

OUTPUT FACT SHEET

Pilot actions (including investment, if applicable)

Project index number and acronym	CE1455 COMODALCE
Output number and title	O.T2.1 - Pilot actions fostering coordination among multimodal freight transport stakeholders through ICT systems
Investment number and title (if applicable)	I2 - Scanning facility for railway container transport at the Port of Koper
Responsible partner (PP name and number)	PP05 - Luka Koper, d.d.
Project website	interreg-central.eu/comodalce
Delivery date	31/01/2022

Summary description of the pilot action (including investment, if applicable) explaining its experimental nature, demonstration character and transnational added value

The I2 developed by Luka Koper within the pilot activities for the COMODALCE project tackled the challenge of increasing volumes of containers, limiting the operative capacity of the Container Terminal (CT) in the port. The Pilot action was divided in two phases. The first part consisted in the purchase and installation of the OCR for the scanning of containers and wagons for the CT:

- definition of the location for the installation of the OCR portal;
- agreement between stakeholders involved on data specification and its format in order to be available for all the parties involved;
- process development to be followed in order to receive data in the Port Community System (PCS)
- purchase of the OCR portal with the requested characteristics (HD picture of recorded trains, high level of servers, solid construction for double rail system, etc.);
- logistics related to the purchase of OCR and its assembly before mounting it over the double-railway track.

The second phase consisted in the integration of the new ICT solution with port's PCS. It was conducted in collaboration with Adria Kombi and included:

- testing of the characters' identification and the implementation of automated data process in the PCS;
- testing of scanning and identification of inbound/outbound data;
- testing of alerts and potential damages of containers/wagons;
- authorizations for manual entering of data if needed (only for system discrepancies);
- integration of ICT solution developed by Adria kombi for the automatization of processes.

Such a solution helped in terms of:

- **Safety** - reduced number of employees on the field for the check;
- **Optimization of work** - reduction of check time allowing faster control procedures as well as to increase the number of daily trains;
- **Digitization** - the solution adopted, has introduced paperless processes, live data transfer to all the parties involved, recording of operations for later views.

The railway OCR system for containers is the first one to be used in the Port of Koper and it offers opportunities for later implementations and integrations with other systems, for future complete traceability within port's area. That's also why it can be considered as the first step of a bigger experimental project.

NUTS region(s) concerned by the pilot action (relevant NUTS level)

Country (NUTS 0): SI

Region (NUTS 2): SI02, Western Slovenia

Sub-region (NUTS 3): SI024, Obalno-Kraška

Investment costs (EUR), if applicable

The costs sustained for the purchase of the OCR system were co-financed through the COMODALCE project. In the specific the contract for the purchase was 199.832,970 EUR which didn't include costs for further assistance and maintenance. The contribution of COMODALCE was for 75.951,60 EUR

The integration of the ICT tool developed by Adria kombi requested further 21.000 EUR for external experts and services.

The calculation doesn't include staff costs sustained for the completion of the activities.

Expected impact and benefits of the pilot action for the concerned territory and target groups and leverage of additional funds (if applicable)

The key objectives of the strategy elaborated by LK were to digitalize operative processes and to work with paperless administration as well as automating the data transfer and reducing the manual check of wagons of the field. It'd have to result in optimization of work, facing the increasing volumes of containers.

Having set some objectives in the medium and long-term period, Luka Koper adopted solutions that were indicated in the Port's Development Plan for the next 5 years. One of the planned investments was the OCR system for the railway transport of containers in/from the Port of Koper, with an automatic data transfer which would bring efficiency and competitiveness.

The whole port community will benefit from this solution, especially the parties involved in the multimodal transport, such as railway operators, forwarders, customs and shipping lines.

Benefits are foreseen in terms of safety, digitization and operational effectiveness.

Concerning leverage of additional funds, the implementation of the pilot action allowed the Port of Koper to: 1) reduce the time needed for administrative and operational controls entry/exit on average for each train by 5 minutes allowing to reduce globally 2 hours per day for every transport of containers, increasing the potential port's capacity; 2) improve safety, since there is no more physical checking along the train composition, all controls taking place through video checks. Thanks to the pilot action, it was possible to assess the system functionalities allowing LK to extend this technology also to the three port road gates, whose implementation is foreseen in the next three years, also through other EU funds for a total cost of 750,000 euros.

Sustainability of the pilot action results and transferability to other territories and stakeholders

The new investment will represent a Milestone for the development of further integrations of this system with the others adopted in the port of Koper. The pilot action has involved mainly the railway operators, the IT providers and the Container Terminal, but in the future, additional solutions will involve forwarders, road transporters and other terminals in the port. The standardization of data exchange can easily be rolled out to other projects, offering the possibility to have a complete traceability of containers within port's area and later also out of the port, through their whole trips, until their final destination. The communication tool is integrated with the PCS and can be used by other operators and terminals. Actually, the railway companies and the operators involved in railway transport can benefit from this project. The results gained from the strategy itself and from the further pilot actions are tested and transferable to other projects and contexts.

If applicable, contribution to/ compliance with:

- relevant regulatory requirements
- sustainable development - environmental effects. In case of risk of negative effects, mitigation measures introduced
- horizontal principles such as equal opportunities and non-discrimination

Not applicable

References to relevant deliverables (e.g. pilot action report, studies), investment factsheet and web-links

If applicable, additional documentation, pictures or images to be provided as annex

The above described Outputs are related to WPT2 - Activity A2.2 - deliverable D.T2.2.7 - Pilot action final report:

- D.T2.2.7 Pilot action final report
- D.T2.2.15 "Pilot action evaluation report"



Figure 1: identified location for the positioning of the OCR system in the port of Koper (Source: Luka Koper's archive)

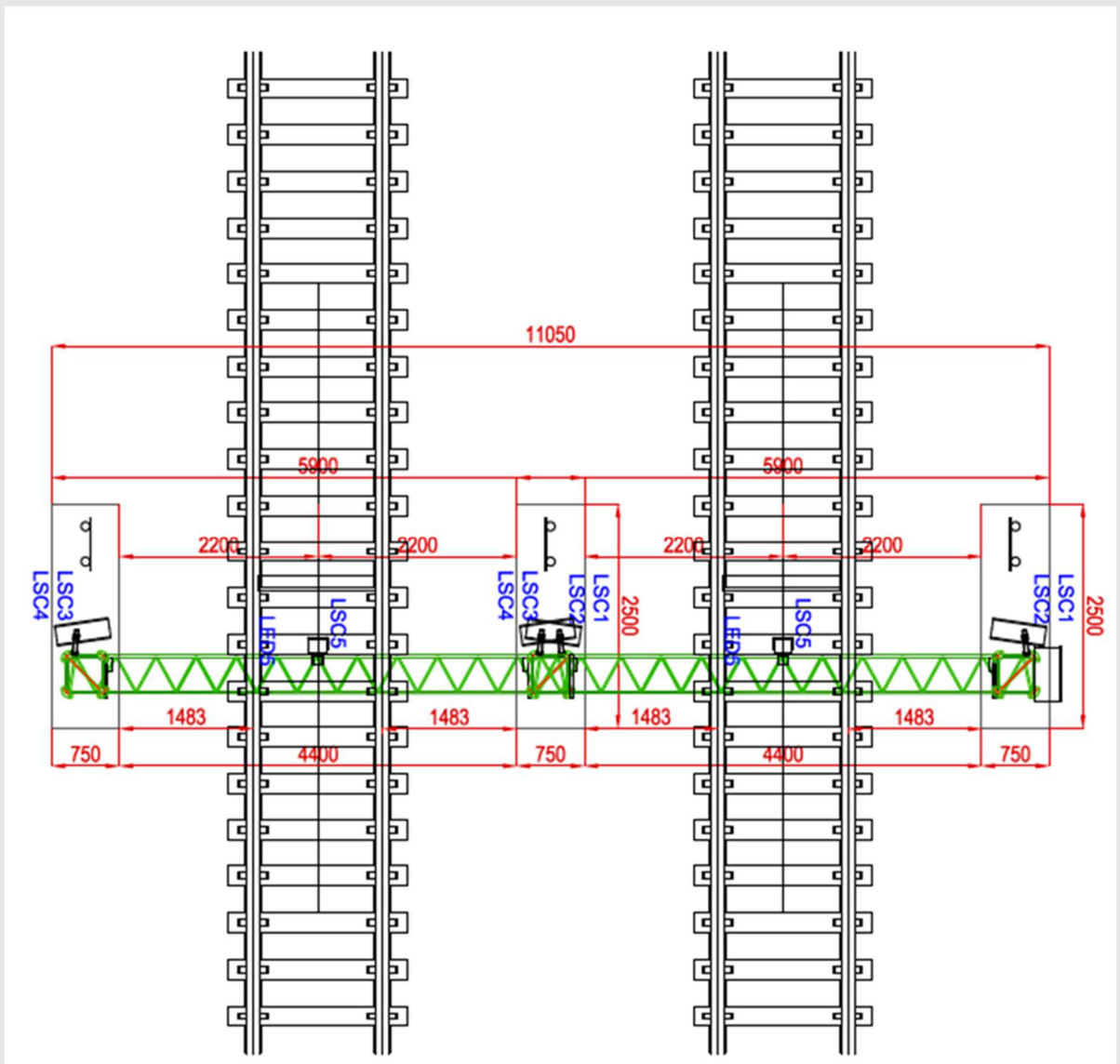


Figure 2: design of the OCR system in the port of Koper (Source: Luka Koper's archive)

Pilot action – OCR system



Figure 3: Interreg promotion of OCR system in the port of Koper (Source: Luka Koper's archive)



Figure 4: OCR system installed in the port of Koper (Source: Luka Koper's archive)



Figure 5: OCR system scanning in the port of Koper (Source: Luka Koper's archive)