



Italo – der Hochgeschwindigkeitszug AGV von Alstom

Allianz pro Schiene Fördertreffen TH Wildau, 13. Juni 2013
Vortrag von Dr. Martin Lange, Alstom

TRANSPORT

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Alstom worldwide - Four main activities

92,600 employees in 100 countries



Thermal Power sector
Equipment & services for
power generation



Renewable Power sector
Equipment & services for
power generation



Grid sector
Equipment & services for
power transmission



Transport sector
Equipment & services
for rail transport

AGV ".italo" designed for NTV

More than a train: A SERVICE

25 AGV (+ 10 options): start of operation 2012

+ 30 years of maintenance



Main characteristics

Length : 200 m
Car number: 11
Passengers: 449 + 2 WCU seats
Commercial speed: 300 km/h
Voltage: 25 kV 50 Hz / 3 kV

Articulated trainset
Distributed motorisation
Bogies : 5 motors , 7 trailers
Power : 7,6 MW
ERTMS L1&L2, SCMT



AGV ".italo" designed for NTV

Developed to be the leader in operation

Reducing operating costs

Less bogies than conventional trains

15% reduction in maintenance costs

Specific wheel design

15% more lifetime than other trains

Modularity of trainsets

**Fine-tuning for trains' circulation,
train fleets and railway hubs**



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AGV ".italo" designed for NTV

Sustainability 360°

Reducing impact on the environment



70 tonnes less than competitor models,
improved aerodynamics and articulated

>10% reduction in energy consumption



98% of easily recyclable materials

Aluminium, steel, copper and glass

Able to produce electricity when braking

Up to 8 MW of power feedback into the grid



Aero-acoustics to reduce noise

Same noise at 360kph than others at 300kph

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Interior flexibility

11 cars provide 11 different atmospheres

- 4 seating accommodations
- Car with / without galley
- Car with / without stand-up area
- Car with / without screens on ceiling
- One car fitted for RMP
- Car with / without food / drink dispensers
- Bar replaced by seat-service and self dispensers



AGV ".italo" designed for NTV

Fitting in Club ambience



- Leather covered seats
- Very high comfort level
- 1 m seat pitch
- Individual video screens in armrests
- High level of operation service
- Club Compartments with lockers
- WIFI Internet access



Passenger information solutions

Fully Internet fitted

- Fully internet fitted
- Wifi in all cars
- Roof satellite antenna
- GSM repeaters
- External Internet & local Intranet server
- Cooperation with local phone provider

→ Care of passengers equipped with their own device



The partnership

Alstom high speed trains chosen by the private operators

- Low and credible LCC
- Proven technology and wide return of experience
- Rolling stock is part of a complete SERVICE
- Develop close partnership with the operator
- Understand business model and provide the tool



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AGV and NTV achievements

AGV .italo among winners of **Design Award 2013**, by British magazine Wallpaper*, within the category "**Life enhancer of the year**", the section dedicated to projects that make life better.



www.alstom.com/transport

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