



AUTOMOTIVE INDUSTRY IN ASEAN. A EUROPEAN PERSPECTIVE.

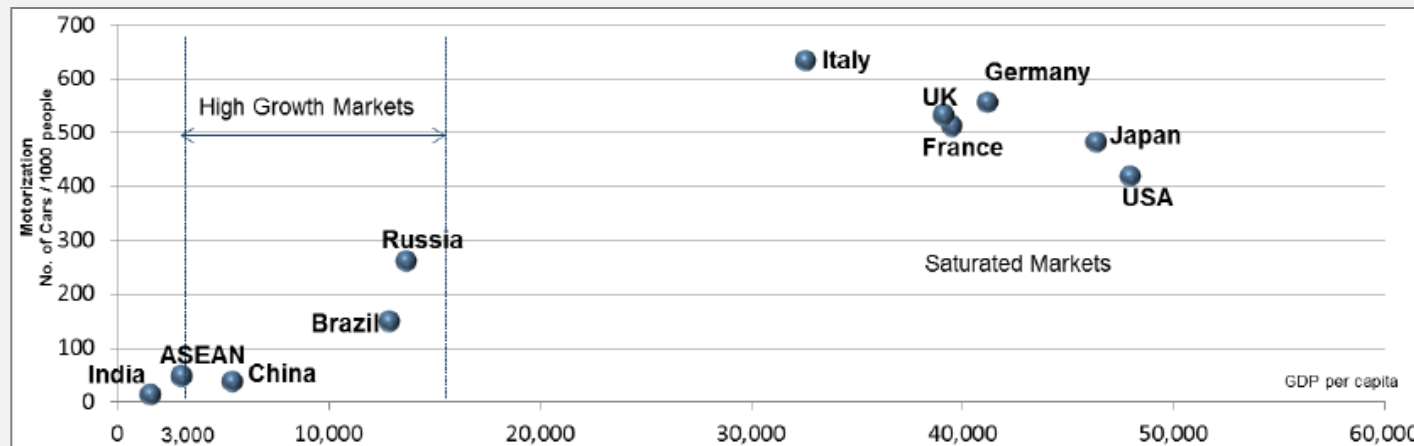
**BMW
GROUP**



Rolls-Royce
Motor Cars Limited

ASEAN: ATTRACTIVE MARKET.

- **Population ASEAN > EU.**
- **Young & tech savvy population.**
- **GDP growth over proportional.**
- **Automotive seen as important to industrialize the countries.**
- **Motorization rate still low.**

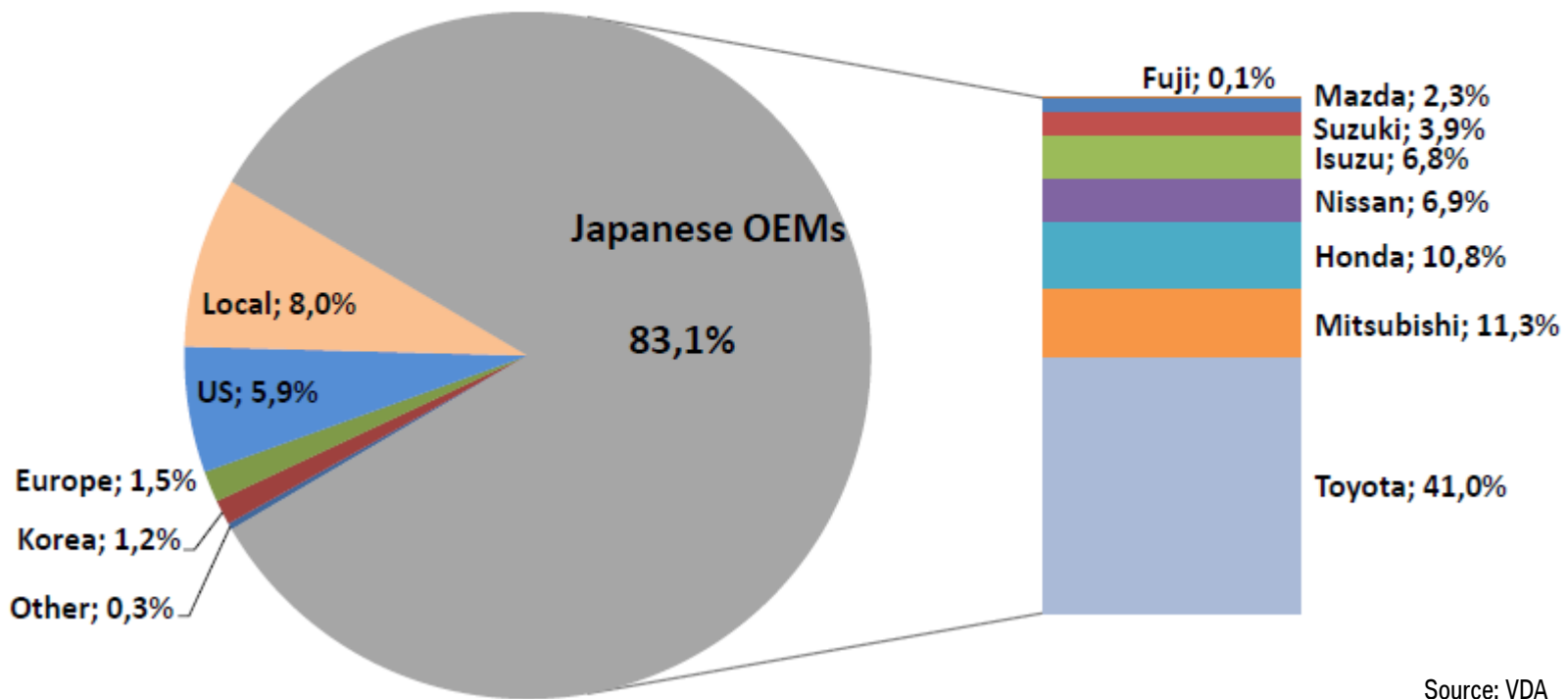


Source: Frost and Sullivan

ROLE OF EUROPEAN MANUFACTURERS IN ASEAN.



Light Vehicle assembly by brand origin, 2014





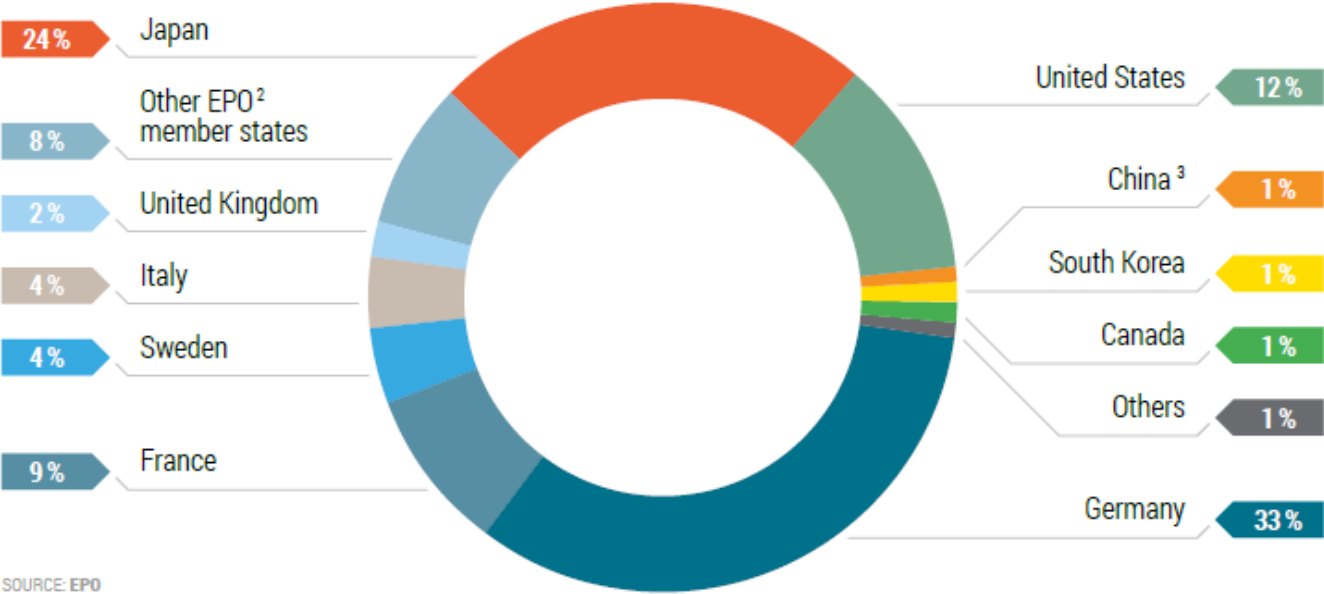
CHALLENGES OF EUROPEAN OEM TO GAIN STRONGER FOOTHOLD IN ASEAN.

- **“Anti-Innovation” taxes.**
- **National automotive policies focus on entry and “low-tech” segments.**
- **Limited economies of scale and high cost bases.**
- **Slow AEC implementation.**
- **Slow progress of Free Trade Agreements with EU and US.**
- **Lack of qualified staff.**

LEADING ROLE OF EUROPEAN OEM IN KEY TECHNOLOGIES.

Patents granted in the automotive sector ¹

2014



SOURCE: EPO

Source: ACEA

BMW GROUP'S EFFICIENT DYNAMICS STRATEGY ACROSS A BROAD SPECTRUM OF TECHNOLOGIES.



TODAY

- Continuous optimization of fuel consumption and emissions.
- Lightweight construction.
- 3-cylinder engines.



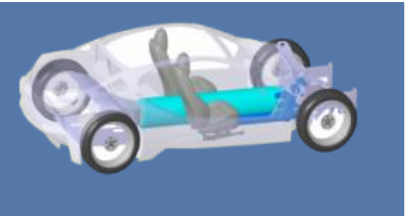
TODAY

- First limited electric vehicle production in 2008.
- MINI E on the road since 2009.
- BMW ActiveE in 2011.
- Introduction BMW i3 and BMW i8 in 2013 and 2014.



TODAY

- Full and mild hybrid vehicles.
- Initial step towards electrification of the drivetrain.
- Plug-in Hybrid drive-trains.



FUTURE

- Commitment to and validation of technology.
- Focus on Crucial Components: Optimization of Powertrain Components (Fuel Cell and ICE).
- Improvement of hydrogen storage and efficiency.

BMW Group's drive strategy provides a broad technology spectrum for today and the future.

Combustion engine

E-vehicle

Hybrid technology

Hydrogen

STAYING AHEAD IN A VOLATILE ENVIRONMENT...



Thai Car-Making Supremacy Is at Risk

THE WALL STREET JOURNAL.

Japanese association fears post-2018 automobile imports will worsen Vietnam's trade deficit

TUOI TRE NEWS

Car makers to pay higher taxes

Bangkok Post

Indonesian Car Sales Sputter as Economy Drops a Gear

JakartaGlobe

Mixed sentiments on PH automotive industry plan

Rappler.com

BMW drops wrench into palm energy plan

Bloomberg

STAYING AHEAD IN A VOLATILE ENVIRONMENT...



How to best stimulate innovation and global competitiveness of the ASEAN automotive industry?

How serious is ASEAN about road & vehicle safety and protecting the environment?

How can ASEAN improve income per capita and boost workforce skills within the automotive sector?