




GREEN CORRIDOR INITIATIVE'S STUDY

Latvian logistics cluster

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EUROPEAN UNION
EUROPEAN REGIONAL DEVELOPMENT FUND
INVESTING IN YOUR FUTURE



CENTRAL BALTIC
INTERREG IV A
PROGRAMME
2007-2013

TOWARDS GREEN & EFFICIENT MARITIME CLUSTER IN CENTRAL BALTIC SEA REGION
12-13 FEBRUARY, 2013, TALLINN

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PROBLEM STATEMENT

- There is **strong correlation among cargo flows via ports** as a part of global maritime multimodal and intermodal Supply Chains **and level of value adding logistics services (VAS) in the ports and hubs.**
- **Level of global competitiveness** of BSR ports and hubs are dependent on ability **to speed up development and implementation of smart innovative value added (logistics) services** for their clients in the ports and hubs
- BSR ports and hubs **competitiveness increase** are the **gain expected from transport corridor approach** implementation

CORRIDOR APPROACH (*)

- The **main idea** behind this approach is the **differentiation of a specific corridor against others** in relation to one or more **attributes**.
- These **attributes** are considered **desirable by market players**, the definition of **the corridor** is expected to lead to **attraction of cargo**, the **consolidation** of which can bring about **significant gains**.

* source: <http://www.onthemosway.eu/blog/green-ports-and-green-shipping/2013/01/04/benchmarking-green-corridors/>

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EXPECTED GAINS FROM CORRIDOR APPROACH *

- **Improvements in efficiency** through better use of resources, **higher load factors and lower unit costs**;
- **Improvements in the competitiveness**, and thus the possibilities of **engagement, of modes like rail and waterborne transport** which, over long distances, **are environmentally friendlier than trucks**;
- Mitigation of the serious congestion problem that road transport faces through **the shift of cargoes away from European roads**, thus producing positive externalities (**reduction of transport time and improvements in reliability**) **to the other users of the road network**;
- Additional environmental and financial **gains resulting from** optimisation in terms of energy use and emissions further enabled by **the scale and length of such freight corridors** (e.g. through the use of alternative clean fuels);
- **Limitation of the considerable investments** needed for expanding the capacity of transport networks in an environment of **budgetary consolidation and increasing public infrastructure projects position to major transport** especially in the vicinity of urban areas.

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TEN-T PROJECTS COMPLETED IN 2011



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EU 27 CORE NETWORK TO BE COMPLETED IN 2030



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WHAT IS GREEN CORRIDOR?

According Swedish Logistics Forum (*):

- a **concentration** of national and international **freight traffic** on relatively **long transport routes**;
- **integrated logistics concepts** with optimal utilisation of all transport modes (co-modality);
- sustainable logistics solutions with **documented reductions of environmental and climate impact, high safety, high quality and strong efficiency**;
- efficient and strategically placed **transshipment points**, as well as an adapted, supportive infrastructure;
- a platform for development and demonstration of **innovative logistics solutions**, including information systems, collaborative business models and technology;
- **harmonised regulations** with openness for all actors.

(*) Source: <http://www.onthemosway.eu/blog/green-ports-and-green-shipping/2013/01/04/benchmarking-green-corridors/>

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9 GREEN COORIDORS SELECTED(*)

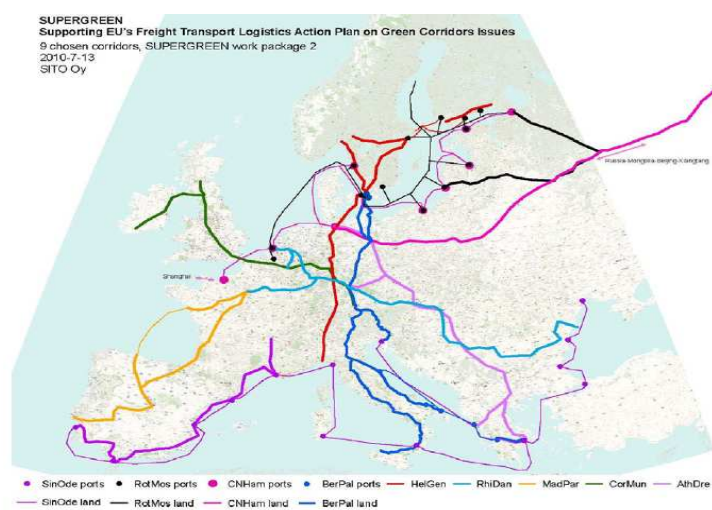


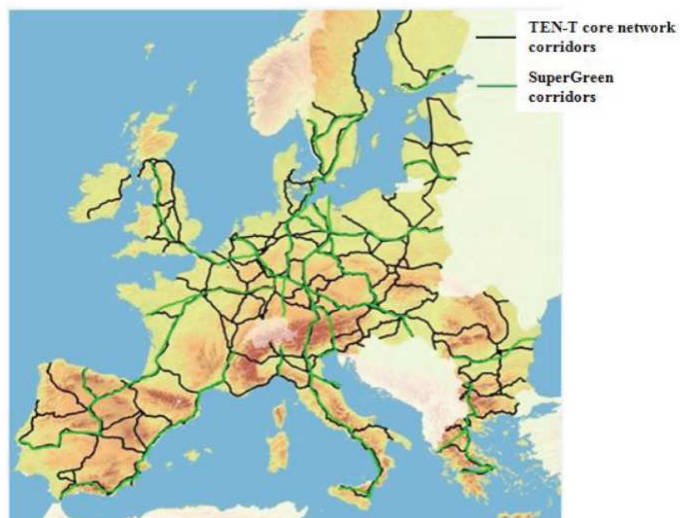
Figure 31. The final selection of SuperGreen corridors

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TEN-T Core network corridors (2011) vs SuperGreen corridors (2010)



* Source: [Http://www.supergreenproject.eu/docs/public/gothenburg2013/Psarafitis-Overview.pdf](http://www.supergreenproject.eu/docs/public/gothenburg2013/Psarafitis-Overview.pdf)

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GREEN CORIDORS KPI's (*)

KPI	Unit
CO2 emissions	g/ton-km
SOx emissions	g/1000 ton-km
Relative transport cost	€/ton-km
Transport time (or average speed)	Hours (or km/h)
Frequency, services per year	number
Reliability, on time deliveries	%

(*) Source: http://www.supergreenproject.eu/docs/public/D2.3%20REVISED_ver4-1%20FINAL%20PUBLIC.pdf

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Benchmarking results (all corridors)



Corridor	Mode	Cost (€/tkm)	Av. speed (km/h)	Reliability (%)	Frequency (no/year)	CO ₂ (g/tkm)	SO _x (g/tkm)
Brenner	Intermodal	0.03-0.09	9-41	95-99	26-624	10.62-42.11	0.02-0.14
	Road	0.05-0.07	19-40	50-99	104-2.600	46.51-71.86	0.05-0.08
	Rail	0.05-0.80	44-98	50-100	208-572	9.49-17.61	0.04-0.09
	SSS	0.04	23	100	52	16.99	0.12
Cloverleaf	Road	0.06	40-60	80-90	4.690	68.81	0.09
	Rail	0.05-0.09	45-65	90-98	156-364	13.14-18.46	0.01-0.02
Nureyev	Intermodal	0.10-0.18	13-42	80-90	156-360	13.43-33.36	0.03-0.15
	SSS	0.05-0.06	15-28	90-99	52-360	5.65-15.60	0.07-0.14
Strauss	IWT	0.02-0.44	-	-	-	9.86-22.80	0.01-0.03
Mare Nostrum	SSS	0.003-0.20	17	90-95	52-416	6.44-27.26	0.09-0.40
	DSS	-	-	-	-	15.22	0.22
Silk Way	Rail	0.05	26	-	-	41.00	-
	DSS	0.004	20-23	-	-	12.50	-

- Very low speed for road transport (probably due to delays in terminals)
- Very high variance of intermodal transport attributes (due to different characteristics)
- The EcoTransIT World emission calculator was used for estimating emissions



Final Plenary SuperGreen Workshop, Gothenburg, 11 January 2013

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- * Source: [Http://www.supergreenproject.eu/docs/public/gothenburg2013/Psarafitis-Overview.pdf](http://www.supergreenproject.eu/docs/public/gothenburg2013/Psarafitis-Overview.pdf)

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LOGISTICS INNOVATION [*]

« Logistics innovation has been defined as “any logistics related service from the basic to the complex that is seen as new and helpful to a particular focal audience.

The audience could be:

- **internal** where innovations **improve operational efficiency**
- or
- **external** where innovations **better serve customers**»

(*) Dr Carlos Mena. Innovation in Logistics Services. Cranfield School of Management

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CUSTOMER ROLE

„ An **innovation exists**

if the **customer gains value** added from the “new” product / service, which is the case when a new function (or a new combination of existing functions) is provided and / or existing functions are provided at significantly lower cost.

This may involve innovations in products / services, in processes or in business models” (*)

(*) Dr Carlos Mena. Innovation in Logistics Services. Cranfield School of Management

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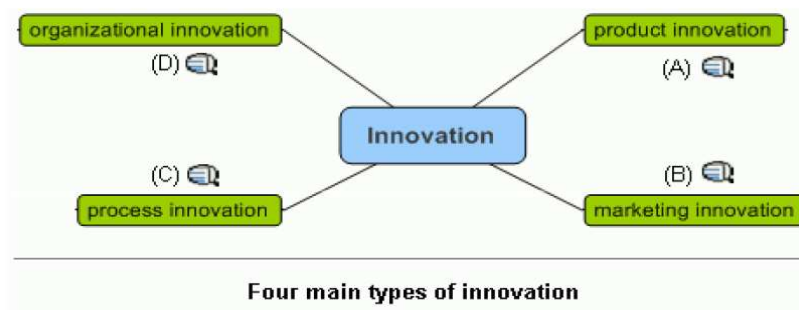
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INNOVATION TYPES[*]

*<http://www.netcoach.eu.com>

➔ As an object of the innovation, the Oslo Manual concentrates on four innovation types: product innovation, process innovation, marketing innovation and organizational innovation.



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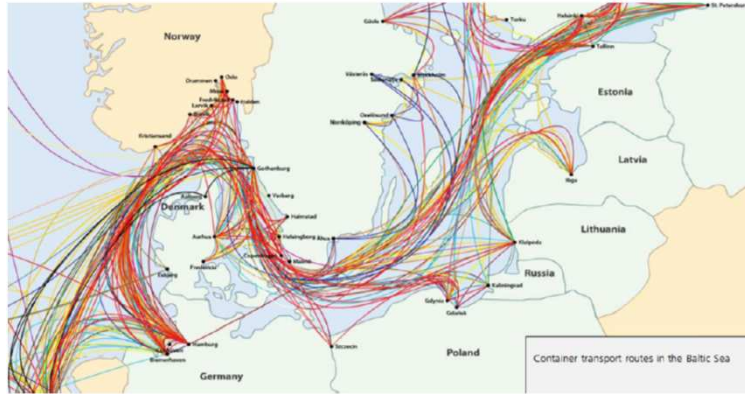
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CARGO FLOWS : CONTEINERS ROUTES 2011 (*)

*) source- RESEARCH PAPER CONCERNING THE TECHNOLOGICAL DIMENSION OF ACCESSIBILITY WITHIN THE AMBER COAST LOGISTICS REGION Authorship: Fraunhofer Center for Maritime Logistics and Services CML, Hamburg, August 2012

Figure 4: Container transport routes 2011⁹



Part-financed by the European Union (European Regional Development Fund and European Neighbourhood and Partnership Instrument)

CARGO FLOWS: RO-RO AND FERRY ROUTES-2011(*)

*) source- RESEARCH PAPER CONCERNING THE TECHNOLOGICAL DIMENSION OF ACCESSIBILITY WITHIN THE AMBER COAST LOGISTICS REGION Authorship: Fraunhofer Center for Maritime Logistics and Services CML, Hamburg, August 2012

Figure 4: Container transport routes 2011⁹



Part-financed by the European Union (European Regional Development Fund and European Neighbourhood and Partnership Instrument)

StarDust pilots



MarChain



Mobile Vikings

At the StarDust project core there are 5 pilots in cross-sector domains addressing Grand Challenges



Clean Water



Comfort in Living



Active for Life



Part-financed by the European Union (European Regional Development Fund and European Neighborhood and Partnership Instrument)

MarChain



Partners

- Klaipeda Science and Technology Park (Lithuania),
- WTSH (Business Development and Technology Transfer Corporation of Schleswig-Holstein in Germany),
- Maritime Academy of Gdynia (Poland),
- Estonian Maritime Academy (Estonia),
- Latvia Logistic Association (Latvia),
- Turku University (Finland)
- Swedish Maritime Forum (Sweden).



Part-financed by the European Union (European Regional Development Fund and European Neighborhood and Partnership Instrument)

OURS PROPOSAL FOR THE COOPERATION

**Business clusters (3-helix) cooperation
and smart specialisation and for
innovative value adding services in
ports and hubs connected
via green corridors**

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THANK YOU!

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