

DigLogs

WP5 – Testing phase

Methodology

Created by Actual I.T.

Responsible partner: Actual I.T.			
Involved partners: LP, PP1, PP2, PP4, PP5, PP6, PP7, PP8, PP9			
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Introduction

The main objectives of WP5 are:

- to test the most valuable solutions mapped in the previous WPs
- to demonstrate reliability and applicability of innovative solutions assessed to a larger group of stakeholders
- to improve hubs performances towards multimodality management and passengers mobility improvement
- to determine transferability measures to allow players outside the partnership to adopt tested solutions
- to collect together precise indications to guarantee project results durability

The expected outputs of WP5 are the following:

- 7 pilot implementations
- Transferability plan
- Action plan

1. About WP5

According to what is actually foreseen in the application form, the deadlines of WP5 are the following:

- Start date: 01.08.2020
- End date: 30.06.2021

Pilot actions are chosen to test the most valuable solutions mapped in the previous WPs. Each pilot action is a 'subset' of the shortlisted innovation, focusing on the narrowly determined scope for the innovation deployment.

By defining roadmaps for pilot deployment at the end of WP4, we set up foundation to define a more precise project plan for the pilot implementation.

Deployment roadmaps D4.x.3, the final deliverables of WP4, serve as inputs for WP5, in particular:

D4.2.3 Deployment roadmaps to increase competitiveness of multimodal transport services: input for WP5.1 and WP5.3

D4.3.3 Deployment roadmaps to increase harmonization of passengers mobility: input for WP5.2 and WP5.3

2. PARTNERS INVOLVED IN WP5

PP5 – Actual I.T. is in charge of the coordination of WP5.

Partners participating in WP5 are:

- LP – University of Rijeka, Faculty of Maritime Studies Rijeka
- PP1 – CFLI (Intermodal Logistics Training Consortium)
- PP2 – ELEVANTE srl
- PP4 – University of Trieste
- PP5 – Actual I.T.
- PP6 – Cluster for Innovation in Logistics and Transport System (Polo Inoltra)
- PP7 – Port of Rijeka Authority
- PP8 – Port of Šibenik Authority
- PP9 – Rovinj Port Authority

Partners for Freight sector:

- PP2 – ELEVANTE srl
- PP5 – Actual I.T.
- PP6 – Cluster for Innovation in Logistics and Transport System (Polo Inoltra)

Partners for Passenger sector:

- PP4 – University of Trieste
- PP7 – Port of Rijeka Authority
- PP8 – Port of Šibenik Authority

Partners for both Freight and Passenger sector:

- PP1 – CFLI (Intermodal Logistics Training Consortium)
- PP9 – Rovinj Port Authority

3. WP5 timeframe

WP5	WP5 Project Implementation (Testing phase)	Timeframe
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5.1	Activity 5.1 - Freight pilot implementation and test	Aug20-Feb21
5.2	Activity 5.2 - Passengers pilot implementation and test	Aug20-Feb21
5.3	Activity 5.3 - Combined pilot implementation and test	Aug20-Feb21
5.4	Activity 5.4 - Transferability plan	Mar21-Apr21
5.5	Activity 5.5 - Action plan	May21-Jun21

4. Activity WP 5.1, 5.2, 5.3 Pilot implementation

Pilot implementation consists of 3 parallel lines of activities (freight, passenger and combined):

5.1 Freight pilots implementation

Partners involved: PP2, PP5, PP6

Budget: €179.425

Timeframe: 01/08/20-28/02/21

Objective: multimodal planning automation

Activities:

5.1.1 Pilots work plan drafted and validated by participants

5.1.2 WMS 4.0 – DSS pilot (improved planning of transport missions) – **PP2**

5.1.3 PCS automation: Delivery Planning pilot (introducing planning automation and PCS procedures) – **PP6, PP5**

5.2 Passengers mobility pilots implementation

Partners involved: PP4, PP7, PP8

Budget: €189.450

Timeframe: 01/08/20-28/02/21

Objective: management of passengers through digital applications

Activities:

5.2.1 Pilots work plan drafted and validated by participants

5.2.2 *Mobile security pilot* (passengers safety and security in dangerous situation) – **PP4**

5.2.3 *Apps for data flows management of passengers* (integrated data from different sources in order to provide reliable and JIT information to passengers) – **PP7**

5.2.4 *Implementation of digital access control* (as a prerequisite for integration with PCS) – **PP8**

5.3 Combined pilot implementation

Partners involved: PP1, PP9

Budget: €201.475

Timeframe: 01/08/20-28/02/21

Objective: tests solutions combining the management of passengers and freight

Activities:

5.3.1 Pilots work plan drafted and validated by participants

5.3.2 *Management solution for passengers and freight maritime transport* (towards PCS-NMSW integration) – **PP9**

5.3.3 *Spatial Data Management System* (a Big Data management solution for better planning) – **PP1**

4.1. Methodology

The first phase of each line of activities WP5.1, WP5.2 and WP5.3 is the creation of Pilot work plan (WP5.x.1), which serves as a starting point for the second phase (Pilot implementation).

4.1.3 Activity WP5.x.1: Pilot Work Plan (PWP)

WP5 leader is going to provide **a template** for drafting a *Pilot work plan (PWP)*.

Each PP involved will detail a *Pilot Work Plan (PWP)* for his pilot. PWP will be validated by the whole partnership in order to assure their representativeness for the whole programme area.

PWP has to address the following actions:

1. Drafting of the pilot specifications (→analysis)
2. Pilot project service and materials public procurement (if applicable)
3. Stipulation of the pilot project contracts (if applicable)
4. Pilot project execution and delivery (design, development)
5. Pilot project internal PP acceptance test (testing)
6. Documenting the pilot project and pilot acceptance by the PP (PP acceptance signoff)
7. PP deliverables handed over to the end-user (stakeholder), UAT (User Acceptance Testing) and signoff: Deployment of the pilot executable, UAT verification signoff, Pilot application signoff.
8. Pilot project closure and financial settlement.

Expected deliverables (D5.1.1, D5.2.1, D5.3.1): Validated **Pilots'work plan (PWP)** for each pilot action:

Deliverable (PWP)	Responsible partner
<i>D5.1.1 - 5.1.2 PWP for 'WMS 4.0 – DSS pilot'</i>	PP2
<i>D5.1.1 - 5.1.3 PWP for 'PCS automation: Delivery Planning pilot'</i>	PP6, PP5
<i>D5.2.1 – 5.2.2 PWP for 'Mobile security pilot'</i>	PP4
<i>D5.2.1 – 5.2.3 PWP for 'Apps for data flows management of passengers'</i>	PP7
<i>D5.2.1 – 5.2.4 PWP for 'Implementation of digital access control'</i>	PP8
<i>D5.3.1 – 5.3.2 PWP for 'Management solution for passengers and freight maritime transport'</i>	PP9
<i>D5.3.1 – 5.3.3 PWP for 'Spatial Data Management System'</i>	PP1

Expected deadline: 31st October 2020

4.1.2 Activities WP5.1.2, WP5.1.3, WP5.2.2, WP5.2.3, WP5.2.4, WP5.3.2, WP5.3.3: Pilot implementation

The second phase of each line of activities WP5.1, WP5.2 and WP5.3 is the pilot implementation. There are 7 different pilots, belonging to the following 3 groups:

- WP5.1.x – freight pilots (WP5.1.2 and WP5.1.3)
- WP5.2.x - passenger pilots (WP5.2.2, WP5.2.3 and WP5.2.4)
- WP5.3.x – combined pilots (WP5.3.2 and WP5.3.3)

and they all run in parallel.

Each pilot is implemented by the responsible partner, following the accepted PWP. Pilot PPs are required to send a concise progress report at each milestone, set up in their PWPs, to the WP5 leader Actual. The WP5 leader will monitor the progress and take actions in case of problems

encountered. Each responsible partner is required to monitor for risk occurrence and take necessary actions, as described in their risk management strategy within respective PWP.

Expected deliverables: the 7 pilot applications (executables):

Deliverable (pilot application executable)	Responsible partner
<i>D5.1.2 WMS 4.0 – DSS</i>	PP2
<i>D5.1.3 PCS automation: Delivery Planning</i>	PP6, PP5
<i>D5.2.2 Mobile security pilot</i>	PP4
<i>D5.2.3 Apps for data flows management of passengers</i>	PP7
<i>D5.2.4 Implementation of digital access control</i>	PP8
<i>D5.3.2 Management solution for passengers and freight maritime transport</i>	PP9
<i>D5.3.3 Spatial Data Management System</i>	PP1

Expected deadline: 28th February 2021

4.2. Roles of PPs

PP5 (Actual) – work package leader. Responsible for coordinating, steering and monitoring the progress of WP5 activities. Provides methodology for executing WP5 activities and template for the PWP deliverables (D5.x.1) in order to encourage uniformity and facilitate revision process. Coordinates the production of the WP5 deliverables. PP5 is also involved in the implementation of pilot D5.1.3 *PCS automation: Delivery Planning*, together with PP6 (Polo Inoltra).

PP2 (Elevante) – responsible for the PWP and implementation of the pilot W5.1.2. *WMS 4.0 – DSS*. PP2 has to provide a Pilot Work Plan (D5.1.1) for their respective pilot, manage its implementation (W5.1.2) and deliver the executable D5.1.2. PP2 has to report to WP leader PP5 the progress at each milestone step up in their PWP.

PP6 (Polo Inoltra) - responsible for the PWP and implementation of the pilot D5.1.3 *PCS automation: Delivery Planning*. PP6 is responsible for creation of Pilot Work Plan (D5.1.1) for their respective pilot, in cooperation with PP5. PP6 is responsible for implementation of W5.1.3 pilot and delivery of the executable D5.1.3, in cooperation with PP5.

PP4 (Uni Trieste) - responsible for the PWP and implementation of the W5.2.2. *Mobile security pilot*. PP4 has to provide a Pilot Work Plan (D5.2.1) for their respective pilot, manage its implementation (W5.2.2) and deliver the executable D5.2.2. PP4 has to report to WP leader PP5 the progress at each milestone step up in their PWP.

PP7 (Rijeka Port Authority) - responsible for the PWP and implementation of the pilot W5.2.3. *Apps for data flows management of passengers*. PP7 has to provide a Pilot Work Plan (D5.2.1) for their respective pilot, manage its implementation (W5.2.3) and deliver the executable D5.2.3. PP7 has to report to WP leader PP5 the progress at each milestone step up in their PWP.

PP8 (Šibenik Port Authority) - responsible for the PWP and implementation of the pilot W5.2.4. *Implementation of digital access control*. PP8 has to provide a Pilot Work Plan (D5.2.1) for their respective pilot, manage its implementation (W5.2.4) and deliver the executable D5.2.4. PP8 has to report to WP leader PP5 the progress at each milestone step up in their PWP.

PP9 (Rovinj Port Authority) - responsible for the PWP and implementation of the pilot W5.3.2. *Management solution for passengers and freight maritime transport*. PP9 has to provide a Pilot Work Plan (D5.3.1) for their respective pilot, manage its implementation (W5.3.2) and deliver the executable D5.3.2. PP9 has to report to WP leader PP5 the progress at each milestone step up in their PWP.

PP1 (CFLI) - responsible for the PWP and implementation of the pilot W5.3.3. *Spatial Data Management System*. PP1 has to provide a Pilot Work Plan (D5.3.1) for their respective pilot, manage its implementation (W5.3.3) and deliver the executable D5.3.3. PP1 has to report to WP leader PP5 the progress at each milestone step up in their PWP.

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5. Activity WP5.4 Transferability plan

Partners involved: LP with the contribution of all partners

Timeframe: 01/03/21-30/04/21

Objective: to make pilots' results easily understandable and replicable by further stakeholders in the programme area.

- Template for assessment
- Data collection of final results of the pilots
- Performance assessment results
- Transferability plan - define guidelines on how to transfer pilot results in different contexts within the programme area

5.1. Methodology

5.1.1 Activity WP5.4.1 Template for assessment

- **LP** will define a template for collection of pilots' results from the partners involved in pilot implementations
- The template should capture: important information, experience, problems encountered during pilot implementation and useful suggestions for the replicability
- **all partners** validate the template
- a set of KPIs will be defined for the logistics, transport and environmental dimensions

Deliverable D5.4.1: Validated assessment template

Responsible partner: **LP**

5.1.2 Activity WP5.4.2 Data collection of pilot results

- **PPs** involved in pilot implementations complete the provided template

- Data in relation to the selected KPIs are measured and collected in the "as-is" and "to-be" scenarios for all pilot applications

5.1.3 Activity WP5.4.3 Performance assessment results

The defined KPIs are measured in the "as-is" and the "to-be" situation, in order to monitor the reached benefits in quantitative way.

5.1.4 Activity WP5.4.4 Transferability plan

- **LP** collects the information and refines the document in order to standardise the content and make it sharable and easy to understand by all the players of the sector
- **All partners** revise the document and validate it

Deliverable D5.4.4: Transferability plan

Responsible partner: **LP** (with the contribution of all PPs)

5.2. Roles of PPs

The partners responsible for delivery of Transferability plan:

- **LP - PFRI** has to provide the template for pilot results collection. LP collects the information, standardizes the content and produces the *Transferability plan* document.
- **PPs** have to validate and complete the template and revise *Transferability plan* document.

6. Activity WP5.5 Action plan

Partners involved: LP with PP5 support

Timeframe: 01/05/21-30/06/21

Objective: to provide an easy tool collecting together the most relevant experiences and results

The Action Plan document will be developed. The three trends described in the framework of WP3 will be captured, analysing the situation before project implementation, the current one and the future perspective. The document validated by all partners will be spread among players of the sector.

- Main project results template collection
- Action plan - define next steps to assure proper digitalisation in the programme area – a long term perspective for the innovation deployment, including how to avoid major problems identified during pilot implementations

6.1. Methodology

6.1.1 Activity WP5.5.1 Main project results collection

- **LP** defines a template to facilitate the collection of all project results
- **PP5** completes it (e.i. collects the results from PPs), updating the results achieved in WP3 and WP4 if further improvements have been recorded during project life span

Deliverable D5.5.1: Completed project results template

Responsible partner: LP with PP5 support

6.1.2 Activity WP5.5.2 Action plan document

- **LP** collects the information and refines the document in order to standardise the content and make it sharable and easy to understand by the players of the sector

- **LP** defines next steps and measures to be taken by the programme area in order to support digitalisation processes after project closure
- **All partners** revise the document and validate it

Deliverable D5.5.2: Action plan

Responsible partner: LP (with all partners' support)

6.2. Roles of PPs

The partners responsible for the delivery of Action plan:

- **LP - PFRI** has to provide the template for project results collection
- **PP5 – Actual** has to collect the project results into the template provided by LP
- **LP** has to draft the Action plan
- **PPs** have to validate and revise the Action plan