

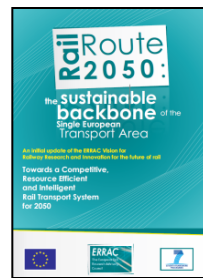
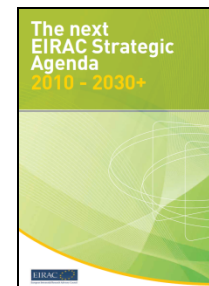
# Recommendations for R&D Calls

Final Plenary Workshop,  
Gothenburg, 11th January 2013

Even Ambros Holte  
MARINTEK

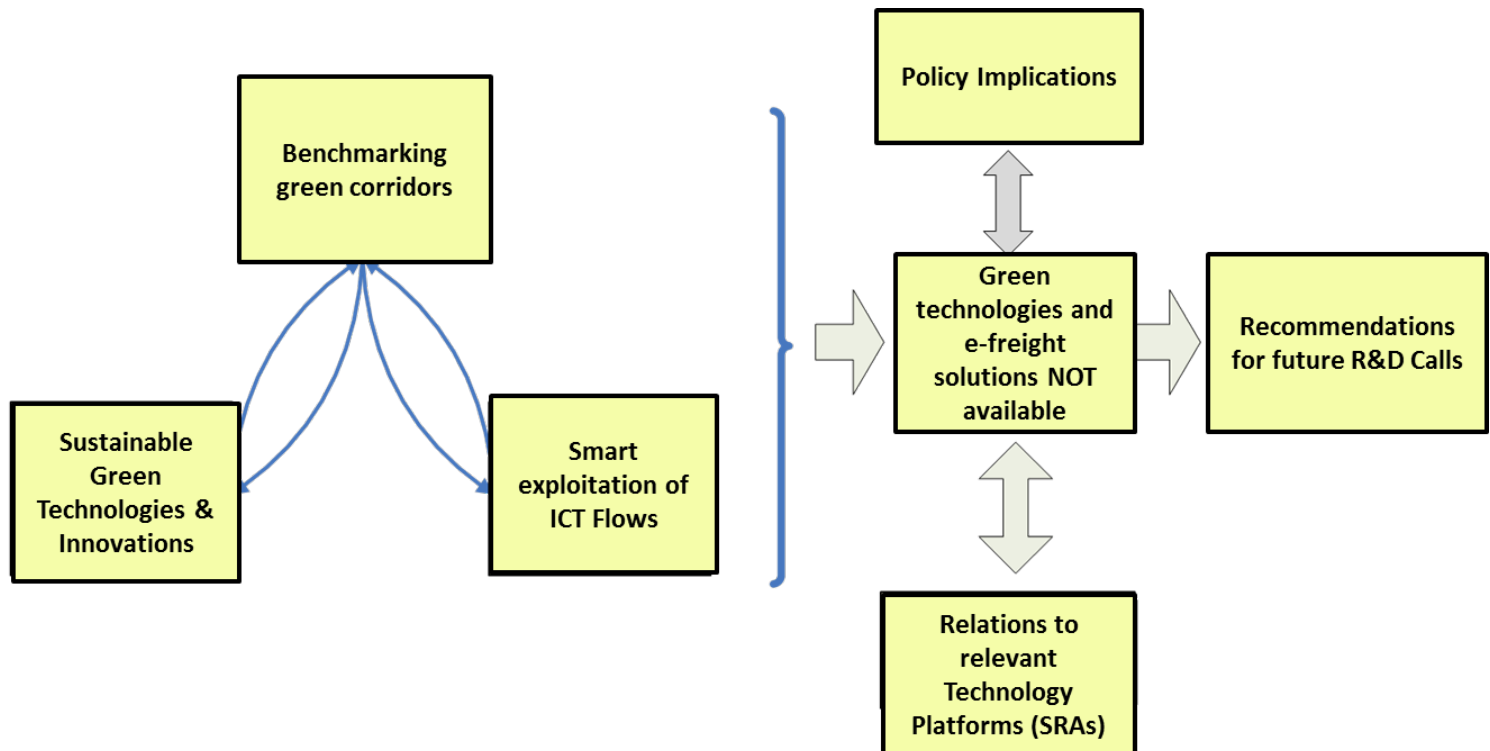
# Main objective of work

- Identify and define recommendations for calls for R&D proposals to the Commission.
- This in coordination with:
  - SRAs of relevant Technology Platforms
  - Some selected R&D dissemination initiatives
  - Some selected funding mechanisms

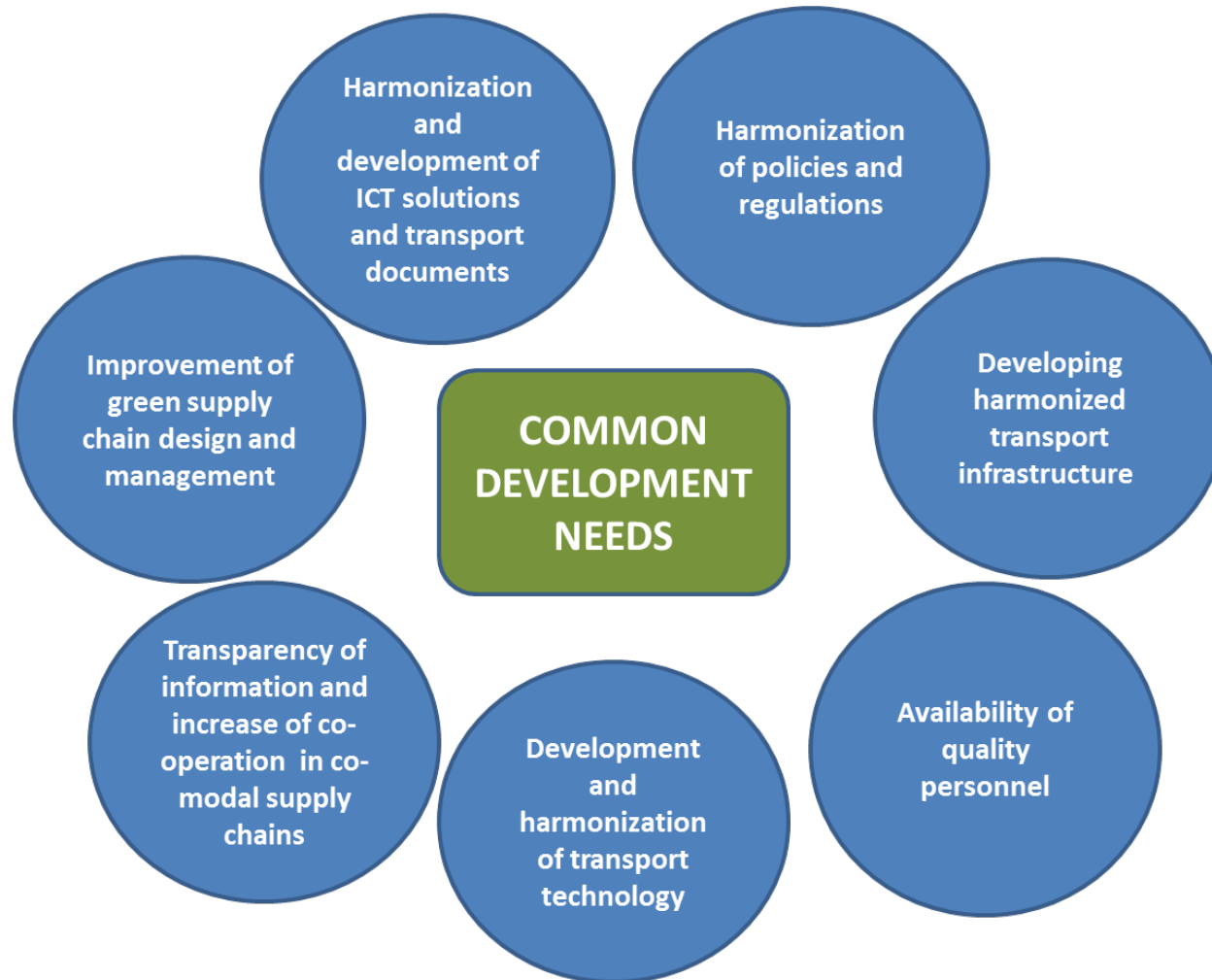


# Logic and work approach

- Coordination with other relevant project activities



# SuperGreen common development needs



# SuperGreen Work – Phase 1: developing initial R&D recommendations



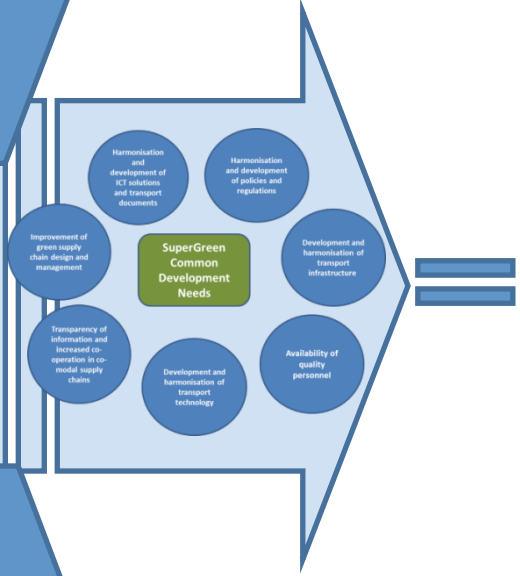
"Bottom Up"

- Transport corridor bottlenecks
- Final mapping of smart ICTs and Green Technologies



"Top Down"

- Investigation of TEN-T requirements



Technology and ICT GAP as basis for Final R&D recommendations

# SuperGreenWork – Phase 2: developing final R&D recommendations



- Imported findings from previous project work
  - The SuperGreen common development needs
  - Initial R&D recommendations
  - Input from work related to Policy Implications
- Evaluation of SRAs from relevant Technology Platforms
  - EIRAC SRA
  - ERTRAC SRA
  - Waterborne SRA
  - ERRAC SRA
  - Inland Waterway SRA
- Compare White Paper on Transport (2011) with SRAs of relevant technology platforms
  - Main objective: disclosure of possible R&D GAPS and development needs
- Desk-top study of relevant R&D dissemination initiatives and some selected funding mechanisms
  - Dissemination initiatives: Transport Research & Innovation Portal , EC-Research and Innovation, Strategic Transport Technology Plan, Joint Research Centre, etc.
  - Funding mechanisms: Green Car Initiative and Horizon 2020
- Development of mode-specific and co-modal R&D recommendations



# Some examples of co-modal R&D recommendations

- Increased focus on challenges caused by lack of data and reliable tools enabling proper benchmarking exercises within the transport domain.
  - Development of harmonised methodology for data collection
- A further strengthening of efforts securing integration and implementation of harmonised ICT solutions, also developing new ones (e.g. Single Window concepts).
  - Low threshold ICT applications and solutions for increased applicability across industry (e.g. Cloud computing as represented by the FP7 Finest project).
- Impact studies for assessing potential environmental performance and cost savings when introducing new ICT and technology solutions
- At least one certified multimodal environmental footprint calculator needs to be developed supporting the relevant actions of the 2011 White Paper.
  - Avoidance of biased results (i.e. favouring of modes).
  - Standardised methodology for considering emissions (i.e. well-to-wheel or tank-to-wheel)



# Some selected mode-specific recommendations

- R&D recommendations for waterborne (incl. shortsea and inland navigation)
  - Port and hinterland congestion,
    - Cargo handling technologies – a important co-modal transport enabler
    - Vessel traffic management systems
  - increase the understanding of what impact "slow steaming" shortsea traffic has on the environment, and on the transport industry at large
  - Training of maritime professionals for shortsea and inland navigation
- R&D recommendations for Rail
  - Improved management of wagon and traction assets (e.g. utilisation of slots and cargo capacity)
  - Identification of where and on which corridors "green technologies" should be promoted and implemented for best possible result (cost-benefit analysis).
  - Traffic management and border crossings (harmonisation and renovation of infrastructure)
- R&D recommendations for Road
  - Traffic flow management systems and energy efficiency
    - Dynamic vehicle routing and road pricing
    - Propulsion technologies, and alternative sources of energy
  - ICT implementation, adoption, and development
  - Forecasting and simulation techniques for future road cargo flows and traffic pattern predictions => increased awareness for future impact on infrastructure



# The Call-texts

- One for each "development need"

## 10.4 GC.SST.2014.1.4. Development and harmonisation of transport infrastructure

### Content and Scope

Infrastructure and terminals are vital for the overall efficiency of logistics networks, so as for the environmental profile of the co-modal supply chains. Terminals and infrastructure need to be developed in an integrated manner to secure interoperability between modes, and to streamline and harmonize the overall efficiency. This also includes development of technologies and concepts for seamless cargo handling. The harmonised development of the infrastructure should be based on on-going processes defining the best standards to achieve an integrated and streamlined European transport infrastructure that fulfils environmental and sustainable requirements.

The R&D objectives supporting this specific Green Corridor development need are closely related to the following activities:

- Improvement of intermodal hub equipment and easy cross docking technology to increase productivity and standardised modal shift capability.
- Innovative solutions for more efficient boarder crossings. Efficient and economically attractive solutions for the upgrading of existing infrastructure as multimodal terminals, sea and river ports, and city logistic centres to make operations more sustainable.
- Innovative solutions to combine freight and passenger transport infrastructures with green technologies in a realistic and efficient way.
- Advances in the implementation of standard interoperable technologies in railway infrastructure: Signalling system, catenary, axle load, maximum length of passenger and freight trains, gauge, etc.

### Expected impact

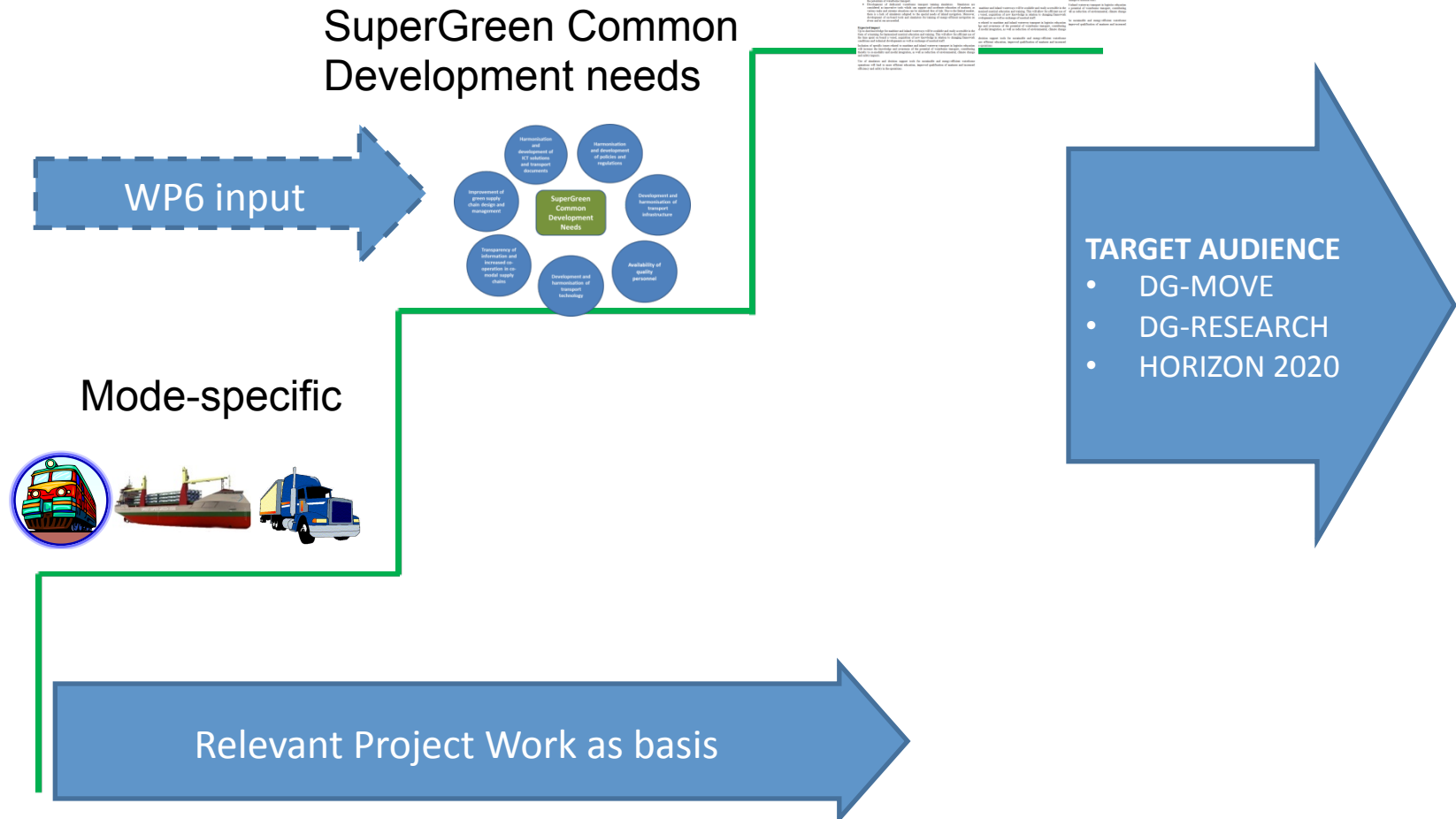
The work is expected to give important contributions for reaching the objectives related to more harmonized, efficient and sustainable co-modal transports and is supposed to give guidance for the implementation of novel green technologies in transport infrastructure (i.e. clean & low-emission energies).

The work will significantly contribute to the deployment of TEN-T infrastructure by gradually integrating modal systems, also considering the new Member States and their specific identified infrastructure gaps, as stated in the White Paper on Transport (2011).



# Results through a bird's-eye view

## The 7 SuperGreen Call-texts



# Q & A ?

Thank you for your attention!

[even.holte@marintek.sintef.no](mailto:even.holte@marintek.sintef.no)

<http://www.supergreenproject.eu/>

[www.marintek.no](http://www.marintek.no)