Smart Logistics Service Pilots

Vediafi Insights on Project Progress

Ira Ottmann – 24.11.2021

Background

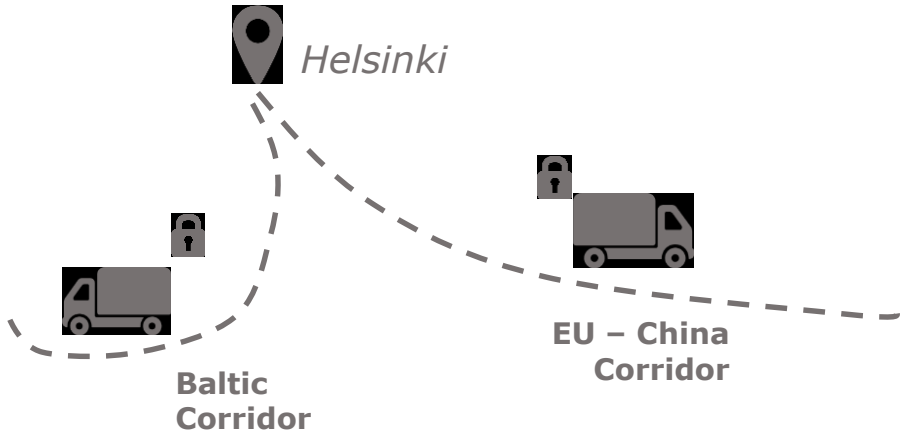
Project objectives and ways to success.

Opportunities and challenges Finland – Russia - China corridor:

Intelligent transport offerings for logistics, industry and trade.

Vedia is pursuing business-driven innovations in intelligent logistics:

- Promotion and coordination of Finnish-Russian intelligent transport cooperation
- Intelligent logistics test: Pilots are running on the **Baltics and EU-China** corridor
- Integration of the Northern Europe-Asia road network into the Northern Dimension transport corridors
- Assessment documentation and project coordination and communication



Pilot Topics

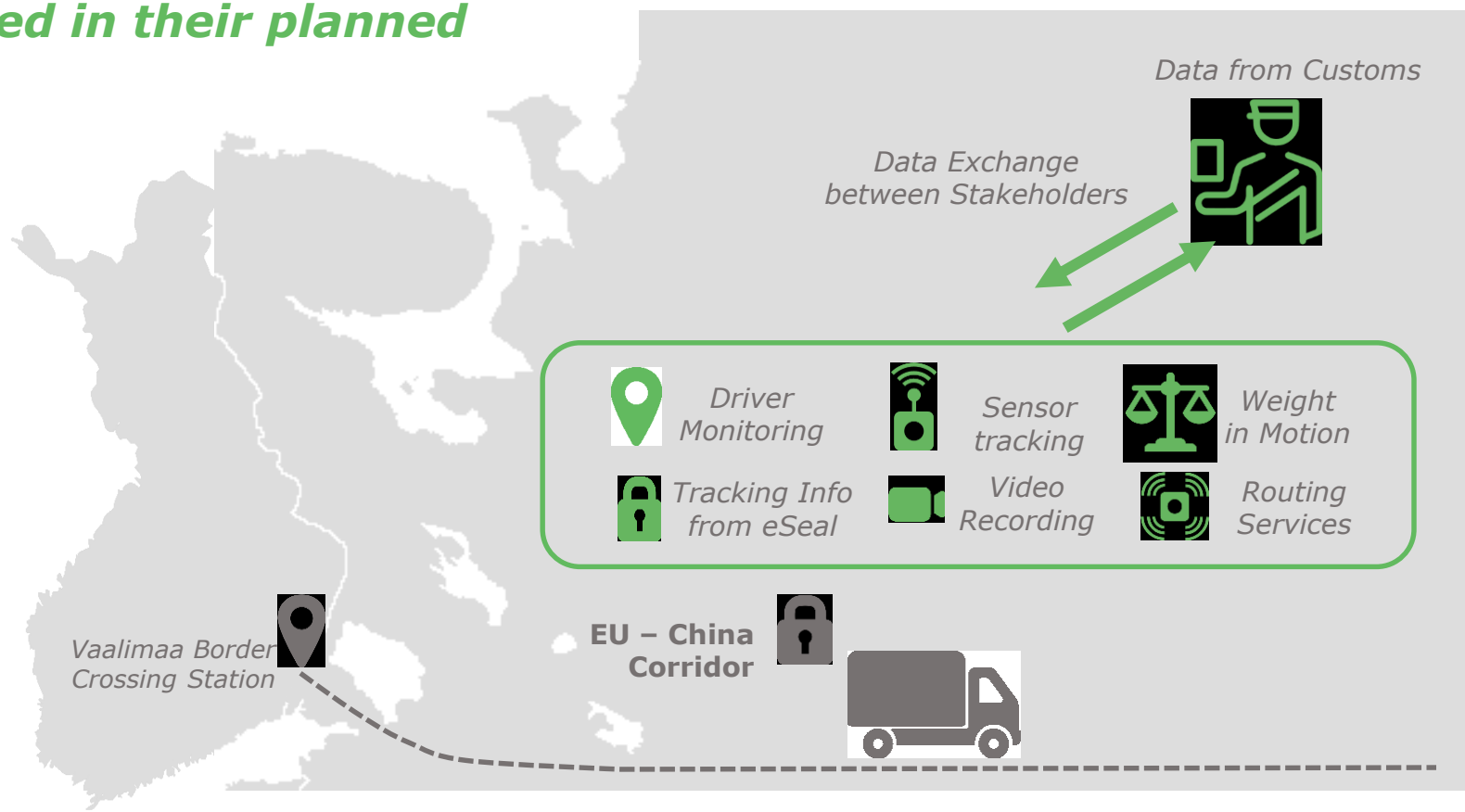
Overview of activities on the Finland – Russia corridor.

Due to Covid-19, some pilots were running in a local environment and are executed in their planned environment in IBA2.

Smart Cargo Tracking

On Finland – Russia corridor

- Electronic Seals (Vedia and CRCP)
- Location Information and Cargo Tracking
- Data sharing
- Routing services
- Driver and Vehicle Monitoring



Overview of technological implementation planned during the pilot drives between Helsinki and East Russia.

eSeals Pilot Service

Pilot between Russia and Finland with eSeals

The eSeals pilot is a collaboration of the Russian partner CRCP and the Finnish Partner Vedia in collaboration with Finnish and Russian customs authorities.

eSeals are smart container seals and can be used for Transit and Non-Transit routes. Vedia is seeing the potential demand of eSeals in a variety of different scenarios, either in Transit logistics or Non-Transit logistics:

- Transit shipments
- High-value shipments
- Shipments crossing the EU border
- Cargo tracking

Partner CRCP

- The company responsible for tracking transit cargo transportation in Russia.
- CRCP is the only company authorized by the Ministry of Transport of the Russian Federation as a sealing operator in accordance with Russian laws.

Partner Vedia

- Vedia services will improve transparency and efficiency of logistics
- Vedia is promoting data sharing and data driven approach in logistics CaaS
- Vediafi has been trusted collaboration partner for Finnish authorities already for several years (especially between Finland and Russia)

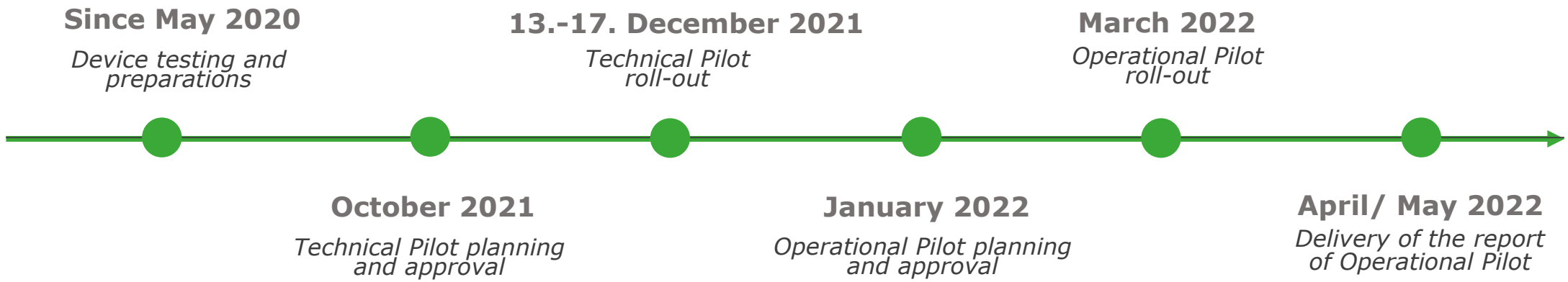
A Memorandum of Understanding was signed between the parties, reinforcing the pilot collaboration within the upcoming years.

Project Overview

Pilot between Russia and Finland with eSeals.

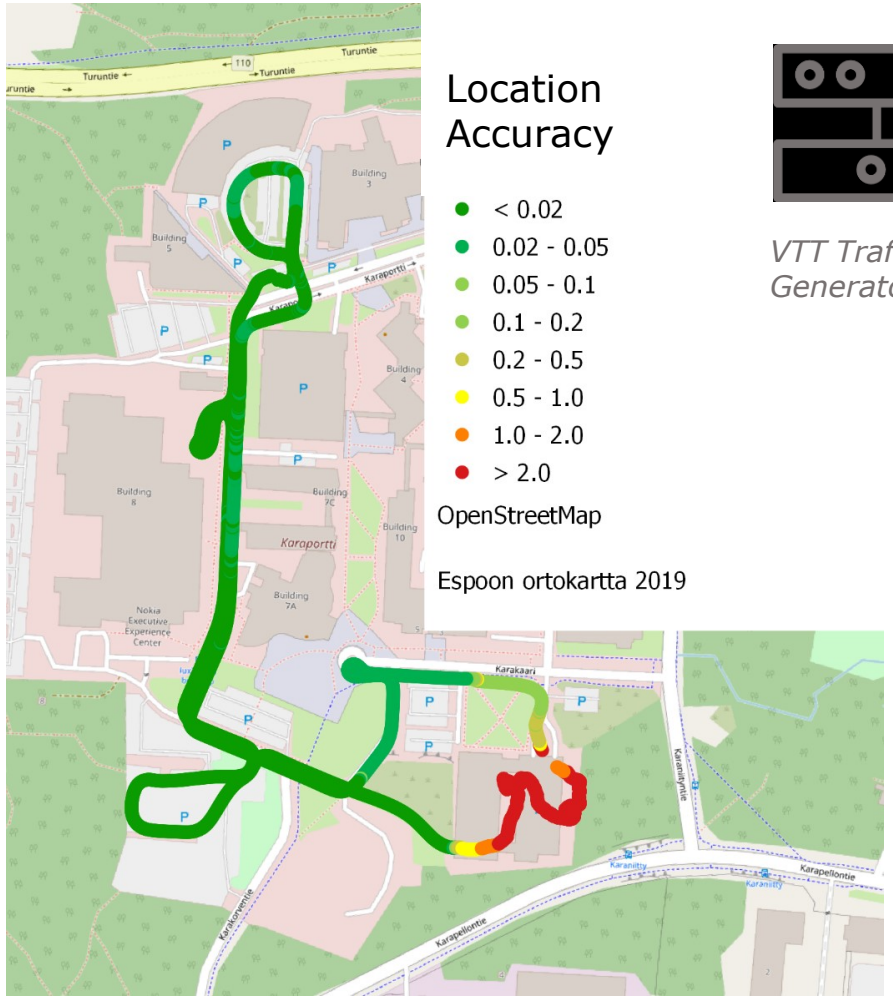
The pilot project is divided into one technical and one operational pilot.

The technical pilot is going to give insights about the technical functionalities of the eSeal on the Finland – Russia corridor. The operational pilot will simulate cargo movement including the customs procedures.

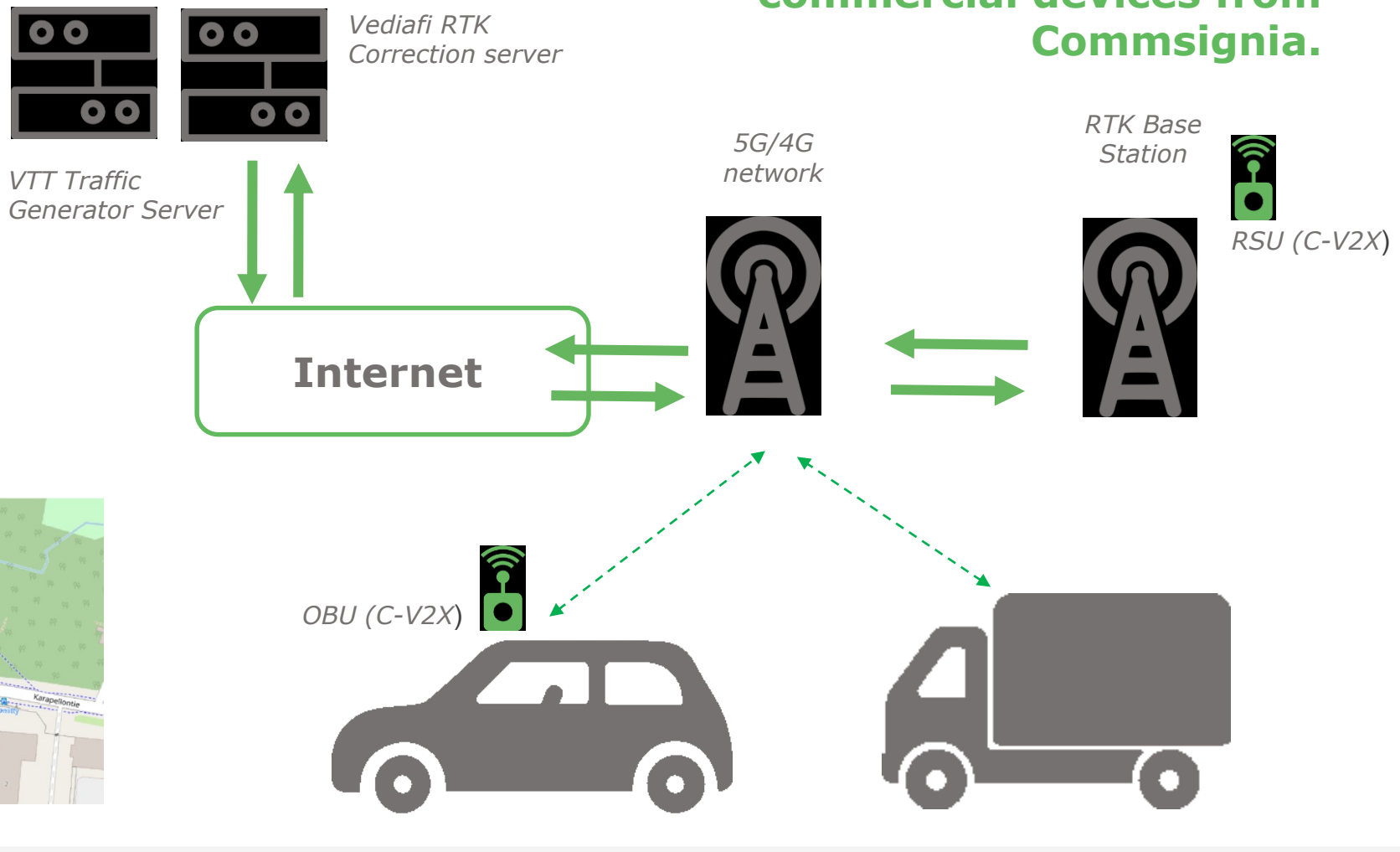


Smart Logistics Service

Pilot in a local environment with IoT devices.



Tests with VTT automated car and commercial devices from Commsignia.



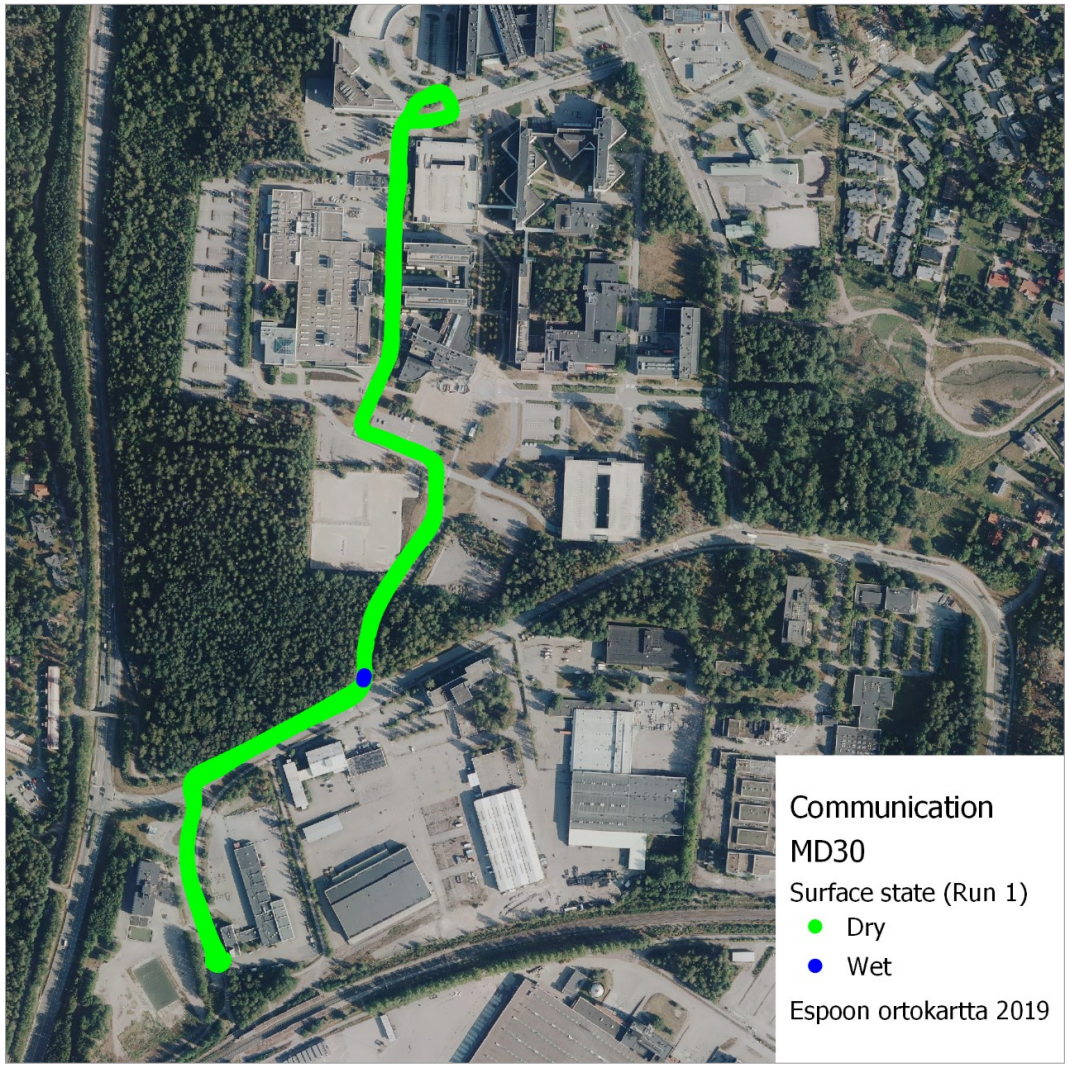
Smart Logistics Service

Pilot between in a local environment with IoT devices.

Using IoT technology to enable forming a collective alert system for accidents, road complications and others.

Measuring the road condition with Vaisala devices:

- The device is recording the data which allows us to analyse the road condition.
- Even though the weather was really good – system recognized the slipperiness
- In the future, commercial vehicles could share information on e.g. road condition with other vehicles for example on EU – China corridor.
- This technology enables us to form a collective alert system for accidents, road complications and others.
- This technology can also help to measure and document CO_2 emissions for cargo movement.



Lesson Learned

Pilot findings and avenues for the future.

Test cars with C-V2X devices

Pilot Outcomes:

- The technology provides very accurate results – however, the services around it are missing.
- The pilots have opened the horizon for a service of private companies that collect the data and offer it to public authorities - which then offer it to the road users
- The C-V2X technologies are there, but vehicles are not ready yet.
- Future of the technology will be enabled through message exchange between vehicle and infrastructure.