

XIII FORUM ECONOMICO ITALO-TEDESCO

# 500 AI

500 YEARS OF ARTIFICIAL INTELLIGENCE



## IL FUTURO DEI TRASPORTI SECONDO MAN: ELETTROMOBILITA', AUTOMAZIONE, DIGITALIZZAZIONE

**Alessandro Smania**

Direttore marketing e comunicazione  
MAN Truck & Bus Italia

# MAN Truck & Bus

## Alessandro Smania



# 1. eMOBILITY





# EASING THE WAY TO ZERO EMISSIONS

## MAN Lion's City E

- MAN opts for central motor and depot charging
- Reliable range of 200 km (and up to 270 km under favorable conditions) over entire battery life
- mass production to start in the second half of 2020





# THE eMOBILITY SOLUTION FOR THE VAN SEGMENT

## MAN eTGE

Electrotechnology in MAN eTGE is refined, reliable and easy to maintain

MAN eTGE 4.140 tailored precisely to requirements in specific e-mobility applications (last mile)

Charging is performed at an AC wallbox, reaching 7,2 kW in around 5 and-a-half hours

11 m<sup>3</sup> of volume and a payload of up to 1,75 t

Range of up to 160 km



# eMOBILITY FOR DISTRIBUTOR LOGISTICS

## eTGM CONCEPT TRUCK

### MAN eTGM 26 t electric truck for urban goods transport

- With a range of up to 200 km suitable for the urban goods transport
- Since September 2018 member companies of the Austrian company consortium CNL are testing nine trucks in real distributor logistics with various bodies
- Mass production of electric trucks starts 2022





# ELECTRIC TRUCK CONCEPT FOR EMISSION-FREE CITY DELIVERY

MAN Cite

The new electric truck concept sets the benchmark in work place ergonomics, safety and sustainability in city distribution transport

The lithium ion batteries are located under the vehicle frame. Their capacity enable a range of a day tour in city delivery traffic (100 km)

Ergonomic design with low access, continuous level driver cab floor and easy accessibility

360° birds-eye view camera system

The very low window surfaces all-round provide a maximum direct view to the outside





# TRANSPORT SOLUTIONS

## ALTERNATIVE DRIVES

### **New consulting service from MAN: Transport Solutions**

- Specialist consultant team for alternative drive, including zero-emission solutions
- Customised consulting for transport companies, local authorities and fleet operators
- Development of intelligent and tailored transport solutions
- Support with vehicle design, operation, infrastructure, as well as service and maintenance



# 2. AUTOMATION



# CONNECTED DRIVING FOR MORE SAFETY

## PLATOONING



- At least two vehicle travel in convoy using technical driver assistance and control systems
- Spacing between the vehicles is reduced to 10-15 m
- Increases road safety reducing the risk of rear-end collisions
- Fuel savings and reductions in CO<sub>2</sub> emissions till 10%
- Monitoring of man-machine interface



# DRIVERLESS SAFETY VEHICLE FOR MOTORWAYS ROADWORKS

aFAS research project



## Concept for autonomous driving

- Test vehicle MAN TGM 18.340 is fitted out with cameras and radar systems to provide all-round visibility and sensing, as well as various assistance systems
- Truck steers, accelerates and brakes autonomously, following the vehicle ahead at a defined distance
- Helps to reduce collisions with safety vehicles protecting the rear end of rolling roadworks
- Concept awarded at IAA 2018 with the “Truck Innovation Award”



# DRIVERLESS VEHICLE FOR HARBOR CONTAINER HANDLING

## Hamburg TruckPilot project



### A cooperation MAN Truck & Bus - HHLA

- Target: to analyze and verify the requirements for the integration of autonomous trucks in the container handling process
- Use of two driverless vehicles with all technical driver assistance and control systems
- Test phase between 01/2019 and 06/2020



# 3. DIGITALIZATION





# DIGITAL SERVICES

## MAN DigitalServices

- Through MAN DigitalServices fleet operators can make their transport business more simply and more profitably
- Information as fuel consumption, oil level, tire pressure, positioning data and many other are gathered
- These information are used in order to offer to fleet operators services as proactive maintenance management or personalised driver training





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## Thanks for the attention



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