



PRACTICUM R&D

Eduardo Romo





RESEARCH FOR HIGH SPEED: ACTIONS AND VARIOUS APPROACHES FOR THE FUTURE

- Main R & D goals
 - Overpass technical thresholds
 - Improve system performance
 - Increasing efficiency



EUROPEAN R&D STRUCTURES

- EU White Paper Roadmap to a single European Transport Area. Towards a competitive and resource efficient transport system
- ERRAC. (European Rail Research Advisory Council) → Strategic Rail Research Agenda
- European Framework Programme for Research & Development
- National Research, Development and Technological Innovation



– Mega trends

- Europe has ageing society
- Climate change will continue
- The cost of the energy will increase
- Urbanisation and metropolitan areas development will continue
- ...



- Specific goals
 - 30% of road traffic over 300 km should shift to other modes (rail or waterborne transport) by 2030, (50% by 2050)
 - By 2050 complete a European high speed rail network. Triple the length of the existing high speed rail network by 2030. By 2050 majority of medium distance passengers should go by rail
 - By 2020 establishing the framework for an European multimodal transport information, management and payment system
 - Move towards full application of "user pays" and "polluter pays" principles



Railways research main goals

- General components for rail competitiveness
- Climate protection
- Energy efficiency
- Specific goals for passengers
- Specific goals for freight
- Specific goals for urban transportation
- Specific goals for rail safety