NORTHEAST AUTONOMOUS AND CONNECTED VEHICLE SUMMIT

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BMW has always been about the thrill of putting people in motion, and we put the same ingenuity, expertise, and resources to the service of moving society forward. MOVEMENT™BMW is driving innovation on sustainability and mobility, investing in STEM education and safety training, all while giving back to the communities in which we operate.

This is BMW and we’re changing the way the world moves.
We are Number ONE.

We inspire people on the move: We shape tomorrow’s individual premium mobility.
ACES - FUTURE OF MOBILITY.
MOBILITY SERVICES.

- Options for strategic development.
- 100 million active customers by 2025.
- A complete, all-inclusive ecosystem for our customers.
- Agreement with Daimler AG to form Mobility Services Joint Venture.*

*Subject to approval by relevant authorities.
BMW GROUP’S ELECTRIFICATION PATHWAY.

I. PIONEERING
- Building-up expertise
- Technology innovation
- Project i

II. ELECTRIFICATION OF CORE PORTFOLIO
- Roll-out BMW i Performance
- Upgrade BMW i3
- LCI BMW i3, new BMW i3s
- MINI Electric (PHEV)
- MINI BEV
- BMW iX3

III. SCALABILITY AND FLEXIBILITY
- BMW iNext
- BMW i Vision Dynamics/BMW i4
OUR FUTURE IS ELECTRIC.
AMBITIOUS TARGETS FOR SALES OF ELECTRIFIED VEHICLES.

ELECTRIFIED VEHICLES

- 311 (2013)
- 17,800 (2014)
- 32,000 (2015)
- 62,000 (2016)
- 103,000 (2017)
- >140,000 (2018)

500,000
BY THE END OF 2019
ON THE ROAD

YTD-04/2018
36,692
ELECTRIFIED VEHICLES SOLD

Electrified vehicles = Battery electric vehicles & Plug-in Hybrid vehicles
AUTONOMOUS DRIVING IS A COMPETITION BETWEEN VERY DIFFERENT PLAYERS.
FIRST IDEAS BEING IMPLEMENTED MORE THAN TEN YEARS AGO.

- BMW Track Trainer (2006).
- Emergency stop assistant (2009).
- Highly automated driving on the motorway (Gen1: 2011; Gen2: 2014).
- Highly automated driving at the limits of vehicle dynamics (2014).
- Fully automated remote valet parking (2015).
DRIVER ASSISTANCE IN THE NEW BMW 5 SERIES: DRIVING COMFORT, DRIVING SAFETY, PARKING

- Top View Remote
- Lane keeping assistant with active side collision protection
- Active cruise control with Stop&Go function
- Rear collision prevention
- Crossroad Assist
- 3D View
- Steering and lane control assistant
- Parking assistant
- Active Park Distance Control
- BMW Selective Beam
- Remote Control Parking
- Night Vision
- Lateral parking aid
- Distance information
- Lane departure warning
- Wrong Way Assist
- Lane change warning
- Speed Limit Assist
- Approach control warning with braking function
- Speed limit and No Pass information
- Panorama View
- Speed Limit Device

Automated driving, Dirk Wisselmann, BMW Group.
END-TO-END ARCHITECTURE FOR AUTONOMOUS DRIVING.
FOCUST: ENVIRONMENT MODEL, DATA CENTER AND DRIVING POLICY.
CHALLENGE OF VALIDATION.
STATISTICS MILEAGE AND ACCIDENTS (GERMANY).

average annual mileage: 0.013Mio km
material damage: 0.3Mio km

average mileage lifetime: 0.7Mio km (~50 years x 13tstd km)
slightly personal damage: 2.2Mio km
severe personal damage: 11Mio km

fatal accident: 226Mio km

near accidents (schematic)

Destatis 2016:
726 Mrd km mileage
13341 km annual mileage
2277182 material damages
329240 slightly injured
67426 severely injured
3206 fatal
SAFETY FIRST: MORE THAN 240 MILLIONS OF KILOMETERS WITHOUT ACCIDENTS TO BE COMPLETED.

DRIVING SIMULATION AND SW IN THE LOOP.

REPRODUCIBLE CUSTOMER USE CASES → REQUIRED >95%

PROTOTYPE VEHICLE BUILD UP.

FAD: 5TB/H → 40TB/DAY 8H/5 DAY RUNNING
HAD: 2TB/H → 16TB/DAY 8H/5 DAY RUNNING

DATA CENTER
Co-Location in Unterschleißheim

100 PB Storage 200 PB Storage 500 PB Storage

12/2017 07/2019 07/2025
EXCITING TIMES AHEAD – THANK YOU FOR YOUR INTEREST.