STRATEGY FOR FOSTERING COORDINATED MULTIMODAL FREIGHT TRANSPORT THROUGHT ICT SYSTEMS - MCC

DELIVERABLE D.T1.3.10	Version 1
OUTPUT O.T1.2	02 2020

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1. Introduction

Within the COMODALCE project, outputs of the WPT1 include a "Strategy for fostering coordinated multimodal freight transport through ICT systems" (D.T1.3.2-10)", described as "strategy for fostering multimodal transport through ICT systems setting a vision, objectives and priorities in a mid- to long-term perspective, including a detailed wish list of measures to be tested in the pilot action".

This document includes the strategy elaborated for Mahart Container Terminal (PP10).

2. Methodology

2.1. Setting vision, mission, key values

The definition of vision statement, mission statement and key values provides a strategic framework for the planned measures.

VISION   **(Vision statement focuses on tomorrow and set the target aims to be achieved)**
Mahart Container Center will work with paperless administration, automated data transfer, involving as low manual work as possible, optimizing capacities with helping hand of digitalization and data transfer asset tools, software. The manual intervention into the ICT will be necessary when there is a mismatch between data compared.
MISSION   **(Mission statement focuses on today, what challenges shall we face towards the vision today)**
Mahart Container Center has to improve in automation of administration and data input. MCC will define structure of files that communicate between MCC ICT (Terminal Operating System – TOS), and partners (Customers, Operators, Railways and other terminals). The communication file must be standardized with all parties and must be capably of data transfer without manual intervention, without data error.   Mahart Container Center will improve time of train-turn and data punctuality with introduction of an OCR Gate that – with a tailor made software – will identify digits, numbers and labels and will put them into the system without manual intervention.
KEY VALUES   **(The principles and values that are the basis of the vision of the strategy)**
Key values are: - Customers' satisfaction   - Data availability and punctuality   - Environment protection with paperless work   - Capacity utilisation with reducing trains' turn time and fastening trains' entry   - Using ICT and automatic data transfer wherever possible

2.2. Setting strategic goals

Medium term (5 years):

1. Goal no. 1: **MCC will use OCR rail gate for automatically identify characters and upload them to TOS to compare with data received electronically.**

2. Goal no. 2: **MCC will develop electronic data exchange with Port of Trieste, as a pilot. The communication file will be standardized to involve more partners in the EDI communication.**

Long term (10 years):

1. Goal no. 4: **MCC will introduce paperless administration.**

2. Goal no. 5: **MCC will exchange data with all partners without manual intervention, using standardized EDI (Electronic Data Interchange) files that are automatically uploaded and downloaded from and to TOS.**

For each goal, please fill in the following table:

Medium Term Goal no.1.

MCC will use OCR gate for automatically identify characters and upload them to TOS to compare with data received electronically

Perspectives	Goal	Measurement
1. Environmental and safety perspective	Terminal workers must go to receive the train only in case digits cannot be read or there is a data mismatch, no need to print expected container and wagon numbers on paper. This means less papers used and more safe work as workers must go less at the rails and wagons	- paper used by MCC per trains unloaded (number of paper packs bought a year / trains entered the terminal) - accident rate
2. Internal processes perspectives	All trains can enter under the OCR gate, data of all trains must be obtained before train's arrival and put into the system. ICT will compare the data and manual input needed at data error only.	- number of arriving trains per administration personnel - number of manual correction needed on data read by OCR gate
3. Innovation and growth perspective	The OCR gate itself is the innovation as this is not used in any other terminals in Hungary. With use of OCR gate and data identification the available capacity can be better utilised, providing further capacities for growth.	- number of trains entering terminal below the OCR gate - Number of trains and containers handled by the terminal annually
4. Customer / Partner perspective	Customers / Partners will get more precise data and will be able to bring more trains and containers to the terminal	- number of arrival / departure notifications without error - number of trains and containers handled by MCC
5. Financial perspective	OCR gate will be financed by MCC while software development and installation will be financed party through Comodalce funds	- financing ratio (Comodalce vs own financing) - finance need after finishing Comodalce project (between years 2-5)

VISION:

Mahart Container Center will work with paperless administration, automated data transfer, involving as low manual work as possible, optimizing capacities with helping hand of digitalization and data transfer asset tools, software. The manual intervention into the ICT will be necessary when there is a mismatch between data compared.

Medium Term Goal no.2.

MCC will develop electronic data exchange with Port of Trieste, as a pilot. The communication file will be standardized to involve more partners in the EDI communication.

Perspectives	Goal	Measurement
1. Environmental and safety perspective	No need to print received train list and input manually. More containers arrive by train.	- printing papers bought by MCC annually
2. Internal processes perspectives	Administrators must check correctness of the data, instead of manual input	- number of trains processed by number of admin. employees
3. Innovation and growth perspective	The automated data exchange and process will be further used by more partners	- number of train data processed through the standardized EDI file
4. Customer / Partner perspective	Data correctness to customer will improve, reaching better customer satisfaction. Partners involved will also have more efficiency with avoiding manual input	- number of customers complaints per train - number of partners using EDI interface
5. Financial perspective	Pilot communication method and development of TOS will be financed through Comodalce, further customers' involvement will be financed by MCC	- financing ratio (Comodalce vs. own funds) - cost of new partners' involvement

VISION:

Mahart Container Center will work with paperless administration, automated data transfer, involving as low manual work as possible, optimizing capacities with helping hand of digitalization and data transfer asset tools, software. The manual intervention into the ICT will be necessary when there is a mismatch between data compared.

Long Term Goal no.1.

MCC will introduce paperless administration

Perspectives	Goal	Measurement
1. Environmental and safety perspective	Much less papers used for administration, will protect environment	- printing paper bought by MCC a year vs. number of trains handled
2. Internal processes perspectives	New role of administrative staff: instead of data processing, checking data and improve processes	- number of trains handled annually vs number of administrative staff
3. Innovation and growth perspective	With more reliable data, more and more partners involved in automated data process, ending with all partners involved and no papers used.	- number of partners, customers using EDI files and no manual involvement in data exchange
4. Customer / Partner perspective	Partners, customers also need to automate processes,that means more efficient administration at their side too.	- number of partners using EDI - data punctuality improvement: number of customers' complaints
5. Financial perspective	Roll-out of the pilot project will be financed by MCC	- amount of financing needed by partner roll-out

VISION:

Mahart Container Center will work with paperless administration, automated data transfer, involving as low manual work as possible, optimizing capacities with helping hand of digitalization and data transfer asset tools, software. The manual intervention into the ICT will be necessary when there is a mismatch between data compared.

Long Term Goal no.2.

MCC will exchange data with all partners without manual intervention, using standardized EDI (Electronic Data Interchange) files that are automatically uploaded and downloaded from and to TOS.

Perspectives	Goal	Measurement
1. Environmental and safety perspective	Both at MCC and partners much less papers used	- printing paper bought by MCC and partners a year vs. number of trains handled
2. Internal processes perspectives	New role of administrative staff: instead of data processing, checking data and improve processes	- number of trains handled annually vs number of administrative staff
3. Innovation and growth perspective	MCC will be the most innovative terminal in Budapest and can jointly grow with the customers, handling more trains and containers at MCC	- number of customers at the terminal - number of trains and containers handled annually
4. Customer / Partner perspective	Partners, customers also need to automate processes, that means more efficient administration at their side too.	- number of partners using EDI - data punctuality improvement: number of customers' complaints
5. Financial perspective	Roll-out of the pilot project will be financed by MCC	- amount of financing needed by partner roll-out

VISION:

Mahart Container Center will work with paperless administration, automated data transfer, involving as low manual work as possible, optimizing capacities with helping hand of digitalization and data transfer asset tools, software. The manual intervention into the ICT will be necessary when there is a mismatch between data compared.

2.3. Wish list of ICT measures

According to the AF, local strategies include a "detailed wish list of ICT measures to be tested in the pilot actions (WPT2)".

Accordingly, please include the items of the wish list in the table here below.

Please remember to ensure consistency between the wish list of ICT measure, the strategic goal here above (4.2) and the pilot action you will implement:

Wish list of ICT measures			
Title	Short description	Link to the strategic goal	Link to the pilot action
1.	Select the OCT gate software, customise to the local needs and implement in in MCC.	Goal no.1.:MCC will use OCR gate for automatically identify characters and upload them to TOS to compare with data received electronically.	This measure will be tested in the pilot action, as the OCR gate must function during WP2.
2.	Implement and tailor-make OCT software to Terminal Operation System (TOS) in order to receive and process data received.	Goal no.1.:MCC will use OCR gate for automatically identify characters and upload them to TOS to compare with data received electronically.	This measure will be tested in the pilot action, as the OCR gate must function during WP2.
3.	Define, structure and standardize communication file together with Port of Trieste, in order to use electronic data interchange and communicate data with them.	Goal no.2.:MCC will develop electronic data exchange with Port of Trieste, as a pilot. The communication file will be standardized to involve more partners in the EDI communication.	This measure will be tested in pilot action, standardized communication file available during WP2.
4.	Develop Terminal Operation System (TOS) in order to receive and process data received.	Goal no.2.:MCC will develop electronic data exchange with Port of Trieste, as a pilot. The communication file will be standardized to involve more partners in the EDI communication.	This measure will be tested in pilot action, data upload and download must be availableduring WP2.