





MULTI-MODALITY and INTER-MODALITY

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TRENDS AND PROBLEMS

- Increasing container carriers size: 16000 TEU today
- Less ports called for transhipment and distribution probably limited to 3 ports in Europe in the future
- Increasing throughput in these ports: up to 9000 movements per call
- Congestion restrains storage and marshalling possibilities
- Limited inland connections capacity by all modes
- Delays appear in the supply chains







THE OBJECTIVES OF THE EUROPEAN COMMISSION

- Develop environmentally friendly modes of transport mainly rail and inland waterway
- Enhance supply chains efficiency
- Support industry logistics with the creation of a freight oriented rail network with corridors giving more priority to freight traffics
- Develop infrastructure investments to reduce bottle necks on the rail network







PROPOSED SOLUTIONS for a sustainable transport

- Lack of financing slows down the infrastructure investments
- Urgent to solve future port congestion problems as soon as the economy will soar again
- Optimizing the use of existing infrastructure to offer more capacity while increasing the reliability and competitiveness is the only short term solution







TIGER PROJECT

- The concept is to create an inland dry port linked to the maritime port by efficient shuttle trains
- The Rail link carries long trains created either in one port or resulting from the bundling of two trains coming from two ports
- The dry port is a freight village including an intermodal terminal, a marshalling yard or a hub, a conventional terminal and a logitics area. From this dry port trains depart serving the hinterland
- Demonstrator at Munich Riem for Hamburg and at Rivalta Scrivia for Genova are in progress









MARATHON PROJECT

- Marathon aims at increasing the efficiency of the rail link between the marime port and the dry port
- A Marathon train is the coupling of two classical trains of 750m with an unmanned locomotive in the middle radio remotely controled by the driver in the front locomotive.
- Increasing network capacity (by carrying twice a train load using only 20% more capacity) this solution reduces transport cost by at least 30%
- Test on intermodal trains will be made at the end of 2013









TECHNOLOGICAL INNOVATIONS TO COME

- In preparation: improved braking systems allowing instant braking and releasing simultaneously on all wagons will allow lengthening the classical trains safely
- It will allow also to insert paths for these trains in between regional trains path easily increasing the fluidity of the traffic and the reliability of the freight trains
- Following these improvements asset turnover will increase, preventive maintenance helped by wagon components wear and tear detectors will become possible enhancing the reliability.







THE CONDITIONS TO SUCCEED

- Intermodal trains will be the first to benefit from these innovations accompnied by new transhipment solutions in terminal design and handling
- To be successful the support all the actors of the combined transport chain is necessary: the infrastructure manager, the railway undertaking, the combined transport operator, the road haulage operating on the last mile and the shipper
- Technical and administrative rules to cross the borders lust be simplified to allow easy multimodal or inter-

modal solutions.









THANKS FOR YOUR ATTENTION

