Policy recommendations

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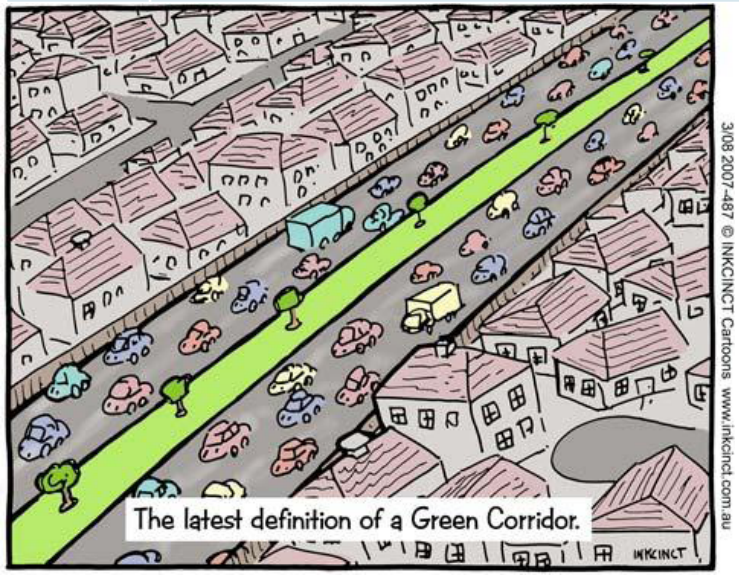
The agenda

A. Selection among the 20 policy recommendations addressed to:
   - the European Commission (16)
   - the European Parliament (1)
   - the private sector (3)

B. Recommendations on governance and operational issues

Policy recommendations

No.	Recommendation	Addressed to
1	Continue using the corridor approach as an instrument in achieving the ambitious targets of the common transport policy in Europe	European Commission



Consolidation of large volumes of freight for transport over long distances

- Improves competitiveness of environmentally friendly modes like rail and waterborne transport
- Allows optimisation in terms of energy use and emissions
- Alleviates the congestion of European roads
- Addresses the fragmented nature of transport networks (interoperability)
- Fosters cooperation between all parties involved
- Leads to considerable savings in investments needed for network capacity expansions

Policy recommendations

No.	Recommendation	Addressed to
2	Use multimodal corridors as a vehicle for addressing wider objectives of the European transport policy like:	European Commission

Modal integration
Multimodal corridors are indispensable in pursuing this policy objective due to their focus on a subset of the network, where consolidated volumes of cargo allow the exploitation of economies of scale, facilitated by sufficient transhipment possibilities.

Harmonisation of safety, security and social legislation
It addresses differences in national regulations, over-regulation and duplication of controls, unfair competition and lack of qualified personnel.

Simplification of administrative formalities
Complex administrative formalities lead to reduced competitiveness, higher costs and lower service quality. The direct benefits of e-Maritime alone are estimated at more than 1 billion Euro per year for the first ten year period, increasing substantially after this.

Internalisation of external costs
Giving the right price signal through charging users the equivalent of the costs they create provides an incentive to change their behaviour in order to reduce those costs.

Policy recommendations

No.	Recommendation	Addressed to
3	Facilitate good practice in relation to the involvement of the greater public in transport planning at lower than European levels	European Commission

Public participation levels:

- Information provision
- Consultation
- Deciding together
- Acting together
- Supporting independent stakeholder groups

Example:
Regional Integrated Plan on Transport and Logistics (PRIT) in Emilia-Romagna, Italy

Policy recommendations

No.	Recommendation	Addressed to
4	In prioritising investments, accompany the criterion of maximising European added value by the following order of interventions: (a) measures affecting transport demand, modal choice, and behaviour; (b) measures improving the efficiency of using existing infrastructure (e.g. through ICT applications); (c) upgrading existing infrastructure; and (d) building new infrastructure and major rehabilitation of the existing one.	European Commission

No transport is the greenest transport

Policy recommendations

No.	Recommendation	Addressed to
5	Develop at least one certified carbon and environmental footprint calculator	European Commission

- Different calculators may be influential or dominating in different countries
- None has been certified yet
- A relevant action is included in the 2011 White Paper, addressing the compatibility problems exhibited by several existing models

Policy recommendations

No.	Recommendation	Addressed to
6	Assess the possibility of developing policies that actively encourage the creation of freight villages and urban distribution centres strategically located to serve as many modes as possible	European Commission

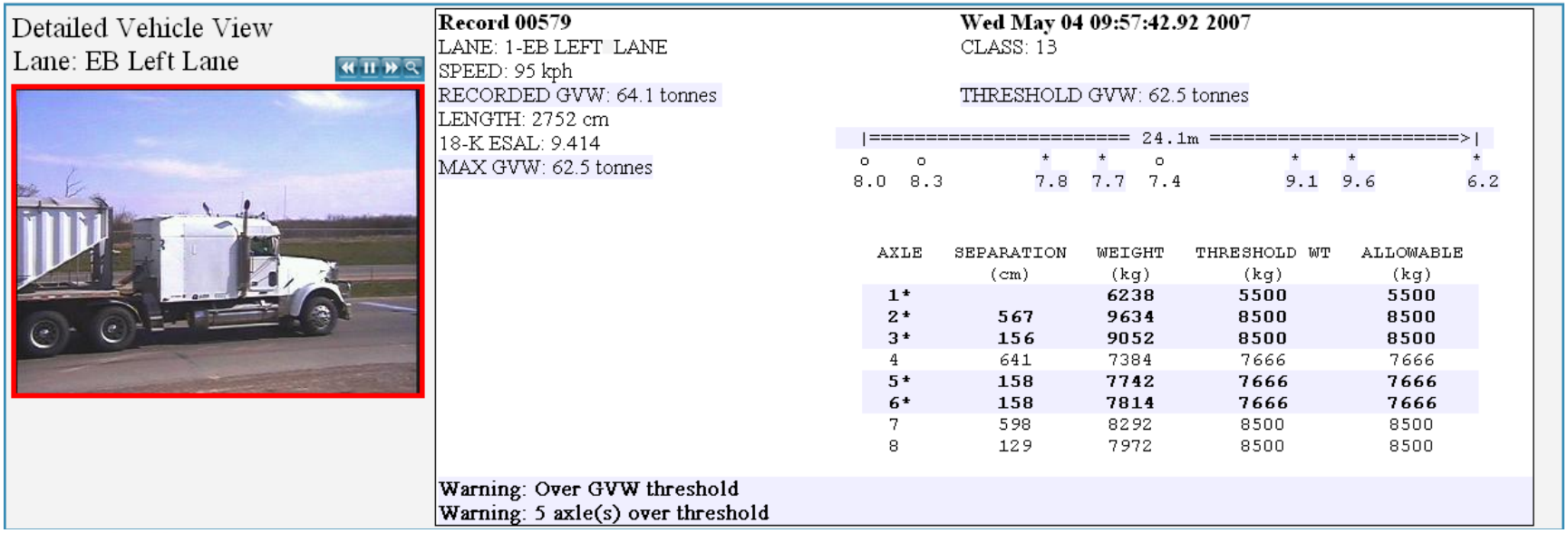
Panoramic view of the freight village in Nola, Italy

- Concentrate and optimise transport flows
- Encourage the use of alternative to road transport modes
- Increase port capacity
- Produce additional environmental and financial gains due to optimisation in terms of energy use and emissions
- Trigger potential business and operational collaborations

Policy recommendations

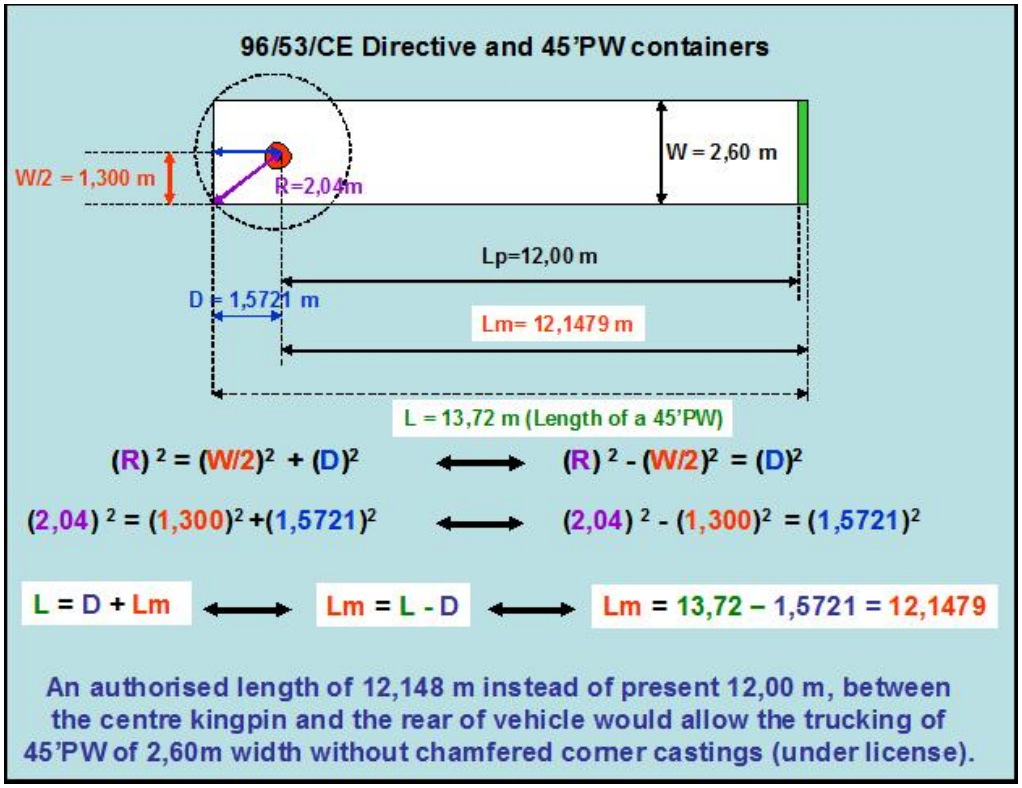
No.	Recommendation	Addressed to
7	Collect the statistical information needed to monitor service quality indicators	European Commission

Example:
Low-disturbance data gathering and processing applications like the Weigh-In-Motion (WIM) devices that weigh all vehicles as they travel at normal speeds along a roadway over WIM scales



Policy recommendations

No.	Recommendation	Addressed to
8	Introduce new and adjust existing logistics units	European Commission



The extension of the maximum authorised load length from 13.60m to 13.72m, and the extension of the maximum authorized distance from centre kingpin to the rear of vehicle from 12.00m to 12.15m would allow the use of 45' PW containers and result in significant financial and environmental gains.

Policy recommendations

No.	Recommendation	Addressed to
9	Enhance information sharing at a global scale	European Commission

Example:

The **Logistics Interoperability Model** (LIM), developed by GS1, is a framework for common business processes and related data communications interchanges.

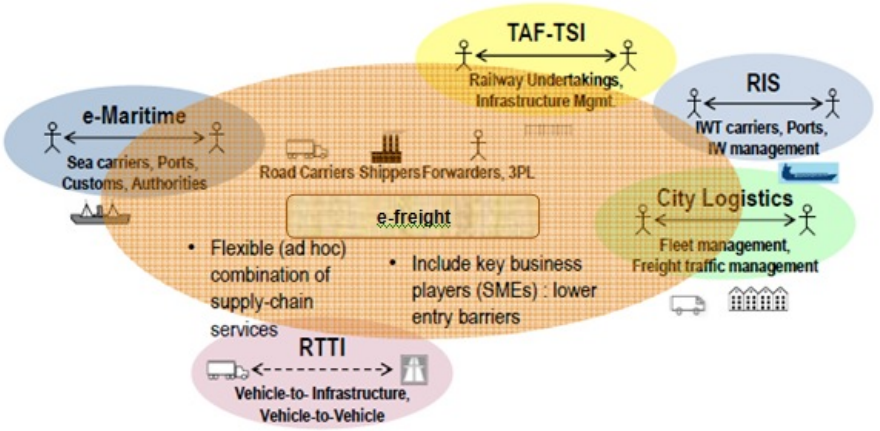
The LIM approach has been integrated into the "**One Common Framework for Information and Communication Systems in Transport and Logistics**", a joint initiative of seven EU-financed R&D projects (e-Freight, Freightwise, Integrity, SMART-CM, Euridice, Discwise, Rising).

Policy recommendations

No.	Recommendation	Addressed to
10	Introduce a standard single digital transport document (e-freight)	European Commission

The **e-Freight initiative** of the EU aims at:

- developing interoperability between information systems;
- allowing operators to enter information only once;
- Developing information and booking tools for an optimised use of multimodal transport possibilities; and
- developing a structure for the use of information coming from tracking and tracing technologies as well as from intelligent cargo applications.



The **e-Freight project** was launched on 1.1.2010 to produce a zero paper document needed for planning, executing and completing any transport operation within the EU.

Green Corridor Handbook
Answers the following 10 questions

1. *What is a transport corridor?*
2. *What is a 'green' transport corridor?*
3. *Why do we need transport corridors?*
4. *How do we develop a green corridor?*
5. *How do we manage a green corridor?*
6. *How do we monitor performance?*
7. *How can technology help?*
8. *Do we need a new approach in doing business?*
9. *How do green corridors relate with the TEN-T?*
10. *Where can we get more information?*

What is a ‘green’ transport corridor?

Green characteristics:

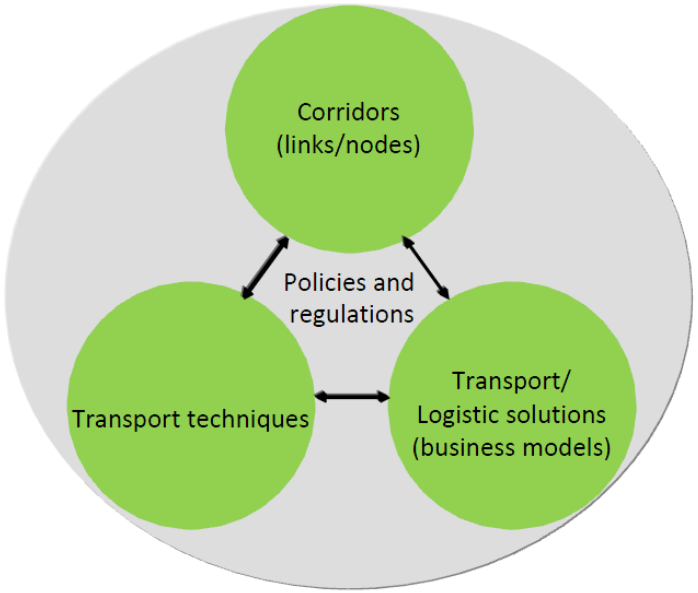
- Reliance on co-modality
  - ✓ adequate transhipment facilities
  - ✓ integrated logistics concepts
- Reliance on advanced technology
  - ✓ energy efficiency
  - ✓ use of alternative clean fuels
- Development/demonstration of environmentally-friendly and innovative transport solutions, including ICT applications
- Collaborative business models

A green corridor is efficient.
An efficient corridor is not necessarily green.

How do we develop a green corridor?

- **Top-down (legislative development):** Use of legislation to provide formal recognition of the importance of corridors, designation of specific routes, harmonisation of standards, simplification of cross-border movements and funding for corridor infrastructure.

  Examples: RNE corridors, ERTMS corridors, Rail freight corridors, TEN-T core network corridors, the Brenner corridor.



- **Bottom-up (consensus building):** A regional institution is used to mobilise stakeholder support for improvements in the corridor and to push for trade facilitation reforms basically through the provision of information.

  Examples: All Scandinavian projects such as the EWTC II, Scandria, TransBaltic, and Bothnian corridors.

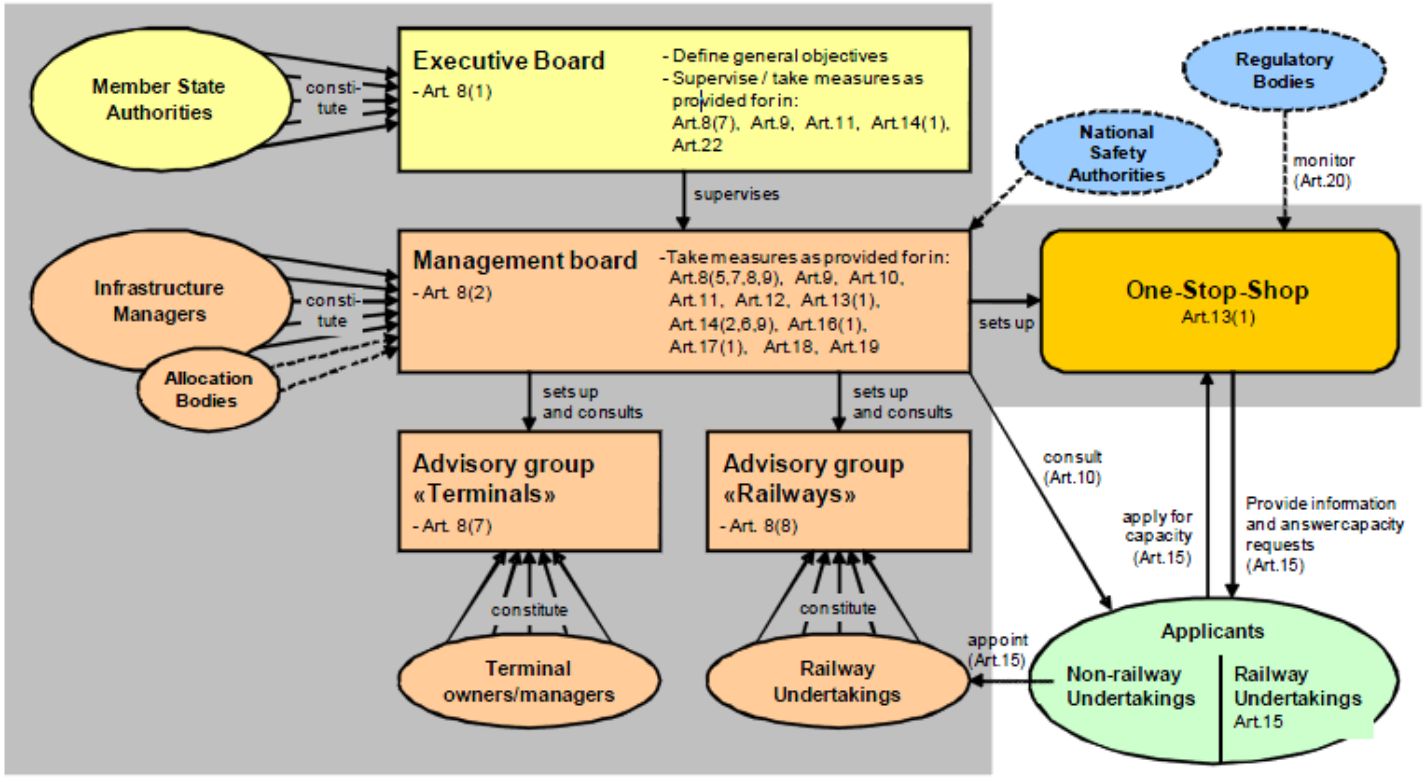
How do we develop a green corridor?

Which one is the best model?

- Distinction basically relates to the origin of the initiative
- The success of both models will depend on:
  - ✓ the cooperation between public and private sectors; and
  - ✓ the active participation of stakeholders
- In the long run the two models will have to converge

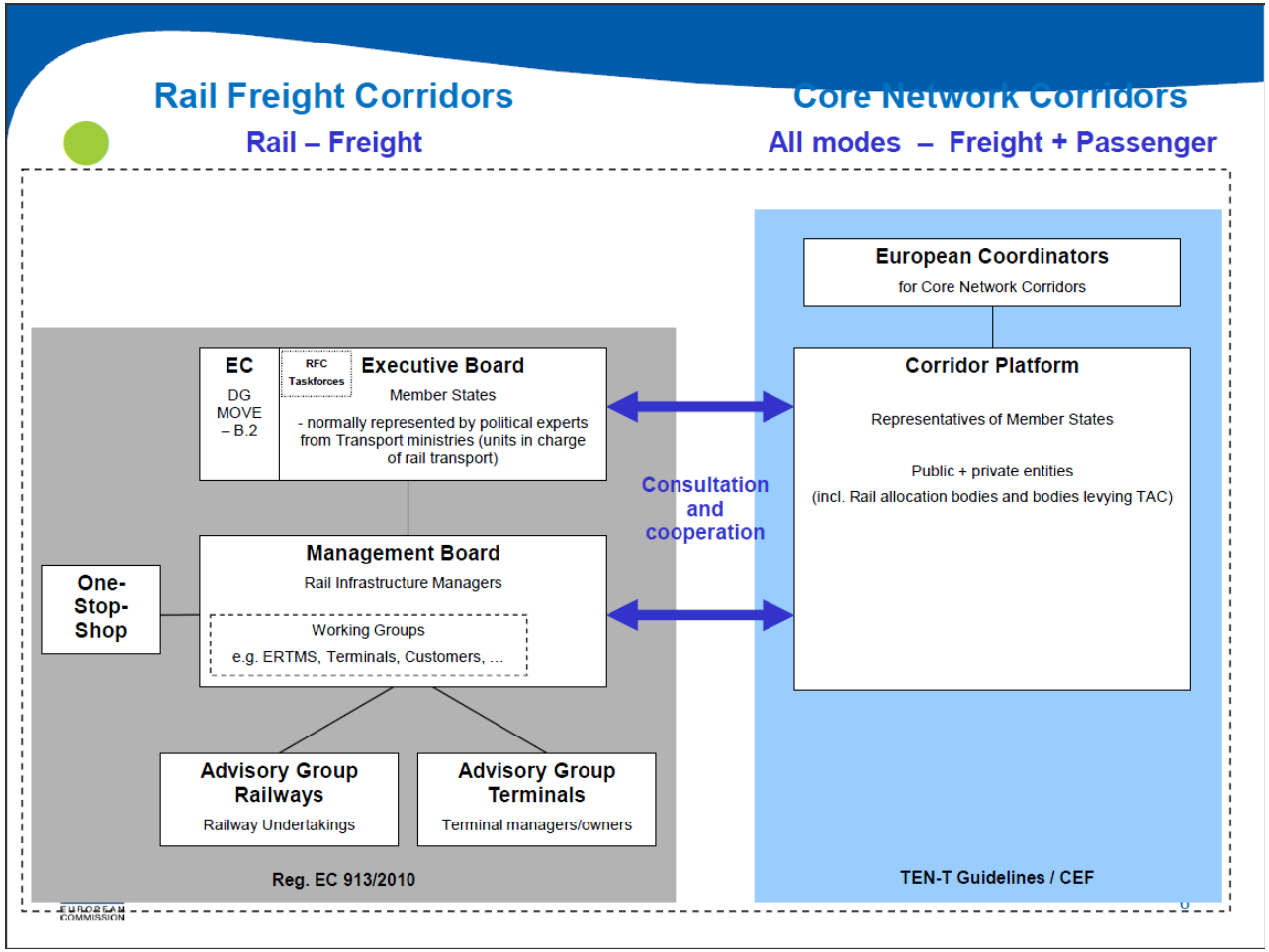
The comparison is in essence meaningless

How do we manage a green corridor?



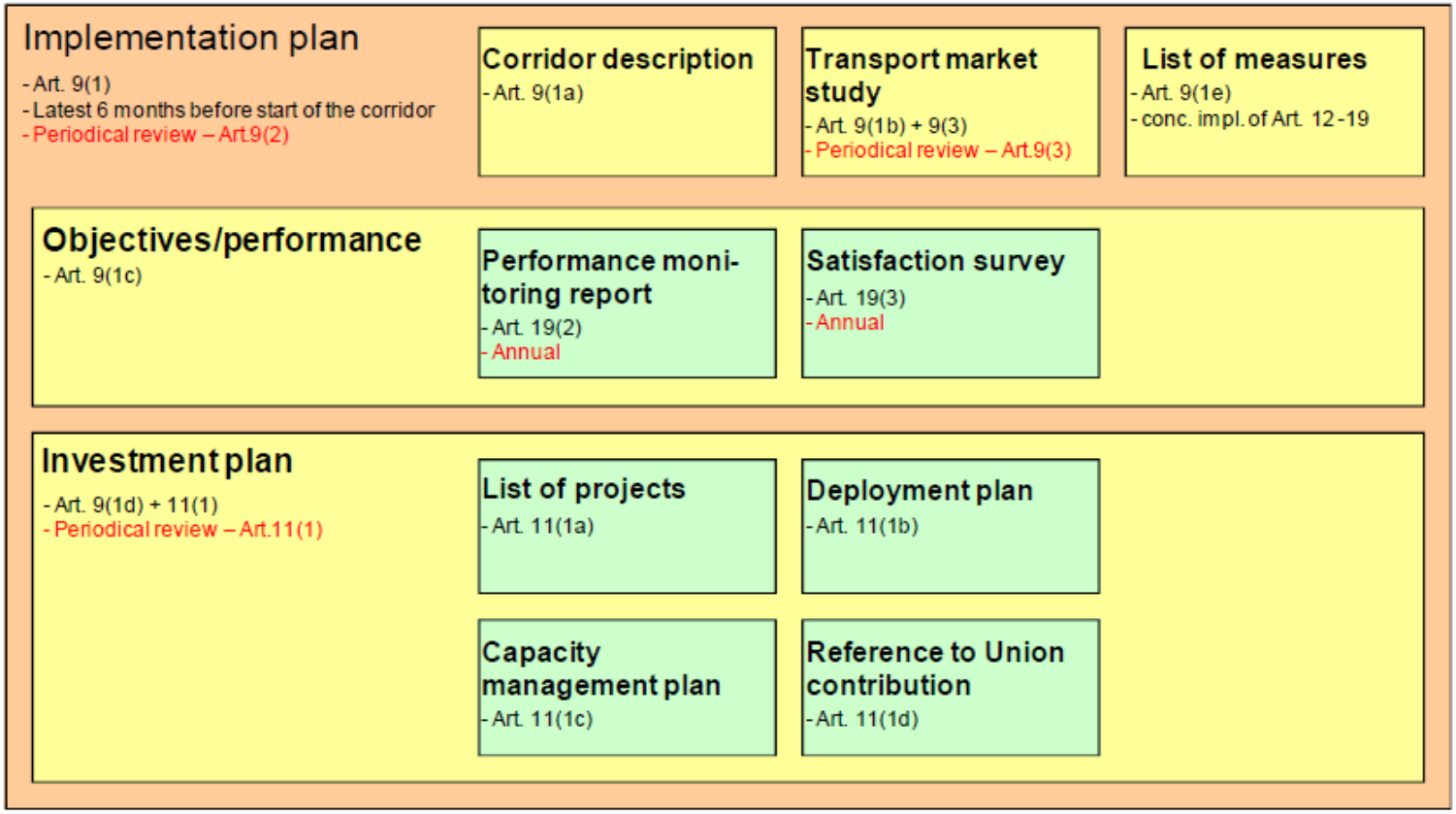
Governance structure of a Rail Freight Corridor (Regulation EU 913/2010)

How do we manage a green corridor?



Governance structure of the TEN-T core network corridors

How do we manage a green corridor?



The Implementation Plan of a Rail Freight Corridor (Regulation EU 913/2010)

How do we manage a green corridor?

Transport market study:

- Assesses customer needs and bottlenecks
- Reflects the views of all actors involved
- Provides information on the actual volumes and types of goods using each of the selected routes
- Provides estimates of the modal split along the corridor
- Indicates a set of typical transport chains to be used for performance monitoring in subsequent years (equivalent to the basket of goods/ services used by the national statistic bureaus to report the consumer price index)
- Provides data on all selected KPIs
- Defines the method for combining these KPIs into corridor level indicators.

How do we monitor performance?

SuperGreen has concluded in the following KPIs:

- **Out-of-pocket costs** (excluding VAT), measured in €/tonne-km;
- **Transport time**, measured in hours (or average speed, measured in km/h, depending on the application);
- **Reliability** of service (in terms of timely deliveries), measured in percentage of consignments delivered within a pre-defined acceptable time window;
- **Frequency** of service, measured in number of services per year;
- **CO_2 emissions**, measured in g/tonne-km; and
- **SOx emissions**, measured in g/tonne-km.

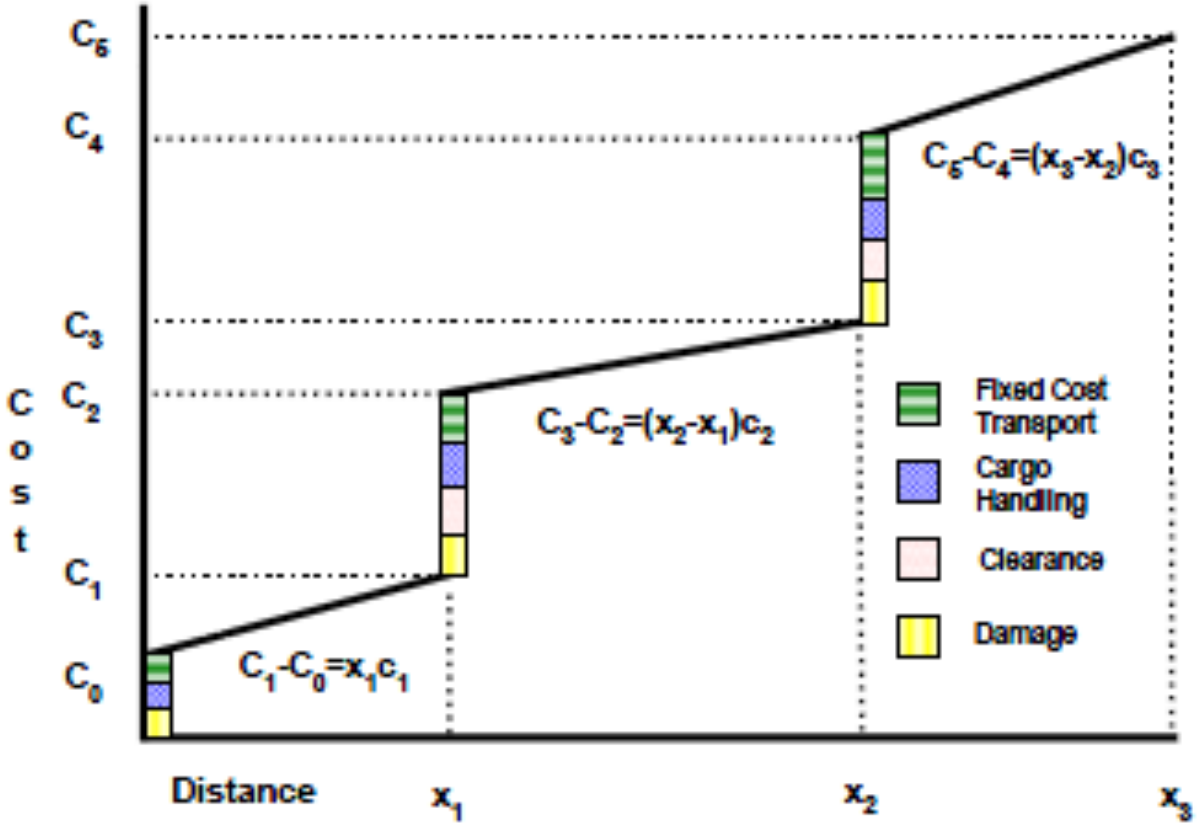
Others suggest different indicators.

KPIs should be selected by the corridor management on the basis of the objectives being pursued

How do we monitor performance?

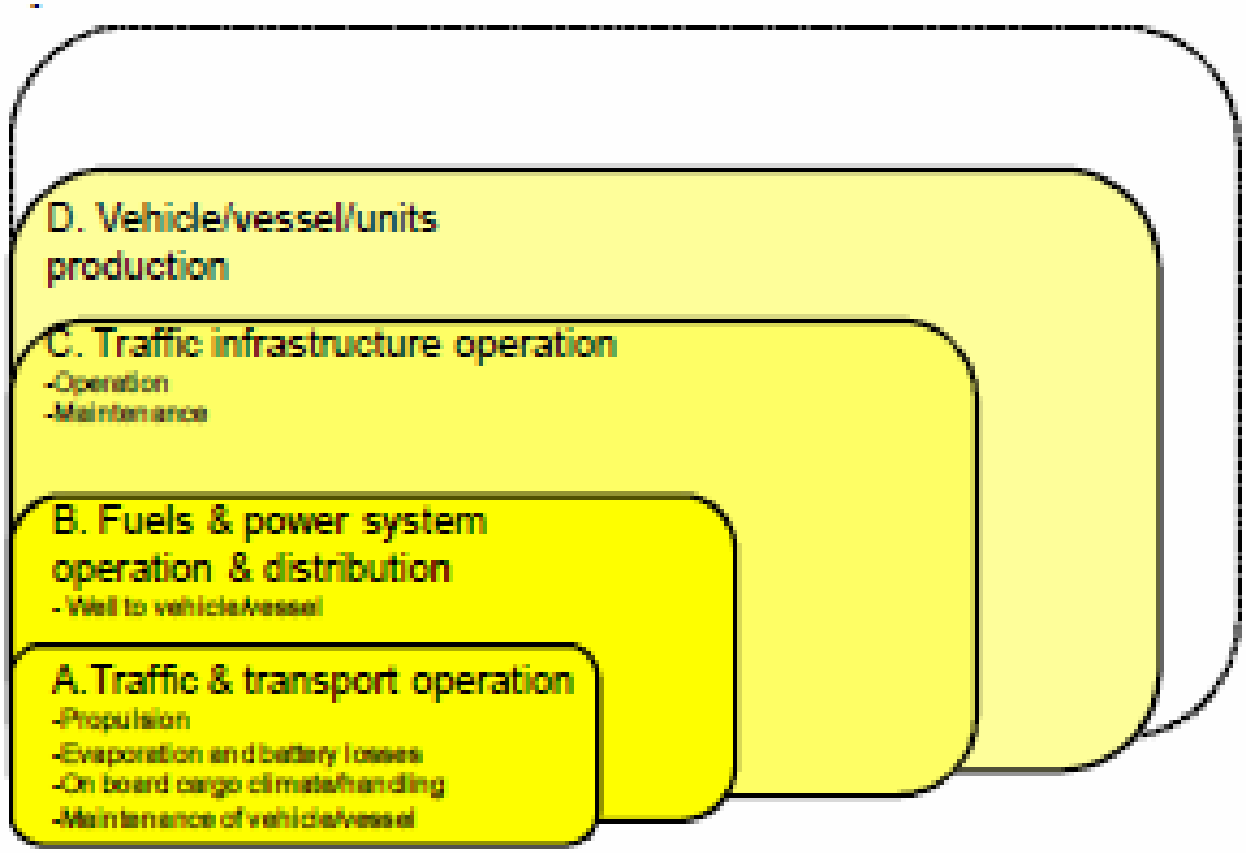
- **Step 1:** Estimate KPI values for each and every chain included in the representative set of typical transport chains determined in the transport market study.
- **Step 2:** Aggregate these values into corridor level KPIs by using weights and methods specified in the transport market study.

How do we monitor performance?



Cost components of a transport chain

How do we monitor performance?



Definition of system boundaries

How do we monitor performance?

Type of carbon emissions measured

CO_2-eq is preferred to CO_2 provided that the necessary data is available and the emission calculator used can handle it.

Emission calculator

- The web-based tool EcoTransIT World has been used in SuperGreen
- Any other model could have been used in its position
- A relevant qualification should escort the results
- In general, user specified inputs are preferred to the model default values, provided that they are adequately verified and there is consistency across all chains examined
- Otherwise, it is safer to use the default values of the model

Emission allocation

- It is a very complex issue in the case of multi-load multi-drop vehicle trips
- A simplification is suggested by DEFRA (UK)
- Once again consistency is a major concern

How do we monitor performance?

Data verification

- Is an independent assessment of the accuracy and completeness of data
- Provides confidence on the quality and integrity of data
- Supports internal service benchmarking
- Supports internal operations and target setting
- Leads to improved performance, reliability and quality of operations
- Increases external stakeholder confidence
- **For a complex system such as a green corridor, the engagement of an external verifier seems unavoidable**
- Standards and protocols that can be applied, include:

✓ISO14064 – Greenhouse gas accounting

✓ISO14065 – Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition.

The method permits monitoring of the performance of a single corridor over time. It is not suitable for comparisons between corridors.

How can technology help?

Use of alternative clean fuels

The Commission's intervention can solve the 'chicken and egg' problem describing the relationship between vehicles capable of running on alternative fuels and the appropriate refuelling infrastructure.

Example:

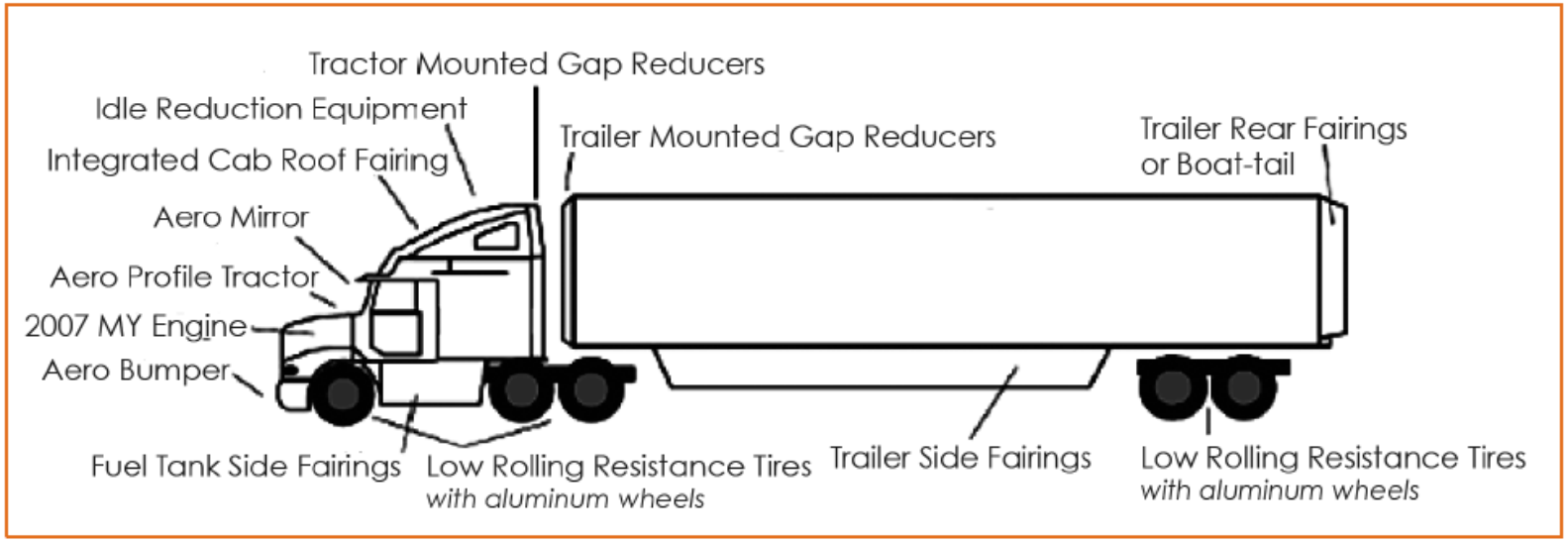
The **Viking Lady** is an offshore supply commercial vessel that has a dual fuel LNG/ diesel engine and fuel cell technology used for propulsion. She has been claimed to be the most environmentally friendly vessel ever built . She has a gross tonnage of 6,100t and deadweight of 5,900t.

The use of LNG as fuel in waterborne transport can lead to:

- a reduction of CO_2 emissions by 20-25% when compared to traditional marine fuels
- a reduction of NOx emissions by 90-95%
- a virtual elimination of SOx and PM emissions
- lower noise levels.

How can technology help?

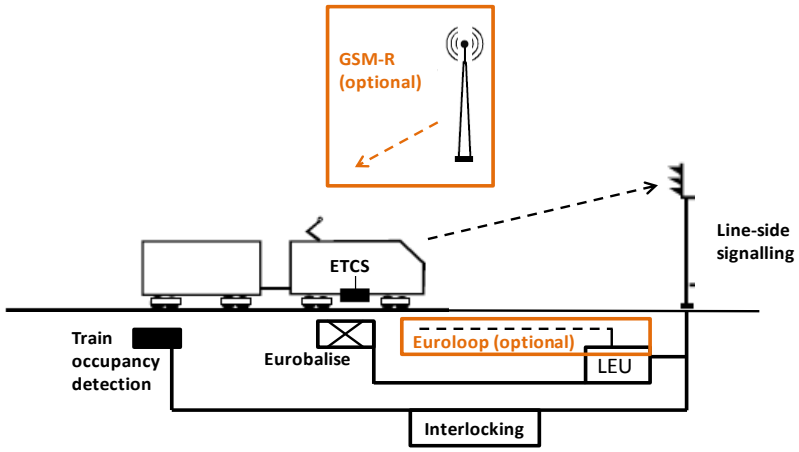
Energy efficiency improvements



Example: **California Global Warming Solutions Act of 2006**
Aiming at approx. 30% reduction of GHG emissions by 2020, allnew and in-use trucks with 53 ft or longer trailers operating in California are required to achieve aerodynamic drag and rolling resistance improvements via certified new equipment and retrofits. New tractors and trailers must meet the requirements by 2011, in-use tractors by 2012, and in-use trailers by 2014.

How can technology help?

Integrated ICT solutions



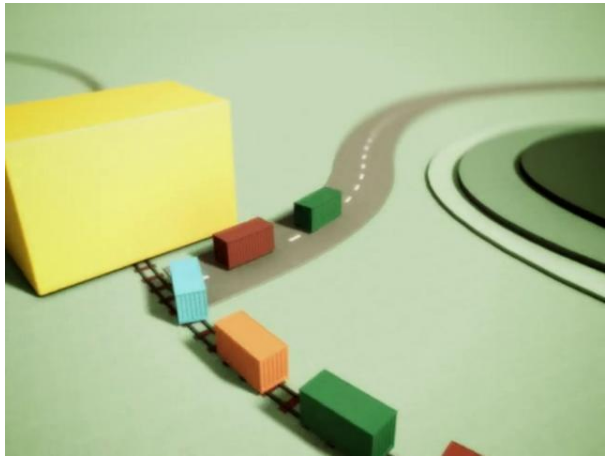
- Action plan for the deployment of ITS and Directive 2010/40/EU
- Directive 2010/65/EU establishing National Single Windows

European Railways Traffic Management System (ERTMS)

- Reduces transport time up to a maximum of 70%
- Reduces headways between trains up to 110 seconds
- Increases density of traffic (trains per hour) by 12%
- Increases reliability to over 98%
- Decreases freight insurance fees by up to 90%
- Enables up to 40% more capacity on currently existing infrastructure
- Enhances transportation modal shift towards rail.

Do we need a new approach in doing business?

Integrated logistics concepts



[Source: Dutch Institute for Advanced Logistics]

Synchromodality: A shipper agrees with a logistics service provider (LSP) on the delivery of products at specified costs, quality, and sustainability but gives the LSP the freedom to decide on how to deliver according to these specifications. This freedom gives the LSP the possibility to deploy different modes of transportation flexibly.

Advantages

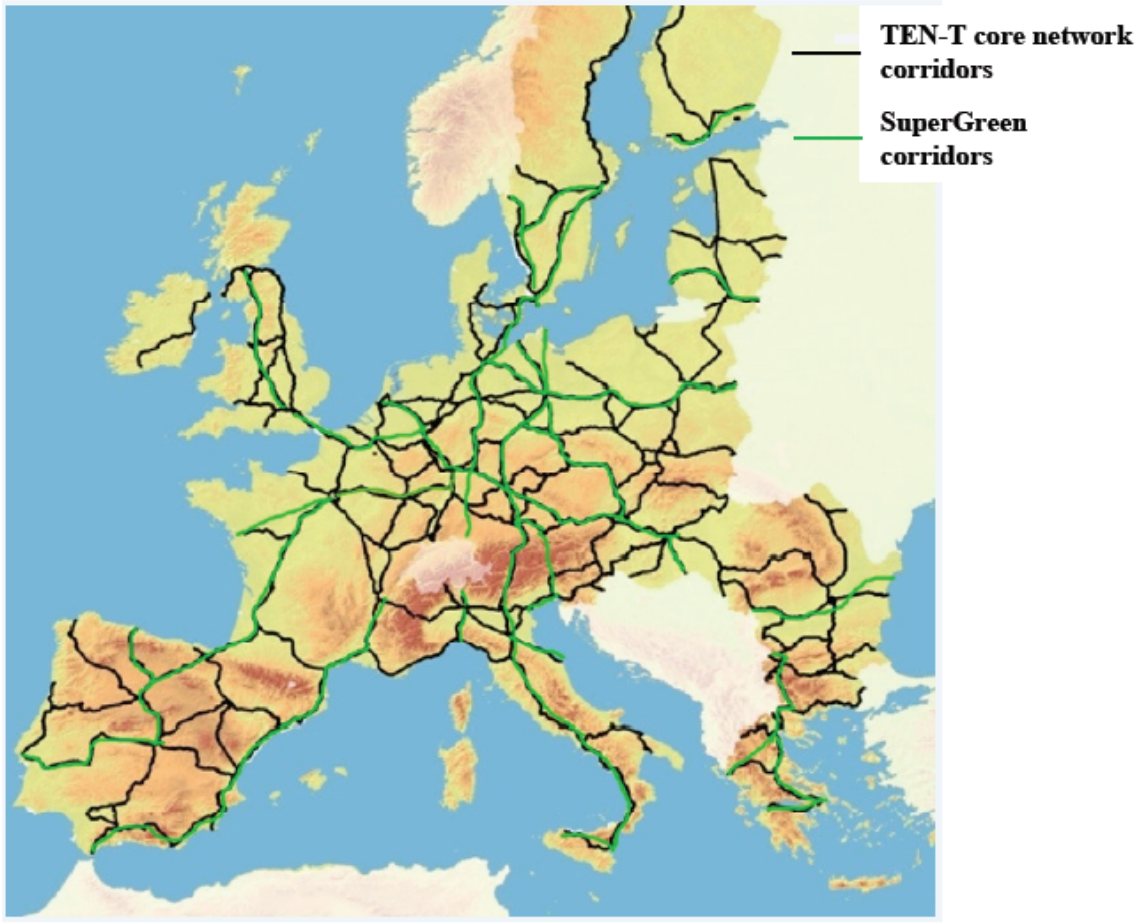
- Lower costs
- Higher quality
- More sustainability

Requirements

- Extended network of hinterland connections
- Information systems
- Smart coordination mechanisms
- Enabling policies
- Legal possibilities

How do green corridors relate with the TEN-T?

Geographical considerations



How do green corridors relate with the TEN-T?

Conceptual considerations

- All characteristics that make a corridor are more or less met by the proposed concept of TEN-T core network corridor.
- The decision of the European Parliament on this proposal is still pending.
- **The vision of having a network of green corridors in Europe is closer to becoming a reality.**

We hope that

SuperGreen

has contributed to that

THANK YOU

www.supergreenproject.eu