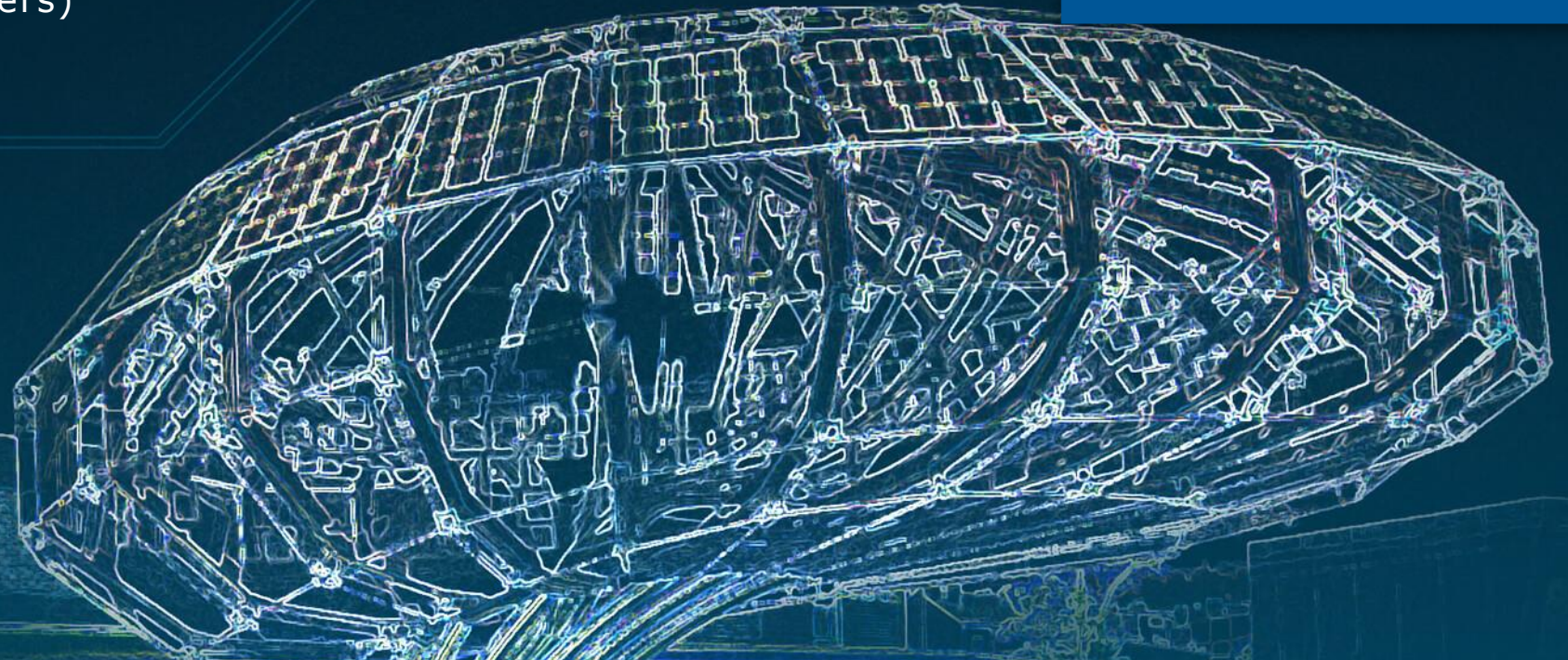


AVL List GmbH (Headquarters)



# AVL - Innovation is Infinite

European Innovation Day 2018

**Harald Alge**

# Customer Segments and AVL Business Areas



**Passenger Cars**



**2-Wheelers**



**Racing**



**Construction**



**Agriculture**



**Commercial Vehicle**



**Locomotive**

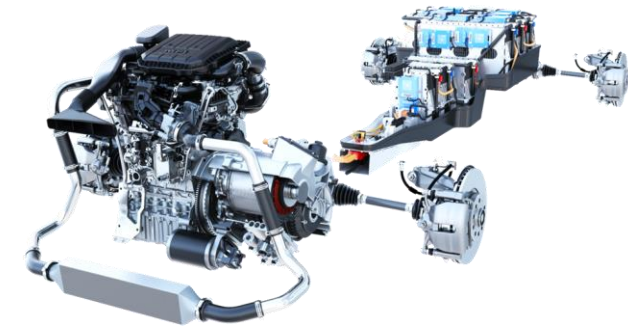


**Marine**



**Power Plants**

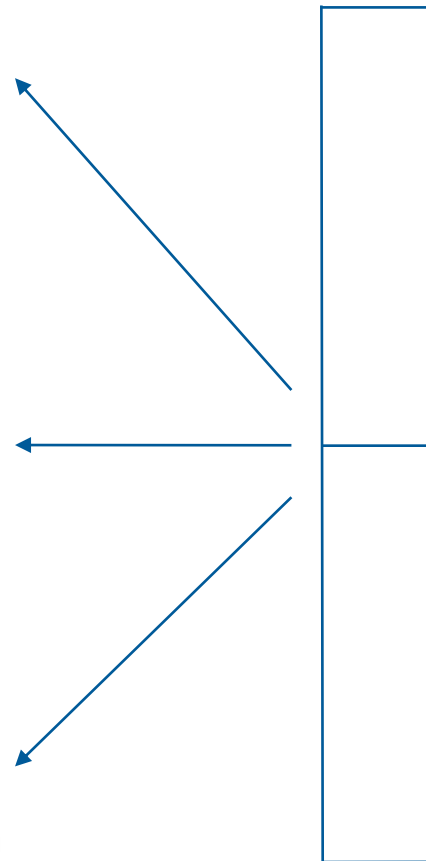
## Powertrain and Vehicle Engineering



## Development Platform



## Simulation & Testing





# Enterprise Development Automotive

**RESEARCH 10%**  
of turnover in-house R&D

**INNOVATION 1500**  
granted patents

**STAFF**  
**9.500** employees

**65%** engineers and  
scientists

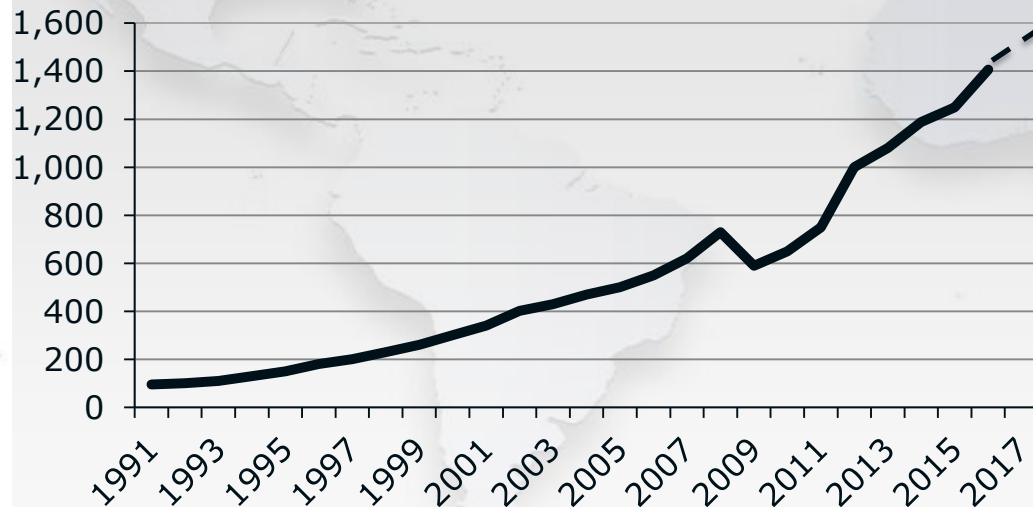
## GLOBAL FOOTPRINT

**40** engineering locations

**21** of them with own test fields

- **>220** testbeds
- Global customer support network

## GROWTH



## SALES

1995:  
0.15 billion €

2017:  
1.55 billion €

Plan 2018:  
1.71 billion €

## EXPERIENCE

**70** years !

## POWERTRAIN

and its Integration  
in the Vehicle

**ONE  
PARTNER**

# Five Elements of Modern Powertrains



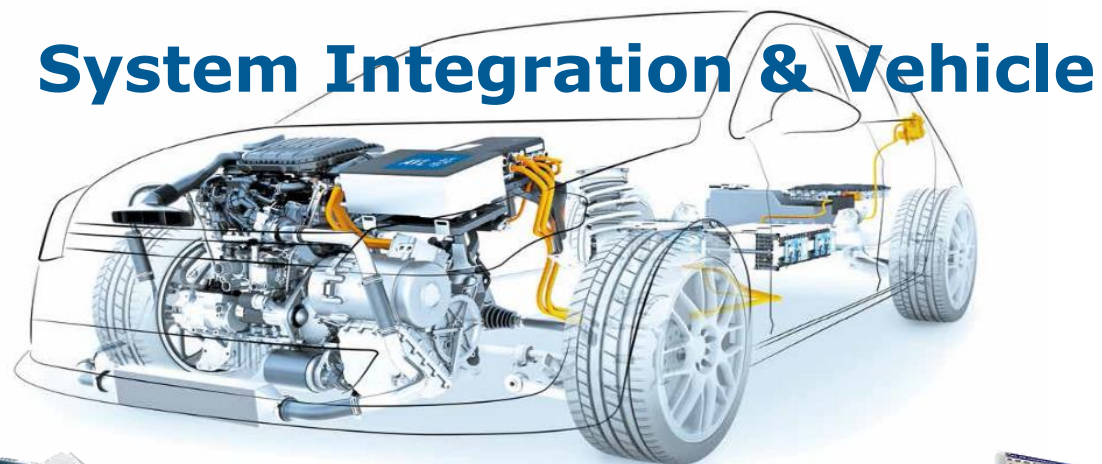
IC Engine



Transmission



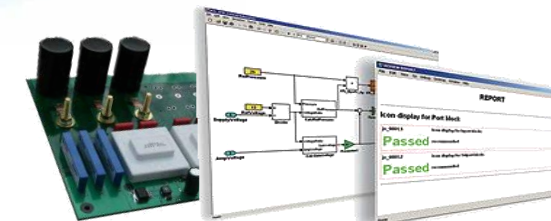
Battery



**System Integration & Vehicle**



Electric Motor



Software & Controls

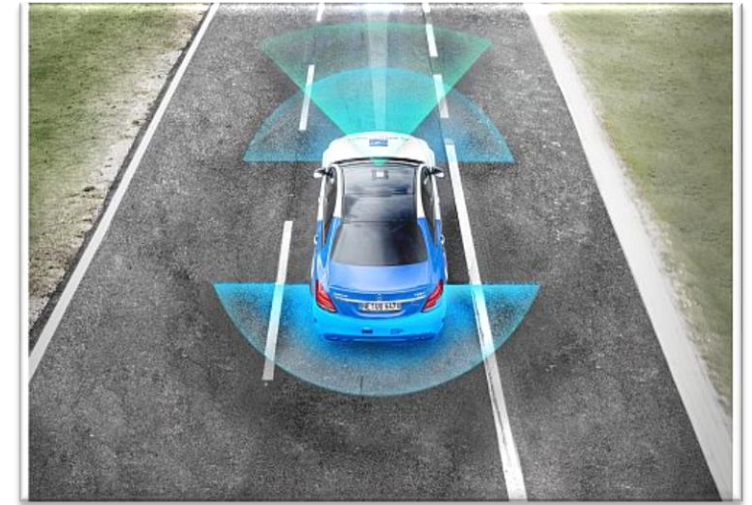
# ADAS/AD Engineering services at a glance



**System Engineering**  
incl. specific function & SW  
development, calibration & testing



**Methods & tools**  
for simulation, testing & validation  
from lab to road, objective  
assessment



**New predictive functions**  
improving vehicle attributes  
e.g. energy / fuel efficiency

For new levels of vehicle comfort, safety and efficiency



# AVL Global Network of Technical Centers



# Facts and Figures AVL Japan



**RESEARCH 10%** of turnover in-house R&D

**Member of AICE**

## STAFF

- **340** employees total
- **75** specialist in powertrain engineering

## JAPAN FOOTPRINT

- 4 engineering locations
- 3 test beds (at JTC)
- Global customer support network



Long Term Cooperation  
Experience with Japanese  
customers

**5** powertrain  
elements

Your  
**local**  
**PARTNER**



# Key Success Factors

- Innovations – State of the art and future technologies
- Communication and understanding
- Reliable partner
- Trust and relationships
- Having a strong local team and local presence







# Thank You



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