

Transforming Software Development for Future Autonomous, Electrified and Connected Commercial Vehicles Dr. Mouham Tanimou Chief Software Engineer Dr. Micha Muenzenmay Director System Engineering Systems Engineering Commercial Vehicles & Off-Road

# Transforming Software Development Challenges in Commercial Vehicles and Off-Road

#### Automotive



#### versus

- High number of applications and variants / specialized use-cases
- Many small players
- Investment good  $\rightarrow$  TCO
- Product lifecycle 30 years+
- Staged assembly
- Reselling 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> life
- Changing area of use over life
- Long useful life 45.000 h
- High uptime requirements

#### common

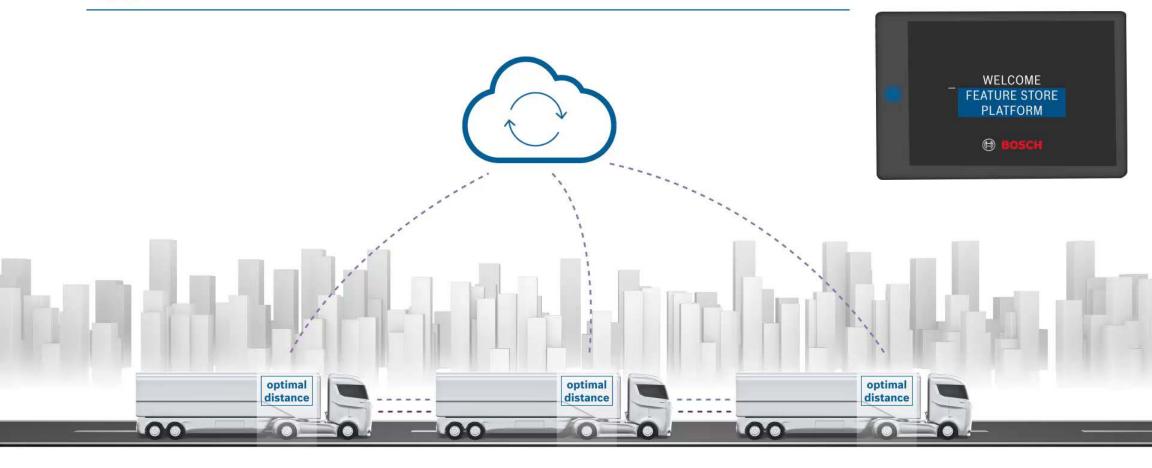
- High innovation in automated & connected
- Cross domain value chains
- Different heart-beats across domains





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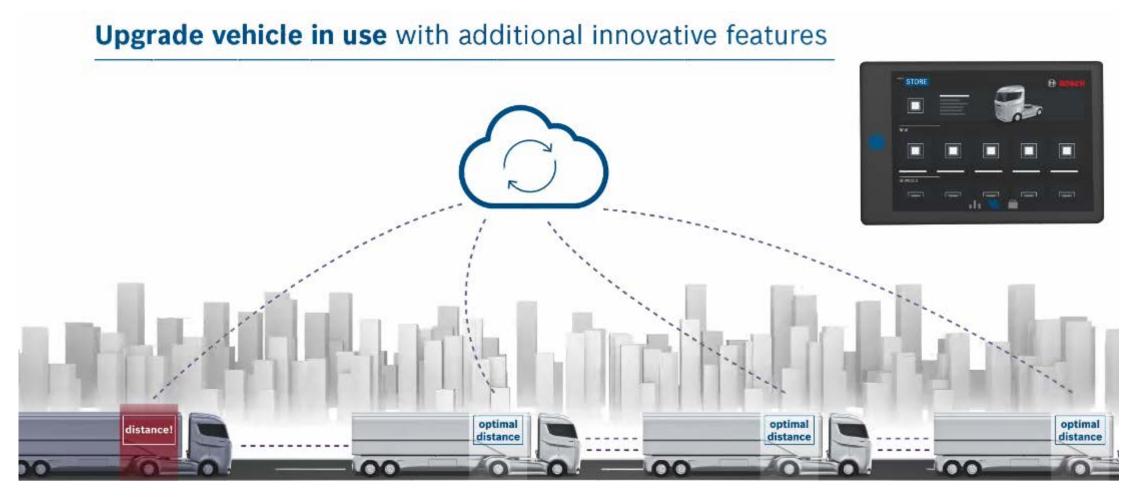
Upgrade vehicle in use with additional innovative features



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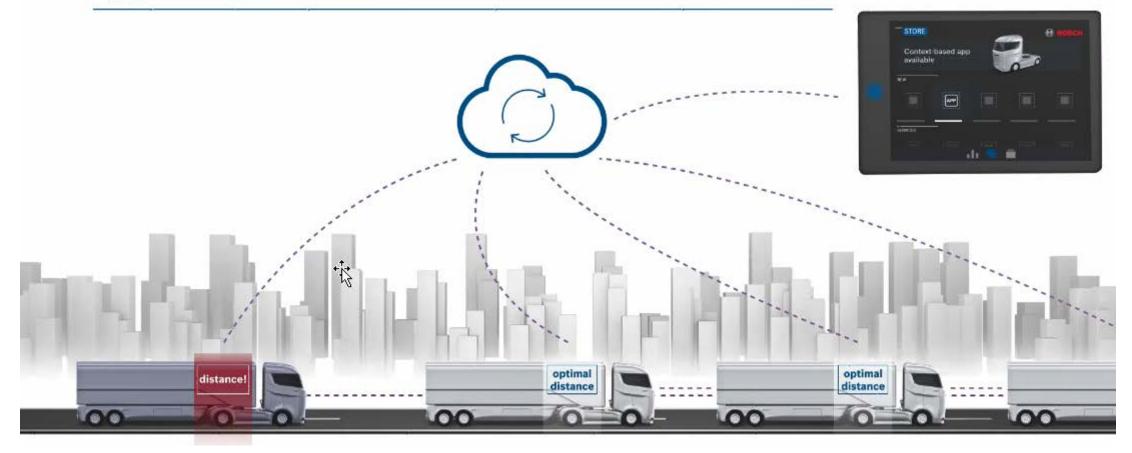


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Upgrade vehicle in use with additional innovative features



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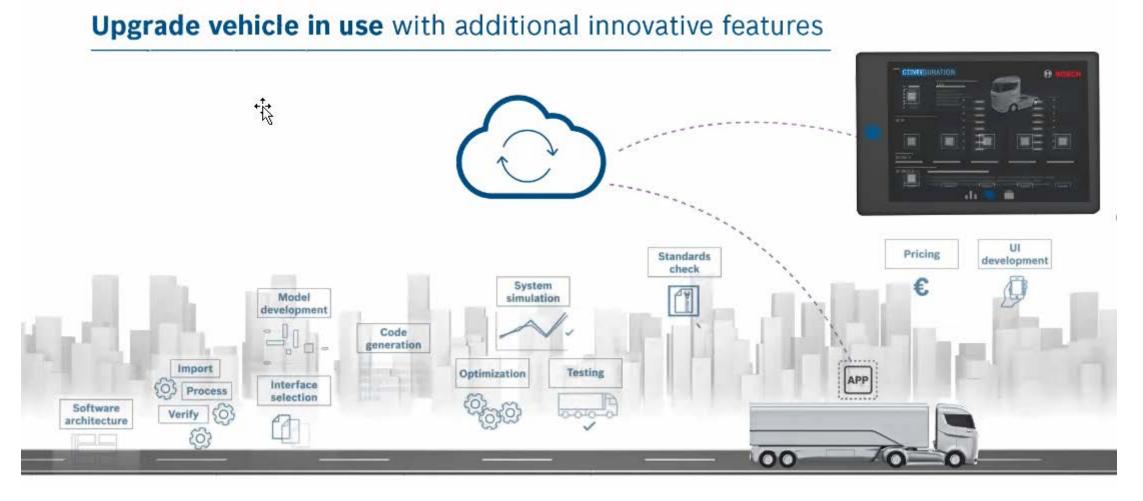
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#### Upgrade vehicle in use with additional innovative features



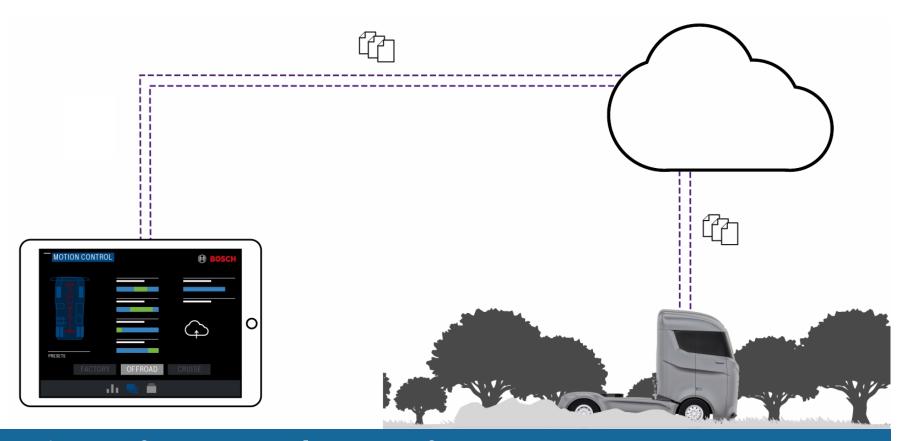
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