

LL #4 Data sharing case for SME, last mile delivery actors

FACTSHEET
10 MARCH 2022

A. GENERAL (Business case)

1. Objectives

- Cargo tracking and Multimodal platform interoperability - more flexibility in connecting to an appropriate platform and evaluate the operational effects for the system operator.
- Enhanced business and operational efficiency for subcontracted shippers in last-mile transport through a federated data sharing approach
- the monitoring of the traditional actors to this transition and influence the platform company to subscribe to the federated principles.

2. Main emphasis

Initially, this Living Lab investigated whether the CoF (Cost of Freight) methodology of a platform company was detailed enough to succeed with a successful implementation towards a level playing field for the involved actors regarding their propriety Data Spaces. In response to the market evolution, the emphasis is on monitoring and to steer the behaviour of the platform company - including the reaction of traditional actors - towards the federated principles.

Currently Jale (a key delivery actor in the LL) cannot fully judge the economic return of their drops and pick-ups. As its is depending on a platform that enables the use of a reduced Data Space. The company has subscribed to a national, standard list for deliveries and accept orders first-arrived-first-served as long as capacity is available. This leads to poor economic resource utilization. It also implies poor decisions on what and when to move a good. For an efficient last mile market, it also means that too much economically unsustainable goods are being moved due to an indirect subsidization by goods for which the consumer surplus exceeds the standard prize. The main emphasis of this LL is to enable business to focus on the last-mile distribution efficiency for subcontractors irrespective of being under a hierarchical system or under a platform company.

3. Challenges

- Engages a large number of uncoordinated actors - whose share of transport in terms of societal value and transport work is large – towards the usage of an interoperable data sharing platform that allow various data spaces to be connected.
- These actors are often subcontractors to international couriers and as such, are obliged to use their digital interface platforms. Each may be using a different platform. As a result, their data spaces are sub-optimal due to the variety of platforms with which they must interface and that they are obliged to use, with consequent loss in business and operational efficiency.
- To assist the platform company to develop the modus operandi, technology and strategic plans – most being unknown and most likely susceptible to external inputs - towards platform interoperability
- A platform company entered the market offering connectivity between the actors without the international courier whereby potentially a federated data sharing system could be attained.

4. Transport mode

Road, possibly rail

5. EU Map Focus

Scandinavian-Mediterranean Corridor

6. Geographical coverage

Sweden

7. Actors/SMs

In Website (need to validate against template):

- JALE AB;
- DHL;
- ICA;
- IKEA;
- Spendrups;
- Electro Helios;

- Orkla;
- Fagerströmsbolagen
- JetPak
- Per Ludvigssons Åkeri AB
- Logs Logistics AB
- Jan Bergdahl Åkeri AB
- H Granlund Åkeri AB

8. Forecast scaling outside LL

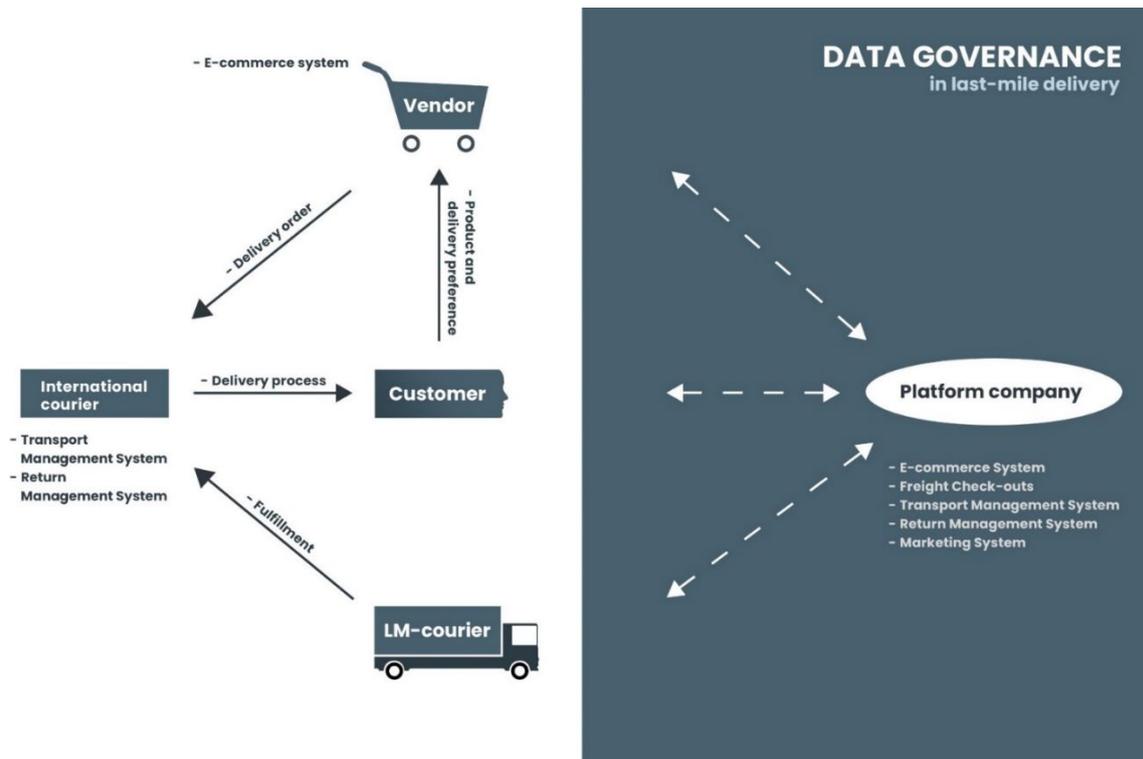
The pilot was carefully selected to be a prototypical case representative for last-mile distribution in Europe. As FEDeRATED already have identified a method for achieving the COF, the LL intended to serve to corroborate or reject the validity of the method. Up on a successful outcome, the method complemented by the Lessons Learned at the Pilot may be broadly roll out in the European last-mile supply-chain.

The platform company's entry implies that additional work is needed to monitor the pan-European spreading of platform companies to judge the scalability of learning attained in the LL.

B. TECHNICAL SETTING

9. ICT vs physical

The illustration depicts in the left part the yesterday-situation where the four actors share the bare minimum of data bilaterally. As the International courier has the most relations its Data Space is the greatest and the smallest has the last-mile Courier. To capitalize on the Data Space each actor has incentives to minimize the data shared, however the International courier and the Vendor could find common grounds for extended data-sharing, however the system will never provide comprehensive data relevant



for the entire eco-system. In the Living Lab, the actors have efficient technology to share the bare minimum of data as a result of long and stable partnerships. The right part of the illustration depicts a possible tomorrow-situation where a platform company connects itself with the three physical actors in a maximum, multilateral data sharing. The today-situation in the Living Lab is a hybrid where the International courier and the platform company competes for relating to the three physical actors.

The platform company's architecture is secluded. It has therefore not been confirmed whether it complies with the FEDeRATED's principles. It is however hypothesized that this is the case and for this reason the primary issue is not the ICT versus physical, but the platform company's versus a FEDeRATED architecture.

This Living Lab deals with the following FEDeRATED global features:

- Access
- Findability

10. DTLF implementation option:

D. P2P and platforms

11. Success factors

- Best-practice activities to mitigate the variety of digital interface platforms in use

- An economically more efficient local market for last-mile distribution by more informed price setting
- More economically and environmentally effective routing and vehicle utilisation through more holistic planning by carriers
- Models for actor sharing of efficiency gains and possible best-practice in trading scheme associated with data-sharing within a network of shippers and their counterparties.

12. Risks

- A platform company taking over the last-mile market while monopolizing the Data Space.
- Lack of trust causing difficulties in the sovereignty of data governance.
- Business model being unprofitable/unsustainable.
- Implementation of the new application architecture that does not adhere to business processes
- Non-standard semantics at the company level and interoperability with customers / suppliers would lead to a superstructure of the application ecosystem to meet different needs.

13. Timing

LL#04	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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