

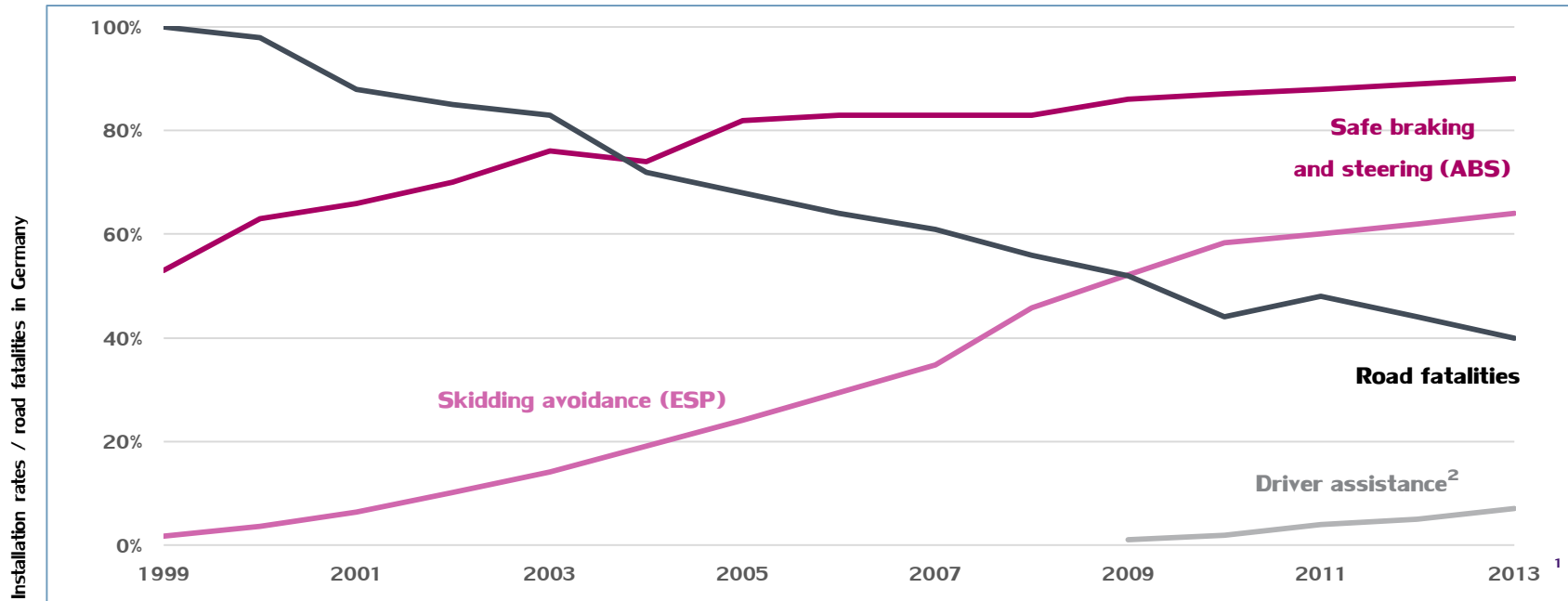
BOSCH

ADVANCED SAFETY SYSTEMS

Road safety – influence of driver assistance

Number of road fatalities reduced by 60% within last 14 years

- ▶ 90% of all car accidents involving injury are caused by human error
- ▶ Introduction of further driver assistance systems will amplify positive trend



Source: Bosch, DAT, BASI. Based on total vehicle fleet.

¹ Figures estimated

² ACC and lane keeping support only

Driver assistance – Assistance functions



Park and maneuver assistance



Travel assistance



Predictive pedestrian protection



Turn and crossing assistance



Driver monitoring



Light and sight assistance



Evasion assistance

Function
cluster



Lane assistance



Predictive emergency braking



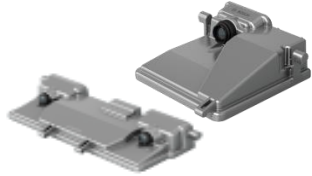
Positioning: Our competence is your success factor



A pioneer in automotive radar technology

More than 35 years experience

First supplier producing more than 1 Million 77GHz radar sensor



Extensive video experience

More than 20 years experience

Bosch 1st supplier w/ Stereo Video as single sensor EU-NCAP – SOP



Expert in system design and sensor data fusion

All technologies and competencies in-house

Fusion systems in series production since 2009

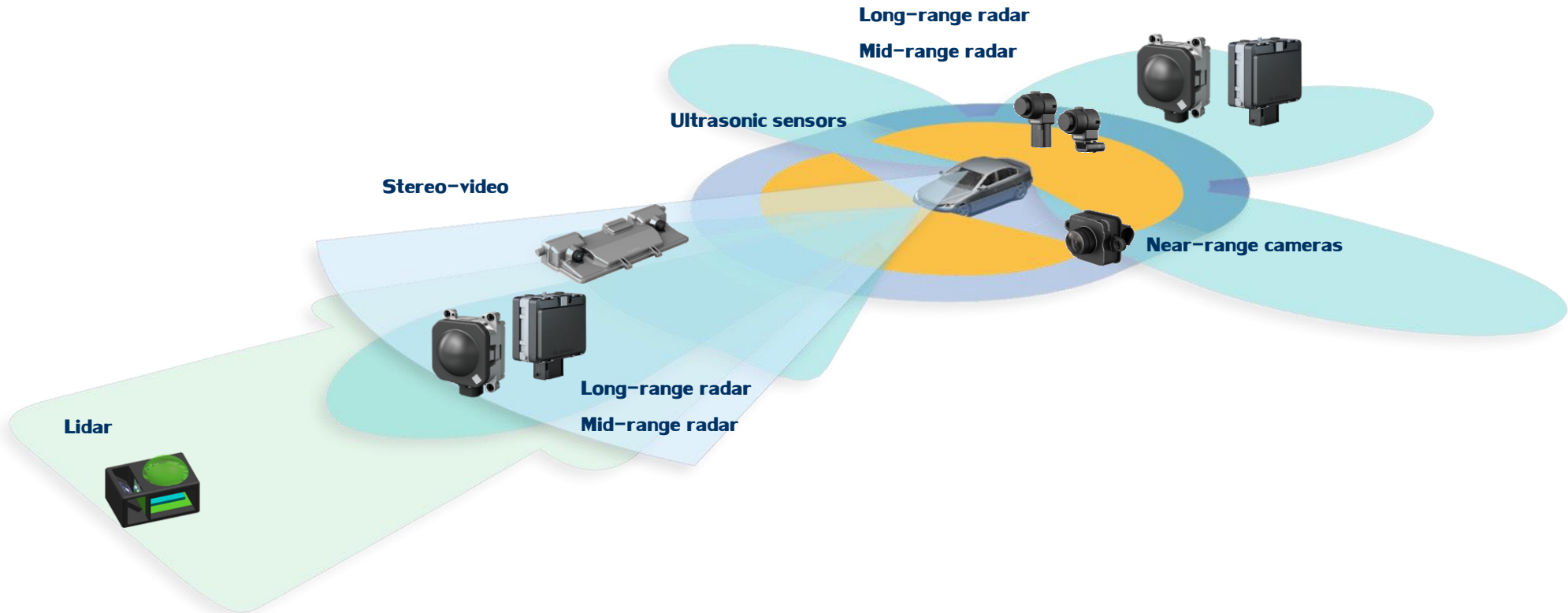


Parking and maneuvering assistance

US market leader, 25 years experience, 250 Mio ultrasonic sensors sold

Successful entry in near range camera biz 2013

Surround sensor portfolio



360° surround sensing by combination of different sensors

- ➔ Long- and mid-range radar prerequisite for driving at higher speed
- ➔ Satisfy reliability requirements by using multiple sensors for each area

Requirements for Automated Driving

Legislation

global standards and clear liability



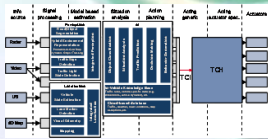
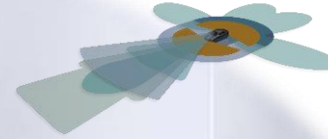
Safety and Security

protect against technical failure and deliberate cyber attacks



Surround Sensing

highly robust in all use cases



System Architecture

redundancies for sensing, ECUs, and actuation (fail operational)



Localisation

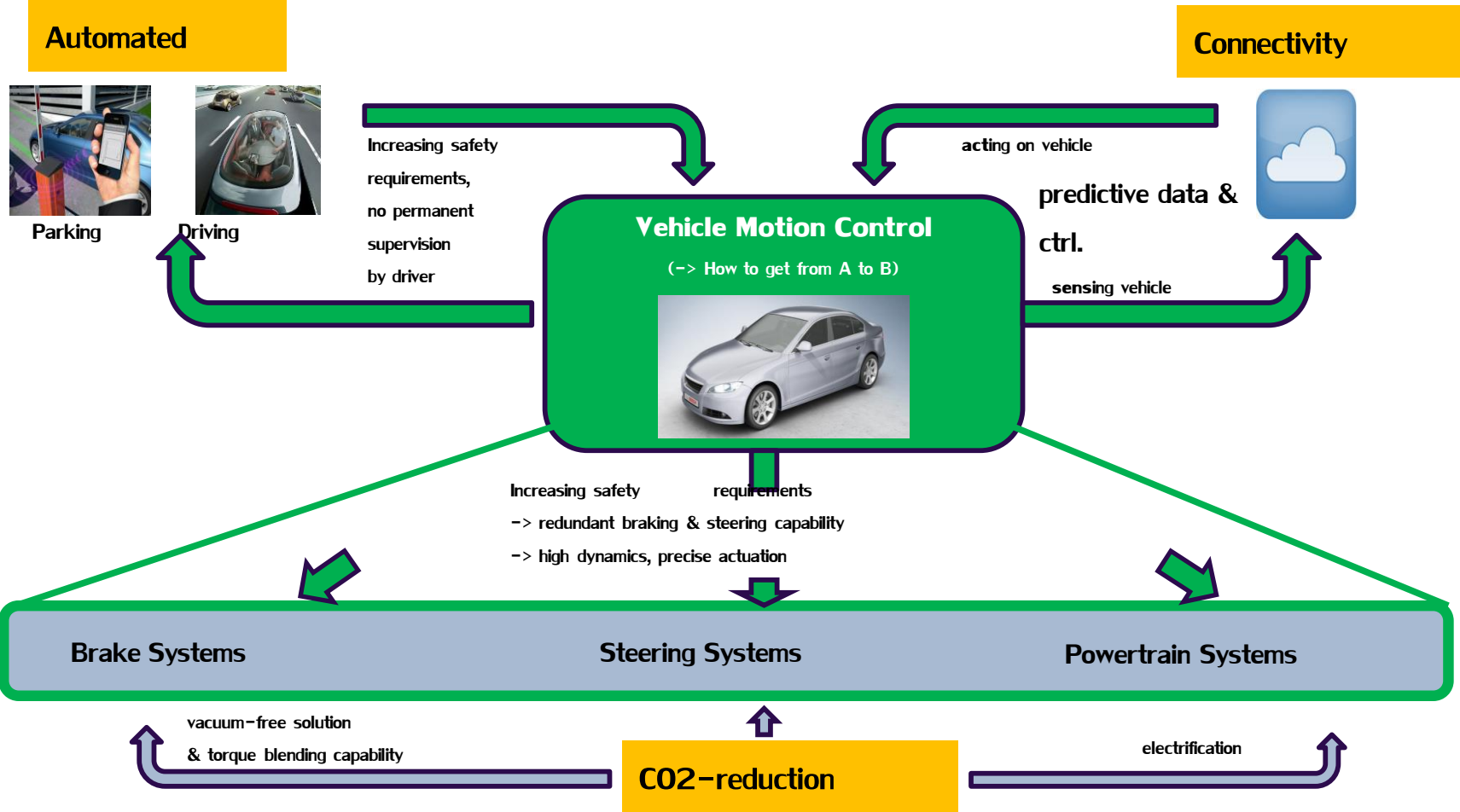
Maps: always precise and up-to-date

System Intelligence

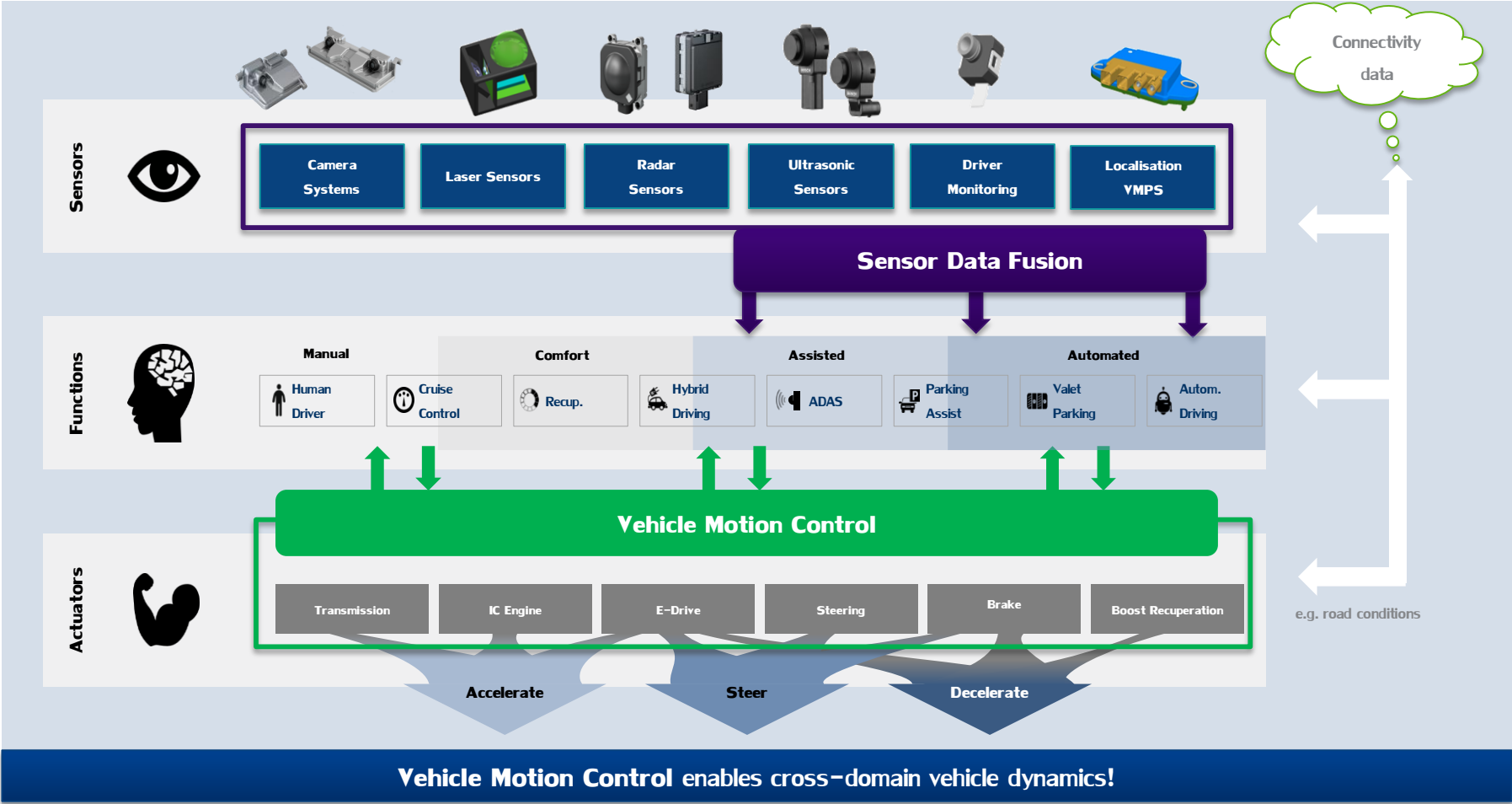
Interpret the situation, plan, decide and execute



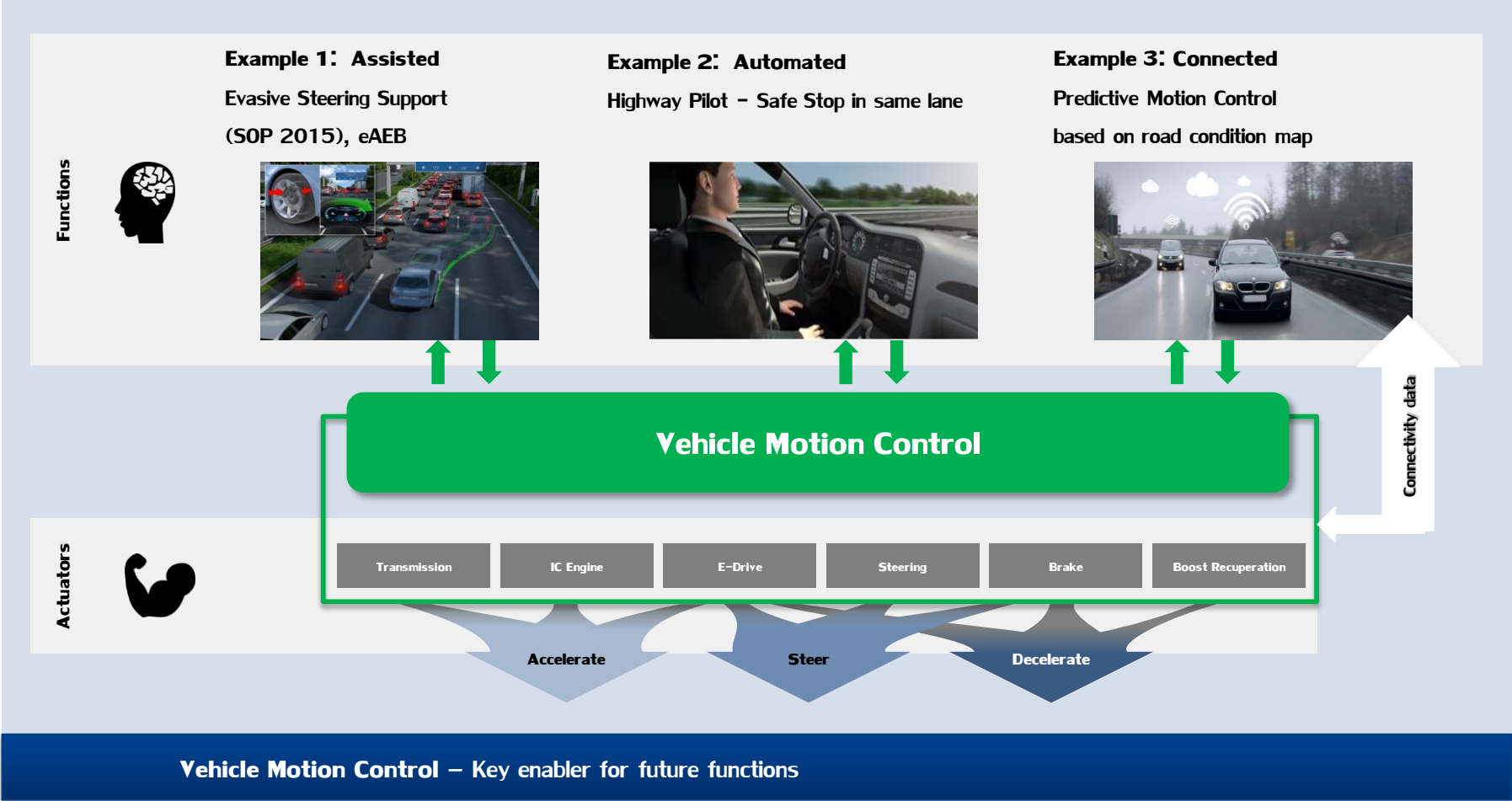
Market Trends and Drivers



Vehicle Motion and Control – System of Systems



Future Cross Domain Functions – Examples





**THANK YOU
FOR YOUR
ATTENTION**