RAIL: The backbone of Sustainable Transport

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UNIFE – the European Rail Industry

UNIFE - the European Rail (Supply) Industry

- ***Mission: Promote rail market growth for sustainable mobility***

- **Members**
  - Full members: 81 of the largest and medium-sized companies in the rail supply sector
  - Associated members: 16 National Associations, EFRTC and UNISIG

- **UNIFE members supply more than 50% of the worldwide production of rail equipment and services.** ***(source: UNIFE)***

- ***Employs 400.000 people world wide*** ***(source: UNIFE)***

- ***Invests 1 billion euro in R&D each year*** ***(source: ERRAC)***

Sustainable Transport on UN agenda

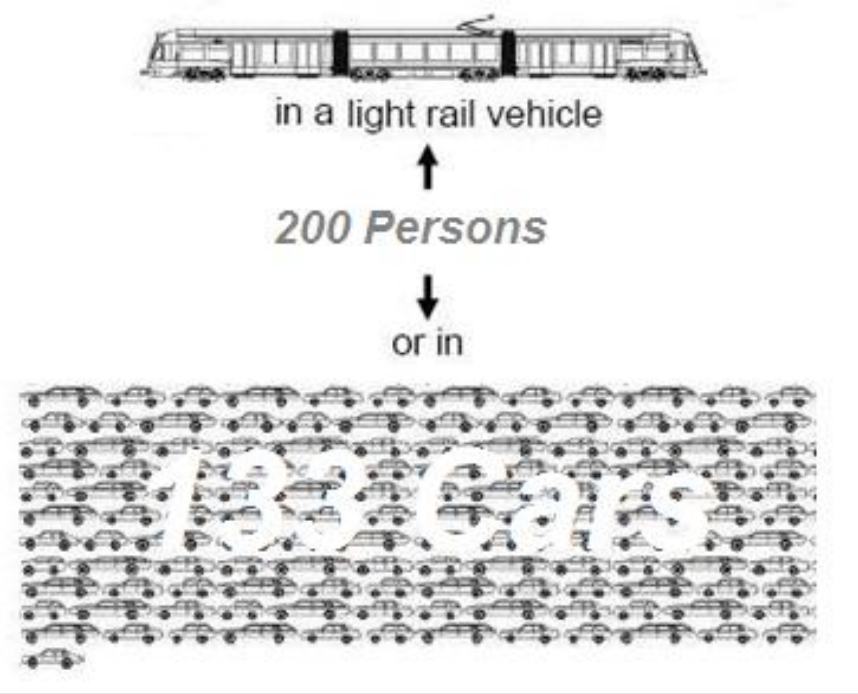
- **Transport one of 6 building blocks in UN post-2015 framework for sustainable development**
- **UN Working Group now defining how to mobilise stakeholder input**
- **“The Future We Want” :**

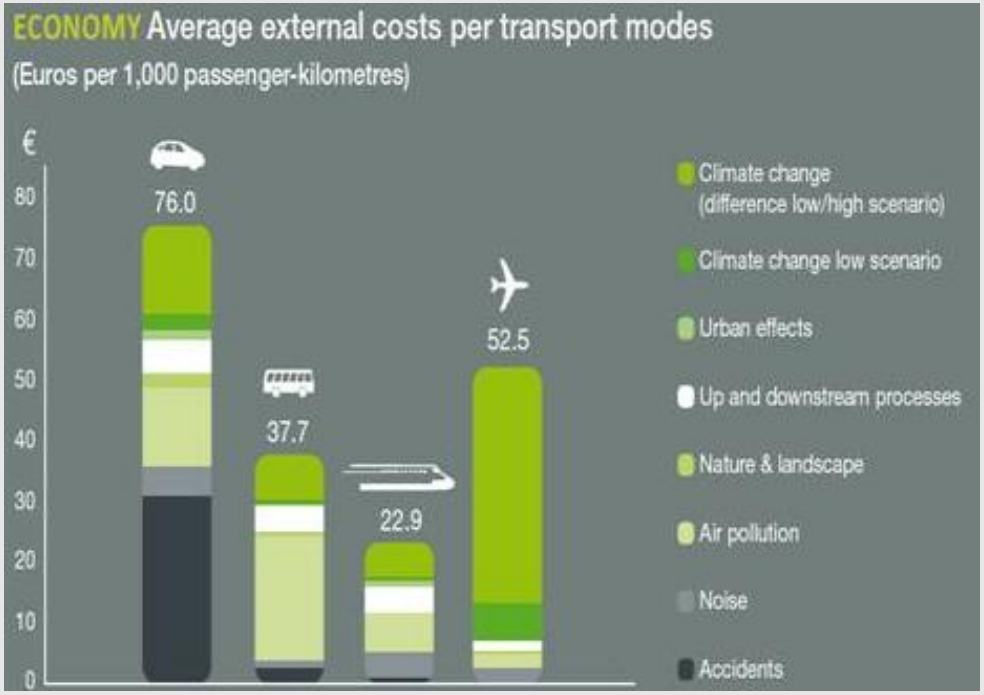
  We support the development of sustainable transport systems, including energy-efficient multimodal transport systems, notably public mass transportation systems…

- **MDBs announced at Rio+20 $175bn investment in sustainable transport**

Role of Rail in co-modality

Due to its capacity and speed, rail transport is ideal solution for long distance travel and avoiding congestion in urban areas





Source : UIC

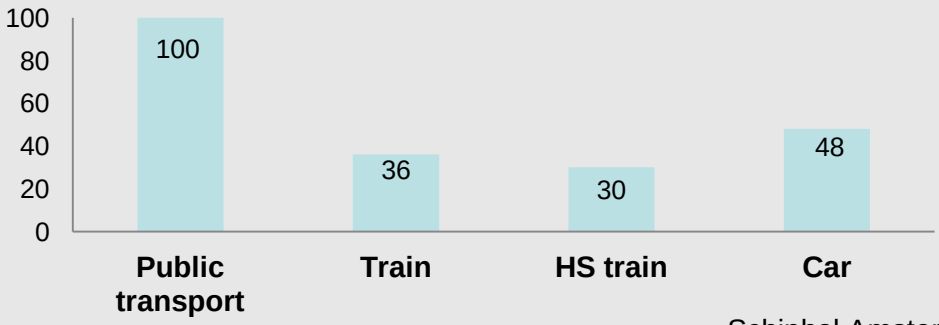
Rail as truly sustainable transport

Less energy consumption	Less CO2 emissions	Less noise emissions	Less impact on landscape
			
HS & VHS Trains: 5 times less energy consumption than planes per passenger	Metro: 7 times less than a car per passenger	Citadis tram: Equivalent noise to a car; hardly audible in automotive traffic	Citadis tram: Full integration **in urban landscape** Catenary-less solutions preserve city centres

High Speed Trains to Airports

Rail should be the preferred solution for travel to and from airports

Travel time by Transport modes (%)



Schiphol Amsterdam

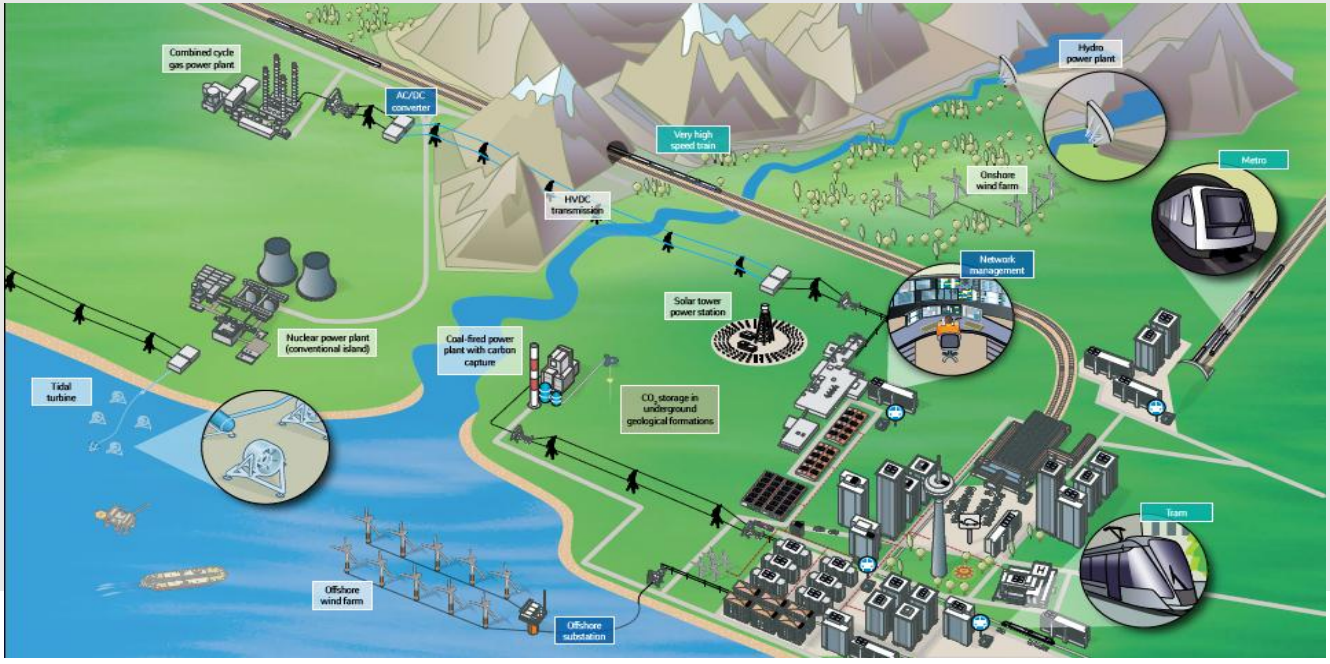
AGV, a future solution for HS:

- Lower energy consumption
- Lower maintenance costs

Rail integrated in eco-cities

Rail has a central role to play in development of smart eco-cities

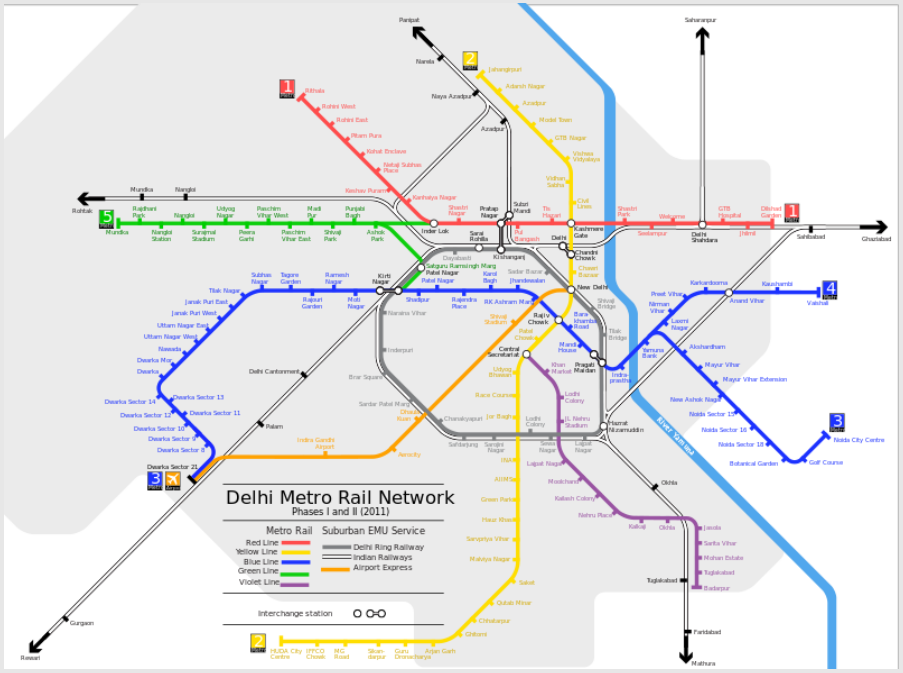
- **meets high, medium and low capacity traffic needs in cities:**
- **brings added flexibility to energy management in cities:**
  - recuperative braking adds to energy supply
  - outlet for surplus intermittent micro-generation
  - integration with EV charging infrastructure



Metro as backbone of urban transport

Delhi metro – solution for mega cities

- **Rapid transit**
- **daily ridership 2.06 million**
- **Connection to airport**
- **500k fewer cars on roads**
- **€1.13bn pa fuel savings**



The Delhi Metro Rail Corporation certified by the UN as the first rail-based system in the world to get "**carbon credits for reducing greenhouse gas emissions**" and helping in reducing pollution levels in the city by **630,000 tons every year**.

Take the train and ride

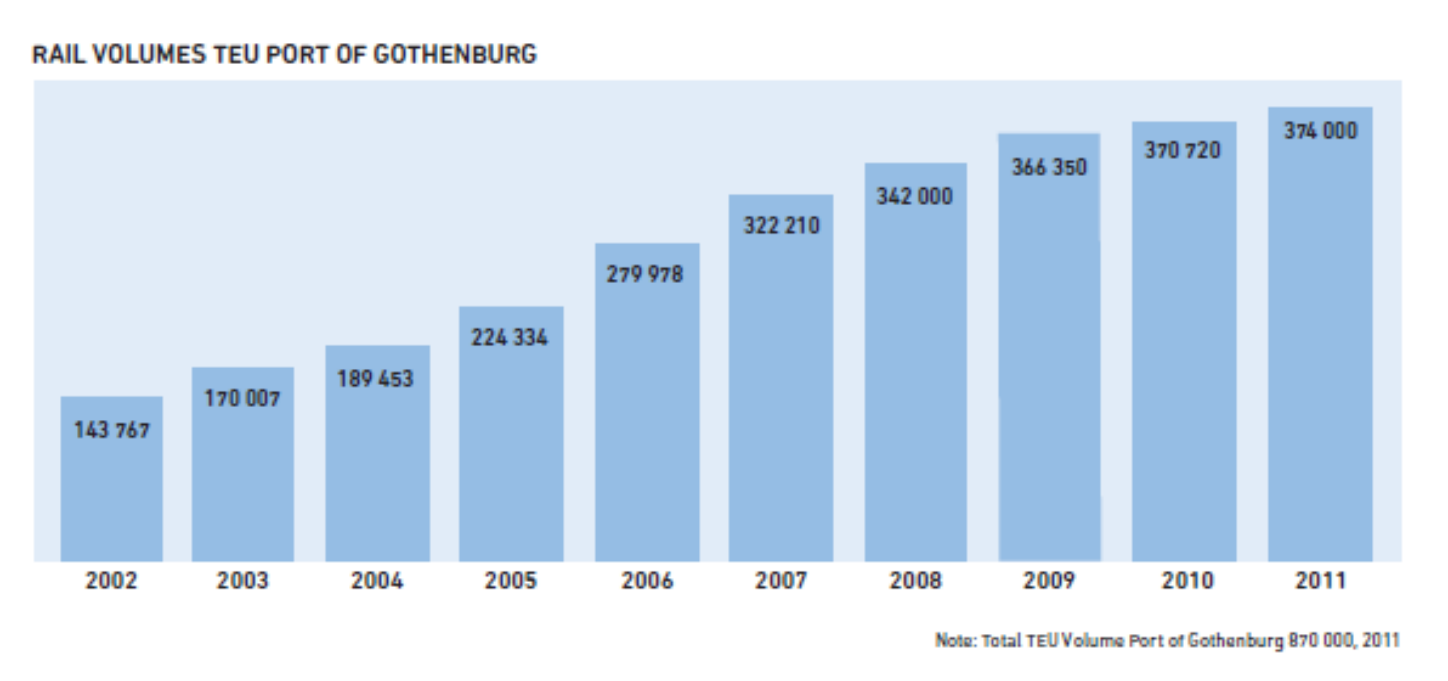
Copenhagen S-train

- public transport provider could offer a door-to-door trip?

bikes make the perfect last-mile link

The number of passengers with bicycle has more than tripled since they made bicycle carriage free of charge in 2009.

Freight connection to ports: Gothenburg



25 daily rail shuttles and 70 trains per day

ERTMS: a global signalling system for all needs

HIGH SPEED

Examples:

- China (High-speed program)
- Saudi Arabia (Mecca High-speed)
- Turkey
- Prospects in the US, Latin-America, Asia

FREIGH

E, India

SUBURB

- Brazil (Rio suburban network)
- Mexico (Mexico DF network)
- Australia (Sydney suburban)
- New Zealand (Auckland)
- Europe: Madrid suburban

- ***The example of ERTMS shows that railway products are increasingly designed to cover a variety of usages: one system can fit for high-speed, freight, suburban networks***
- ***ERTMS currently enhanced to be suitable for urban applications – e.g. through the inclusion of Automatic Train Operation (ATO)***

Policy recommendations

Co-modality needs effective interfaces between transport modes.

For <u>passenger transport</u>:

- **transport hubs and integrated multi-modal travel systems**
- **IT for fluid modal changes / integrated ticketing / smart-cards**

For <u>freight</u>:

- **modal shift from road to rail over longer distances**
- **local distribution e.g. in cities by road**

<u>Plus</u>:

- **environmental performance and energy efficiency standards**
- **better integration of external costs**

Conclusion

In order to make mobility safer, cleaner and quicker, UNIFE believes it's necessary to promote a <u>modal shift to the</u>

least polluting, safest and most reliable and rapid means of transport:

= light rail, metros, conventional and high-speed trains.

UNIFE is committed to work with the UN to provide sustainable transport solutions to the world population.

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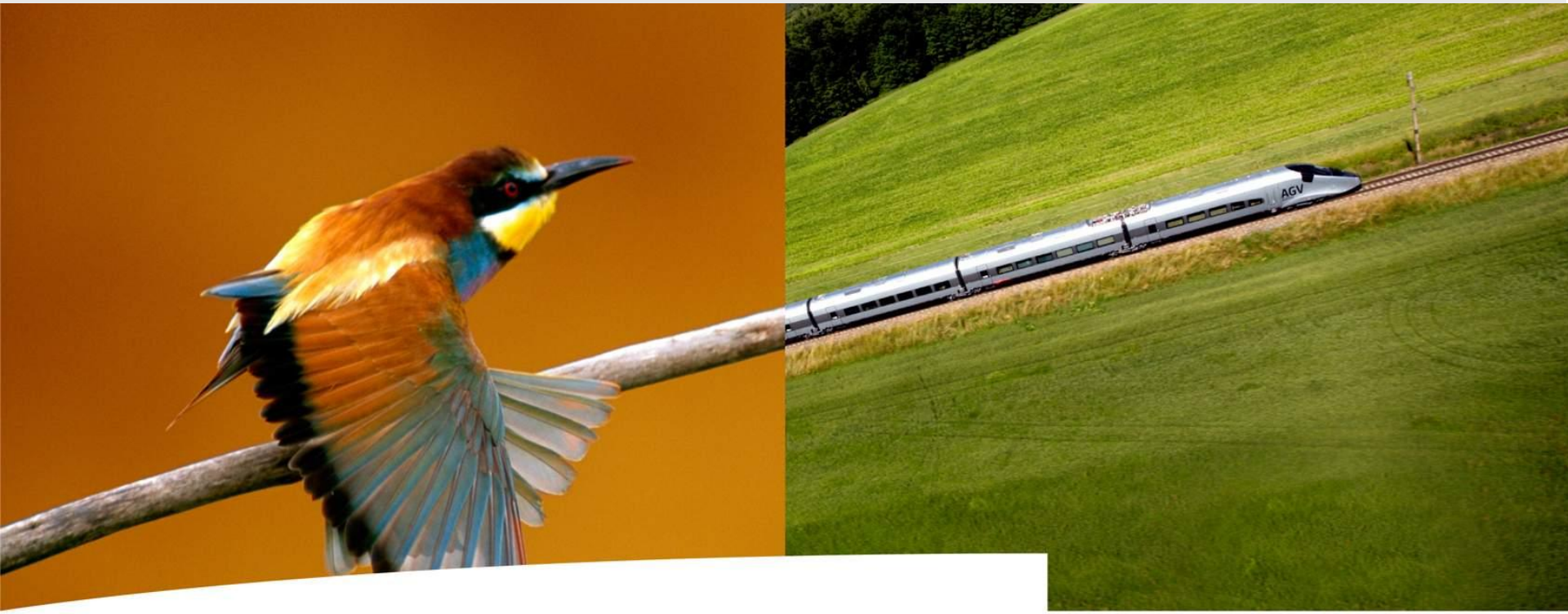
THE EUROPEAN RAIL INDUSTRY



Thank you for your attention!