

FloraHolland Air trade lane from Kenya to the Netherlands – progress summary

This CORE FloraHolland Air demonstrator progress report describes the progress and results of the first year of the CORE FloraHolland Air trade lane from Kenya to the Netherlands. It has been prepared up until the implications for the business model (Section 5.4). In the Living Lab methodology, this is the “Plan” phase. During the second year of CORE, this Living Lab aims to finalize the “Do” phase, such that within the course of the project the entire “Plan-Do-Check-Act” wheel can be brought into practice twice.

Background

For the majority of flowers exported from Kenya to Europe, FloraHolland is the hub where the flowers are auctioned or delivered to the buyer (wholesalers or retailers, of which many are situated at the premises of FloraHolland). For many flowers exported from Kenya to Europe, FloraHolland is an important hub where the flowers will be auctioned or will be delivered to the buyer (wholesalers or retailers), of which many are situated at the facilities of FloraHolland. FloraHolland, as a cooperative, represents the growers and facilitates growers in their trade. FloraHolland is never the owner of products.

The air trade lane from Kenya to the Netherlands runs from farms in various regions in Kenya, via the Nairobi airport and Amsterdam Schiphol airport in the Netherlands, to FloraHolland in Aalsmeer, and transports flowers for commercial partners in the FloraHolland cooperation. From here the flowers are delivered to the end customer, or prepared for auctioning (delivery via an import handler).

Two transport modes, two types of trade lanes

The FloraHolland trade flows are imported in Europe via air and sea and are taken up in two different demonstrators within the CORE project, namely:

T11.2 – The Colombia-Kenya demonstrator on sea transport in WP11 / Rotterdam demonstrators

T12.1 – The Kenya demonstrator on air transport in WP12 / Schiphol demonstrators

These trade lanes may seem alike as they have the same origin and destination, but are entirely different in their logistical configuration and organization, hence technical layout for the CORE concepts to be tested, hence in outcomes,:

In the air trade lane, the high volumes of flowers and the perishability of flowers require effective and quick handling at the transport nodes, including correct documentation handling.

The air trade lane lacks an orchestrating party that controls the shipment of goods. Instead, a chain of supply chain actors works together on a one-to-one relationship without end-to-end visibility and integration. FloraHolland offers services only in some of the transport legs. The lack of visibility and ineffective information sharing often results in irregularities (unreliability) and reactive handling (inefficiency), leading to delays and added costs in the entire supply chain.

The lack of transparency furthermore hinders effective border protection by the Dutch Customs Administration. The challenge here is to improve transparency and control in a supply chain that lacks clear orchestration.

There are specific differences between the air and sea trade lane (respectively task 12.1 and 11.2) that make it important to regard them as individual trade lanes in the CORE Project, as the same CORE concepts are expected to require different applications and have different outcomes.

Because both demonstrators apply the same methodology and have the same overall business ambitions and demonstrate the same concepts, albeit in different modalities, both demonstrators apply comparable measurement procedures. For the same reason there is overlap in the sections of the deliverables (D11.21 and D12.11) covering: Background, Living Lab Ambition, Use Cases, Research Questions and measurement procedures.

Problem

The trade lane entails perishable goods. The duration from farm to customer is on average 4 days and maintaining a cooled environment is of the essence, so a reliable and efficient goods flow is therefore also essential. With respect SC security, this trade-lane involves not only customs agencies, but also national plant protection agencies (NPPO's) e.g. NVWA in the Netherlands and KEPHIS in Kenya, which increases the importance of Coordinated Border Management regarding two types of alignment between, namely at national level between NPPOs and Customs administrations, and alignment at international level between Dutch Customs and Kenia Customs, and NVWA and Kephis.

On a high level the sea and air trade lanes have in common a lack of reliability and efficiency. On the operation level this is reveals itself in different situations.

Reliability is partly affected by the administrative burden. As the administrative tasks are closely intertwined with the physical flow of goods, an administrative error can result in serious delays or rescheduling of flights which can have large negative impacts on logistic costs. For instance, the flowers need to be accompanied by a paper phytosanitary certificate. Errors in this document can lead to delays, and the lack of this document might lead to destruction of the complete shipment of goods, as the certificate cannot be reissued. In various phases in the chain, actors put a lot of effort in checking documents and data validity, especially where the actor is responsible and liable for the goods or specific administrative tasks.

For most documents, information is manually filled out, or keyed in in electronic systems, which is a cause of inefficiency. Also the afore-mentioned document checks performed by various actors are a source of inefficiency. A lot of effort is put into the availability of paper-based documentation which are required by government agencies (e.g. phytosanitary inspections). Some paper documents are handed over more than 6 times before they reach the point where they are required.

Demonstrator Objectives

The objective of this demonstrator covering a trade lane of flowers from Kenya to the Netherlands is to enhance reliability and reduce administrative burdens, and to re-use solutions to these problems, while at the same time enhancing the effective supervision of global trade and safeguarding supply chain security.

In order to achieve these goals, the aim is to

- Decrease dependencies on paper documentation
- Improve visibility to supervisory bodies.
- Increase responsiveness in the event of interruptions in the supply chain by improving visibility.
- Share Supply Chain status events proactive and throughout the entire chain
- Enable more focus on irregularities (e.g. alerts on data discrepancies)
- Re-use digital information in data entry-related tasks

To achieve these objectives, a data pipeline will be developed to make original business data from the source available digitally, and to share these trade and logistics data on shipments for business and government purposes. For visualization of this data, a business dashboard tool and a government dashboard tool will be developed.

Approach and results so far

The trade lane follows the Living Lab approach which has been proposed for use in CORE. During the first year of the project, the definition of the overall goals, ambition and scope for this Living Lab and on the identification and consultation of crucial partners was performed in a set-up stage. Furthermore, the legal framework, procedures, protocols for communication and deliverables have been defined and issues identified. An environment and system analysis has been performed during which stakeholders, processes, products and technology have been analyzed in their current state. For the “Plan” phase, use cases research questions and hypotheses, performance and adoption indicators, and implications for the business model have been identified.

Planned activities

During the next few months, the Living Lab will be prepared for implementation. Living Lab solutions will be developed, the test environment (including stakeholders) will be prepared, and a baseline measurement will be performed. During the preparation phase fall back procedures, learning curve and escalation protocols also need to be put in place. The first execution of new practices follows. The CORE FloraHolland Air demonstrator aims to bring into practice the entire “Plan-Do-Check-Act” wheel twice during the course of CORE.