

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)	Only relevant for Luka Koper
Responsible partner (PP name and number)	Adria kombi 06
Project website	interreg-central.eu/comodalce
Delivery date	2.6.2022

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

Adria kombi is providing the data of the containers:

- KM2 System: transfers data to Port Koper before arrival of an intermodal train to a terminal, providing all relevant data, including the vessel name and cut off time.
- TS2 System transfers loading plans to Port Koper IT system
- OCR system: returns the data back to KM2 system, when the train is moved through the OCR gate.

The benefits for all are numerous:

- Better transparency
- Fair terminal services
- Avoidance of errors on trains
- Check in and check out system in place 24/7
- Possibility to implement auxiliary services, such as checking the DG labels on containers, damages on wagons, containers

We have been developing the data exchange with Port Koper in synchronisation with the development of Port IT System and actual construction of the OCR gate. The experimental character of the pilot action will show the action going on on the gate of the container terminal. Several parameters can be observed.

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

The regions concerned are all regions that gravitate to Port Koper.

Investment costs (EUR), if applicable

- **only relevant for Luka Koper** -

In case the pilot action includes an investment, please indicate the total costs of the investment financed by the project (only cost items under BL5 and BL6 should be considered).

Max. 500 characters

Please delete the instructions after filling-in the textbox.

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

The vision of the project related topics coexists with the Adria kombi vision to digitalize all processes. The only segment that has been missing is terminal operations on the trains. Adria kombi covers train, truck tracking & tracing and Transport Order Management online and completely digitalized.

- Time savings as the checking of the train is a time consuming process
- Better accuracy and record keeping
- Significant cost savings on the long run

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

The mission is to include the important segment, where the Intermodal Transport Unit is changing the mode of transport. This happens within the terminal. It has been a black box for Adria kombi so far. After the successful pilot, with OCR in place, Adria kombi will be able to monitor the 'missing' link. This solution will be applicable in any container terminal in EU or wider.

This solution is intended to be upgraded to monitor labels and markings for dangerous goods

If applicable, contribution to/ compliance with:

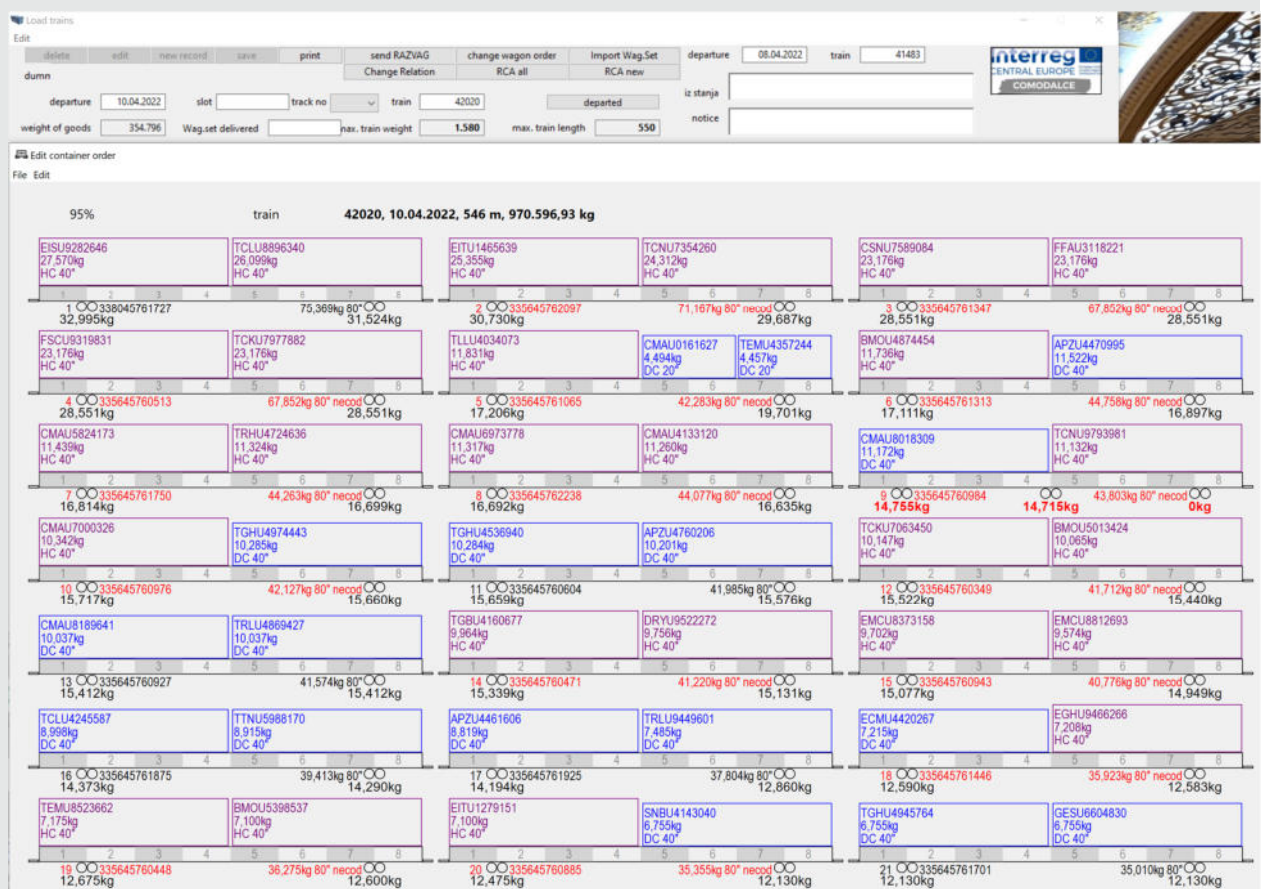
- relevant regulatory requirements
- sustainable development - environmental effects. In case of risk of negative effects, mitigation measures introduced
- horizontal principles such as equal opportunities and non-discrimination

Adria kombi is set to digitalize the entire operation and administration. Paperless operation. Better communication with its clients and reduction of costs.

The regulatory requirements are complied with. There is an open access for the solution, so different stakeholders will benefit from it. It is applicable anywhere, where they have checking of the intermodal trains inside the container terminal.

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



Load trains

departure: 10.04.2022 slot: track no: train: 42020 departed: iz stanja: notice:

weight of goods: 354.796 Wag.set delivered: har. train weight: 1.580 max. train length: 550

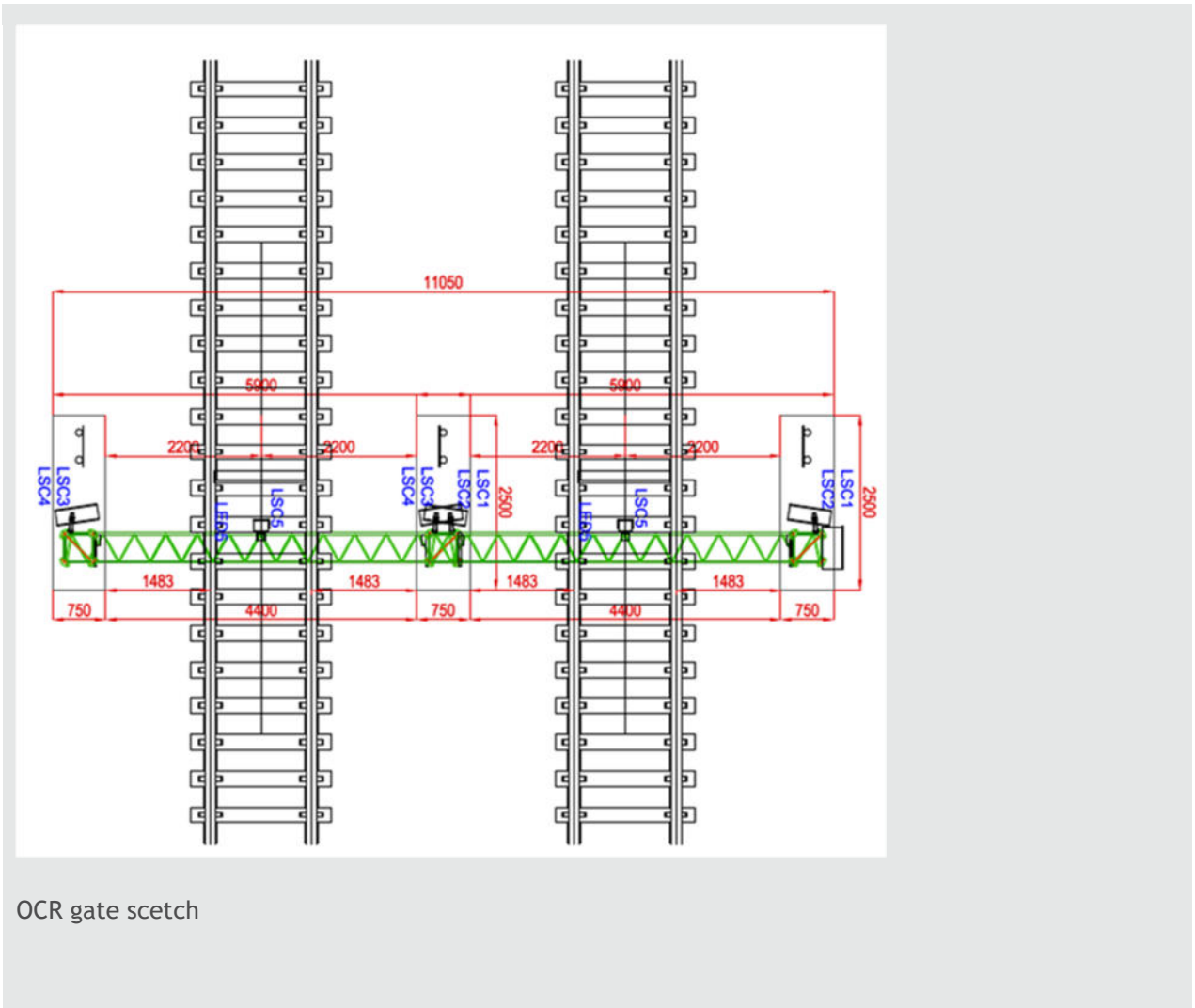
95% train 42020, 10.04.2022, 546 m, 970.596,93 kg

EISU8282646 27.570kg HC 40*	TCLU8896340 26.095kg HC 40*	EITU1465639 25.355kg HC 40*	TCNU7354260 24.312kg HC 40*	CSNU7589084 23.176kg HC 40*	FFAU3118221 23.176kg HC 40*
1 335645761727 32,995kg	75,369kg 80* need 31,524kg	2 335645762097 30,730kg	71,167kg 80* need 29,687kg	3 335645761347 28,551kg	67,802kg 80* need 28,551kg
FSCU9319831 23.176kg HC 40*	TCKU7977882 23.176kg HC 40*	TLLU4034073 11.831kg HC 40*	CMAU0161627 4.494kg DC 20*	TEMU4357244 4.457kg DC 20*	BMCU4874454 11.736kg HC 40*
4 335645760513 28,551kg	67,852kg 80* need 28,551kg	5 335645761065 17,206kg	42,283kg 80* need 19,701kg	6 335645761313 17,111kg	44,758kg 80* need 16,897kg
CMAU5824173 11.439kg HC 40*	TRHU4724636 11.324kg HC 40*	CMAU6973778 11.317kg HC 40*	CMAU4133120 11.260kg HC 40*	CMAU8018309 11.172kg DC 40*	TCNU5793981 11.132kg HC 40*
7 335645761750 16,814kg	44,263kg 80* need 16,699kg	8 335645762238 16,692kg	44,077kg 80* need 16,635kg	9 335645760984 14,755kg	43,803kg 80* need 0kg
CMAU7000326 10.342kg HC 40*	TGHU4974443 10.283kg DC 40*	TGHU4536940 10.254kg DC 40*	APZU4760206 10.201kg DC 40*	TCKU7063450 10.147kg HC 40*	BMCU5013424 10.065kg HC 40*
10 335645760976 15,717kg	42,127kg 80* need 15,660kg	11 335645760604 15,659kg	41,985kg 80* need 15,576kg	12 335645760349 15,522kg	41,712kg 80* need 15,440kg
CMAU8189641 10.037kg DC 40*	TRLU4869427 10.037kg DC 40*	TGBU4160677 9.964kg HC 40*	DRYU9522272 9.756kg HC 40*	EMCU8373158 9.702kg HC 40*	EMCU8812693 9.574kg HC 40*
13 335645760927 15,412kg	41,574kg 80* need 15,412kg	14 335645760471 15,339kg	41,220kg 80* need 15,131kg	15 335645760943 15,077kg	40,776kg 80* need 14,949kg
TCLU4245587 8.998kg DC 40*	TTNU5988170 8.915kg DC 40*	APZU4461606 8.819kg DC 40*	TRLU9449601 7.485kg DC 40*	ECMU4420267 7.215kg DC 40*	EGHU9466266 7.208kg HC 40*
16 335645761875 14,373kg	39,413kg 80* need 14,290kg	17 335645761925 14,194kg	37,804kg 80* need 12,860kg	18 335645761446 12,590kg	35,923kg 80* need 12,583kg
TEMU8523662 7.175kg HC 40*	BMCU5398537 7.100kg HC 40*	EITU1279151 7.100kg HC 40*	SNBU4143040 6.755kg DC 40*	TGHU4945764 6.755kg DC 40*	GESU6604830 6.755kg DC 40*
19 335645760448 12,675kg	36,275kg 80* need 12,600kg	20 335645760885 12,475kg	35,355kg 80* need 12,130kg	21 335645761701 12,130kg	35,010kg 80* need 12,130kg

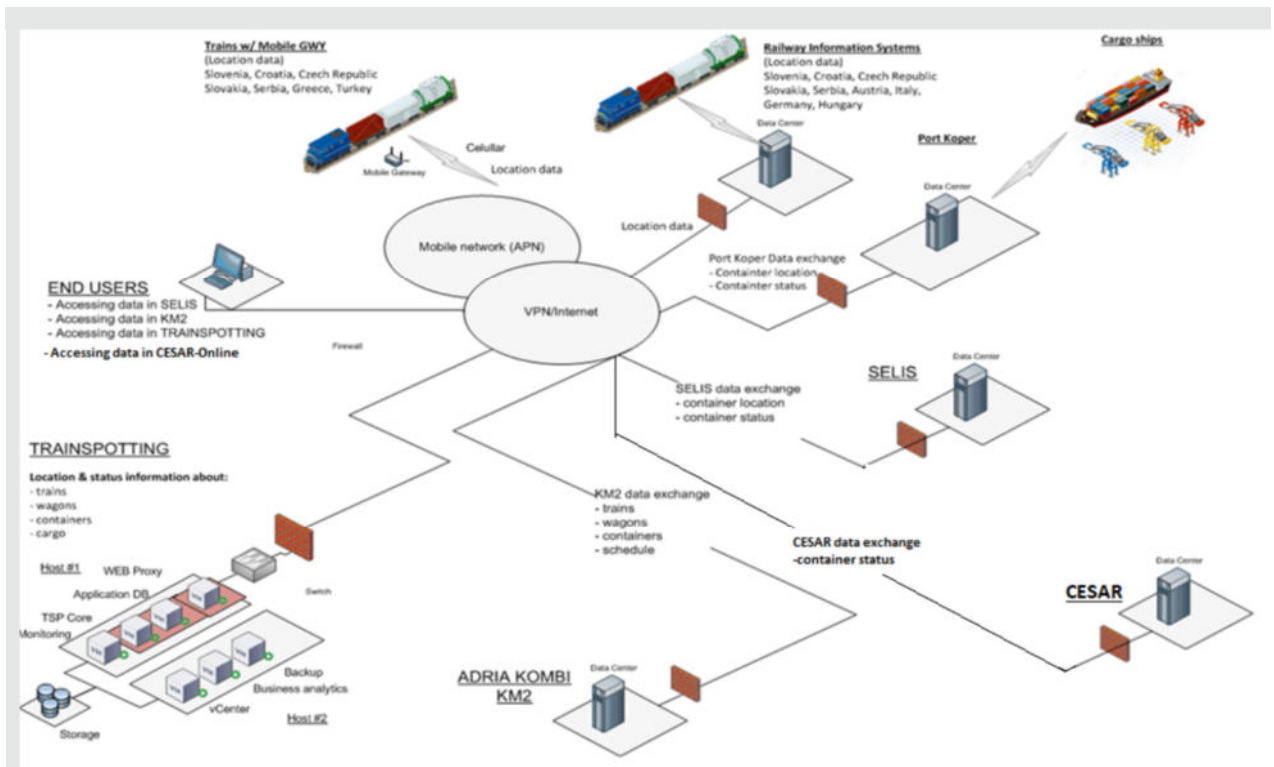
Loading plan for the Container Terminal, developed for Comodalce



The OCR gate LOCATION



OCR gate scetch



Interconnection of Adria kombi's IT System to all stakeholders

Dostava na tir	Naloga	Vlak	Vagoni	Kontejnerj	Odhod	Prihod	Cutoff
20.04.2022 07:00	Naklad	50001 KPCEM8088		40 (40F: 10 40E: 10 20F: 10 20E: 10)	20.04.2022 14:41	20.04.2022 22:47	
	Razklad	50000		40 (40F: 10 40E: 10 20F: 10 20E: 10)	19.04.2022 19:03	20.04.2022 03:11	20.04.2022 09:00
20.04.2022 09:00	Naklad	50003 KPCE057		40 (40F: 10 40E: 10 20F: 10 20E: 10)	21.04.2022 00:50	21.04.2022 05:44	
	Razklad	50002		40 (40F: 10 40E: 10 20F: 10 20E: 10)	19.04.2022 20:20	20.04.2022 01:42	20.04.2022 12:00
20.04.2022 15:00	Naklad	50353 KPJU057		40 (40F: 10 40E: 10 20F: 10 20E: 10)	21.04.2022 03:25	21.04.2022 07:54	
	Razklad	50352		40 (40F: 10 40E: 10 20F: 10 20E: 10)	19.04.2022 04:38	19.04.2022 08:45	20.04.2022 17:00
20.04.2022 18:00	Naklad	43600 KM5034	337949600064	42 (40F: 38 40E: 0 20F: 4 20E: 0)	21.04.2022 04:37	22.04.2022 05:00	
	Razklad	43601 2015	337949600866	42 (40F: 10 40E: 28 20F: 0 20E: 4)	17.04.2022 22:17	18.04.2022 16:48	
20.04.2022 20:00	Naklad	43634 PUBLIC04		50 (40F: 30 40E: 0 20F: 20 20E: 0)	21.04.2022 06:12	22.04.2022 00:43	
	Razklad	43633 BA020		50 (40F: 15 40E: 15 20F: 10 20E: 10)	20.04.2022 02:47	20.04.2022 19:17	
20.04.2022 22:00	Naklad	42020 W075	26 R/5	52 (40F: 26 40E: 0 20F: 26 20E: 0)	21.04.2022 07:57	22.04.2022 10:26	
20.04.2022 23:59	Naklad	42024 W076-Triangle	26 R/5	(40F: 40E: 20F: 20E:)	21.04.2022 13:58	22.04.2022 09:11	

Daily plan of trains in Port Container Terminal