The SuperGreen project

- a project led by National Technical University of Athens (NTUA)

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1st EcoTransIT Stakeholder Workshop
Paris, 5 October 2010
7th Framework Programme

- Theme title: Transport (including Aeronautics)
- Type of project: Coordination and Support Action
- Project full title: Supporting EU’s Freight Transport Logistics Action Plan on Green Corridors Issues
- Project acronym: SuperGreen
Background


- Green transport corridors for freight.
- Green Corridors should in all ways be environmentally friendly, safe and efficient.
- Emissions, internal as well as external costs should be considered.
What is a green corridor?

EU Commission:

Green Corridors are a European concept denoting long-distance freight transport corridors where advanced technology and co-modality are used to achieve energy efficiency and reduce environmental impact.
Objectives

• *Provide support and recommendations* on Green Corridors to EU’s Freight Transport Logistics Action Plan.

• *Encourage co-modality* for sustainable solutions.

• *Benchmark* Green Corridors based on selected KPIs covering all aspects related to transport operations and infrastructure.

• Conduct a programme of *networking activities between stakeholders* to facilitate information exchange, dissemination of research results and communication of best practices and technologies.
Objectives, contd.

- **Deliver studies** addressing topics important for the further development of Green Corridors.
- **Deliver policy recommendations** at a European level for the further development of Green Corridors.
- Provide **recommendations concerning new calls for R&D proposals** to support development of Green Corridors (eliminate bottlenecks).
Modes covered

- ALL SURFACE MODES
  - Road
  - Rail
  - Sea
  - Inland Navigation
## WP2: benchmarking green corridors

**Task 2.1: Selection of corridors**
- Definition of selection criteria and selection of corridors

**Task 2.2: Definition of benchmark indicators**
- Definition of key performance indicators (KPIs) and validation

**Task 2.3: Effects of changes in operational & regulatory environment**
- Data collection of operational and regulatory environment and evaluation of effects

**Task 2.4: Benchmarking of green corridors**
- Description of state of the art and future expectations for selected corridors

**Task 2.5: Definition of areas for improvement**
- Summary of previous workpackages to form systematic development track for green corridor concept

**Evaluation methodologies, indices and KPIs**
- Selection of corridors and a set of best practices
- General framework and set of measures for validation of greening rate of transport corridors
- General or corridor specific factors to hinder or promote the green logistics development
- Overall and analysed description of differences and common features between selected corridors
- Benchmark report on green corridors

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Initial data, recognised bottlenecks and targets for further development in WP3 to WP5
The consortium

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<tr>
<th>Partner Number</th>
<th>Partner name</th>
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<td>1 (Coordinator)</td>
<td>National Technical University of Athens</td>
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Duration & budget

- Official start: 15 Jan. 2010
- Duration: 3 years
- Total budget: 3,453,747 EUR
- EC contribution: 2,634,698 EUR
Stakeholder input

• Industry participation in stakeholder workshops
  – 1st: Helsinki, June 28, 2010
  – Regional workshops: spring 2011
  – 2 more plenary workshops (thru 2013)

• Membership to the Advisory Committee

• Link with other projects and related activities
# SuperGreen Corridors

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<tr>
<th>Brief Description - Branches</th>
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<td>Madrid-Gijon-Saint Nazaire-Paris Branch A: Madrid-Lisboa</td>
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<td>Cork-Dublin-Belfast-Straona Branch A: Munich-Friedewald-Nuneaton Branch B: West Coast Main line</td>
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<td>Helsinki-Turku-Stockholm-Oslo-Göteborg-Nalmö-Copenhagen (Nordic triangle including the Oresund fixed link) - Fehmarnbelt - Mien - Genoa</td>
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<td>Nureyev</td>
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<td>Rhine/Meuse-Main Danube inland waterway axis Branch A: Betuwe line Branch B: Frankfurt-Paris</td>
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SuperGreen Corridors

SUPERCORRIDORS
Supporting EU’s Freight Transport Logistics Action Plan on Green Corridors Issues
9 chosen corridors, SUPERCORRIDORS work package 2
2010-7-13
SITO Oy
KPI areas

- Efficiency
- Service quality
- Environmental sustainability
- Infrastructural sufficiency
- Social issues
Efficiency KPIs

- Absolute costs (€/tonne)
- Relative costs (€/tkm)
Service quality KPIs

- Transport time
- Reliability
- Frequency of service
- ICT applications
- Cargo security
- Cargo safety
Environmental sustainability KPIs

- CO$_2$-eq
- SO$_x$
- NO$_x$
- PM$_{2.5}$
Infrastructural sufficiency KPIs

- Congestion
- Bottlenecks
Social issues KPIs

• Land use
• Traffic safety
• Noise
Synergies with EcoTransIT World

- A corridor is viewed as a set of individual transport chains, which are analysed in relation to the 5 KPI areas mentioned above.
- All KPIs of the Environmental Sustainability area concerning a specific transport chain are calculated by EcoTransIT World.
Synergies with EcoTransIT World

• *Emissions of GHG = (Fuel Emission factor) * (Specific energy consumption) / (load factor)*

  o **Fuel Emission Factor** is expressing emissions of GHG per energy unit of fuel and depends on the type of fuel used.

  o **Specific Energy Consumption** is expressing the energy input to the vehicle/vessel per travelled distance and depends on the technology used and the driving conditions (speed, congestion, topography, weather, driving pattern etc.).

  o **Load factor** is probably the most crucial parameter in the environmental performance and efficiency of an operation.
Synergies with EcoTransIT World

• All three determinants of the emissions produced are followed by EcoTransIT World, and they are entered in the calculations either directly by the user or as default values based on real life experiences.

• The default values of EcoTransIT World and its consistent way of calculating emissions are of great value to SuperGreen, as it is expected that our partners will not be able to locate the necessary data in all transport chains analysed for all corridors examined.
Stakeholder input

Your opinion counts

Join us in our First Regional Workshop
In Naples, Italy on October 19, 2010
to help us:
Define Green KPIs
Benchmark Green corridors

For registration visit:
www.supergreenproject.eu
THANK YOU

• [www.supergreenproject.eu](http://www.supergreenproject.eu)