



FERRMED CONFERENCE

Second Eurasian Connectivity and Industrial Cooperation Forum (Europe)

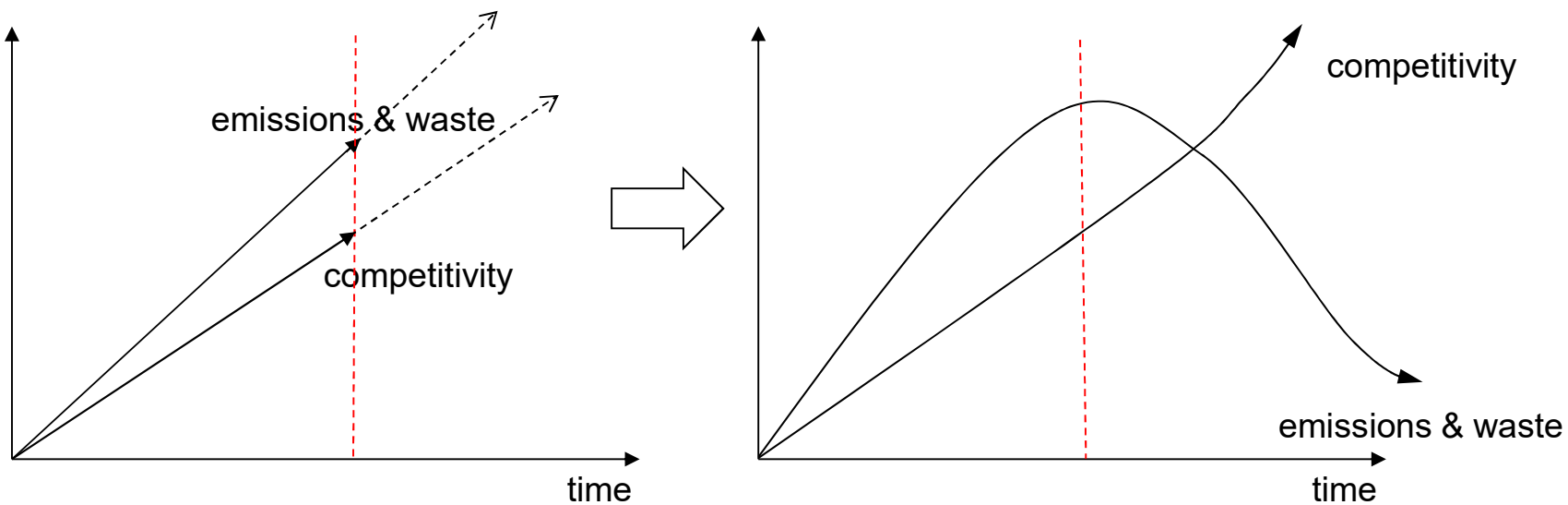
TOWARDS A COMPETITIVE AND SUSTAINABLE TRANSPORT SYSTEM

By Joan Amorós
FERRMED President

Wednesday, 6 November 2019: Residence Palace / International Press Centre
155 Rue de la Loi, 1040 Brussels



COMPETITIVENESS VERSUS SUSTAINABILITY



Key issues: | More competitiveness → { Less emissions
 → Less waste
 Optimisation of resources allocation →
 → smart investments



CIRCULAR ECONOMY AND “CIRCULAR TRANSPORT SYSTEM” (I)



Linear economy exhausts planetary resources and requires a great amount of energy.

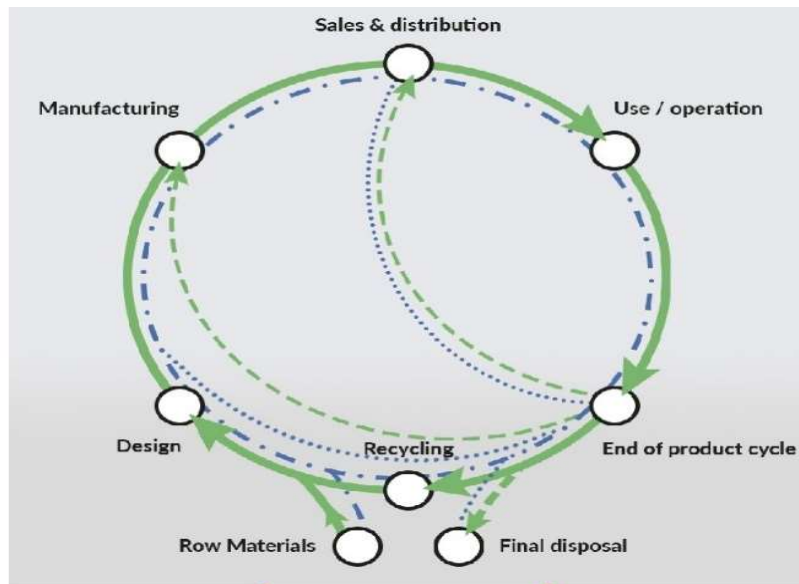
Circular economy is the answer to such an unsustainable situation. The key issue is to minimize and to recycle waste.

Circular economy requires a “**circular transport system**”, meaning: e-mobility, full digitalization, data sharing (open data), capacity optimization, solving bottlenecks, balancing flows, automation of procedures, smart intermodal terminals and efficient railways.

Circular transport system demands “open data” and 5G technologies deployment with high speed data transmission, shorter transmission times, high density connection and important savings in energy consumption.



CIRCULAR ECONOMY AND “CIRCULAR TRANSPORT SYSTEM” (II)



- | | |
|--|---|
| <ul style="list-style-type: none"> ▪ Minimum waste of energy ▪ Minimum waste of materials ▪ Minimum waste of time ▪ Minimum waste of human resources | <ul style="list-style-type: none"> ▪ Minimum transport costs ▪ Minimum unbalanced flows ▪ Minimum environmental impact ▪ Modal shift from road to rail in land transport system |
|--|---|

CIRCULAR TRANSPORT SYSTEM POSTULATES:

- ❖ Minimum waste of
 - Energy
 - Materials
 - Time
 - Land/space
 - Human resources
 - Economic resources

- ❖ Minimum
 - Transport costs
 - Unbalanced flows
 - Environmental impact

- ❖ Modal shift from road to rail



THE EUROPEAN LAND FREIGHT TRANSPORT SYSTEM (I)



PERFORMANCE AND ENVIRONMENTAL IMPACT

- ❖ In 2015 transport volume was **19 billion tonnes of goods transported (or 2,385 billion tonnes-km)**. In terms of tonnes-km, **75% was transported by road, 18% by rail and 7% by barge.**
- ❖ The impact of freight transport on environment is massive: **275 million tonnes of CO₂ per annum.**
Road freight contributes substantially to road congestion and is responsible for premature deaths from pollution and accidents mainly on roads.
- ❖ **According to the OECD, growth of 30% is expected by 2030** (assuming there will be no further financial crises with a devastating impact)

Source: Rail Freight Forward coalition



THE EUROPEAN LAND FREIGHT TRANSPORT SYSTEM (II)



PRESENT CONDITIONS

- ❖ In the EU, according to the “World Economic Forum”:
 - 24% of freight vehicles run empty
 - The loading of the rest is, on average, of 57% in terms of weight
 - Overall efficiency is only 43%
 - There is an estimated recoverable loss of 160 billion Euros/year(similar conditions appear at Eurasian level)

- ❖ **Rail has 6 times lower specific energy consumption and external costs than road, but there has been no increase in rail freight share in the last 15 years!**



THE EUROPEAN LAND FREIGHT TRANSPORT SYSTEM (III)



REQUEST FOR A GLOBAL PLAN OF MODAL SHIFT OPTIMISATION

Taking into account:

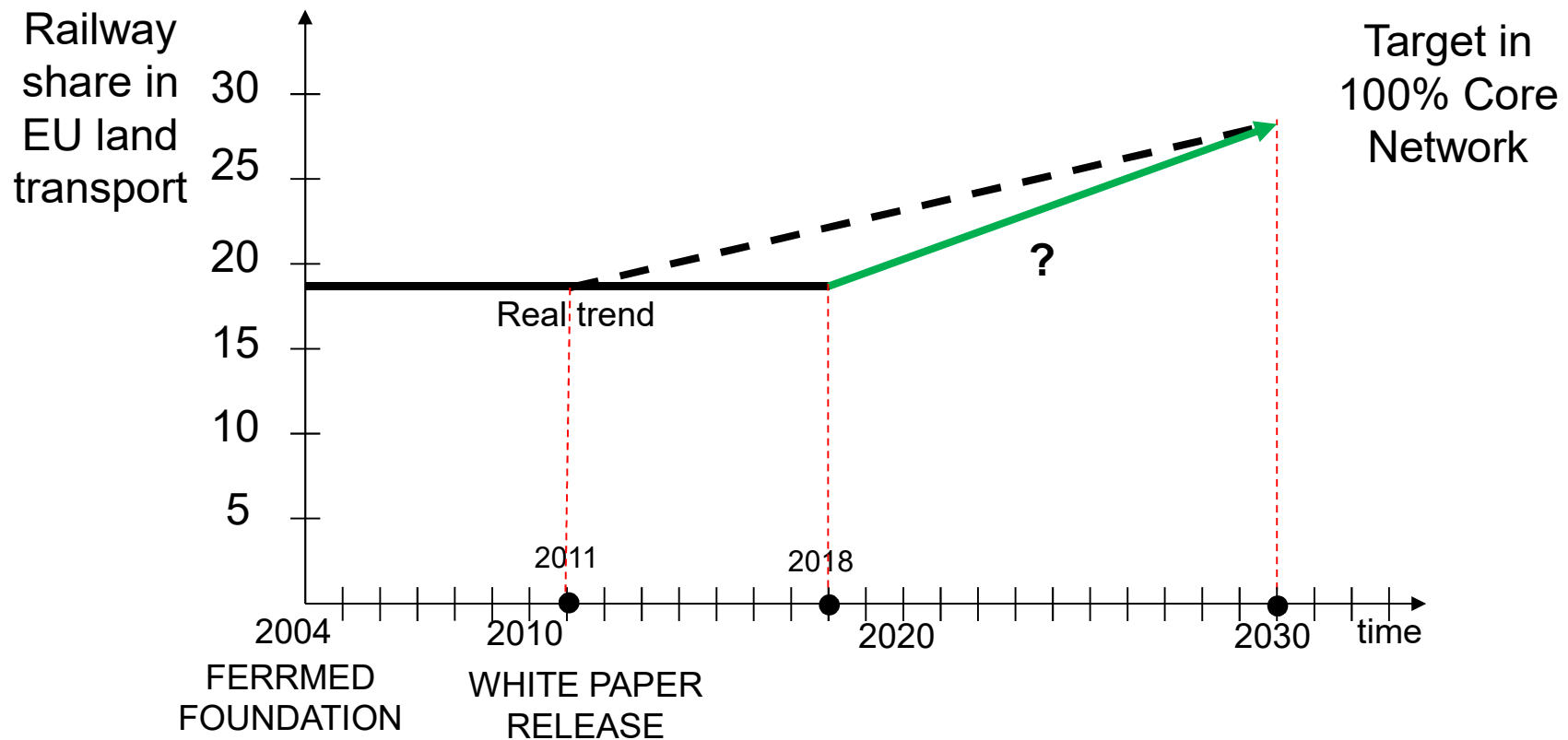
- The performance and environmental impact
- The traffic growth rate expected from 2019 until 2030
- The existing inefficiency of the system
- The waste of economic resources in useless investments
- The lower specific energy consumption and external costs of the railway versus the road

A global plan at EU level (even at Eurasian level) of modal shift optimisation is urgently needed



THE EUROPEAN LAND FREIGHT TRANSPORT SYSTEM (IV)

RAILWAY SHARE REAL VERSUS PLANNED



THE EUROPEAN LAND FREIGHT TRANSPORT SYSTEM (V)



FERRMED KEY MESSAGES

- No more additional corridors in the Core Network (except railway back-up lines in the present corridors)
- To concentrate the efforts in obtaining the “White Paper” targets in the most crowded sections of the EU already defined corridors of the Core Network
- To push the implementation of innovative actions in the railway system (infrastructure – operation – rolling stock) looking for more flexibility and drastic operation cost reduction
- To compel automation, “intelligent freight trains” and “intelligent intermodal terminals”



FERRMED STUDY OF TRAFFIC AND MODAL SHIFT OPTIMISATION IN EU (I)



REMARKS

Considering there has been no increase in rail freight share in the last 15 years (17,9% in 2005 and 17,3% in 2017) and that the EU Transport Core Network is too vast (~80,000 km), **to move from road to rail requires the concentration of investments in a selective part of the main corridors of the Core Network.**

OBJECTIVES

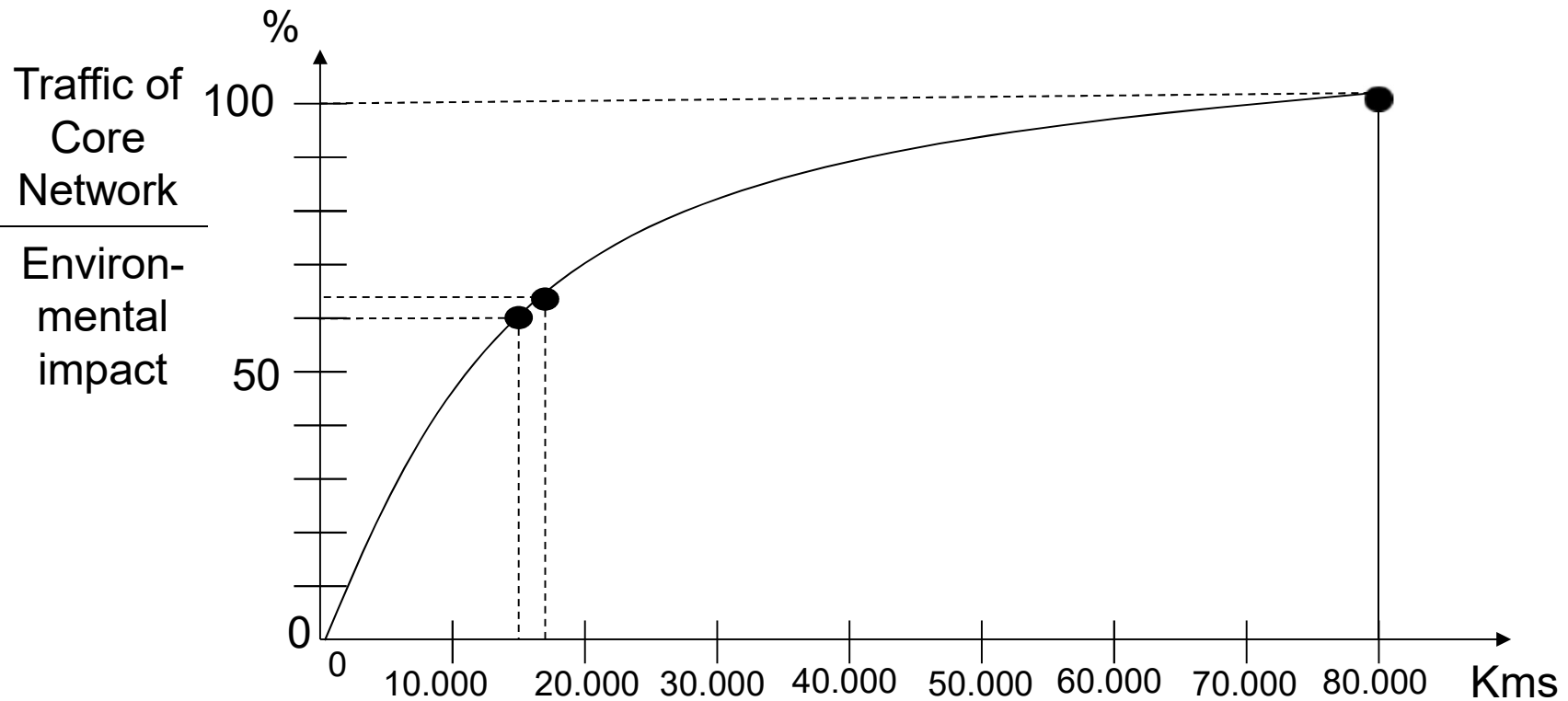
The objectives of the study are:

- To identify freight traffic by modality and globally in the main corridors of the EU Core Network
- To propose an Action Plan to achieve the EU “White Paper” targets by 2030 (30% of freight land transportation over 300 km carried by rail or barge) in the most crowded sections of the corridors, covering at least 60% of the traffic related to the EU Core Network



FERRMED STUDY OF TRAFFIC AND MODAL SHIFT OPTIMISATION IN EU (II)

FERRMED APPROACH TO ACHIEVE AT LEAST 60÷65% OF “WHITE PAPER” TARGETS IN 2030



Core Network extension (km)



FERRMED STUDY OF TRAFFIC AND MODAL SHIFT OPTIMISATION IN EU (III)



MAIN TOPICS IN THE SHIFT TO RAIL

- ❖ We do not intend to have road compete against rail, we consider the railway as the main complement to road traffic. In the vast majority of cases, road is best for the last mile. **Railway could be considered in the same way as a “ferry” or short sea vessel**, suitable to carry trucks and trailers for long distances (and/or point-to-point traffic).
- ❖ To achieve the appropriate transfer from road to rail, **“combined transport” (CT) is key, mainly unaccompanied CT**. Accompanied CT (Rolling Motorways) is more adequate to facilitate the efficient crossing of geographical obstacles (e.g. the English Channel). Therefore, forwarding of intermodal loading units like containers, swap bodies or semi-trailers is the base of CT and the best way to attain the targets of the EC White Paper on transport.



FERRMED STUDY OF TRAFFIC AND MODAL SHIFT OPTIMISATION IN EU (IV)



ACTIONS IN THE RAILWAY NETWORK OF MOST CROWDED SECTIONS OF THE CORRIDORS

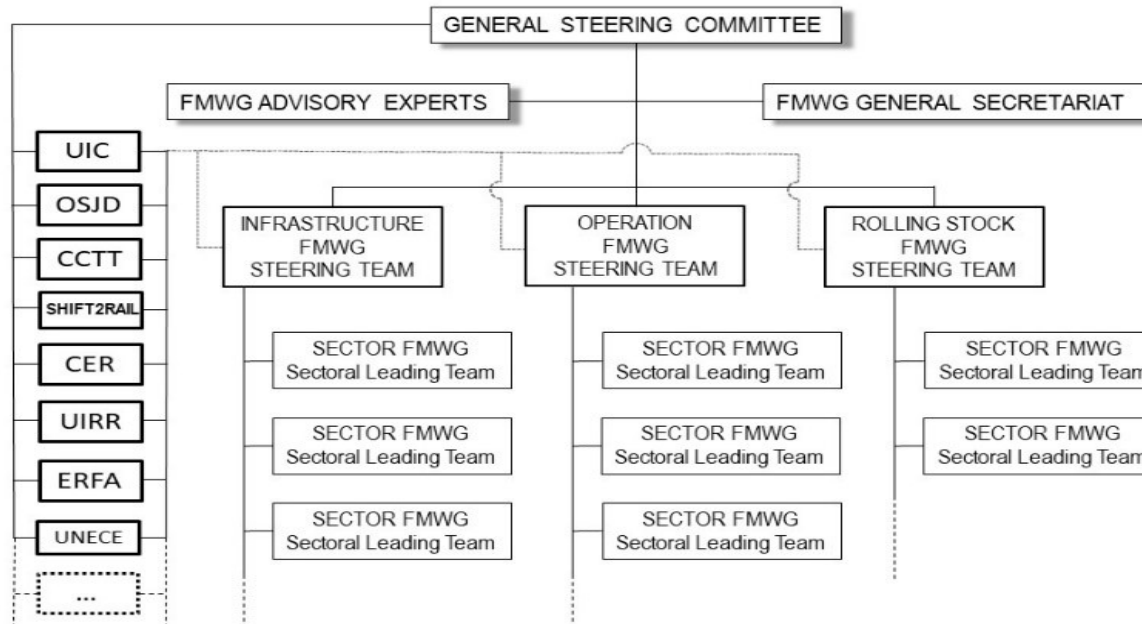
Once determined, corridor by corridor, the freight traffic in the different modes: road, railway and barge:

- a) > To identify strategic intermodal terminals and to analyse capacity and efficiency
- b) > To define the main lines, back lines and main feeders to interlink the strategic terminals
- c) > To solve traffic bottlenecks and capacity increase of the interconnection lines
- d) > To move strategic terminals to “intelligent terminals”
- e) > To implement longer trains in the interconnection lines (740 m first phase, 1.500 m second phase)
- f) > To allow suitable loading gauge (P 400 or GC-C)
- g) > To implement ERTMS, 5G, open data, automation, digitalization, ...
- h) > To introduce international track gauge in Spain (Mediterranean Corridor)
- i) > To introduce “intelligent freight trains”



FERRMED STUDY OF TRAFFIC AND MODAL SHIFT OPTIMISATION IN EU (V)

DEVELOPMENT WORKFORCE/TIMING



- The “deadline” to finish the STUDY is December 2020/January 2021, just before the EC revision of the TEN-T Regulations take place.

FERRMED, ASBL



**THANK YOU
VERY MUCH
FOR YOUR
ATTENTION**

**Спасибо вам
большое за
ваше
внимание**

**非常感谢您的关
注**

