

INNOVATION IN LOCOMOTIVES

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Summary

- Introduction - State-of-the-Art
 - Introduction to TRAXX 3 MS locomotive,
 - the newest and most powerful MS BoBo loco on the European Market (pulling capability)
 - with Last mile propulsion, Eco Modes, CBM, MDBF 600'000km/loco/year, etc.
- Performance - At the limit
 - More power
 - traction force at the physical limit, slip-slide control – never been so performant
 - efficiency reaching highest level,
 - Question: really necessary?
- Digitalization - Efficiency²
 - Predictive M
 - Digital maintenance (paperless, automated)
 - IoT - big data
 - Digital twin
- Automation - The next Revolution
 - GoA2 already existing
 - ATO over ETCS
 - Remote control
 - ATO while driving
 - ATO in yard operations / shunting / Last mile
 - Automated train preparation and stabling
 - GoA4 in only a few years
- Locomotives - Quo Vadis?
 - Changing market requirements (e.g. same day delivery), fierce competition on the road
 - 15 years life time
 - Cargo sprinter
 - Self propelled cargo wagons (the truck on rail)
 - Do we need a locomotive in future?

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