Automotive Battery Committee (ABC)

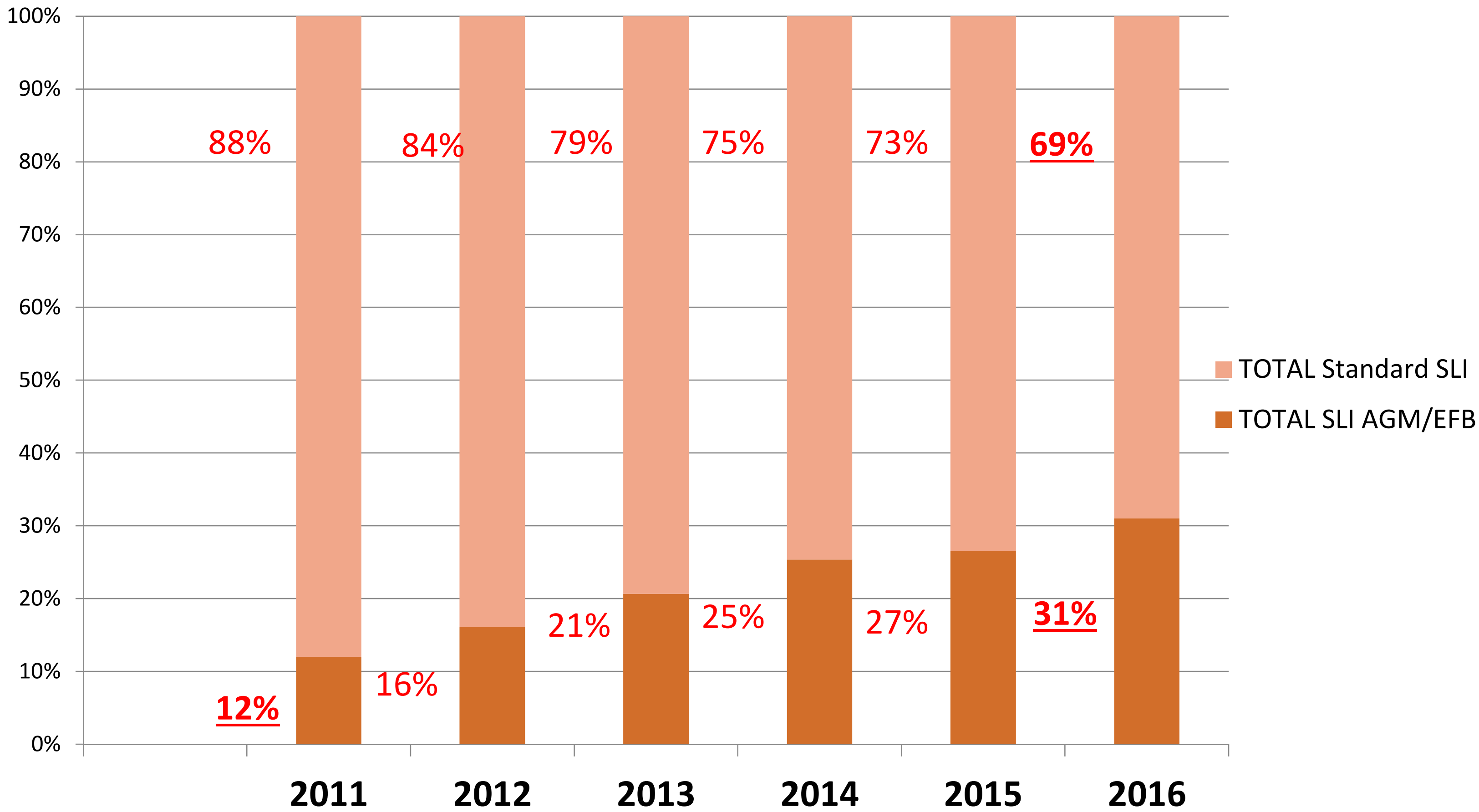
Nicoló Gasparin
Chairman

Brussels – 8 June 2017

OEM/OES/IAM SLI battery market

Results EUROBAT SLI AGM/EFB Internal Surveys (in M units)
Member data only

→ Continuation of the replacement trend standard SLI / Advanced lead (AGM/EFB): confirmed also in 2016
→ Shift standard SLI : Advanced lead already a fact in the OEM (based on IHS Car production data 1Q2017)



Mild, full and pHEV OEM battery market potential

(in 1,000 units – EUROBAT data based on IHS car production data)

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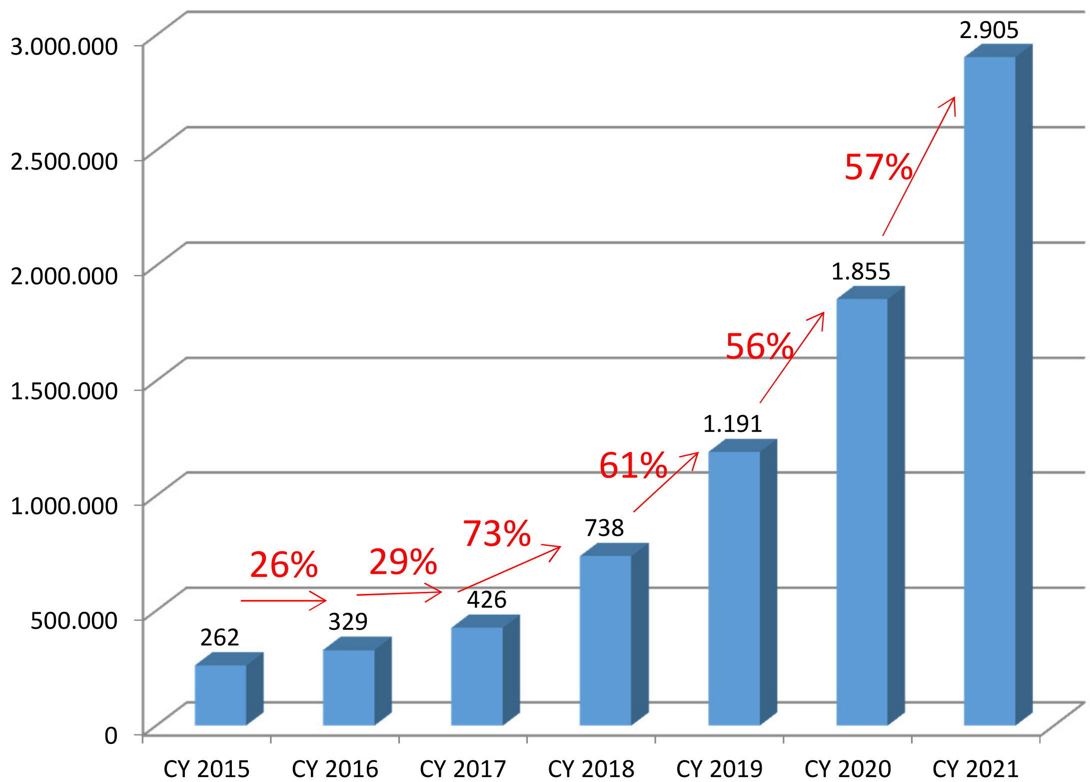
Variety of battery voltage:s 48V (mild hybrids) to 650V (full hybrids)



<u>EU Countries considered (17)</u>:
Austria, Belgium, Czech Rep., Finland, France, Germany, Hungary, Italy, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, UK

<u>OEM Manufacturers considered (23)</u>:
VW, BMW, Daimler, Ford, Jaguar, Magna-Steyr, PSA, Renault/Nissan, Toyota, Geely-Volvo, Hyundai, GM, Ford, BAIC, Suzuki, Honda, FCA, Ferrari, Tata, Proton, Austin Martin, McLaren,

<u>Top 5 countries – contributing with +85%:</u>

1. Germany
2. United Kingdom
3. France
4. Spain
5. Hungary

EV OEM battery market potentials

(in 1,000 units – EUROBAT data based on IHS car production data)

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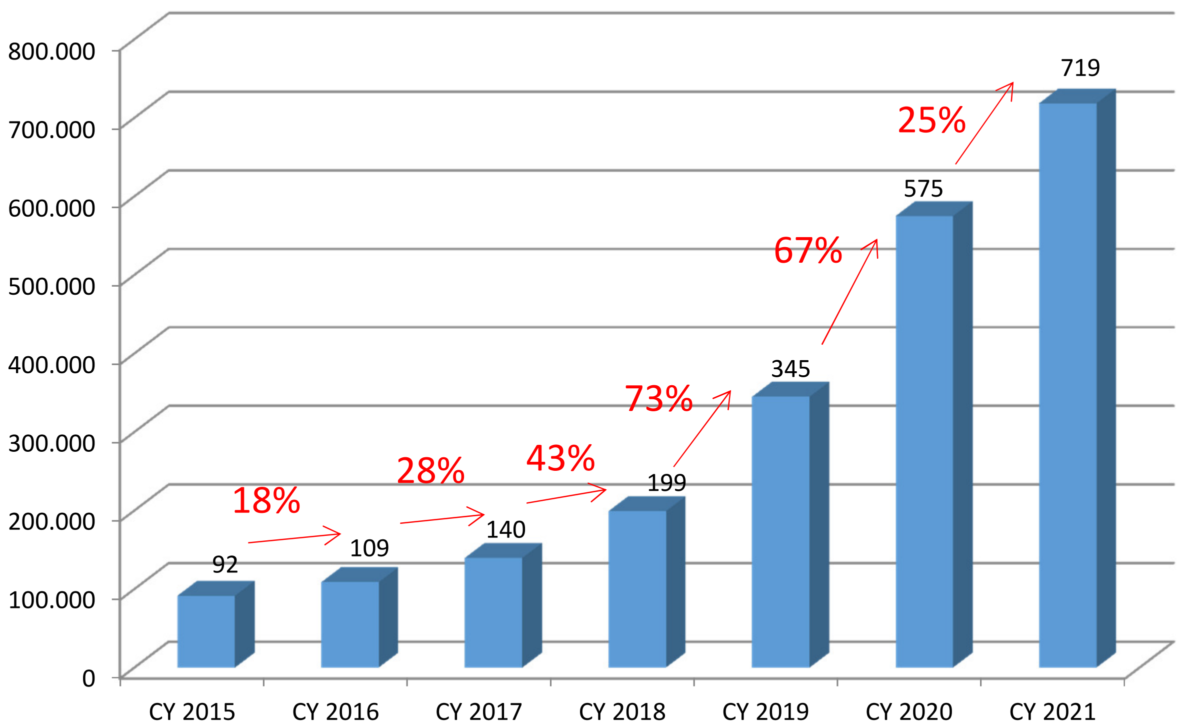
OEM EV Battery market

Capacity 16 kWh (Smart) - 100 kWh (ex. Porsche)

Voltage: 288V – 440V



EU Countries (11):
Austria, Belgium, Czech Rep., France, Germany, Italy, Poland, Slovakia, Spain, Sweden, UK

Manufacturers (10):
VW, BMW, Daimler, Ford, Jaguar, Magna-Steyr, PSA, Renault/Nissan, Toyota, Geely-Volvo

Top 5 countries – contributing with +80%:

1. Germany
2. France
3. United Kingdom
4. Spain
5. Belgium