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Basic idea:

This project will focus on how to develop innovative value added services for co-modal transport in order to provide an alternative to direct road haulage of goods as the preferred transport mode in Europe. Preference for other modes of transport is desirable due to lower emissions of gases and air pollutants, lower impact on roadside safety and the relieving of road congestion.

Efficient terminal operations is a decisive factor in the utilization of co-modal transport networks. By reducing transfer time and costs, the terminals can improve efficiency and sustainability in the transportation chain. In order to make co-modal transportation a competitive alternative, the transport chain must have seamless interconnectivity between the transportation modes. This in turn requires collaborations between autonomous companies to solve collective problems. This is often problematic due to differences in the companies' aims and ranking of priorities, non compatible software, and unclear guidelines on dividing of profit and risk.

Co-modal transport usually involve terminals at both ends of the transport chain. Road haulage on the other hand is flexible as to where and when resources are applied. Co-modal transport thereby depends on a whole network of efficient terminals to maximize their competitive ability. In order to succeed with co-modal network design and supply chain visibility, a holistic performance measurement system with Key Performance Indicators will be defined for networks of green hubs and their supply chains.

Project Title: Flexible and fast co-modal transport (FACT)

Work Program Area:

GC.SST.2012.3-4. Green hubs enabling co-modal network design

Project Type:

Collaborative Project.

SINTEF is seeking a consortium that includes other **cities**, **terminals**, **logistics operators** and **technology providers,** as well as **universities and research organisations**. We want to provide the terminal in Oslo as a test-site, and unique logistics and transport competence at SINTEF to demonstrate green hubs for a fast and flexible co-modal network.

Competency:

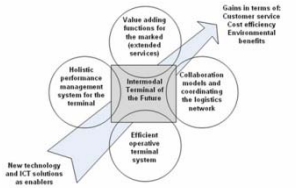
SINTEF Technology and Society, Operations Management group

The key competence areas of the Operations Management group include manufacturing logistics and supply chain management. The group conducts research and development both within individual companies and in entire supply chains. The group consist of 15 employees and has an ambition of becoming the leading national research group and internationally recognized within the following fields:

- **Manufacturing Logistics** concerns the effective and efficient manufacturing and transformation of goods and the associated information flow. Challenges include the development of solutions that are tailored to individual products and markets, and that simultaneously ensure the achievement of efficiency requirements.
- **Supply Chain Management** contributes to a holistic view of the flow of materials and information across supply chain stages from raw materials to consumption of finished products. Important challenges include the development of inter-organisational systems which are tailored to the needs of the market, that ensure effective control of the flow of materials and information, and which exploit effective cooperation models between individual supply chain actors.

Utilization of ICT in logistics is important in both these areas and is a vital component in many of our projects.

Projects: (Examples)

PROFIT Project Intermodal Terminals of the Future	Norway's National Transport Plan 2010-2019 states that it is of national interest to facilitate efficient terminal operations in the port of Oslo and the Alnabru railway terminal. Some of the key players in the logistics of Norway joined in the research project **PROFIT** (Project Future Intermodal Terminals) to realize gains from more efficient terminal operations at the port and Alnabru with related business clusters. The research project PROFIT started in 2009, lasting three years. More information on the project: www.sintef.no/PROFIT/	
INTRANS	The goal of **INTRANS** is to create solutions for future transportation systems. Use of RFID technology, sensor technology and new ICT will enrich the systems with real-time information in large quantities. By developing the system architecture, advanced management models, optimization models and decision support tools, we help the future of transportation operators to utilize the new information. http://www.sintef.no/INTRANS/