

LL #8 Multi Modal Information Sharing III (MMIS III)

FACTSHEET
10 MARCH 2022

A. GENERAL (Business case)

1. Objectives

- Transport and cargo tracking
- Implement the Deplide data sharing platform, deleting the concept of siloed data, i.e. introducing new ways to share and retrieve important logistics data from supply chains.
- To improve the physical planning and operation of a supply chain through better use of existing siloed data.
- To lower the implementation costs for connecting parties to a digital infrastructure
- Supply chain visibility – optimized asset management

2. Main emphasis

This Living Lab aims to extend the scope of earlier demonstrations to include more actors and more types of data sources to develop a scalable and "accessible to all" digital infrastructure to connect all types of organisations, public or private, global or local, involved in transport and logistics chains. The reference and demonstration pilot is shipper Sandvik Material Technology and their export supply chains of advanced steel products. Specifically the transport between the Port of Gävle and Germany. Several alterations are needed for the semantics and ontologies used in the data model for the Deplide platform to suit all transport means. Steps have been taken in the previous phases of the MMIS (I and II) initiative and the aim of this Living Lab is to further include vital stakeholders in the supply chain, including terminal operators, shipping lines, customs, amongst others.

In MMIS phase III the geographical coverage will be scaled up to include transshipment at deepsea container ports in Western Europe. By having access to a larger set of data, the Living Lab will also elaborate on aspects of governance, financing models and the potential of empowering 3rd party IT service providers. The supply-chain includes transport via primarily road and sea (feeder and deepsea container vessels).

The living lab should:

- Bring forth knowledge and insights from build up and running of demonstrator
- Transfer knowledge and integrate to platform Deplide

- Extend actor engagement to include other parties of the supply chain (terminal operators, transport companies, authorities such as port, customs, and infrastructure managers)
- The platform should enable actors to share information with each other without need of integration, using semantics and linked data
- Once connected to the platform, sharing of data should need no further integration
- Increase geographical coverage to also include transshipment in a European port, including onboarding of data holders such as terminal operators and transport companies.
- More feeds of dynamic data using sensors during transit

Further elaborate on governance, financing models and potential of introducing micro-services through platform

3.Challenges

- Dependence on one technical partner who has left the project has caused delay in the Living Lab.
- A new technical partner and platform is now available through RISE and their Deplide platform. The new platform brings opportunities of more efficient knowledge and data sharing with the other living labs, but off course also leading to an additional integration.
- The willingness of supply chain partners to take part in the information sharing. The willingness of sharing data is a prerequisite to extend the supply chain scope, leading to new insight and more efficient supply chains. The project is identifying more partners to join, and is also making sure that the identified partners understand the value of sharing data in each specific case to mitigate this risk.

4. Transport mode

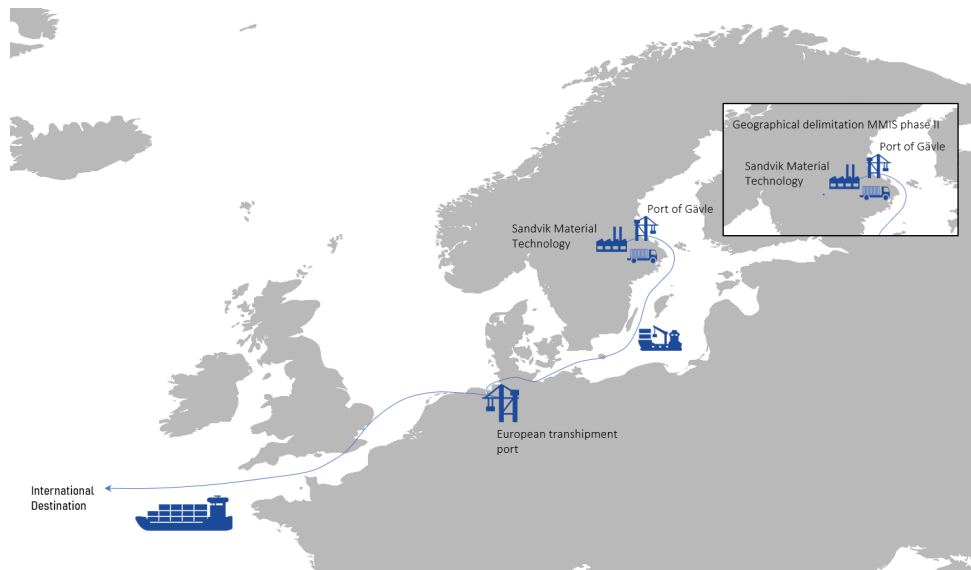
Road, Sea (feeder and deepsea container traffic).

5. EU Map Focus

Scan-Med and the Motorways of the Sea.

6. Geographical coverage

Germany, Netherlands, Belgium (other continents: US).



7. Actors/SMs

- CLOSER
- RISE
- Sandvik Material Technology
- Geodis- Geodis is the contracted freight forwarder of Sandvik MT responsible to supervise the execution of, mainly, the sea transport, for the examined and trialed supply-chain.
- Swedish Transport Administration
- Swedish Maritime Administration

More partners will be included, such as Swedish Customs Service and Gävle hamn AB (port authority).

8. Forecast scaling outside LL

The main objective on the third phase of the MMIS project is to scale the number of actors and events sharing information via the Deplide platform. By nature, as the more users connected via the platform the potential and enabling of scaling outside the scope of the Living Lab is increased.

B. TECHNICAL SETTING

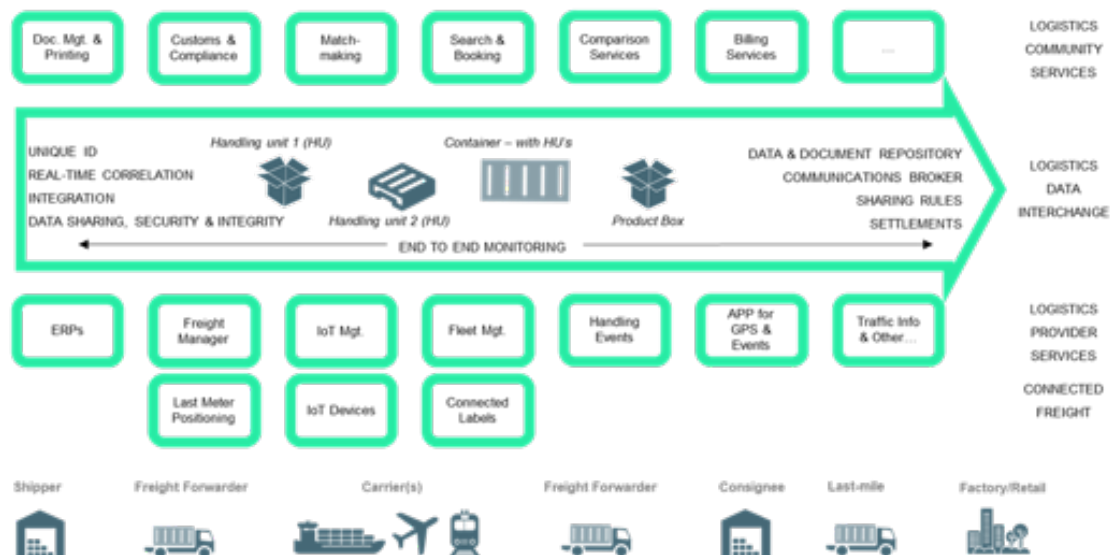
9. ICT vs physical

The living lab will develop a shared platform for one point integration using linked data to enable data sharing between actors in the supply chain. The platform should offer its users:

- Ability to publish data and subscribe to data – relevant actors should be alerted when relevant data is accessible

- Secure and robust environment with flexibility and control in regard to data access – actors should only get access to relevant data (decided by the data owner)
- The platform should bridge the gap of sharing data between different systems by using semantic models based on ontology and data links, where ontologies enable standardized descriptions of objects
- Real time data - continuous data updates during transit is a necessity in order to get needed insights
- One point of integration (once integrated to the Deplide platform, no other integrations between actors' IT-systems is needed.)
- API based

The technical overview of the Living Lab is presented in the diagram below.



This Living Lab deals with the following FEDeRATED global features:

- Access
- Findability

10. DTLF implementation option:

B. Single Platform

C. ORGANISATIONAL ISSUES

11. Success factors

- Operational efficiency

- Customer order cycle time
- Deviation booked vs. shipped units
- Net working capital deployed
- On-time shipping rate
- Administrative efficiency
 - Number of correct freight bills
 - Velocity in issuing booking confirmations
 - Velocity in issuing shipment documentation
- Environmental performance
 - Emissions equivalents per unit
- System related
 - System response time
 - Potential to modify dashboard/interface
 - System down-time

12. Risks

- Effects of technical partner leaving the project
- Identify and make relevant actors in the transport flow join the initiative and share data.
- Integration to new platform (due to change of platform)
- The main actor is changing its owner structure, leading to less resources available for the initiative during 2022
- Get in contact with the right individuals through main actors contacts, to get attention. This process takes longer, but will gain higher level of attention.

13. Timing

LL#08	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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