

STRATEGY FOR FOSTERING COORDINATED MULTIMODAL FREIGHT TRANSPORT THROUGH ICT SYSTEMS - VERONA

DELIVERABLE D.T1.3.3

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 the node of Verona.



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)
The vision of the Verona freight village is to become the gateway of Italian ports through the development of an ICT platform able to put in communication ports and freight villages, increasing the exchange of information and goods
MISSION (Mission statement focuses on today, what challenges shall we face towards the vision today)
The mission of the Verona freight village is to activate new port connections through the use of ICT devices with the aim to reach new markets and optimizing the existing and potential logistics flow
KEY VALUES (The principles and values that are the basis of the vision of the strategy)
According to the vision principle, the future ICT platform must be an open source system in order to allow a full access to the network for all the players of the chain



2.2. Setting strategic goals

Medium term (5 years):

1. Goal no. 1: Creation of a paperless system to ease the access to the terminal gates
2. Goal no. 2: Develop a smart handling tool to optimize the arrangement of the loading units in the buffer area

Long term (10 years):

3. Goal no. 3: Activation of a Freight Village Community System (FVCS) similar to the PCS in the ports
4. Goal no. 4: Creation of an ICT fast corridor between the Verona freight village and the main Italian and European ports

For each goal, please fill in the following table



IT PLATFORM TO BOOK TRAIN SLOTS

Perspectives	Goal	Measurement
1. Environmental and safety perspective ↓	<To achieve this goal, how shall we improve, develop our environmental and safety internal policies?> The internal policy can foresee a priority access to the trucks using a digital reservation instead of a document.	<How to measure the progress, please define measurement indicator(s), e.g. % of using green renewable energy in the port> % of CO2 emissions in the terminal gates and in the surrounding roads after the introduction of this innovation.
2. Internal processes perspectives ↓	< To achieve this goal, how shall we adapt our internal processes and capacities?> It is important to define a dedicated procedure for the vehicles that use only the IT platform to book the slots on the train. In this way, the entire procedure (access to the terminal, handling of the loading unit and exit) will be managed automatically by the IT system, permitting to re-allocate the workers previously involved in the booking process moving them to more productive activities (e.g. train handling).	<How to measure the progress, please define measurement indicator(s), e.g. number of new processes increasing effectivity> Increase of accesses of heavy vehicles to the terminal gates after the adoption of the new IT procedure.
3. Innovation and growth perspective	< To achieve this goal, how shall we support innovation and sustain ability to change, improve and grow?> It is possible to re-arrange the shifts of the workers previously involved in the administrative process, exploiting better their skills to handle more trains and increase the traffic of the terminal.	<How to measure the progress, please define measurement indicator(s), e.g. number of new innovative technology used> Number of bookings to the priority fast lane (paperless system).
4. Customer / Partner perspective ↓ ↓	< To achieve this goal, how shall we approach / communicate to our customers / partners?> A general communication sent to each partner can inform them about the existence of this upcoming paperless technology. In this way, the players of the chain are aware of the advantages given by this technology and can decide to exploit it to reduce the waiting time of their truckers.	<How to measure the progress, please define measurement indicator(s), e.g. number of new customer/partner communication strategy/concept> Number of customers that will choose to move from the current procedure (wait at the terminal gates for the control of the delivery note) to the paperless system.
5. Financial perspective ↓	< To achieve this goal, how can we finance the desired changes and the new results?> The funds can come from European projects like COMODALCE which aim is to reduce the inefficiencies in the transport	<How to measure the progress, please define measurement indicator(s), e.g. number of new services financed> % of funds received both from European programmes and % from local



	<p>field. In addition, the local authorities (e.g. Municipality) could allocate some incentives in order to decrease the traffic jams in congested areas like the terminal gates.</p>	<p>authorities to finance the IT system.</p>
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TERMINAL SMART HANDLING TOOL

Perspectives	Goal	Measurement
1. Environmental and safety perspective ↓	<To achieve this goal, how shall we improve, develop our environmental and safety internal policies?> The implementation of a smart handling tool will permit to reduce the number of gantry lifts and their daily movement, producing a decrease of the energy consumption.	<How to measure the progress, please define measurement indicator(s), e.g. % of using green renewable energy in the port> Monthly amount of fuel or energy used up by the gantry cranes, reach stackers and slave tractors after the deployment of the IT tool.
2. Internal processes perspectives ↓	< To achieve this goal, how shall we adapt our internal processes and capacities? Creation of a priority system of the loading units that will be managed directly by the software. In this way, the loading units that must be shipped with a high priority will be placed close to the departing train, clearing the area quickly in order to use that space for other units.	<How to measure the progress, please define measurement indicator(s), e.g. number of new processes increasing effectivity> Reduction of the number of operations necessary to place or find a loading unit in the buffer area.
3. Innovation and growth perspective	< To achieve this goal, how shall we support innovation and sustain ability to change, improve and grow?> The increased space available in the buffer areas thanks to a better arrangement will permit to accept more trucks (and their loading units) in the terminal, enhancing the overall potential capacity.	<How to measure the progress, please define measurement indicator(s), e.g. number of new innovative technology used> Average annual number of loading units managed and temporarily stored in the buffer areas.
4. Customer / Partner perspective ↓ ↓	< To achieve this goal, how shall we approach / communicate to our customers / partners?> A direct communication to each customer is necessary to describe the advantages of the handling tool, providing a comparison between the previous and the future handling time for a loading unit.	<How to measure the progress, please define measurement indicator(s), e.g. number of new customer/partner communication strategy/concept> Using a survey or questionnaire, it is possible to understand the number of customers interested in the innovations coming from this IT tool.
5. Financial perspective ↓	< To achieve this goal, how can we finance the desired changes and the new results?> The funds can come from European projects like COMODALCE which aim is to reduce the inefficiencies in the transport field. In addition, the terminal manager could invest a part of the terminal resources after the preparation of a business plan showing the increasing profits coming	<How to measure the progress, please define measurement indicator(s), e.g. number of new services financed> % of the IT tool financed by European funds and % financed by terminal resources.



from the deployment of this IT tool.

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FREIGHT VILLAGE COMMUNITY SYSTEM

Perspectives	Goal	Measurement
1. Environmental and safety perspective ↓	<To achieve this goal, how shall we improve, develop our environmental and safety internal policies?> The design and activation of a Freight Village Community System (FVCS) following the existing PCS deployed in some ports will allow a reduction of the overall environment impact. This result will be achieved thanks to the cooperation of the players using this portal that will permit to coordinate their actions, avoiding waste and useless operations.	<How to measure the progress, please define measurement indicator(s), e.g. % of using green renewable energy in the port> Comparison of the % of CO2 emissions before and after the implementation of the FVCS.
2. Internal processes perspectives ↓	< To achieve this goal, how shall we adapt our internal processes and capacities? Identification of an impartial subject to manage all the information provided by the partners and able to give the priority to the urgent operations.	<How to measure the progress, please define measurement indicator(s), e.g. number of new processes increasing effectivity> Identification of the number of processes improved after the deployment of the FVCS.
3. Innovation and growth perspective	< To achieve this goal, how shall we support innovation and sustain ability to change, improve and grow?> The increase of the communications and of data exchanged will permit to raise the traffic volumes, exploiting the savings of time produced by the system.	<How to measure the progress, please define measurement indicator(s), e.g. number of new innovative technology used> Number of new connections that will be activated among the nodes involved.
4. Customer / Partner perspective ↓ ↓	< To achieve this goal, how shall we approach / communicate to our customers / partners> The communication to the partners to involve must be carried out through B2B meetings in order to reach an agreement about the data to share and of the actions to perform.	<How to measure the progress, please define measurement indicator(s), e.g. number of new customer/partner communication strategy/concept> Number of the partners involved in the FVCS compared to the B2B meetings carried out.
5. Financial perspective ↓	< To achieve this goal, how can we finance the desired changes and the new results?> The funds can come from European projects like COMODALCE which aim is to reduce the inefficiencies in the transport field. In addition, the infrastructure manager of the freight village could invest a part of its own resources after the elaboration of a detailed analysis of the FVCS impacts based on specific forecasts.	<How to measure the progress, please define measurement indicator(s), e.g. number of new services financed> % of the FVCS financed by European funds and % financed by freight village resources.



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ICT FAST CORRIDOR TO CONNECT PORTS AND FREIGHT VILLAGES

Perspectives	Goal	Measurement
1. Environmental and safety perspective ↓	<To achieve this goal, how shall we improve, develop our environmental and safety internal policies?> The creation of an ICT fast corridors among the Verona freight village and the main Italian and European ports will permit to reduce significantly the dwell time of the goods in the port areas, carrying out only the essential steps to move them from the point A (that can be the port or the freight village according to the origin of the cargo) to the point B. Therefore, this corridor is able to decrease the number of useless operations and the environmental impact, optimizing the entire process.	<How to measure the progress, please define measurement indicator(s), e.g. % of using green renewable energy in the port> Level of CO2 emissions and dwell time measured after the implementation of the ICT fast corridor.
2. Internal processes perspectives ↓	< To achieve this goal, how shall we adapt our internal processes and capacities? It is necessary to define a merged procedure to coordinate all the actors operating in the corridor with the aim to create a logical sequence to follow in order to enhance the overall efficiency.	<How to measure the progress, please define measurement indicator(s), e.g. number of new processes increasing effectivity> Number of steps to follow to move the freight from the point A to the point B before and after the activation of the corridor.
3. Innovation and growth perspective	< To achieve this goal, how shall we support innovation and sustain ability to change, improve and grow?> The ICT fast corridor will intensify the traffic flows among the ports and the freight villages, exploiting the savings of time (currently necessary to make the controls on the goods inside port's area and other administrative operations) to activate new freight connections.	<How to measure the progress, please define measurement indicator(s), e.g. number of new innovative technology used> Number of new connections activated among ports and freight villages after the implementation of the corridor.
4. Customer / Partner perspective ↓	< To achieve this goal, how shall we approach / communicate to our customers / partners?> Some technical meetings among the partners of the chain are essential to explain the features of the ICT fast corridor, showing the advantages of this system.	<How to measure the progress, please define measurement indicator(s), e.g. number of new customer/partner communication strategy/concept> Number of partners involved after the technical meetings.
5. Financial perspective ↓	< To achieve this goal, how can we finance the desired changes and the new results?> The funds can come from European projects like	<How to measure the progress, please define measurement indicator(s), e.g. number of new services financed> % of the ICT fast



	<p>COMODALCE which aim is to reduce the inefficiencies in the transport field. In addition, all the nodes involved in the ICT fast corridor route can participate in its implementation covering a part of the budget necessary through their own resources.</p>	<p>corridor financed by European funds and % financed by actors' resources.</p>
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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.	Realization of an ICT corridor to foster the exchange of data and to increase the traffic volumes among Verona freight village, La Spezia port and port of Rostock	Goal number 4	Yes, it will be tested in the merged pilot action that will involve three nodes: Port of Rostock, Freight Village of Verona and La Spezia port. At the beginning of the pilot implementation, the three-abovementioned actors will make an analysis of the territorial needs. Then, there will be the definition of the set of objectives to satisfy these needs. These goals will have a common scope that is to create a unique ICT corridor necessary to coordinate the operative activities of the actors. The final result will be to create a strong connection among the players involved in order to ease the exchange of information and increase the traffic volumes from the north of Europe to the south (and vice versa)
2.	Creation of a Freight Village Community System to improve the communication among the players operating in the terminal, reducing the inefficiencies and the environmental impact	Goal number 3	No, it will be not tested in any pilot action