

Policy measures to realise green corridors – A stakeholder perspective



Magnus Blinge*

Logistics & Transportation, Chalmers University of Technology, 412 96 Gothenburg, Sweden

ARTICLE INFO

Article history:

Received 29 November 2013
Received in revised form 24 May 2014
Accepted 9 June 2014
Available online 7 July 2014

Keywords:

Sustainable
Freight transport
Policies
Green Corridor

ABSTRACT

The findings from the implementation of economic incentives in Europe, such as CO₂ tax and road user charges are encouraging, but it is unlikely to be enough to reduce CO₂ emissions from the freight transport sector by the required amount. Creating the so-called Green Corridors is one of the many measures being applied by the EU to make the freight transport sector more sustainable. The aim of this article is to adopt a stakeholder perspective on concepts and measures that will be necessary to establish a successful Green Corridor. A literature review and interviews with experts were used to generate input for a workshop at which stakeholders from academia, government bodies and the transport industry jointly devised new concepts and policy measures for the creation of Green Corridors. A combination of positive incentives, agreements, taxes and regulations is needed to make transport companies willing to participate. A promising pathway employs measures that ensure punctuality and accessibility, but also remove bureaucratic and infrastructural bottlenecks. In return, the transport operators must use significantly improved environmental technology in the corridors. Cooperation between actors is needed in order to raise load factors in the system, by increasing transparency and offering free capacity to other operators in the corridor.

© 2014 Elsevier Ltd. All rights reserved.

1. Introduction

Governmental intervention in the freight transport sector is not a new phenomenon. McKinnon et al (2010) describes the historical development of policy measures and regulations in the freight transport industry and concludes that, over the last thirty years, most of the quantitative regulations that were established to control the supply of freight transport capacity have been removed. They have been replaced by qualitative controls, designed to maintain operating standards and professionalism in the freight industry. Now, when interest in environmental issues has increased, governments have to introduce new policy measures to steer the freight transport sector towards sustainability.

“It is ironic that while liberalization measures have been facilitating the growth of freight movement, governments have been intensifying their efforts to reduce the impact of freight movement on the environment.”

[McKinnon et al., 2010, p. 342]

As of January 2014, the European Union (EU) has a new transport infrastructure policy, the Trans-European Networks (TENs), that aims to close gaps between the transport networks of individual EU Member States, remove bottlenecks that still hamper the smooth functioning of the internal market and overcome technical barriers. It promotes and

strengthens seamless transport chains for passenger and freight. As a step towards making the Trans-European Network – Transport (TEN-T) corridors sustainable, the Green Corridor concept established. For the core network corridors this will involve among other things, identification of methods for the optimisation of corridor development, with a particular focus on CO₂ emission reduction (EU Commission, 2014). Establishing Green Corridors is one of the efforts that have been jointly developed by some of the EU member states in order to reduce the impact of freight transport on the environment. A Green Corridor is characterised by a concentration of freight traffic between major hubs and by relatively long distances. Green Corridors should, in all ways, be environmentally friendly, safe and efficient. Green technologies and smart utilisation of Information and Communication Technologies (ICT), where available, may also improve service quality and efficiency on those corridors (Bookbinder (2013)). The EWTC II Green Corridors Manual – Draft definition (Tetraplan, 2011a, p. 2) defines Green Corridors as follows:

“Green Corridors deliver transport solutions that are more economically, ecologically & socially viable than other (non-green) corridors. The transports within the corridors are efficient, and when possible the optimum transport mode is used.”

The importance of using policy measures and other regulatory measures and incentives to promote the realisation of a Green Corridor has been emphasised by two EU funded projects. In the EWTC project stakeholders suggested that the creation of a green corridor will require that

* Tel.: +46 31 772 13 22.

E-mail address: magnus.blinge@chalmers.se.

those responsible to, for example, offer lower freight rates for those using green corridors (Tetraplan, 2011b). The “Supergreen” project provided a set of recommendations to public authorities concerning green corridor governance and operational issues (Supergreen, 2013). Governmental policy measures are essential to realise Green Corridors, and they need to be designed to attract the business actors in the transport sector to use them. Hunke and Prause (2013) state that the first experiences of green corridors at a European level are showing that the success and performance of corridors heavily depend on the commitment and cooperation of the various stakeholders involved. Governance models and cultural aspects have been shown to be important success factors in the development of green corridors. It is important therefore that stakeholders are consulted in the development of the public policy initiatives in this field.

In the research undertaken for this paper, three categories of stakeholder, government bodies, the transport industry and academic specialists, were consulted with the purpose of identifying the most important policy measures and incentives required to support the development of Green Corridors (EWTC, 2012).

2. Research scope and methods

There is not yet enough experience and empirical evidence in the published scientific literature to define the necessary measures for realising a Green Corridor. The literature shows that existing policy measures are primarily based on taxation and regulations and that minor modifications to these policies are unlikely to make freight forwarders change their current transportation patterns and use a Green Corridor (Cardebring & Lundin, 2007; Fors, 2011; Hultén, Gustafsson, & Sundberg, 2006; Liechti & Renshaw, 2007). This is why new public policy ideas and concepts must be developed. These concepts must consider all aspects of sustainability. For instance, environmental, social and economic elements and all actors must be involved in the process to ensure that the measures will be accepted and implemented.

Multiple sources of evidence were used in this study to achieve the necessary breadth by subject area and stakeholder group. To define new ideas and new concepts that can form the basis for new policy measures, a qualitative research approach has been developed in cooperation with business and government representatives. Businesses provide input of what is needed and realistic, while authorities are responsible for considering social aspects and what is legally and politically realistic. Mixed stakeholder involvement and experience are, therefore, necessary for building a solid knowledge base and ensuring that outputs of the exercise are accepted by both industry and government. Fig. 1 summarises the iterative nature of the research

design that combines a literature review with an assessment of the perceptions of freight transport actors. Combining existing research findings with new qualitative data, based on stakeholder expertise and experience, is highlighted by Schwanen, Banister, and Anable (2011) as being important for an understanding of complex problems. They argue that successful development of new technologies requires that they become integrated in relevant industries and markets, matching regulations, rules and standards and complying with existing social norms and beliefs. Geels (2012) confirms the view that understanding large-scale transitions to new transport systems requires analytical frameworks that encompass multiple approaches and address interactions between them. He also highlights the importance of analysing the interactions between industry, policymakers, consumers, and civil society. Banister (2008) concludes that, to gain stakeholder commitment to a sustainable mobility paradigm, their open and active involvement is far more effective than the more conventional passive means of persuasion.

2.1. Research method

The research was designed in four steps. Firstly, the initial literature search was made using Google Scholar and Summon as search tools. Summon gives access to more than 145 million resources including, for instance, TRID, SAE Digital Library and Technology Research Database. The keywords for the literature search were: sustainable, environment, freight transport, logistics, Green Corridor, policy, economy, incentives and regulation.

Secondly, and parallel to the literature study, interviews with five experts in the area of transport policy research were conducted. The primary aim of these interviews was to ensure that the present knowledge base and the contemporary research, as well as relevant references, ongoing projects and initiatives in the area, were covered. The interviews also provided important input to the workshop with the stakeholders. The interviews were carried out in a semi-structured manner enquiring about the experts' experience of this field, in terms of projects, literature, individuals and organisations. In the first round of interviews experts representing research networks in Sweden and UK and the OECD were consulted. The experts were asked which other organisations might be involved with the relevant issues. They were also asked what public policy issues need to be resolved when designing a sustainability programme for freight transport. After having received very similar answers from this initial set of interviews, it was decided that the primary aim of the interview series had been fulfilled and that there was no need to perform a second round of interviews. The interviews were analysed by extracting key elements of answers such as: the critical experiences and research activities and key lessons learned from the passenger transport sector which might be relevant for freight transport. Although the answers from the interviewed experts were coherent and pointed towards, basically, the same projects and experiences, the answers have been separately compiled and are shown anonymously in the section “findings from the interviews”. There was a general consensus that research and experience in this field were lacking. Little work had been done methods of incentivising a reduction in CO₂ emissions from freight transport, except in terms of road user charges, and energy and CO₂ taxes on fuel and emission trading systems.

The third step in the research process was to analyse and compile the results from the literature review and the interviews and present them as input to a workshop with a stakeholder group of 20 participants from five countries in the Baltic region, representing the transport industry, public authorities and academia. The workshop employed a backcasting methodology (Holmberg & Robèrt, 2000), although, not all elements were included, due to time constraints. As forecasting is the process of predicting the future based on current trend analysis, backcasting starts by defining a desirable future and then works backwards to identify policies and programmes that will connect the future

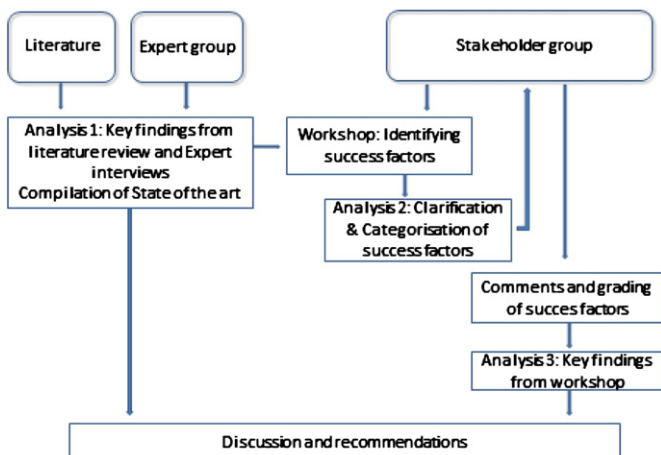


Fig. 1. The research process for this article.

Download English Version:

<https://daneshyari.com/en/article/998716>

Download Persian Version:

<https://daneshyari.com/article/998716>

[Daneshyari.com](https://daneshyari.com)