



Advanced technologies in Green Transport Corridors

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Content

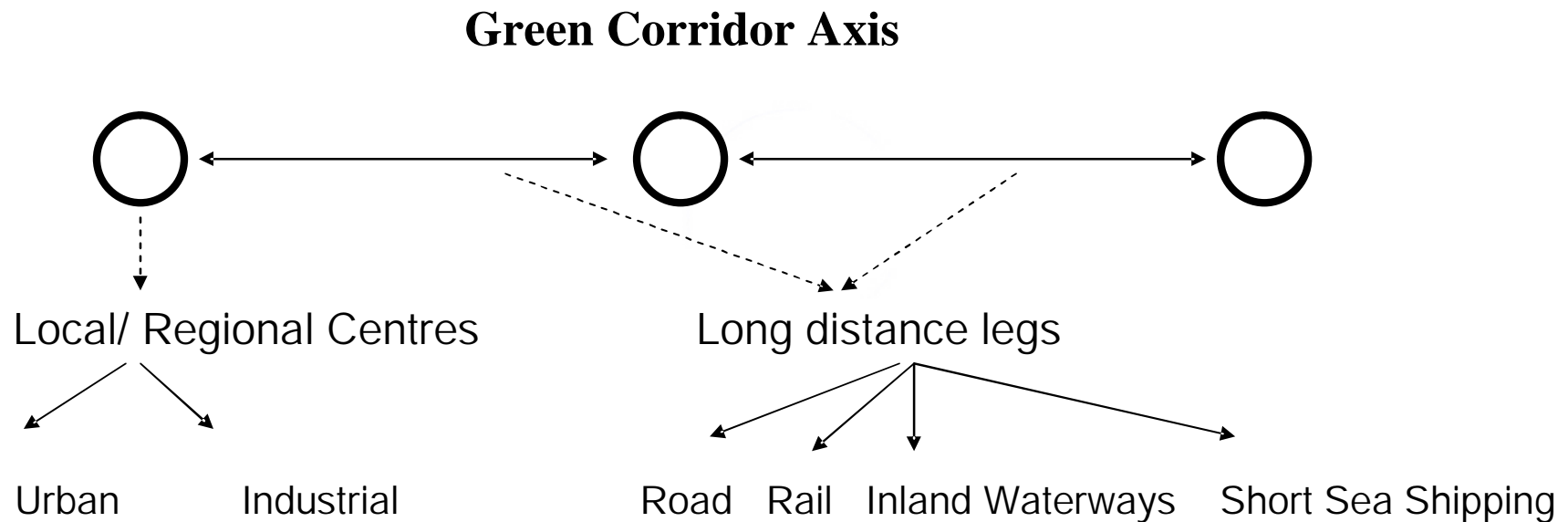
- Short history Green Corridors
- What is a Green Transport Corridor
- What's "Green"?
- How to narrow down the focus in "Green"
- How to put Green Corridors into practice?
- The role of a clean vehicle definition
- Advanced technologies in a Green Corridor
- The policy part: developing policy measures
- Developments to link to
- Synergy between FP7 calls and national policy implementation
- Discussion points

Short history Green Corridors

- 2006, autumn: Green Corridors idea developed in action group ENT7 from ERANET Transport project
- 2007, 3rd July: Green Corridors idea presented to Ben van Houtte/ DG Tren at Dutch Transport Ministry
- 2007, October: EU Action plan for Green Freight Corridors
- 2007, November: several Green Corridor DG Tren calls in FP7
- 2008, December: Green Corridors in ENT+ proposal, cancelled 2009
- 2009, October: Swedish Green Corridor Programme/ Initiative
- 2009, 9th December: Green Corridor Conference, preparing for 2010 FP7 calls

What's a Green Transport Corridor?

Proposed definition: a major transport axis in the EU along which “clean” cross-border transport is facilitated and benefited



What is “Green”?

Proposition: Green transport means Clean(er)

Many policies to bring this about:

- A. Transport avoidance:** -more efficient spatial planning; -teleworking; -bring together demand & supply locations; -more efficient logistics; -shift from fuel traction to physical traction (walking/ cycling); etc

- B. Reduction of energy use per ton/km:** -vehicle improvement (light weight, aero/hydro dynamics, rolling resistance, integration on board systems etc); -Modal shifts (road-rail, road-SSS, road-IWW); -shift from private to public transport; -transport as a individualised service; etc

- C. Reduction of harmful emissions per ton/km:** -more E. efficient veh's & propulsion systems (including EURO standards); -clean(er) & more efficient fuels/ energy carriers; -tail pipe after treatment systems (CRT filters); etc

How to narrow down the focus in “Green”?

- Without focus, no concrete international cooperation between the involved MS's and urban & industrial centres
- Without concrete cooperation, no implementation
- Therefore: on which policy options to focus?
- This depends of the desired time scale:
 - Long term : -fundamental research
 - Mid term : -applied research
 - Short term : -DEMO's & direct implementation
- Proposition for long term: focus on transport avoidance
- Proposition for mid term: focus on the reduction of energy use per ton/km (including conditions for I-M shift)
- Proposition for short term: focus on the reduction of harmful emissions per ton/km (vehicle related technologies, the involved fuels & energy carriers and the involved infrastructures)

How to put “Green Corridors” into practice?

- Start by focusing through defining it (what’s the practical objective?)
- How are we going to define “clean” transport along a Green Corridor?
- By distinguishing between:
 - the centres & the legs
 - the different modalities involved
- Instrument to do this: “a clean transport definition”
 - for centres & legs separately
 - for each modality separately
- Proposition: start with the short term perspective
- Why? Because we need direct implementation for our 2020 policy objectives

The role of a Clean Vehicle definition

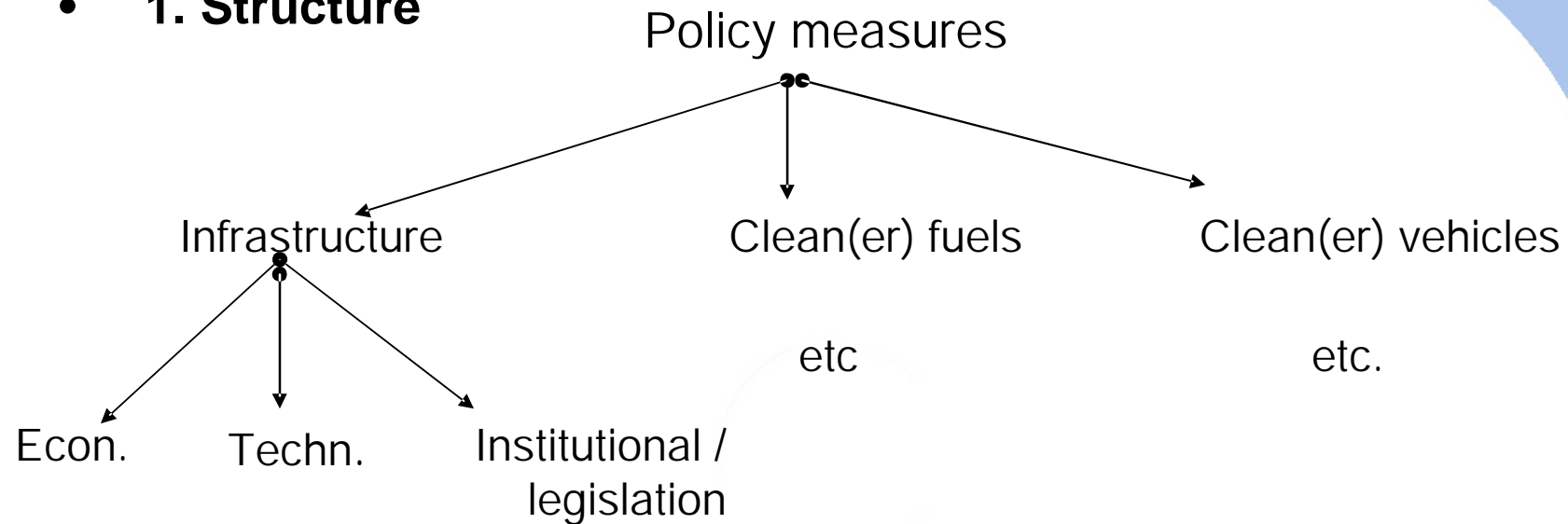
- Why: to keep implementation as simple as possible (success Sweden)
- Composite definition: -different propulsion systems, technologies, fuels & energy carriers; -a CO2 emission standard; -soot filters (in combination with (bio) diesel engines, EURO standards etc
- For specific parts of a Green Corridor: -a centres CVD; -a long distance road definition; -a long distance SSS definition etc. Overlaps possible
- Clear signal to demand side (public & private fleet owners, individual users) and supply side: (automotive industry, fuel companies, investors)
- Forms a stepping stone for a variety of policy measures
- Can be the backbone of a consistent international policy on cleaning up transport along specific corridors:
 - Makes policies less hype sensitive (all clean(er) fuels included)
 - Offer a good stronghold for industry & end-users
 - Stimulates a good market development
 - Potential to become focal point for large scale implementation

Advanced technologies in a Green Corridor

- Green Road Corridor between Rotterdam and Vienna
- Clean vehicle definition centres: -all vehicles dependent on external electricity supply; -all vehicles on H2 (ICE & FCV); -diesel passenger vehicles with max 95 gCO₂ /km in combination with a CRT filter; -petrol passenger vehicles with max 110 g/km; -all 85% biofuel vehicles with a fuel consumption of no more than 9,2 l/100km for petrol blends, no more than 8,4 l/100km for diesel blends, no more than 9,2 l/100km when blended with CNG/LNG; -Hybrid vehicles that meet emission class IV, Euro norm IV or Stage IIIa (directive 97/68/EC)
- Clean vehicle definition legs: all cat's above without Stage IIIa (off-road veh's)
- A set of national & local policy measures that supports clean vehicles, clean fuels and the associated infrastructure along this corridor

The policy part: which policy measures to develop?

- **1. Structure**



- **2. Levels**

- Regional /local
- National
- EU

Important developments to link to

From a practical perspective it will be worthwhile to link to:

- The TEN-T Network
- The Green Car Initiative by DG RtD
- The present “Electromobility hype” in Europe (including these veh’s & technologies in CVD, stressing their importance)
- Existing national programmes with an area approach
- The ongoing trans-national cooperation between MS’s in ERANET Transport & ERANET Road
- The existing 74 Low Emission Zones in Europe

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Synergy between FP7 calls & national programmes & initiatives

- For the establishment of Green Corridors existing local & regional initiatives around clean(er) vehicles & fuels are important
- Often these are funded through national programmes and/or initiatives, like approaches for area development and /or clean(er) vehicles
- A possible option for synergy is when national programmes involved in area development/ cleaner vehicles would stimulate (or require) that recipients are involved in a Green Corridor development or call
- Another option is the other way around, that consortia that submit proposals to a FP7 Green Corridor call must be involved in a national area development/ clean(er) vehicles project as well
- Yet another option is cooperation between different national programmes that are involved in area development and/or cleaner vehicles and fuels. This means linking to the ongoing developments in ERANET Transport & ERANET Road

Discussion points

- Which time perspective for FP7 Green Corridor calls (research or implementation)?
- How to work on both the I-M part and the clean(er) fuels part (separate calls or not)?
- Which composition of consortia to submit proposals (local/regional governments, industry, research institutes, fleet owners etc)?
- How to achieve synergy between FP7 calls and national policies & programmes?

Thank you for your attention