.38</td>
<td>0.7%</td>
</tr>
<tr>
<td>Income taxes</td>
<td>-23.29</td>
<td>-4.1%</td>
<td>-25.03</td>
<td>-4.9%</td>
</tr>
<tr>
<td>Net profit</td>
<td>115.45</td>
<td>20.3%</td>
<td>110.96</td>
<td>21.7%</td>
</tr>
<tr>
<td>Earnings per share</td>
<td>2.86</td>
<td></td>
<td>2.75</td>
<td></td>
</tr>
</tbody>
</table>
# Balance Sheet

## Q4 2018 versus Q4 2017

<table>
<thead>
<tr>
<th>Balance Sheet</th>
<th>4Q 2018</th>
<th>4Q 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total assets</strong></td>
<td>428.0</td>
<td>403.4</td>
</tr>
<tr>
<td><strong>Current assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash</td>
<td>34.5</td>
<td>75.5</td>
</tr>
<tr>
<td>Inventory</td>
<td>120.6</td>
<td>97.6</td>
</tr>
<tr>
<td>A/R Trade</td>
<td>75.2</td>
<td>68.8</td>
</tr>
<tr>
<td>A/R from related parties</td>
<td>0.2</td>
<td>0.4</td>
</tr>
<tr>
<td><strong>Non-current assets</strong></td>
<td>187.6</td>
<td>149.0</td>
</tr>
<tr>
<td><strong>Shareholders' equity</strong></td>
<td>326.1</td>
<td>294.3</td>
</tr>
<tr>
<td><strong>Interest bearing debt</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Long term</td>
<td>34.0</td>
<td>9.0</td>
</tr>
<tr>
<td>Short term</td>
<td>1.0</td>
<td>6.1</td>
</tr>
</tbody>
</table>
Dividend yield

Based on average share price

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Based on average share price

Gross dividend per share (EUR)

<table>
<thead>
<tr>
<th>Year</th>
<th>Gross dividend per share</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>0.50</td>
</tr>
<tr>
<td>2003</td>
<td>0.50</td>
</tr>
<tr>
<td>(*) 2004</td>
<td>1.00</td>
</tr>
<tr>
<td>2005</td>
<td>0.50</td>
</tr>
<tr>
<td>2006</td>
<td>0.50</td>
</tr>
<tr>
<td>2007</td>
<td>0.60</td>
</tr>
<tr>
<td>2008</td>
<td>0.60</td>
</tr>
<tr>
<td>2009</td>
<td>0.00</td>
</tr>
<tr>
<td>2010</td>
<td>0.30</td>
</tr>
<tr>
<td>2011</td>
<td>0.60</td>
</tr>
<tr>
<td>2012</td>
<td>0.65</td>
</tr>
<tr>
<td>2013</td>
<td>0.70</td>
</tr>
<tr>
<td>2014</td>
<td>1.00</td>
</tr>
<tr>
<td>2015</td>
<td>1.90</td>
</tr>
<tr>
<td>2016</td>
<td>2.00</td>
</tr>
<tr>
<td>2017</td>
<td>2.10</td>
</tr>
<tr>
<td>(***) 2018</td>
<td>2.20</td>
</tr>
</tbody>
</table>

(*) incl. 0.72 cap.decr
(***) 0.90 final dividend payable as from April 26, 2019
Shareholders structure & shareholder return

Shareholder structure on 31 Dec 2018

- Xtrion: 45.57%
- Treasury Shares: 53.58%
- Public: 0.86%

Shareholder Return 2002-2018

Return investment 2002-2018 = 17% per year

Share price
Total return (incl. reinvestment of gross dividend)
Melexis Investor Relations

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CFO

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Investor Relations

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Investor Relations Assistant

Joren Vanvelk
Financial Analyst

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