

# **ACTIVITY 3.2 Pilot actions implementation**

D.T. 3.2.2. - PA for multimodal nodes/teminals efficiency and optimization: innovative contol shunting system

PILOT ACTION FINAL REPORT Naspa

Final Version 05/2020





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### 1. BACKGROUND

#### Introduction

Technical Work Package 3 includes pilot actions and trainings for cooperation in multimodal transport chains and business activation. Within this WP, activity 3.2 involves the implementation of the pilot actions.

Each partner shall carry out its pilot (as it is specified in the application form) and prepare its pilot report. In all cases other partners are involved, too (assessment, capitalization etc).

#### Purpose of this document

In order to have a same quality level of pilot report, PP8 Freeport of Budapest as WP leader provides a series of reporting templates, including:

- the pilot action inception report,
- the pilot action mid-term report,
- and the pilot action final report.

This document - the template of the pilot action final report - is the third and last element of this series. The aim of this document is to provide methodological support to be used to summarise the implementation of each pilot action.

#### Which project partners are involved?

Each project partner who has a pilot is involved. The following table summarises the pilot actions and the responsible PPs.

Topic	Pilot action - Deliverable	Partner responsible
Last mile connections of multimodal nodes	D 3.2.1.  PA for last mile connectivity of multimodal nodes: Feasibility Study for a new rail terminal	PP4 - ZAILOG
Multimodal terminals efficiency and optimisation	D 3.2.2.  PA for multimodal nodes/terminals efficiency and optimization: innovative control shunting system	LP - NASPA



Topic	Pilot action - Deliverable	Partner responsible	
Multimodal terminals efficiency and optimisation	D 3.2.3.  PA for multimodal nodes/terminals efficiency and optimization: ICT/ITS tools for rail traffic	LP - NASPA	
Multimodal terminals efficiency and optimisation	D 3.2.4.  PA for multimodal nodes/terminals efficiency and optimization: ICT/ITS tools for rail traffic	PP6 - Port of Rijeka	
Multimodal terminals efficiency and optimisation	D 3.2.5.  PA for multimodal nodes/terminals efficiency and optimization: new WMS (warehouse management system) model	PP16 - CODOGNOTTO POLAND	
Assessment of market opportunities to reinforce or activate new multimodal services	D 3.2.6.  PA for activation/optimization of multimodal services: new services port gateway/freight village	PP4 - ZAILOG AND LP - NASPA	
Assessment of market opportunities to reinforce or activate new multimodal services	D 3.2.7.  PA for activation/optimization of multimodal services: modal shift form road to rail	PP16 - CODOGNOTTO POLAND AND LP - NASPA	
Alternative fuels deployment	D 3.2.8.  PA for ECO-innovations on alternative fuels deployment: development of new emobility	PP8 - FREEPORT OF BUDAPEST (WITH PP9 - PUBLIC PORTS JSC INVOLVEMENT)	
Alternative fuels deployment	D 3.2.9.  PA for ECO-innovations on LNG deployment as alternative fuels: logistic model for LNG	PP16- CODOGNOTTO POLAND	
Energy efficiency solutions	D 3.2.10.	PP5 - LUKA KOPER	



Topic	Pilot action - Deliverable	Partner responsible
	PA for ECO-innovations on energy efficiency deployment: test of energy efficiency in cargo handling	
Energy efficiency solutions	D 3.2.11.  PA for ECO-innovations on energy efficiency deployment: tests on transport operations	PP14- LOKOMOTION  (assessment by PP7 - RCH)
Trainings	D 3.2.12.  Testing of training pathways for energy efficiency deployment in the rail sector - RCH  (report is not needed)	PP7 - RAIL CARGO HUNGARY
Trainings	D 3.2.13.  Testing of training pathways for energy efficiency deployment in the rail sector - Lokomotion  (report is not needed)	PP14- LOKOMOTION



# 2. PILOT ACTION IMPLEMENTATION

PROJECT PARTNER	North Adriatic Sea Port Authority (NASPA)
PILOT PROJECT NAME:	PA for multimodal nodes/terminals efficiency and optimization: innovative control shunting system
PILOT PROJECT ID:	OT3.2 - Creation of a data warehouse functional to reporting and data analysis - Railway DATAMART



### 3. DESCRIPTION OF THE PILOT ACTION

NEEDS AND CHALLENGES ADDRESSED BY THE PILOT ACTION (max. 2000 characters)

The main challenge is to have a unique collection of different data sources for different activities (gates, rail activity, shipping activity, geographical data) in order to carry out quieries and have additional information from the intersection of the data bases.

A concrete example is related to the possibility to better understand intermodality in the port: the ship arrives, drops off cargo that is distributed through rail operations/network, trucks (gates) or other ships. Currently the segmentation of the different databases doesn't allow to know the volumes of traffic that are generated from the incoming ship towards the three modalities - rail, road, sea.

By the inclusion of rail shunting data, DATAMART will help to find the solution.

#### BEST PRACTICES AND ACTION PLANS SUPPORTING THE PILOT ACTION (max. 2000 characters)

This pilot action is strictly related the action plans aiming at the improvement of railway accessibility

The Port of Venice is connected to the national network through the Venice Marghera Scalo port and through the Venezia Mestre station.

The recent rail traffic growth lead to suppose that the trend is structural.

To tackle this challenges and guarantee an efficient railway accessibility, further to some infrastructural interventions (new railway bridge, upgrading of Venezia Marghera Scalo station capacity, upgrading of railway siding in the port area), NASPA realized, within TalkNET project, two pilot actions (SIMA2 and Railway Datamart) aimed at optimization and effective management of railway shunting operations.

#### PURPOSE OF THE PILOT ACTION (max. 1000 characters)

This data warehouse has been implemented for the organization of different datasets allowing integrated queries and researches, based on data arising from different data sources and different data types.



CONTENT AND OUTPUT OF THE PILOT ACTION - DESCRIPTION OF THE DELIVERABLE (max. 15000 characters)

The Railway DATAMART allows the collection of the data from ERF (Esercizio Raccordi Ferroviari) - the holder of the service of general interest of rail shunting at the Port of Venice - that arrive to the North Adriatic Sea Port Authority for data analysis.

Railway DATAMART increases the possibility to correlate data from different sources that means having the ability to generate new information, improve process optimization and decision support, and perform more accurate processing on historical data.

The main added value of DATAMART is the precious possibility of being able to cross-reference and query railway data with the other organizations of the port information system.

# **DESCRIPTION OF D.T.3.2.2 PILOT ACTION**





Haulage gate in/out datasets

Stored on local database





Rail shounting datasets







Stored on local database







All other port data sets (freight, AIS, Nautical, documents, ...) 7

Datamart organizes different datasets allowing integrated queries and researched based on data arising from different data sources and different data types.



WERE THERE ANY DEVIATIONS IN TERMS OF THE CONTENT OR PURPOSE OR ANY PART OF THE PILOT ACTION - IF YES, PLEASE DESCRIBE THE REASONS (max. 2000 characters)

No deviations.			



# 4. STAKEHOLDER'S INVOLVEMENT

HOW THE STAKEHOLDERS WERE INVOLVED (max 2000 characters)

NASPA organized the consultation in order to receive by ERF, the holder of the service of general interest of rail shunting at the Port of Venice, technical specifications to develop the Railway DATAMART.

ERF has been further contacted during the drafting of the technical tender documents for the awarding of the service, so that they could provide their contribution and assessment step-by-step.



## 5. TRANSFERABILITY OF PILOT ACTION RESULTS

### TRANSFERABILITY OF THE PILOT ACTION RESULTS (max. 2000 characters)

The transferability of the system created by the Port of Venice allows an organization to acquire data from different sources (other organizations that use data in different forms), to exchange them each other without forcing those who provide these data to change their data management and storage methods.

Capitalisation perspectives can considered in relation to the fact that the added value of DATAMART is a technological upgrade allowing a related upgrade on the quantity of information gathered and available to be analysed.