CORE Work Package 11.21 – introduction

This CORE FloraHolland Ocean demonstrator progress report describes the progress and results of the first year of the CORE FloraHolland Ocean trade lane.

Initially the demonstrator focussed on seafreight of flowers from Colombia to the Netherlands. In M7 of the project, seafreight activities in Colombia were put on hold by FloraHolland for strategic reasons. In agreement with demonstrator partners and the work package coordinator, we decided to focus this demonstrator on seafreight from Kenya-Netherlands. The ambitions of FloraHolland in this seafreight demonstrator remain unchanged. If seafreight activities in Colombia restarts during the Core-project, the living lab solutions can be extended to the Colombia tradelane.

The progress report has been prepared up until the implications for the business model (section **Error! Reference source not found.**). 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.

Seafreight is still fairly new in the horticultural sector. In the tradelane Kenya-> Netherlands, only a few initiatives for sea freight have been developed. FloraHolland is now offering a commercial sea freight service. The service, Flowers@Sea, is currently the only commercial seafreight service for flowers from Kenya to the Netherlands.

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

In the sea freight trade lane FloraHolland acts as a 3PL, offering full services to growers from container loading until delivery at the flower auction. Services such as shipment and

customs clearance are outsourced to various other parties. This requires high level of control over the supply chain and it is therefore crucial to know where a shipment is, who holds responsibility for the goods and how to anticipate to irregularities such as delays or faulty documentation. With an expected growth of the seafreight service, FloraHolland lacks the tools to effectively monitor and control this trade lane.

Furthermore, the reliability of the service is partly affected by border related complexities. The trade lane route implies involvement of border control agencies from several countries, for instance because the container arrives in Belgium, and is then transported by truck to the Netherlands. This lack of transparency hinders agencies such as the Dutch Customs Administration in conducting a risk assessment during the import process. Improvements are expected to be found in digitizing and sharing documentation and improving container integrity.

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 following sections of the deliverables (D11.21 and D12.11): Background, Living Lab Ambition, Use Cases, Research Questions and measurement procedures.

Problem

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 much intertwined with the physical flow of goods, an administrative error can result in serious delays or rescheduling of activities which have large negative impacts on logistic costs. For instance, the original paper phytosanitary certificate is required in the port of arrival, in order to apply for transfer of plant health inspections from Belgium to the Netherlands. The certificate thereafter required in the Netherlands by the inspection agency. To ensure the availability of the certificate, it is couriered back and forth several times.

For FloraHolland, as orchestrator for the chain, it is crucial to know where a shipment is, who holds responsibility for the goods and how to anticipate to irregularities such as delays or faulty documentation.

With respect to efficiency, for most documents, information is manually filled out, or keyed in in electronic systems. Also the mentioned document checks performed by various actors are a source of inefficiency. A lot of effort is put in the availability of paper-based documentation which are required by government agencies (e.g. phytosanitary inspections).

For the majority of the journey of the container, none of the actors know exactly where the container is. Instead they know only the planned and recorded actual time and date for certain events and hereof only a few are communicated to other actors.

Objectives

The objective of this trade lane of flowers from Kenya to the Netherlands is to enhance reliability and reduce administrative burden and re-use solutions to these problems at the same time to enhance the effectiveness of supervising 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 enable these aims a data pipeline will be developed for making original business data from the source available digitally, and sharing these trade and logistics data on shipments for business and government purposes. For visualization of this data, a business dashboard tool is developed to support FloraHolland in monitoring its shipments. Furthermore a government dashboard tool will be developed to enable the Dutch Customs Administration to

Approach and results so far

The trade lane follows the in CORE proposed Living Lab approach. 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 is performed in a set-up stage. Furthermore, the legal framework, procedures, protocols for communication and deliverables are defined and issues identified. An environment and system analysis have been performed during which stakeholders, processes, products and technology are analysed in their current state. For the “Plan” phase, functions and use cases have been identified and research questions, hypotheses, performance and adoption indicators, and implications for the business model have been identified.

Planned activities

During the next 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.