

SUCCESSFUL ACCESS MANAGEMENT SERVICES IN INTERMODAL FREIGHT TRANSPORTATION

Background:

This master thesis will be connected to the project “DREAMIT 2.0 – Effective access management” funded by Vinnova and Logistik- och transportstiftelsen (LTS). The project is led by Consenso Engineering (www.consenso.se) and coordinated by SSPA Sweden AB (www.sspa.se). Other project partners are APM Terminals (container terminal in the port of Gothenburg), Volvo Technology, TietoEvry, GDL Transport, Tjörns Bilservice, and Vänerexpressen. The purpose of the project is to investigate how effective access management can reduce turnaround times for trucks and trains in seaport terminals through an automated exchange of relevant information. The background is that poor exchange of information in intermodal transport systems means high costs, long queues and waiting times and a negative environmental impact when unloading and loading containers in port terminals. Trucks and trains arriving at port terminals often not have access to the right containers at the right times. For example, trucks arrive unannounced meaning that terminal operators cannot prepare their arrivals, and trains follow timetables but cannot inform terminals of new arrival times if delayed.

There are different access management services to improve the information sharing among port actors. One such service that have been implemented by the port of Gothenburg is automated gate service. Other examples of access management of interest for the project are pre-notification and appointment services as well as real-time information exchange platform services. However, to attract actors to implement and use such services a viable business model is important. Previous studies report that it is difficult to implement technologies for information sharing due to unwillingness to test new technologies and few incentives to consider new type of information. The purpose of the master thesis is to compare the feasibility of different access management services for application in port of Gothenburg. The students will work closely with project partners. It will be possible to have two master thesis groups within the scope of the project.

Master thesis potential objectives (these are a broad list of potential objectives and the specific scope will be decided together with the supervisors):

- Describe how access management is performed in other European ports and how these ports exchange information in intermodal systems.
- Understand drivers and barriers for implementing access management services
- Understand stakeholder roles and motivations for the introduction of access management services
- Identify potential business models for access management services
- Describe potential business models, e.g. by using business model canvas
- Compare the business models by taking into account different actor perspectives
- Propose a business model set up

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