



Regional Freight Hubs

- Design and Connectivity

The design and connectivity of Regional Freight Hubs was a key focus of the StratMos project's Demonstration Project DP 3a "Invisible Intermodal". Throughout the North Sea region the transfer of traffic to intermodal by the additional of maritime and rail modes is impeded by the difficulty of aggregation of traffic into sufficient volumes and the complicated intermodal logistics chain. Often the various modal shift terminal locations are not at the same geographic hub for rail and sea so this project looked at creating a more efficient co-operative working of the existing facilities in order to improve logistics

efficiency. Design and location of hubs was investigated at key locations in North East Scotland and Norway and the flows and connectivity of the existing terminals was examined and improvements were tested on the ground. SWOT and best practice were exchanged within the partnership and by external research and a successful private /public sector cooperation forum model was developed and used to engage industry in common goals arising from the results. This leaflet gives an overview of the key activities and results from this project.

StratMos Leaflet



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a sustainable and competitive region



Background and Challenges

As with other ports around the North Sea region, ports in North East Scotland and Norway handle a wide range of commodities, from fish to specialist oil infrastructure. For the majority of these cargos the port is not the final destination for the goods, and the customer's real priority is ensuring that goods reach the final destination and the complexities of the transport chain are not their concern.

In both the Aberdeen City and Aberdeenshire Region and the various Norwegian partner regions there are specific challenges in achieving this invisible transfer between transport platforms, specifically arising from the relative positions of the ports and the links to the main road and rail corridors.

Objectives

The objective was to study the appropriate location, flow, and connectivity issues in the various regions and to look to apply these in other regions whilst also giving a platform to apply the more theoretical work being done under WPC Hubs and hinterlands. It was hoped that this would result in creating an efficient regional freight hub complex that spanned several locations to create a multimodal system.

In respect to Aberdeen City and Aberdeenshire, this sub-project aimed to look at the possibility of establishing a regional freight hub and the possibility of improving the connectivity between port and railway terminal. This could then lead to a test on the improving connectivity on a selected pilot based on studies of the regional traffic flows.

In Stavanger and Kristiansand, this sub-project aimed to look at the possibility of linking the maritime corridor by making a transfer to the dry port using either road or rail, in respect to both organisational and physical aspects.



Key Activities

All subproject members conducted a SWOT analysis on their position as a regional freight hub. This exercise also encompassed the other StratMoS Demonstration Project 3b, c and d members to widen the transnational focus.

Studies were undertaken on traffic flows in North East Scotland and a traffic flow project was launched in Rogaland. In Scotland specific flows were selected for further analysis as to the ability to aggregate into suitable volumes for multimodal transport.

In Scotland a link was made with the regional transport authority and an industry forum was supported to provide input and a route for results dissemination to industry. The mechanisms for the forum were also shared with the Norwegian Partners. Materials such as traffic flow and constraint maps along with studies on current HGV stationing and flow patterns were disseminated by this route.

Specific studies on various options of improving road links for intermodal traffic between remote port and rail terminals were investigated in partner regions. In Scotland a specific investment was made in pilot prioritising traffic signals for these flows which was then tested and measured.

As a result of the initial studies in Scotland a specific proposal to create a new multimodal terminal was undertaken with sub-studies on prospective locations under differing scenarios and their respective rail connectivity.

Finally the results of the StratMoS Workpackage C (Motorways of the Sea Development in Hubs and Hinterland) "WPC" work under StratMoS was overlaid onto the proposal for a new terminal along with best practice from the WPC Lead Partner region of Denmark in the WPC-6 report available from the StratMoS website.

Key Results

The freight forum in North East Scotland supported in partnership with the Regional Transport Authority has had great success in involving the private sector and has grown over the course of the project both in attendance and level of influence. The forum structure has been promoted to several regions both within and outside the project. The specific business need led multi agency support to the freight sector that has resulted has been widely appreciated.



In all regions a review of the local transport hub, the port and terminal locations and their links was undertaken. Associated inputs have been made to regional and National Transport plans for Road and Rail links in both Scotland and Norway. This work has also been linked to the current wider European Transport Network issues to show how the regional hub provides Motorways of the Sea freight link opportunities. These ideas formed some of the practical input to the WPC4a StratMoS package on peripherality (see separate leaflet). Some of these routing ideas have also since been adopted as policy by the North Sea Commission and CPMR.

A number of possible aides to improving the connectivity on routes between ports and terminals in various partner areas were surveyed. The pilot infrastructure project to adapt traffic signals in Aberdeen was undertaken and proved beneficial.

A study of an example traffic flow into recyclate products has shown some potential and is being investigated further by industry partners. Previous Interreg project outcomes were updated to take account of the new economic conditions and provide a linkage to the regional plans. The updating and review process led to new opportunities of cooperation with projects working on low emissions zones. This cooperation identified the possibility of adding additional benefits to the regional freight hub idea from break-bulk and delivery activities.

The best practice input from StratMoS WPC has been used to help as a tool to structure planning and convince industry of both the theoretical and practical potential of a number of prospective terminal sites developed under this project.

The project has developed interest in new ways of presenting the concept of a regional freight hub especially as regards a hub of disaggregated locations with constituent terminals separated by necessity but linked into a common logistics system. These ideas have attracted significant interest into future project ideas under the Interreg programme which are currently under development.



The SWOT analysis process has triggered discussion with local logistics players. This has in turn resulted in the decision to run a physical test of trucks using public transport lanes on the upgraded road serving Risavika Port near Stavanger. This idea was also been modelled using computer simulation in Aberdeen. In Norway a test with long vehicles on public roads have shown satisfactory performance and a dispensation for long vehicles between Risavika port and the local rail terminal is being considered to improve the efficiency of the connection with the rail terminal hub.



Bringing the Results Forward

The StratMos regional hub demonstration project DP 3a has established a mechanism for cross-agency working with public and private sector industry which has proved a model usable in many fora. This has in turn developed the idea of a multimodal regional hub covering disaggregated terminal locations whose internal linkages are focused to deliver as seamless a transfer as possible. The idea of this cooperative model is being tested at locations in the North East of Scotland identified by the StratMos studies. The regional hub concept as developed under StratMos can be a key enabling idea to support the modal shift targets proposed by the recent European White Paper on transport particularly in peripheral areas and areas with lower cargo volumes while making best use of existing facilities.



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The StratMos Project

The full name of the project is "Strategic Demonstration Project for Motorways of the Sea". The name signals that the project aims to be strategic and policy oriented, and at the same time seeking concrete and tangible results.

The core aim and idea of the StratMos project is to promote and facilitate shift of cargo from road to seabased intermodal transport as well as to improve accessibility within the North Sea Region by supporting the implementation of Motorway of the Sea (MoS) and related transport networks in an integrated logistical chain.

The StratMos project is funded by EU and the Norwegian government through the Interreg IV B North Sea Region Programme. The project comprises some 29 partners, covering the North Sea Region from Flanders in the south to Finnmark, Northern Norway in the north. The Murmansk, Arkhangelsk and Nenets regions in Russia are additional associated partners.

The StratMos project was approved in December 2007, and the first formal International Management Group meeting was held in April 2008. The project will end on 30 September 2011.

Reflecting the dual aspects of the project, the project comprises both work packages that are policy and methodology oriented and demonstration projects which provide concrete and tangible results.

The StratMos Partners

- Aberdeenshire Council
- Aberdeen City Council
- Rogaland fylkeskommune
- Hordaland fylkeskommune
- Vest-Agder fylkeskommune
- Telemark fylkeskommune
- Hafen Hamburg Marketing
- University of Hull
- Port of Amsterdam
- FDT – Association of Danish Transport and Logistics Centres

Further Information

Further copies of this leaflet are available under DP3a "Regional Freight Hub", from the StratMos website www.stratmos.com