

INTRODUCTION TO BOSCH TWO WHEELER & POWERSPORTS ORGANISATION

ETSI STF 565 VULNERABLE ROAD USERS (VRUS) INPUT COLLECTION MEETING

ETSI – SOPHIA – ANTIPOLIS
MARCH 6TH 2019

Two-Wheeler & Powersports

Riding innovation



Two-Wheeler & Powersports organization

...offering a global footprint and a single contact to customers.

Our headquarter is located in Japan...



Global Two-Wheeler & Powersports development organization

Development hubs located close to key markets



Farmington, AMERICA

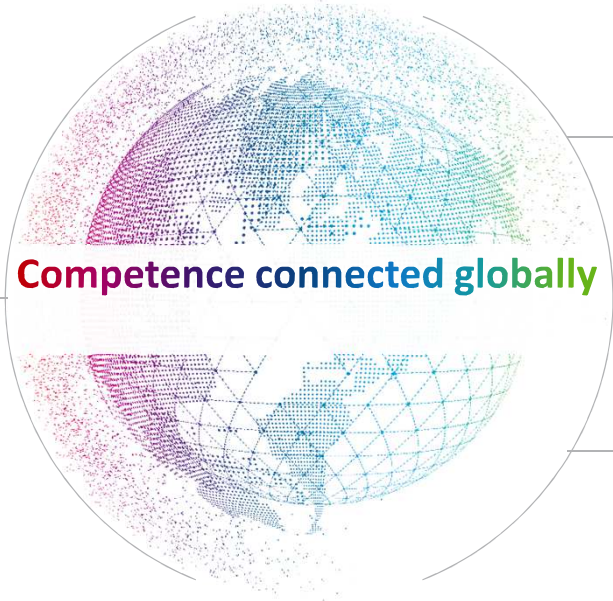
- Powersports

Powertrain
(High-end)



Germany, EUROPE

Connectivity
Electrification



Suzhou, CHINA

Electrification



Yokohama, JAPAN

- Cross-business unit system engineering
- Advanced development

Assistance

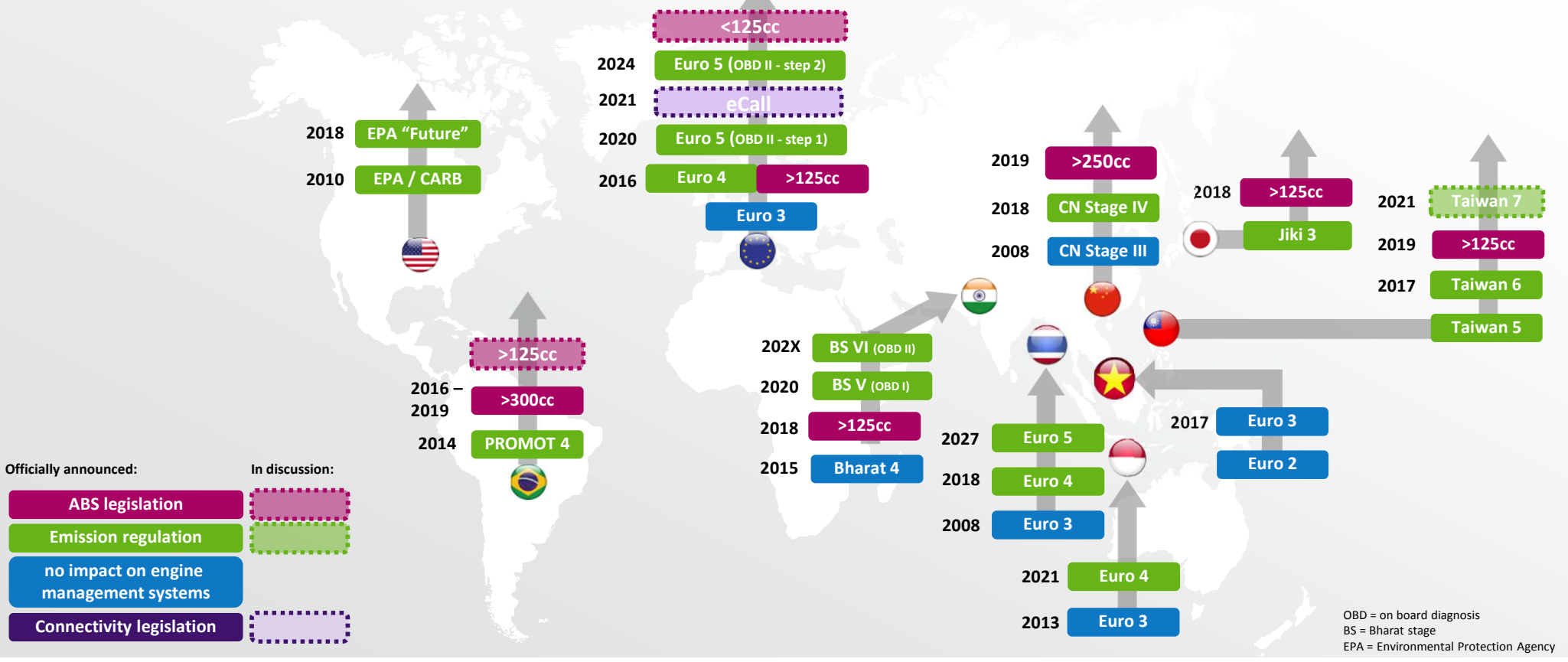


Bangalore, INDIA

Powertrain
(1 cylinder)

Global standards for two-wheeler

Global situation on safety, emission and connectivity regulations



Global standards for two-wheeler

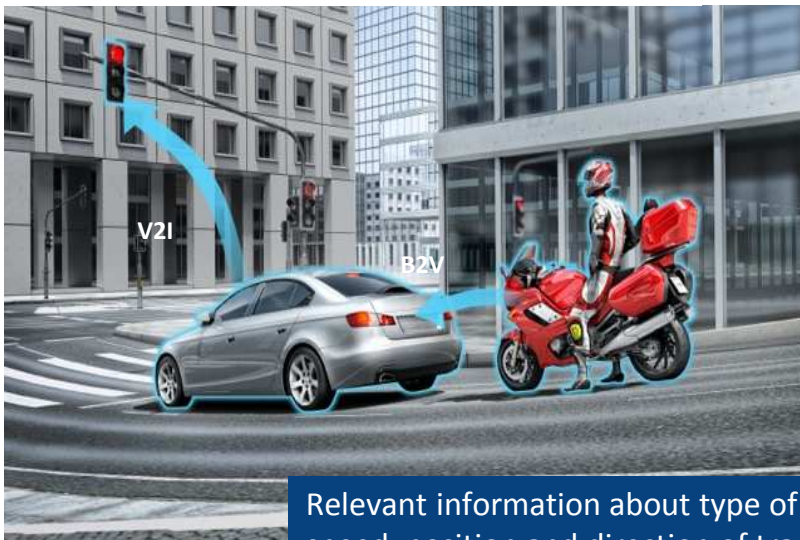
Contribution to standardization processes – M.Moerbe

- **DIN**
 - **NA 052-00-71-15 GAK "Gemeinschaftsarbeitskreis NAAutomobil/DKE, e-Call"**
 - **Leader of GAK**
 - **NA 052-00-71-17 GAK "Urbane ITS"**
 - **Expert**
- **CEN**
 - **TC 278 WG15**
 - **TC 278 WG17**
- **ISO**
 - **TC 204 WG19**
- **Bosch**
 - **GA133 Koordinator for 2WP standardization**

B2X connectivity

Technical overview

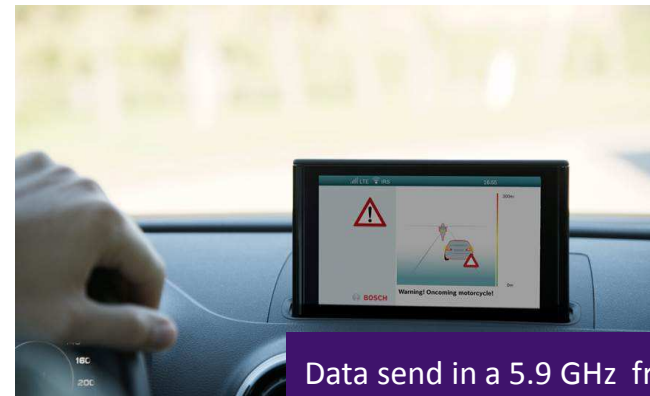
- ▶ Bike-to-vehicle (B2V)
- ▶ Bike-to-infrastructure (B2I)
- ▶ Bike-to-pedestrian (B2P)



Relevant information about type of vehicle, speed, position and direction of travel is sent up to 10 times per second.



Acoustic and visible warning messages are generated based on critical situations.



Data send in a 5.9 GHz frequency band based on the ITS G5 standard.

B2X connectivity

Some questions

- Is a motorcycle rider standing next to his bike a pedestrian?
- Is a motorcycle or scooter coming from the sidewalk a bicycle?
- Is a pedestrian jumping into a car still a pedestrian?
-
- *We are looking into the grey zones to find the right solutions*

THANK
YOU