

Electronic Stability Program

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company

history

technic

features

facts & figures

future

summary

company

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summary

biggest automotive supplier worldwide

about 261,300 employees (110,500 in Germany)

headquarters located near Stuttgart

subdivided in 3 business divisions

famous developments: ABS, ASR, ESP

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biggest german car manufacturer

Headquarter is located in Stuttgart

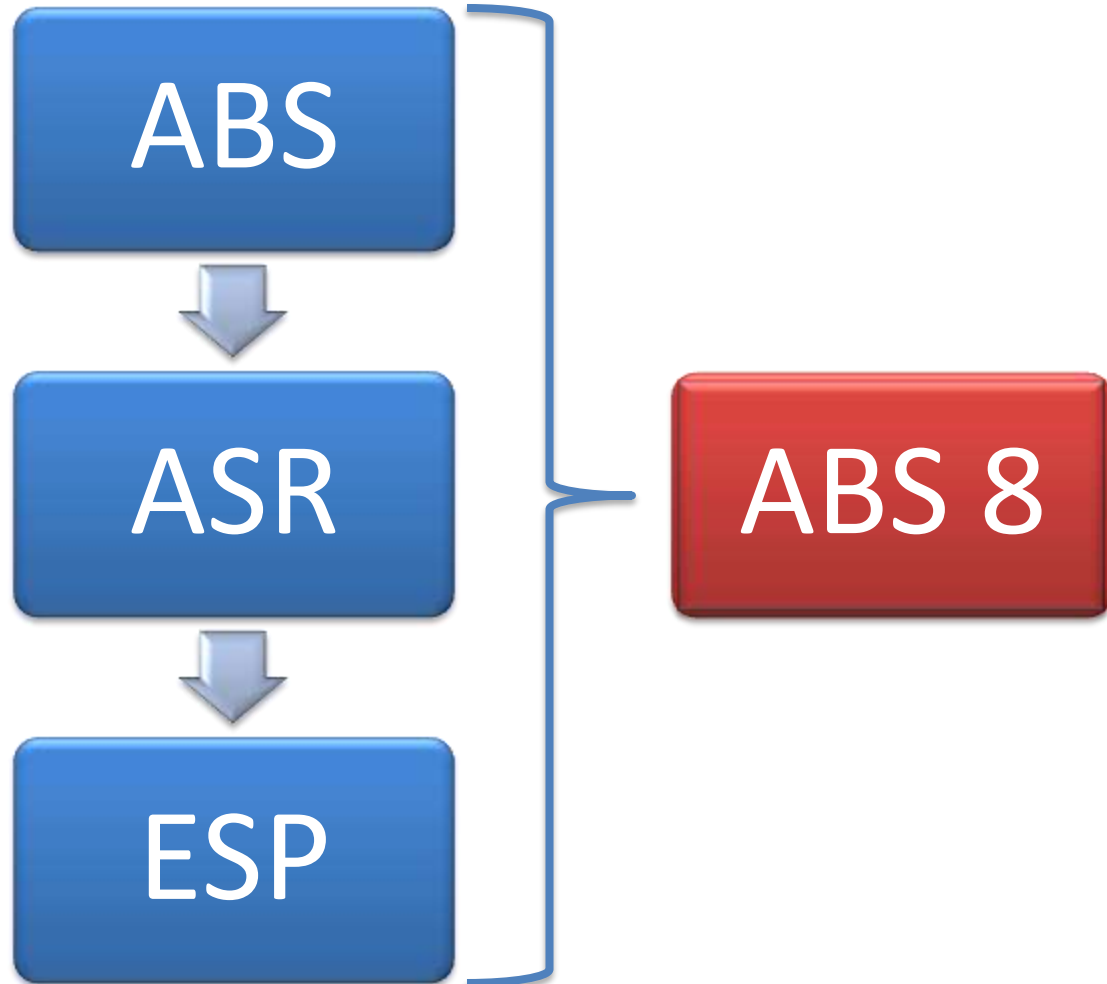
about 360,000 employees

famous brands

cooperation in section of car security with bosch



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1978

- bosch presented first ABS
- daimler s-class - first car with abs

1980

- begin development ASR

1986/87

- series production of ASR in s-classes

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1992

- ABS general standard

1995

- ESP reached maturity phase

1997

- a-class failed elk test

yawing

ESP

company

history

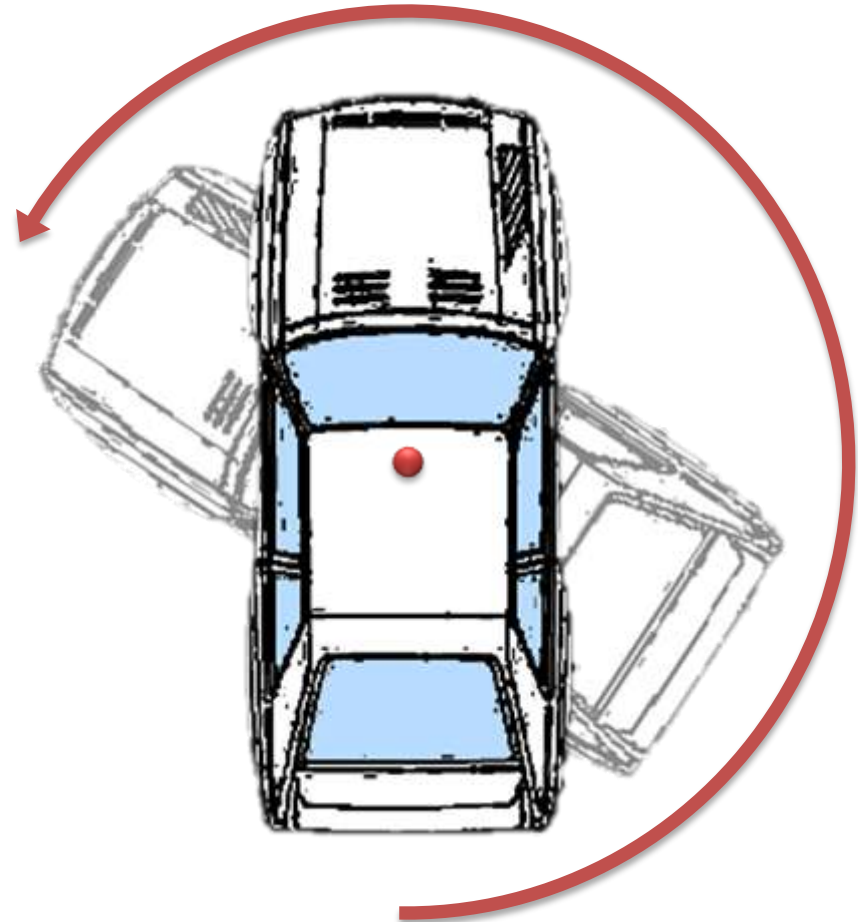
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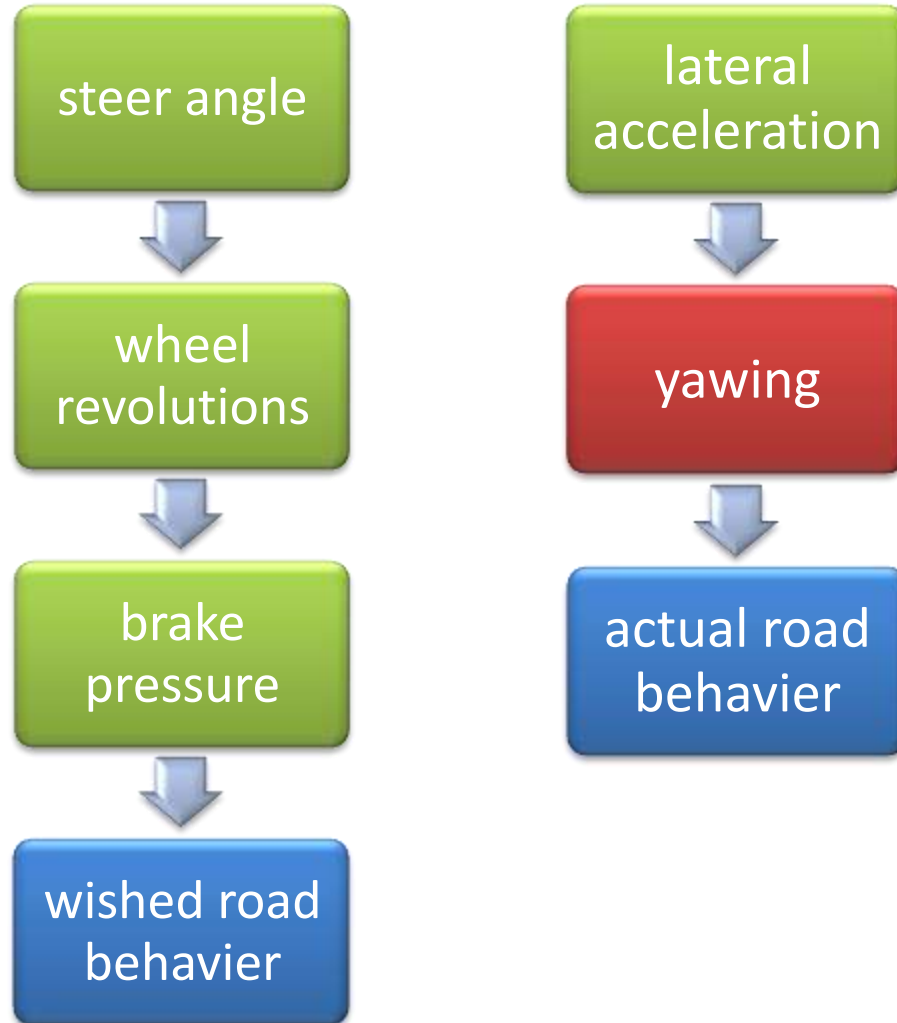
summary



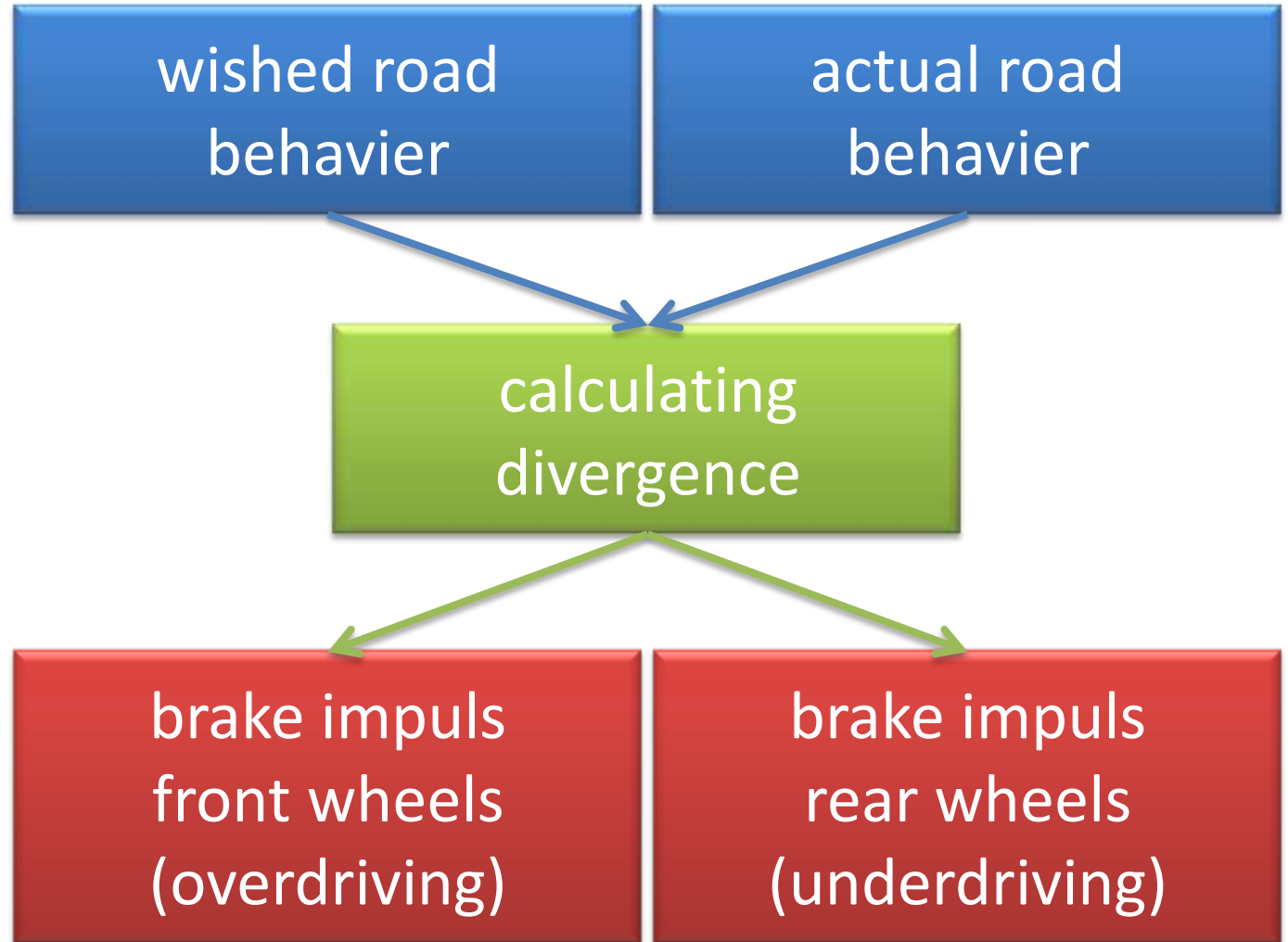
heart of ESP

yaw-sensor

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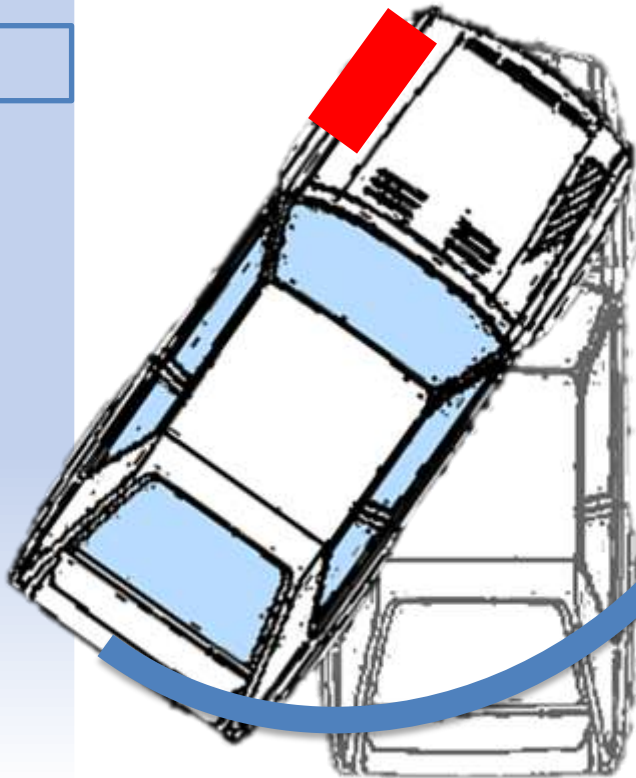
processing unit

calculating
divergence

- 2 CPUs
- each with 56KB memory

check about 150 times per second
CAN-connection for additional infos

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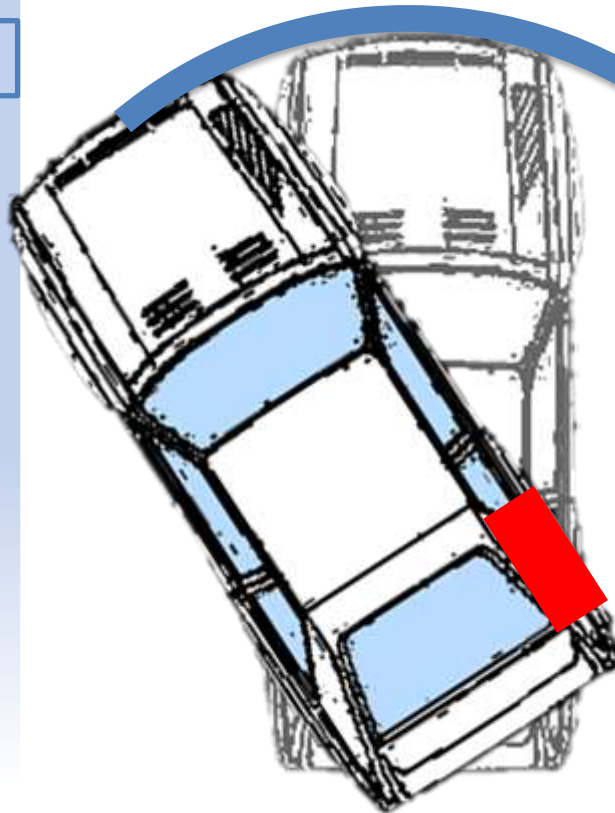


brake impuls
front wheels
(overdriving)

(overdriving)

rear wheels lose
connection to road

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brake impuls
rear wheels
(underdriving)

(underdriving)

front wheels lose
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ways of interference

exactly dosed brake-impulses

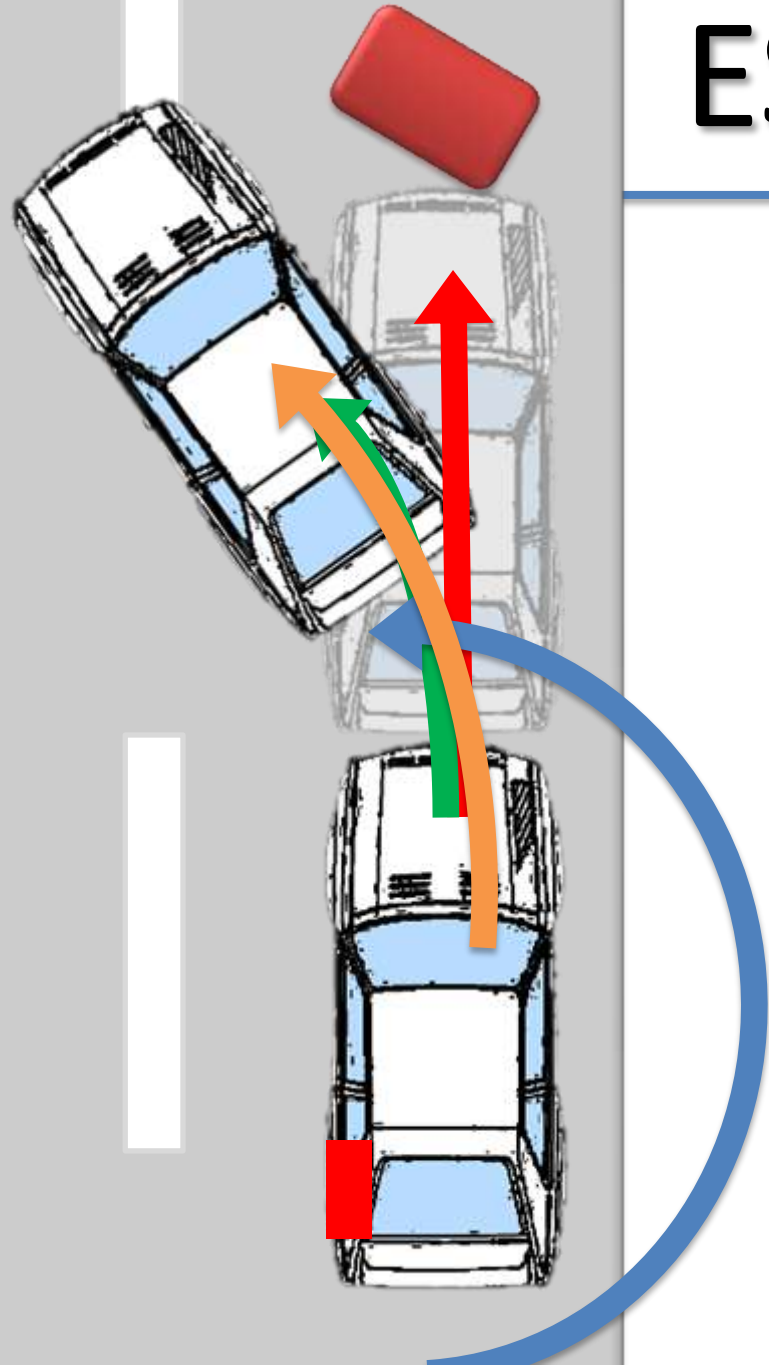
- newest generation up to 200 bar

reduction of engine torque

example

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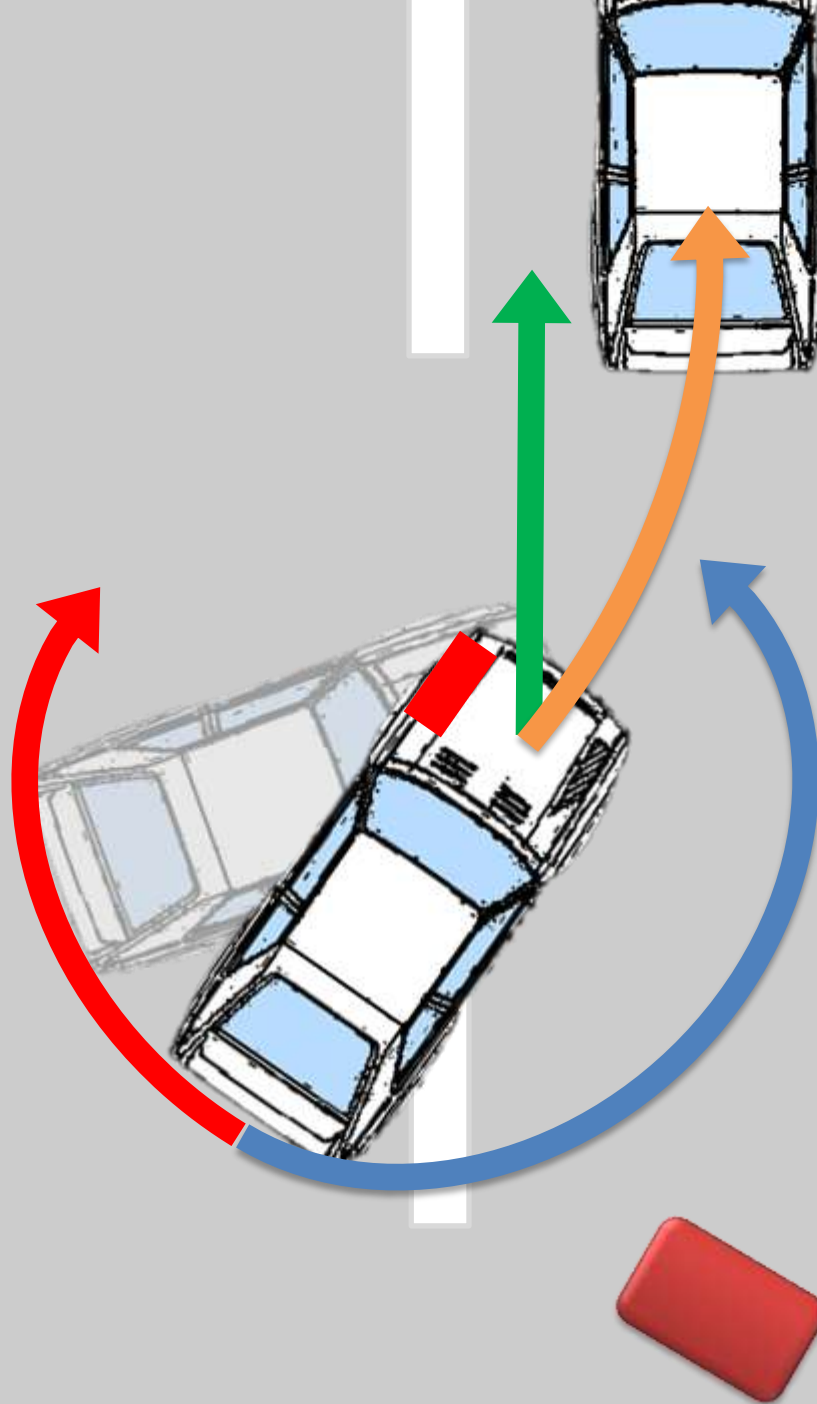
ESP



example

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ESP



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EBV (electronic brake force distribution)

brake readiness

dry braking

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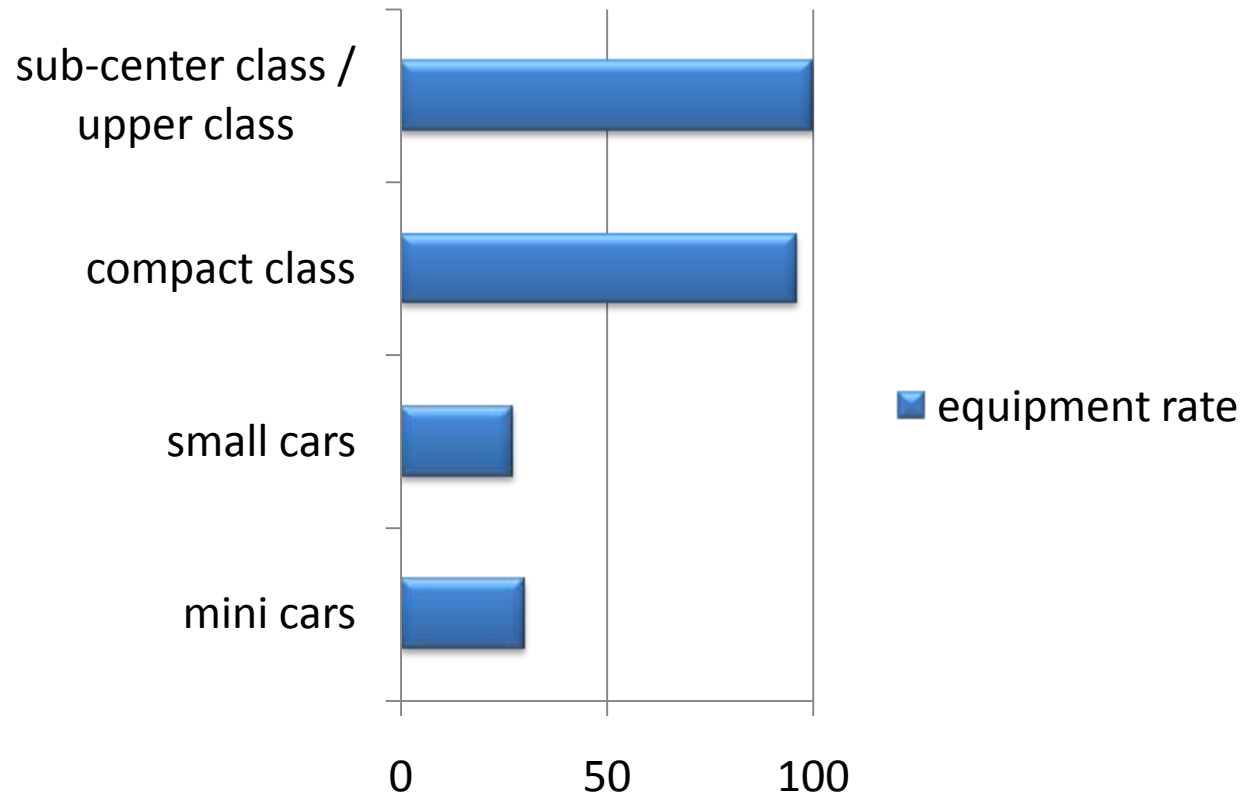
72% of the cars equipped in
germany (2005)

75% of the cars equipped in
germany (first half 2006)

50% of busses equipped (2005)

5% of HGVs equipped (2005)

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“It is proofed that esp reduces horrible car accidents dramatically.”

mercedes study: horrible car accidents
decreases by **15%**

vw study: would all cars are equiped with
esp the figure of road casualty could be
reduced by **1/4**

future

ESP

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faster calculating power of the system / improved sensores

ESP2 - steering interference

from mechanic to electricity

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ESP cant drive your car,
but it can help you to drive it!

✓ never drive without ESP