

ACTIVITY 3.2 Pilot actions implementation

PILOT ACTION FINAL REPORT

Final Version
05/2020



Table of contents

1. BACKGROUND	3
2. PILOT ACTION IMPLEMENTATION	6
3. DESCRIPTION OF THE PILOT ACTION.....	6

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 from 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 e-mobility	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

Why do you have to do it?

The main important findings of the pilot actions are recorded and organized in specific documents in order to support the transferability process. It means that we have to prepare a summary assessment report of all pilot actions - which is the responsibility of WP responsible partner (Freeport of Budapest - PP8). The summary report will be based on the inputs you provide in your inception, mid-term and final reports about your pilot actions. Inputs from you are provided for the final report in the format specified by this document.

2. PILOT ACTION IMPLEMENTATION

PROJECT PARTNER	PP15 - Codognotto Polska
PILOT PROJECT NAME:	<p>TalkNET Thematic work package 3 D 3.2.5.</p> <p>PA for multimodal nodes/terminals efficiency and optimization: new WMS model.</p>
PILOT PROJECT ID:	O.T3.5

3. DESCRIPTION OF THE PILOT ACTION

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

Codognotto Group is facing the challenge of rethinking and optimizing its Warehouse Management system (hereinafter WMS), in order to exploit the advantages and benefits linked to an improved IT development and subsequent digitalization of the warehouses managed by the Group within the Program Area.

More in detail, an advanced digitalization of the management system at the base of storage activities and logistics in general can support and encourage the application of multimodal transport solutions, with a specific focus on rail transport.

Furthermore, it can enhance co-modality solutions allowing a full exploitation of trucks capacity managing correctly the two dimensions of weight and volumes.

In this view, Codognotto Polska has raised the interest of BSH Group in designing and testing a new concept of WMS based on automatic communication between the logistics supplier and shippers, avoiding potential delays and errors along the logistics chains and optimizing the processes.

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

The warehouse management has been progressively characterised by digital optimisation of routinary procedures and the identification of synergies and integration along the value chain, boosting the contract logistics sector. The action plans outlined the needs to fully exploit the capacity of warehouses, infrastructures and vehicles already available in the market. The base is creating a positive cooperation among the players of the supply chain by supporting horizontal cooperation initiatives. CO3 or Logistar projects aiming at creating automatic tools for co-modality represented important knowledge base tool for pilot implementation.

PURPOSE OF THE PILOT ACTION (max. 1000 characters)

Logistics nodes could be better exploited and optimised with more accurate analyses at process level, a proper standardisation and subsequent informatisation of the hub operations.

COD PL defined and tested a new WMS concept with which allowed to increase and optimise the logistics processes. The system model allowed to an automatic communication between the logistics supplier and the production companies.

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

The WMS system chosen as base for the development required is CLICK REPLY, outlined as a good practice in the framework of TalkNET project and IT system already in use within the Codognotto Group network. The implementation itself of the WMS was managed in the framework of FEDeRATED project, the most advanced EU project dealing with digital cooperation while TalkNET focused on the creation of a proper communication among the players of the logistics chain.

The test site was a warehouse located in Piacenza district (IT), identified by COD PL with the support of the Logistics & Distribution Business Unit and the Marketing & Innovation Area at Group level as the most-effective warehouse to produce an impact compared to the expected project results for the pilot action in question.

BSH has a large number of warehouses located in Central Europe area that could consider a future deployment of the tested solution. Moreover, the solution developed considerable criteria of adaptability and interoperability with other IT tools.

The warehouse management system created by TalkNET allowed a progressive digitalisation of routinary procedures and the identification of synergies and integration along the value chain. In such framework, Codognotto acted as Third-Party Logistics (3PL). Key elements of the operation required:

- focus on integrated management and the execution of various logistical and non-logistical functions in a complex portfolio of services;
- significant degree of individualization in the design and execution of these services;
- establishing the base for long-term relationship between the customer and the service provider by optimising the integration of services;

As a 3rd PL, Codognotto's was required to offer to BSH a complex mix of service:

- logistics centres;
- central and regional warehouses;
- cross-docking centres;
- vehicle fleets;
- transporters and packaging systems;

IT systems.

The characteristics of Piacenza warehouse for the testing were the following:

KEY ELEMENTS		
Site	Log. Center	Shared
Space	25.000 m ²	1 location - Pontenure (PC)
Volume	m ³ out: 350.000 year	
WMS	CODOGNOTTO (Replay - Click)	
MHE	Forklift Truck, Clamp Truck, Reach truck and Transpallet	
Product	Home Appliances (MDA, SDA, Accessories)	
Product Handled	Finished Goods, Accessories	

The digitalisation and the related connections of the hub were not fully covered by TalkNET which had a limited amount of budget available for a project so innovative and requiring a relevant amount of commitment from the company for its complete implementation.

As a whole the IT project complies the identification of the processes, their revision, standardisation, digitalisation and digital connections.

TalkNET was focused in defying how a WMS could be seen as a tool for optimising the hub. The pilot was so focused in data collection and exploitation from the staff working in the hub.

Data collection was performed efficiently and API connections were generated assuring the data flows from Codognotto to BSH.

The digital connection operated in the framework of TalkNET allowed the creation of a seamless connections among the different players operating in the hub. It allowed to collect orders in the WMS and to transfer the data to different TMSs of carriers both for FTL and LTL shipments.

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)

There were not deviations accordingly to what was foreseen in the application form nonetheless it has to be outlined that the first idea was to implement such system in Poland for a new warehouse that was supposed to be established in Lodz. The plan was performed in 2016 but unfortunately the change of the market conditions determined the impossibility to regularly proceed with the project idea.
A warehouse in Pontenure (IT) was selected in order to perform the pilot. The warehouse was in a start up phase and had no WMSs active.

4. STAKEHOLDER'S INVOLVEMENT

HOW THE STAKEHOLDERS WERE INVOLVED (max 2000 characters)

The main important player involved in the pilot was BSH Hausgeräte GmbH, the largest manufacturer of home appliances in Europe and one of the leading companies in the sector worldwide. The group stemmed from a joint venture set up in May 1967 between Robert Bosch GmbH and Siemens.
Furthermore, several SMEs were involved in the data collection phase which populated the data of the WMS.

5. TRANSFERABILITY OF PILOT ACTION RESULTS

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

From the technological point of view the tested model does not present any difficulty of implementation. The innovative aspect is the implementation of a digital cooperation system using the physical hub as a point of data collection and sharing improving the synergies with the players involved in the operations. The project followed the indication expressed by the Digital Transport and Logistics forum and FEDeRATED project.