

LL #3 CaaS brick & mortal to home delivery via Scan-Med corridor

FACTSHEET
10 MARCH 2022

A. GENERAL (Business case)

1.Objectives

- IoT based cargo and transport tracking (incl. ETD/ETA capabilities)
- Multimodal CO₂ footprint monitoring
- Integration IATA One Record capabilities and its interoperability to other data sharing models
- Enhanced supply chain transparency for business and consumers (B2C2B supply chains)
- Creation of a new business model for logistics processes, providing benefit to the consumer and shopkeeper.

2.Main emphasis

The main emphasis is to enhance the transparency and traceability of logistics supply chains, including last-mile and first-mile delivery as well as long-haul logistics. The focus lies especially on customer home deliveries, based on a B2C2B model. This is achieved through seamless data integration and data analytics within the entire supply chain which connects business clients, freight forwarders as well as the end consumers. The users can utilise the services through a direct interface, which will be presented through a desktop version for the businesses, as well as mobile application utilization.

In this Living Lab, pilots will develop digital value adding services based on cargo and transport tracking devices. The impact being transparency and trackability of logistics supply chains in customer home deliveries and compliance, like monitoring sustainability within the supply chain (CO₂ information for supply chain customers).

3.Challenges

- Matching the rising customer demand of traceable and transparent logistics processes on both the end-customer as well as the cooperating business.
- The lack of benchmarkable and transparent data about carbon footprint.

- Multi stakeholder engagement and tangible devices

4. Transport mode

Road (main focus) and sea

5. EU Map Focus

Scandinavian-Mediterranean corridor starting from western Finland and ending in Central Europe, with the main focus on Finland-Sweden-Denmark corridor.

6. Geographical coverage

Finland, Sweden, Denmark + Central EU

7. Actors

- Vediafi,
- GLS,
- Van&Poika,
- NTG
- Alnilam
- YSDS

8. Forecast scaling outside LL

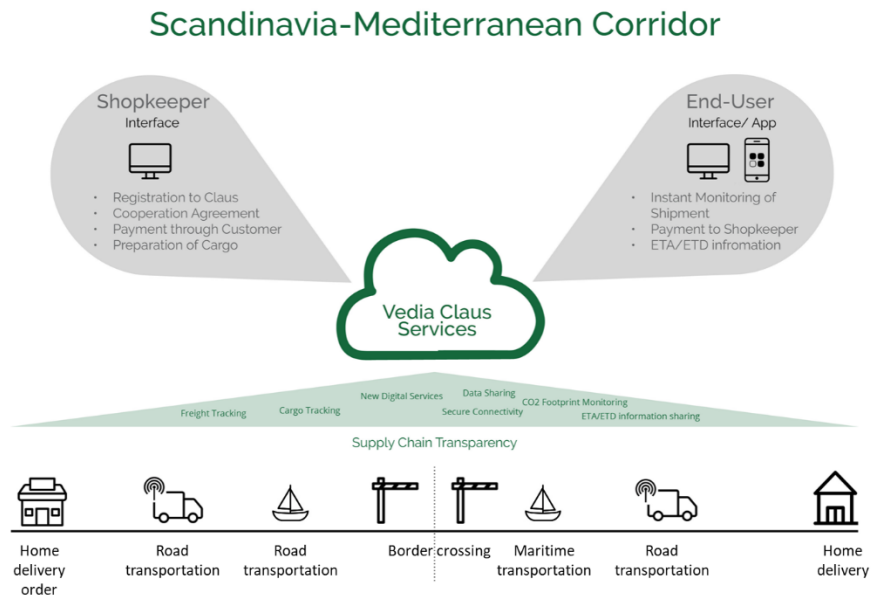
Tracking and tracing and supply chain transparency are topics that belong to almost all supply chains, thus those can be definitely expanded to other cases and corridors. Sustainability is also emerging theme in logistics and supply chains. However, sustainability and carbon footprint monitoring are still lacking benchmarkable and transparent solutions, hence all new novel solutions are well come.

B. TECHNICAL SETTING

9. ICT vs physical

The Vedia Claus service/application will provide consumer and shop keeper a mobile application, which will be used to manage and control the actual shipment data. This data will be shared to LSPs. At the same time, consignee will receive the shipment status information, that can be used to monitor the shipment process. Shipment data

will be enriched with tracking information, which is gathered from on board and IoT devices. The aim is to use IATA One record for data sharing in this Living Lab.



The CaaS brick & mortar to home delivery living lab is built on top of Vedia's own architecture. The living lab will use IATA's One Record architecture for sharing the data between the supply chain. The CaaS server is run in DigitalOcean hosted cloud setup that uses Docker containers that are orchestrated using Kubernetes.

Shipment & event data is generated using Vedia-built progressive web application (PWA) that connects to the CaaS server. The PWA communicates with the backend using Vedia's own API that uses simple JSON formatted messages. The data created by the apps is then stored using the One Record format. The data is enriched by creating more event data from additional sources, such as IoT devices and tracking data of transport vehicles. This data can be accessed by different parties of the shipment.

The service also uses the enriched data to calculate a CO₂ footprint for the total shipment of cargo.

This Living Lab deals with the following FEDeRATED global features:

- Language
- Access
- Findability
- Identity

10. DTLF implementation option

D. P2P and platforms

C. ORGANISATIONAL ASPECTS

11. Success factors

- Number of private companies engaged in living lab
- Number of public organisations engaged in living lab
- Number of pilots executed in living lab
- Number of shipments engaged to pilots
- Estimated time saving achieved with enhanced ETA information
- Meaningfulness of IoT based cargo tracking for business in scale of 0-4
- Meaningfulness of IoT based cargo tracking for authorities in scale of 0-4

12. Risks

- COVID 19 limiting international travelling
- Reluctance of stakeholders to participate on pilots.
- Business case and potential financial unprofitability.
- Transition from pilot to operational phase

13. Timing

LL#03	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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