

# LL #6 Rail-road Terminal Collaborative Decision Model

**FACTSHEET**  
**10 MARCH 2022**

## **A. GENERAL (BUSINESS CASE)**

### **1.Objectives**

- Cargo and transport tracking
- The use a digital data sharing platform (Deplide) to demonstrate the concept of Collaborative Decision Making (CDM) for the import and export flows at two intermodal terminals, located in the region of Jönköping.
- The development of process descriptions that identify physical, administrative events and coordination points as well as the information need by the actors involved, to create consensus.
- Improve coordination capacity at intermodal terminals and increase efficiency and transparency amongst customers and operators of intermodal transport (asset and infrastructure use optimization)
- The platform will create conditions for reliable situational awareness of what is planned, happening and has happened.
- Compliance monitoring (sustainability)
- Identification new business services

### **2. Main emphasis**

The exploration of solutions for digital collaboration regarding track and trace functions and/or the forecasting of available capacity for collaborative decision-making at inter-modal rail-road terminals. By introducing an automatic and digital data exchange, opportunities are created to enable effective cooperation between the intermodal terminal, shipping companies, train operators and truck operators as well as enabling a better use of capacity. A better capacity utilisation could contribute to reduce emissions by shifting freight from road to rail.

By introducing the CDM concept for intermodal terminals it is possible to identify processes and requirements for digital tools in order to create a business canvas.

### **3. Challenges**

- Lack of real-time information about delayed or cancelled trains creates unnecessary waiting times.
- Customers experience lack of real-time information regarding location of goods.
- The profitability of an intermodal terminal is affected by the number of containers loaded on the train. Nevertheless, in one of the use-cases, shuttle trains often run with less than full capacity due to lack of efficient and flexible solutions.

### **4. Transport mode**

Rail, input from sea and road

### **5. EU Map Focus**

Scandinavian-Mediterranean corridor.

### **6. Geographical coverage**

The focus is Sweden - two intermodal terminals located in the Region of Jönköping. Events in Norway and European ports needs to be considered.

### **7. Actors/SMs**

- Region of Jönköping,
- Bring Line,
- Transab,
- Södra Munksjön Utveckling AB,
- GDL
- Lindholmen Science Park
- RISE Research Institutes of Sweden

### **8. Forecast scaling outside LL**

The results from the PortCDM project has proven a more efficient overall port call performance, e.g. improved processes by enabling operators, terminals and the other parties involved in the intermodal transportation chain to keep each other informed of

progress and take appropriate actions as soon as any delays or changes to the existing plan become known. The living lab becomes a basis of understanding for the CDM concept at intermodal terminals, thus enlarging the previous CDM concept (on airports, seaports and passenger railways stations). – outcome: to increase the coordination capacity of various transport hubs as part of an efficient multimodal transport system.

## **B. TECHNICAL SETTING**

### **9. ICT vs physical**

The CDM solution involves development of a process description identifying important physical and administrative events and coordination points which will be used as a basis for a standardised exchange of real-time information within the sub-ecosystem. In order to alleviate the administrative burden and improve efficiency it is deemed necessary to develop and implement automatic connectivity using an information sharing platform utilising relevant data streams originating from actors' own operating system.

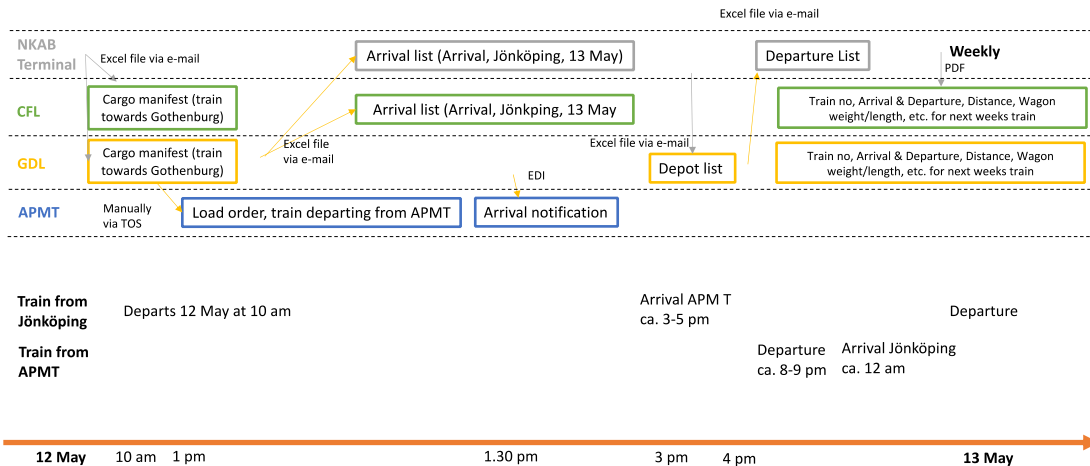
The CDM-concept is an iterative process and the data set will be developed during the Living Lab. In order to identify and define the basis for coordination using digital information sharing, we need to:

- List requirements for the information sharing based on the analysis of the current flow.
- Create a “metro map” in order to visualise points where information sharing is required.
- Create a timeline based on the metro map to visualise the time of each process as well as how each process is dependent of other processes.
- Produce a state logic to visualise the communication plan.

This Living Lab will use the data information sharing platform Deplide.

- Connect different data flows to the data sharing platform
- Identify requirements for front end applications to be used for data visualization and for data sharing

### Current Information Sharing



This Living Lab deals with the following FEDeRATED global features:

- Language
- Access
- Findability
- Identity

#### 10. DTLF implementation option:

- B. Single Platform
- C. Multiple platforms (Possibilities to connect to multiple platforms)

### C. ORGANISATIONAL ASPECTS

#### 11. (Potential) Impacts

- Efficient system reducing the administrative burden
- Accessibility of real time information of location of goods
- Enabling estimation of updated timetable
- Secure information sharing

#### 12. Risks

- Lack of engagement in the living lab
- Lack of knowledge on how to do data sharing
- Lack of available data on time

### 13. Timing

LL#06	2019				2020				2021				2022				2023					
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
Preparations				■	■																	
Planning and scoping					■	■	■	■														
Stakeholder engagement				■	■	■	■															
LL infrastructure development								■	■	■	■	■	■	■								
Testing & piloting														■	■							
Iteration & process analysis																■	■	■	■			
Operational trials														■	■	■						
Feedback & scaling					■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		

### 14. Contact

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