



Project Periodic Report 3– Month 37 to 51

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Project Periodic Report 3– Month 37 to 51

AUTHORSHIP

Author(s)	Prof. dr. Michaël Dooms, Drs. Bruno Moeremans (and all WP leaders)
Beneficiary Partner	VUB
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SIGNATURES

Author(s)	Michaël Dooms
Coordinator	Michaël Dooms

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Project Periodic Report 3– Month 37 to 51

List of Contents

1	General project progress and management.....	4
2	Overall progress assessment.....	8
3	Progress per WP	15
3.1	Work Package 1: Market Trends and Structure.....	16
3.2	Work Package 2: Socio-economic indicators.....	19
3.3	Work Package 3: Environmental, Health and Safety Indicators	23
3.4	Work Package 4: Logistic Chain and Operational Performance Indicators	27
3.5	Work Package 5: Governance (including Financial) Indicators.....	29
3.6	Work Package 6: Integrating users’ perception in port performance evaluation	32
3.7	Work Package 7: Inland Port Performance Indicators	36
3.8	Work Package 8: Development of a strategy map and a balanced view	38
3.9	Work Package 9: Benchmarking European Port Performance	39
3.10	Work Package 10: Stakeholder Management, Dissemination and Communication	42
3.11	Work Package 11: Development of an ICT and Knowledge Management System.....	57
3.12	Work Package 12: Implementation of the European Port Observatory	60
3.13	Work Package 13: Project Management.....	62
4	Annexes.....	63

1 GENERAL PROJECT PROGRESS AND MANAGEMENT

This project management report provides next to a high-level conclusion on the state of the WP's and the use of resources, insights into the general development of the project, the context, its challenges, the main lessons learned and the way forward.

As mentioned in earlier reports, PORTOPIA is a highly complex project, due to the following elements:

- A continuous interaction between industry, academics, technical partners (ICT) and the European Commission (as a user) is needed, given the diversity of demands and sometimes conflicting objectives posed from the user side (Industry Trade Association, Individual Port Authorities, European Commission).
- The relative defensive attitude of port authorities towards the development of port performance indicators on an industry-wide level, showing a reluctance to submit data to either the trade association (ESPO) or other independent bodies. One of the main reasons for this reluctance, whether legitimate or not, was the ongoing policy process, since 2007, in view of the development of European legislation for ports (the so-called 'European Port Policy'), which has now been concluded at the end of 2016. However, based on multiple interactions with the industry over the first 36 months of the project, it is clear that the PORTOPIA project is in overall terms still not viewed nor perceived by the industry as a really neutral initiative, managed by the industry itself, in spite of intensive and consistent communication of ESPO and the consortium to the industry regarding the set-up (FP7 research), ambition and vision of the project. It is only now, at the end of the project, and by focusing on less contested indicators and performance data, that some stakeholders have let go the reluctance to collaborate.
- The existence of potential competing approaches developed by port authorities themselves, in particular larger port authorities who possess the resources to set up and have ongoing propriety developments, and/or have a strategy and ambitions in terms of (performance) data provision to the wider community. Furthermore, approaches to engage with the full port authority community mostly fail or run into severe difficulties as one or more port authorities disagree with the system to calculate certain indicators (or possesses already propriety approaches for certain indicators, or have technology under development). Given the number of stakeholders co-deciding or co-developing, and different approaches in different member states, severe difficulties remain to gain consensus on harmonization issues, even within an ESPO facilitated environment.

Extensive communication efforts and inclusive mechanisms have been set up by both ESPO and the coordinator (e.g. port testimonials on performance indicators related to PORTOPIA; intense collaboration with ESPO committees including setting up of pilot user groups; individual visits to ports and national associations). However, these were initially (first half of the project) not sufficient to generate a basic platform of trust within the whole industry towards the project. Trust in this context appears to have several meanings, i.e. both on the level of data confidentiality (e.g. suspicions from port authorities that academic partners will use the data for their own research agendas, suspicions that private partners will sell the data to external parties) as well as the long-term sustainability of the operation (i.e. what will happen to the data after the project's end? What will the cost be?). Note that the last point also particularly caught the

attention of the project’s external review panel at Month 24 and Month 36, leading to a concrete question to prioritize the work on a sustainable future for PORTOPIA, which has been ongoing by frequent interaction of the main parties involved.

While this situation was already acknowledged at the proposal stage (cfr. risk and mitigation strategies), the reality has shown that a stronger than expected absence of trust has put at risk some of the intended milestones later in the project (i.e. the formal establishment of an organizational structure, and agreement on a financial structure), while not harming overall project progress and achievements at this stage. However, in order not to jeopardize the overall end objectives of the project, it was suggested earlier that an approach that is inclusive to all port authorities (through the strong involvement of ESPO technical committees) might need to be left for a more pragmatic pilot-based approach on the level of Member States or individual ports.

ESPO has concluded internally that limiting the outcome to a number of limited port authorities is not feasible. Therefore, ESPO is willing to continue to support the PORTOPIA developments in three perspectives for all EU port authorities:

- (1) Market Trends and Structure, and more specifically the new Rapid Exchange System, called “RES+”;
- (2) Environmental indicators, i.e. the ECOPORTS environmental indicators dashboard developed by PORTOPIA;
- (3) The Governance indicators, i.e. having a permanently available governance indicator module on-line.

It has been concluded and also asked to the project’s technology partners, to prioritize the technological development towards these three products areas in order to maximize the going concern of the project with ESPO membership as lead user.

The final months have been crucial for the project in terms of reaching its main objectives i.e. delivering a neutral, self-supporting platform (or “observatory”) for the exchange of performance data as well as contributing to the resource efficiency of the European port system. A concrete scenario on the organizational structure has now been drafted following meetings between ESPO leadership and the coordinator beginning of December 2016, and principal agreement has been reached.

Towards that end, and also as asked by the project’s external reviewers, a full revised project plan has been drafted and discussed with the stakeholders, and has led to a substantial amendment to the project. A second, smaller amendment has also been prepared and has been implemented in order to reflect the latest changes.

A major bottleneck that remained in terms of negotiations between primarily ESPO and Glintt (as main decision-makers) were the financial compensation needed to justify (1) a reasonable annual user fee for ESPO members, in exchange for the services provided (2) an acceptable Return-On-Investment for the private technology partner (i.e. allowing to recuperate the investment within a reasonable time framework). This is a particularly difficult situation, given that some of the elements still needed to be finally implemented (e.g. Governance indicators), which makes it difficult to provide exact costs, and the condition that other PORTOPIA developments (such as user perceptions) need to be completely separated from the ‘unitary’ cloud system developed from the start of the project, which raises severe technical concerns. Also, any financial return for the private technology partner will be determined by the potential valorization e.g. outside the EU, or providing services to non-port authority users. A financial agreement thus seemed still the largest hurdle to take, which brought forward the need to start negotiations with

other, external parties to take over some developments after the project to ensure continuity.

Because of the decision by Glintt to not continue beyond the project phase (based on financial conditions set), a new IT partner needed to be found during the project term. This search was taken on by the Coordinator and continued with the involvement of ESPO, port representatives and the relevant potential partner at hand (December - June, 2017). Thus, a new partner was sought by the Coordinator and intense negotiations started with PORT+, a port information broker from Antwerp who had followed the project from the start, on the business model beyond the project. The vision on the organizational principles were defined per stakeholder (ESPO, port authorities, the consortium of the project and PORT+).

Based on intensive negotiations between all parties in the period October 2016 – November 2017, the following insights can be provided. Note that amounts mentioned are approximations as some parts of the negotiations involving financial negotiations and offers were not directly accessible to the project coordinator (but was informed indirectly by all parties), more in particular the negotiation between Glintt and ESPO regarding a future financial proposal, similarly to the meetings between ESPO and PORT+ on the financial conditions for a post-PORTOPIA operation, as well as negotiations between Glintt and PORT+ on a potential transfer of the Glintt specific IP (mainly the source code) of the platform.

1) Basics of the financial negotiations:

For the existing partner, Glintt, an investment of approx. 450.000 euro needs to be recuperated (+ profit margin at least exceeding the weighted average cost of capital and/or internal objectives). An earlier financial proposal, taking into consideration these criteria, was already provided to ESPO in the earlier stages of the project. A term of 5 years to at least recuperate the investment made was coined at various informal meetings. This would imply an average revenue of 100.000 to 120.000 euro for the 5 years after the project. It was clear that from an ESPO point of view, this was not feasible. It is also clear that without ESPO support, launching the platform commercially was not a risk-free solution either (let alone that ESPO was not favourable to the solution, and that from an inclusion point of view, e.g. number of ports participating, the system would not receive sufficient data).

One element to be considered is that from the outset, the platform was developed as one unit containing all development (including those tested which did not lead to sustainable business cases e.g. ro-ro connectivity or socio-economic indicators, or were related to ad-hoc demands of e.g. the EU Commission cfr. the CEF survey development in the platform which has no value beyond the project). Furthermore, the basis of the negotiations only includes tools related to WP's 1, 3 and 5, and not the user perceptions module (WP6), believed to be the more promising development in terms of financial margin creation to recuperate the investment. This implied that for a negotiation between Glintt and PORT+ to take over the platform (including source code), a cut needed to be applied to the 450.000 euro, probably at around 1/3 of the value (we do not have exact amounts objectively available).

Obviously, this gives rise to decisions at the part of PORT+, given ESPO's willingness to pay (assessed between 50.000 and 70.000 euro on a yearly basis), on either buy (parts of) the platform from Glintt, or engage in a rebuilding exercise. Due diligence meetings have taken place towards that end (assessment of quality and value).

Notwithstanding productive and constructive talks from all sides, and given the narrow scope of the tools in use after PORTOPIA's project ending, as indicated/decided by ESPO, there was no agreement reached between Glintt and PORT+, as the distance between the PORT+ offer (taking into consideration the need to only re-develop and deploy 3 modules) and the Glintt demand (taking into consideration their full investment), remained too large.

2) Basis of the organizational agreements:

The following agreements will be concluded following the end of the project phase:

- ESPO and PORT+: agreement (confidential between parties and to coordinator) on service provision, including redevelopment of the existing platform according to specifications agreed as well proceeds from EU ports data provision to other parties (excl. EC) such as banks, consultants, non-EU ports, etc. Existing Agreements, submitted for approval to the ESPO AGM of November 8th. The agreement causes an increase in the ESPO membership fee, as well as activation of part of ESPO's financial reserve. The agreement as such provides the base case for the business plan of the European Port Observatory (EPO).
- ESPO and academic partners / consortium:
 - Preferential tariff to enter the database (to be agreed also with PORT+)
 - Preferential relationship to contribute to new indicator development (i.e. valorization of PORTOPIA research), as well as intellectual and written contribution to reports (e.g. EU Port Industry Sustainability Report).
- PORT+ and academic partners / consortium (WP1/WP3/WP12):
 - For platform related developments outside Europe, set-up of a (commercial) structure to develop projects. Exploration of the set-up of a spin-off company. Negotiation and business plan ongoing.

As a final conclusion, an EPO will be established, internalized within ESPO, and governed by 2 agreements:

- ESPO-PORT
- ESPO-Academic Partners

This EPO will deliver services to various EU and non-EU stakeholders, on the performance of EU ports in 3 domains: market/traffic, environmental management and governance indicators. It will also publish frequent publicly available reports, and further disseminate the platform. It will offer or sell data queries to EU and non-EU port stakeholders. Revenues obtained from data provision to non-port authorities will be reinvested in the platform.

2 OVERALL PROGRESS ASSESSMENT

Overall, and despite the aforementioned external stakeholder challenges, as well as technical/technological challenges, project progress is has been evaluated as good (in line with the external reviews based on progress in Month 12, 24 and 36). Three tables are provided:

- 1) **A table summarizing the 10 strategic objectives of the project and how these have been contributed to by concrete outputs until Month 51** (taking into account some further insights) (see [table 1](#));
- 2) **A table summarizing the main progress achieved and the issues per WP**, which are mostly external to the project and linked to stakeholder’s approval on indicators or data transfers, or the non-availability of data. WP’s on track are marked in green, WP’s with a risk of going off-track in yellow, and WP’s who are off-track in red (see [table 2](#))
- 3) **A table listing the internal events**, including the consortium meetings (see [table 3](#))

Table 1: Strategic Objectives (cfr DoW) and Principal Outputs

SO	Description	PORTOPIA Principal Outputs and Achievements
1	Identify extensions and elaborations of currently used indicators within various existing / completed / ongoing projects and initiatives ¹	<p>New RES system and dashboards</p> <p>Approaches to forecasting (defined, not adopted by stakeholders)</p> <p>ECOPOINTS dashboards</p> <p>Indicators on Occupational Health and Safety and Security (defined & approved)</p> <p>Connectivity, Congestion and Cost and indicators (prototypes)</p> <p>Socio-Economic Smart Proxies Methodology for maritime cluster impacts (prototype); non-maritime cluster impacts (research results)</p> <p>User Perception Measurement Tool (prototype tested by 8 ports)</p>
2	Integrate the inland ports in the observatory	<p>ECOPOINTS for inland ports pilot survey</p> <p>Inventory of indicators</p> <p>Development of a second survey to capture information for relevant indicators</p> <p>Integrated Inland Port Performance Report</p>
3	Develop a benchmarking tool that allows individual ports to compare their activities and operations with the EU average and with ports in other important regions like Asia and the Americas	<p>Links established within IAPH/PIANC, Africa and the United States</p> <p>Benchmarking possible for RES and ECOPOINTS (MS Excel Prototype)</p> <p>Extensive report on approaches applied worldwide</p>
4	Ensure a balanced representation of ports and port actors across the EU and relevant neighbouring countries (e.g. Mediterranean Partner Countries)	<p>Initial development with ESPO technical committees</p> <p>Strategy to develop pilot implementations with peripheral/smaller MS (e.g. visits to Portugal, Ireland)</p>
5	Develop an approach to collect data from the whole port community: this entails the implementation of appropriate mechanisms to collect, manage and	<p>Establishing linkages and trust with associated stakeholders, engage directly with members</p>

¹ The EUROSTAT Transport Working Groups, the ECOPorts initiative, individual reporting by ports, the Germanischer Lloyd 'Container Terminal Quality Indicator Standard', the experiences of the shipping-KPI project and others

	distribute the data on a long term and to show trends over a substantial timeline	Assessment of conditions to work with external data providers (in the future) Integration of internal and external sources in the European Port Industry Sustainability Report (2 times published over the course of the project)
6	Implement a user-friendly interface	Portopia Service Cloud prototype and development principles have substantially increased user friendliness, intensive development with pilot user group.
7	Determine appropriate weighting and aggregation levels leading to comprehensiveness and meaningfulness of port system indicators	Deliverables in WP1 and WP9
8	Develop a knowledge and management tool for monitoring the efficiency and performance of sea and inland ports	Portopia Service Cloud and development principles Dashboards for the RES, ECOPORTS and Governance Fact Finding Study
9	Ensure stakeholder confidentiality of data management	Portopia Service Cloud and development principles (neutral community model and agreement with technology partner)
10	Develop and implement a business case for a European Port Observatory (EPO) to ensure sustainable continuity (long term data monitoring and trends)	Business Plan Principles (incl. financial plan) and Community model defined; alternative scenario's and risk management Decision on short-term w.r.t. organizational structure has been taken, agreement between ESPO and new technology provider Creation of 2 European Port Industry Sustainability Reports, available to the general public

Table 2: Progress and main challenges per WP

WP	Summary of main points of attention
1	On track. RES tool functioning and in permanent use.
2	On track. Approaches for other indicators and measurement for non-maritime cluster impacts defined.
3	On track. TEIP tool delivered. Tool will be permanently online.
4	On track (completed Month 24)
5	On track. Governance indicators and dashboard implemented in the PORTOPIA Service Cloud
6	On track. Successful testing of the User Perception Module with 8 ports across Europe.
7	On track. Delivery of a first integrated report on inland port performance in Europe.
8	On track. Additional guidance for ports and policy makers to link indicators with policy/strategy
9	On track. Benchmarking possibilities have been integrated in the various tools.
10	On track. Impressive engagement from social media.
11	On track. All committed developments towards working solutions have been honored.
12	On track. Financial Agreement reached with new technology partner
13	On track. Collaborative platform replaced by stronger coordinator involvement as well as more pragmatic approach to reporting. Development of a “meta-data” document representing the state of each indicator.

Table 3: Internal consortium events (including consortium meetings)
Note: reporting period 3 starting September 2016)

Internal consortium events		M1-M36
Event	Location	Date
Internal meeting between VUB and ESPO	Brussels, Belgium	12/09/13
Consortium meeting (full presence)	Brussels, Belgium	17/09/13
Kick Off meeting: Consortium and European Commission	Brussels, Belgium	18/09/13
Bilateral meeting between UA-ITMMA, University of Genova after the Kick Off meeting	Brussels, Belgium	18/09/13
Meeting with Port of Antwerp and the Eco-toolbox project	Antwerp, Belgium	23/09/13
Meeting with Flemish Port Commission (Vlaamse Havencommissie)	Brussels, Belgium	25/09/13
internal meeting between VUB and RHV BV/Erasmus	Rotterdam, The Netherlands	26/09/13
Meeting between Glintt, ESPO and UPC	Skype Meeting	03/10/13
Internal meeting between VUB and ESPO	Brussels, Belgium	04/10/13
Meeting with the Ports and Shipping Network (including shipping lines, classification societies, ports and IAPH)	Geneva, Switzerland	15/10/13
Meeting between ESPO, VUB, selected consortium members and European Commission	Brussels, Belgium	24/10/13
Internal Workshop on Port Economics	Sintra, Portugal	17/10/13
Consortium meeting (full presence)	Rome, Italy	30/10/13
Meeting with Flemish Port Commission (Vlaamse Havencommissie)	Brussels, Belgium	13/11/13
Meeting between VUB and EFIP	Brussels, Belgium	15/11/13
Meeting between UPC, ESPO and Glintt	Skype Meeting	19/11/13
Meeting between EC and ESPO	Brussels, Belgium	25/11/13
Meeting between VUB and Port of Rotterdam, PIANC and IAPH representative	Rotterdam, The Netherlands	26/11/13
Meeting between VUB and Fraunhofer	Strasbourg, France	29/11/13
Internal meeting between VUB and ESPO	Brussels, Belgium	05/12/13
Meeting with core members of the consortium and European Commission	Brussels, Belgium	22/01/14

Internal meeting between VUB and ESPO	Brussels, Belgium	14/02/14
Meeting between VUB, Fraunhofer and EFIP	Brussels, Belgium	24/02/14
Meeting between VUB, ESPO and Glintt	Skype Meeting	25/02/14
Discussion of WP8 with DG Move of EC	S.D.	S.D.
Meeting between ESPO, TU/e, Turku and EC	Brussels, Belgium	08/04/14
Website training for ESPO	Skype Meeting	10/04/14
Meeting between VUB and ESPO	Brussels, Belgium	28/04/14
Consortium meeting (full presence)	Gothenburg, Sweden	14/05/14
Meeting between VUB, ESPO and Glintt	Brussels, Belgium	02/06/14
Meeting between VUB and UA-ITMMA	Antwerp, Belgium	19/06/14
Meeting between VUB and FEPORT	Brussels, Belgium	11/07/14
Meeting between VUB, UPC and ESPO	Skype Meeting	11/07/14
Meeting between VUB and ETA	Antwerp, Belgium	21/08/14
Consortium meeting (full presence)	Lisbon, Portugal	16/09/14
Meeting between VUB, EFIP and Fraunhofer	Brussels, Belgium	22/10/14
Meeting between EFIP and UPC	Skype Meeting	04/11/14
Meeting between VUB and EC	Brussels, Belgium	10/11/14
Internal meeting VUB	Brussels, Belgium	25/11/14
Meeting between UPC, Glintt and ESPO	Skype Meeting (?)	16/12/15
Meeting between UPC and ESPO	Skype Meeting	19/01/15
PORTOPIA Annual Review	Brussels, Belgium	26/01/15
REPORTING PERIOD 2		
Meeting between ESPO and VUB	Brussels, Belgium	25/03/15
Consortium Meeting	Bremen, Germany	28/04/15
Meeting between UPC, Glintt and ESPO	Brussels, Belgium	30/04/15
Consortium Meeting (full presence)	Athens, Greece	20/05/15
Meeting between VUB and EC	Brussels, Belgium	10/06/15
Meeting between ESPO, Glintt and UPC	Brussels, Belgium	25/06/15
Meeting between ESPO and VUB	Brussels, Belgium	30/06/15
Meeting between ESPO, VUB and Glintt	Brussels, Belgium	05/10/15
Meeting between ESPO and VUB	Brussels, Belgium	05/11/15
Meeting between UA and Glintt	Lisbon, Portugal	30/11/15
Meeting between ESPO, Glintt and UPC	Brussels, Belgium	01/12/15
Meeting between Glintt and UAEGEAN	Lisbon, Portugal	04/12/15

Consortium meeting (full presence)	Brussels, Belgium	08/12/15
PORTOPIA 2 nd Annual Review	Brussels, Belgium	09/12/15
Meeting between ESPO (ExCo), VUB, Glintt	Brussels, Belgium	14/12/15
Meeting between Fraunhofer and VUB	Dortmund, Germany	18/01/16
Meeting between Glintt, VUB and AEGEAN	Lisbon, Portugal	28/01/16
Meeting between ESPO, EC and VUB	Brussels, Belgium	15/03/16
Meeting between ESPO and Glintt	Lisbon/Sintra, Portugal	27/05/16
Consortium meeting (full presence)	Dublin Ireland	01/06/16
Meeting between EFIP, Fraunhofer and VUB	Brussels, Belgium	04/08/16
Meeting between Glintt, ESPO and VUB	Brussels, Belgium	03/10/16
Meeting between Glintt and VUB	Lisbon, Portugal	27/10/16
Third review meeting and consortium meeting	Brussels, Belgium	30/01/17
Meeting with ESPO and Glintt	Brussels, Belgium	31/01/17
Consortium Meeting (full presence)	Barcelona, Spain	31/05/2017
Meeting between VUB, ESPO and DG Move	Brussels, Belgium	14/06/2017
Meeting between VUB, Port+, Glintt and ESPO	Lisbon, Portugal	19/06/2017
Meeting between VUB and Port+	Antwerp, Belgium	23/06/2017
Meeting between VUB and Port+	Antwerp, Belgium	11/09/2017
Meeting between VUB, Glintt, ESPO and DG Move	Brussels, Belgium	13/09/2017
(Consortium meeting (full presence)	Brussels, Belgium	08/11/2017
Portopia Final Event	Brussels, Belgium	09/11/2017
Final External Review Meeting	Brussels, Belgium	10/11/2017

Note: various other bilateral meetings have taken place since February 2017 with the aim to negotiate the future of PORTOPIA, i.e. the set-up of the EPO.

3 PROGRESS PER WP

This technical progress report of reporting period 3 contains a **standardized report per Work Package**, containing following elements (with varying degrees of relevance depending on the status of the WP in question):

(1) Short-term status (last 14 months)

a) Overall progress achieved the last 14 months in relation to the tasks and methodology described in the DoW

b) Modifications in the approach presented in the DoW and methodological justification - not harming the overall objective of the WP

c) Methodological/process problems/issues encountered and solutions applied (if any)

d) Delays in execution and how these are being / were caught up

e) Status of Deliverables/milestones

(2) Longer-term outlook (NOT RELEVANT FOR P3 cfr. Project is ended)

a) Currently identified internal and external risks towards completion of longer term milestones/deliverables (and mitigation strategy)

b) Potential methodological/process issues to be addressed longer term

(3) Dissemination

List of activities/publications where PORTOPIA has been mentioned/discussed and their impact.

(4) Resources

Please note that the reporting has been brought in line with the 1st amendment and 2nd amendment of the Description of Work.

3.1 Work Package 1: Market Trends and Structure

(1) Short-term status (last 14 months)

a) Overall progress achieved the last 14 months in relation to the tasks and methodology described in the DoW

- D1.1 is complete
- D1.2 is complete
- D1.3 is complete
- D1.4 has been completed, reviewed and finalized
- D1.5 is complete

Deliverable 1.1 (D1.1) is focused on the state of the EU port system and an update on the market trends and structure. This includes four specific tasks:

- (1) an update of the traffic forecast of the EU Ports Policy impact assessment
- (2) a synthesis of the information regarding container transshipment volumes
- (3) the modal split figures of the core TEN-T ports
- (4) an approach to integrate intra-European dynamics into the Market Trends and Structure

All reports of the four tasks in D1.1 have been completed in their final form.

On June 9, 2017 an addendum on modal split was submitted. This report is an addendum to this task, i.e. the modal split figures of the core TEN-T ports. It discusses the developments at the level of implementation that have taken place since the delivery of report on task 3 of D1.1. In conclusion, based on discussions within the EA&S Committee of ESPO it became clear that at present the willingness among the ESPO members to report on modal split data remains low as long as a standardized methodology has not been properly outlined and implemented.

Deliverable 1.2 (D1.2) on Data availability, comparability and disaggregation, has been completed and submitted based on the EU project review in Brussels in 2015

Deliverable 1.3 (D1.3) is embedded in Task 1.3: Estimation of future traffic flows in the European port system (in the short, medium and long term). This task focuses on the development and implementation of a range of methods to increase insight in the expected future (traffic) outlook for the European port system in the short, medium and long term.

A Port Forecasting Tool has been completed both in report form and in the IT system. In line with the development of a new RES, resources were focused on this new product, e.g. dashboard development and benchmarking (not foreseen in this phase) were implemented.

The Port Traffic Forecasting Tool is comprised of 3 tasks:

- Long term:
 - +5 years

- Based on discussions with stakeholders, a long-term forecasting tool should not be created due to time and limited budgets within the PORTOPIA context. An alternative has been constructed offering expert opinion based on the medium term forecast into the EC DG MOVE model.
- Short term:
 - ≤1 year
 - A survey-based approach was developed linked to the RES system. This allows to generate a short-term ‘confidence indicator’. The technical implementation has been finalized.
 - Trend forecasting for all indicators in the system (see benchmarking WP9)
- Medium term
 - 1-5y
 - Overview of existing forecasts and master plans which are extrapolated in major trends for the maritime industry and included in the sustainability report on the European port system.

In September 2016, an addendum was presented to explain the current status of the implemented forecasting schemes. The content of this addendum follows the structure and outlines as described in deliverable 1.3. The first section of the document deals with the short-term implementation status referring to all forecasting done within the Portopia IT system. The second section of this document focusses on the previously outlined medium and long-term forecasting which is comprised of a set of periodical documents.

In June 2017, a second addendum to D1.3 was presented. It discusses the implementation issues surrounding the third sub-task, i.e. the short-term forecasting tool. Conclusion: as ESPO members have serious reservations and criticism on the PORTOPIA proposal, it is very difficult to implement such a short-term forecasting tool.

Deliverable 1.4 (D1.4) is focused on the link between policies of the EU and output generated by the Portopia project. This deliverable includes three specific tasks:

- (1) Policy links between the project and the EU;
- (2) benchmark suggestions for policy impact monitoring;
- (3) results of this work package in EPO and the associated ICT system

A draft report on D1.4 has been finalized and reviewed. It discusses the linkages between D1.1 which denoted the state of the EU port system. We do this by linking the current output of Portopia to some of the major European policy documents. The included outputs primarily are the current IT system, D1.1, the modal split TP and the Portopia sustainability report.

The deliverable was revised following the comments of the reviewers during the review meeting in Brussels in January 2017.

Deliverable 1.5 (D1.5) has been finalized. It discusses combined or ratio-based indicators (including interrelations) within the group of indicators on market trends and structure, and a link of these indicators with different categories of indicators. We explore three groups of combined or ratio-based indicators: (1) Internal combined or

ratio-based indicators: these indicators are based on data for one indicator only (e.g. market share based on maritime traffic data); (2) Intra-group combined or ratio-based indicators: these indicators combine two or more indicators of the category ‘market trends and structure’; (3) Inter-group combined or ratio-based indicators: these indicators combine an indicator of the group ‘market trends and structure’ to an indicator of another group (i.e. socio-economic indicators, logistics chain and operational performance indicators, environmental indicators or governance indicators). The above typology forms the base structure of the report.

Earlier meetings with ICT provider GLINTT have already allowed to assess the necessary ICT requirements related to the possible implementation of ratio-based indicators. The work on the links between indicators on market trends and structure and other categories of indicators needs further analysis based on the latest results and outputs of the respective WPs of these other categories. While the aim is to provide the users of the ICT platform a maximum flexibility to combine various base indicators into ratio-based indicators, the report lists a set of ratio-based indicators that make sense and also point to some pitfalls in terms of data collection, data interpretation and benchmarking/comparison.

b) Modifications in the approach presented in the DoW and methodological justification - not harming the overall objective of the WP

D1.4 were delivered slightly behind schedule and D1.5 has been delivered with a minor delay. The overall timeline of the project will never be in danger, since the projected end dates of the deliverables are still within acceptable limits.

c) Methodological/process problems/issues encountered and solutions applied (if any)

N/A

d) Delays in execution and how these are being / were caught up

D1.5 suffered a minor delay due to a mismatch of WP delivery but had no impact on the budget.

e) Status of Deliverables/milestones

D1.5 slightly off-track.

(2) Longer-term outlook

a) Currently identified internal and external risks towards completion of longer term milestones/deliverables (and mitigation strategy)

N/A

b) Potential methodological/process issues to be addressed longer term

N/A

(3) Dissemination

The deliverables or parts thereof were presented and discussed during several meetings and workshop:

None.

(4) Resources spent

0,60 PM

3.2 Work Package 2: Socio-economic indicators

(1) Short-term status (last 14 months)

a) Overall progress achieved the last 14 months in relation to the tasks and methodology described in the DoW

Results months 1 – 18:

Regarding Task 2.1 (development of calculation tool):

Results of investigation (month 0-6) of potential methods to use (following the DoW):

- Method as in Dutch and Belgium port monitors:
 - Asking too much resources
 - Different approaches
- Route via European and national statistics not really viable:
 - Only Nace 2 digit and NUTS 2 available
 - Route via national statistics offices too uncertain and too labour intensive.
 -

Plan developed for design of calculation tool that:

- Serves the needs of the ports (especially those ports that do not report yet and lack resources to do so)
- Is sustainable in the longer run which means based on data that is easily available and by a calculation method that is easy to integrate with the Portopia system

Results month 18-36:

Chosen method was further fine-tuned, in the basis this was a multilevel modeling of socio-economic variables, that:

- Respects the uniqueness of each port;
- Provides a toolbox for ports to estimate their socio-economic impact;
- Estimates of a trend for the European port system.

Special to the model is that it allows for differing between ports based on their unique characteristics (not only traffic). Also special is that it can work with a dataset over a series of years that comprises missing years or missing observations.

Crucial is that sufficient data is available to develop a model. The monitors of Belgium and The Netherlands did offer a good start. Data from other ports, compatible with our approach were not really available, although a thorough search was done to identify these. For the Dutch and Belgium ports, data was collected on the throughput figures per port, broken down into relevant goods categories and over a period from 2002 to 2014. A multilevel model was build in R (statistical package). Various runs were made to be able to select a good model.

The practical results of the modeling actions were mixed:

- For employment and added value related to the transshipment function of ports the model outcomes were quite accurate
- For employment and added value related to the industrial and logistics function of ports model outcomes were not very accurate. This was not strange as more port profile related variables were not yet taken into account. Model outcomes

had proven that additional variables are needed to explain the differences and trends in the different ports.

Together with GLINTT analysis has been done on how the output of WP 2 (calculation tool/ time series) can be build into the PORTOPIA platform.

Regarding Task 2.2 development of time series:

As soon as the calculation tool is fine-tuned, time series should be extracted for an aggregated figure for direct employment and direct added value at the European level. This is what in the last period of the project will be done.

Results month 37-51:

In the last 12 months of the project the deliverables of Workpackage 2 were finalized. Deliverable 2.1 got its last additions and improvements. While in month 13 already the initially planned and preferred method was developed and presented, it was concluded by then in discussion with stakeholders that data unavailability prevented from bringing this into the dashboard. It was decided to look for alternative ways and methods to come up with something useful (this is consistently and continuously communicated in progress reports and review meetings). The final result was reported in the final revised version of the deliverable document before week 48. Deliverable 2.1 and 2.2 were both executed during this last year resulting in their deliverables before week 48.

Deliverable 2.1

This deliverable was finalized/slightly changed based on additional input from land-use. We agreed during the project a change in method and output for this deliverable based on research findings and extensive discussions with the project's stakeholders (port authorities). During the last 12 months of the project land-use data was collected and analysed to potentially further improve the agreed proxy-approach. This was added to the deliverable in combination with a discussion of the results.

Deliverable 2.2

Started: week 36

End: week 48

Delay: Because of postponed work for deliverable 2.1 this deliverable obtained some delay.

The deliverable contains a structured discussion of a set of alternative/additional valuable socio-economic indicators. Activities that were executed in this task:

- Assessment of relevant academic literature
- Looking at the actual debates around ports with respect to the social-economic impact
- Search through the business plans and strategic visions of a selected set of ports
- Assessment of the relevant policy documents on ports, merely the various Communications from the European Commission
- Earlier work done in PPRISM

Conclusion was that alternative socio-economic indicators can be individual person related or company related and should be relevant, informative, measurable, representative and feasible. The feasible criterion we stretched a bit for this exercise as difficulties in gathering data may be overcome by additional effort agreed and allocated. Using dynamic indicators that give insights in developments over time in many cases is more valuable than looking at the absolute outcomes for a particular year. In addition,

although an extended set of socio-economic indicators may provide a better base for evaluation port performance and results of policy making and strategic decision making, the outcomes still need to be used with care. Aspects that should be taken into account while interpreting the indicators are:

- The specific characteristics of the port and its function and goals
- The specific characteristics of the region in which the port is located: its resources, but also its goals, requirements and conditions.
- The geographic scope: as the port's impact goes beyond the borders of the port and may reach far into the hinterland (port regionalization)

Lastly the relevance in the development and use of socio-economic indicators is rather in being able to show the relevance of the port in the wider economy, i.e. the 'license to operate' discussion; in monitoring the developments over time within the port in terms of changes in economic development and relative economic importance of segments, this with the aim to signal challenges for policy and managerial actions for the own port. Using the indicators for benchmarking between ports from an EU port policy perspective should be done with the highest care as ports are not comparable and many time have different specific goals.

b) Modifications in the approach presented in the DoW and methodological justification - not harming the overall objective of the WP

The final output of the WP 2 is:

- 1 A detailed clear description of a tool that can be developed for ports that can get data needed available;
- 2 A calculation tool that estimates port related employment and added value;
- 3 An estimate for the overall employment and added value in European core ports together.

This means that real accurate time-series of socio economic indicators for individual European core ports have not been delivered in this work package. The calculated indicators for employment and added value that can be delivered are modeled numbers and not actual realized numbers.

The calculated numbers per port are made available to the specific ports only.

c) Methodological/process problems/issues encountered and solutions applied (if any)

Data issues

Getting data on port's profile that can be used in a calculating model for employment related to industrial and logistical activities in ports has shown to be difficult. It either is not collected or kept confidential by the different port authorities contacted.

Issue related to the willingness to invest as a PORTOPIA dashboard tool

In the various meetings held it has shown that there is no consensus among the port authorities on the relevance of developing this dashboard tool on socio economic indicators:

- Quality will remain disputable
- Ports that already have something do not want something else

d) Delays in execution and how these are being / were caught up

See section a.

e) Status of Deliverables/milestones

See section a

(2) Longer-term outlook

Socio-economic indicators are not in the core of the PORTOPIA output that will be further developed beyond the scope of the project. Lesson is that to be able to calculate such indicators in a harmonized way at European level, better statistics should be available at EUROSTAT. This comes down to employment figures

- With locational data at sufficient level of detail (NUTS 3 at least, but actually rather at postal code level)
- With a sector classification of sufficient level of detail.

As long as this data is not available, developing socio economic indicators of sufficient quality and in a harmonized way, is not really possible.

(3) Dissemination

There were no specific dissemination actions undertaken, other than mentioning the project and the results in meetings if relevant.

One remark on dissemination:

The output of the work package was used in the 2016 European Court of Auditors (ECA) report on the (public) funding of seaports in the European Union. In the report, titled “Maritime transport in the EU: in troubled waters – much ineffective and unsustainable investment”, a special reference is made to project output. Observation number 37 in the aforementioned report states: “In 2013, the Commission launched a research project (‘Portopia’) under which ports data are gathered on a voluntary basis. Nevertheless, few Member States and port authorities provided such data, and methodological differences in analysing job creation effects were noted.”

This hopefully helps creating awareness for the relevance of sharing data, which at the moment is rather limited, limiting the possibilities for development of good socio-economic indicators for ports.

(4) Resources spent

VUB: 1PM

RHV: 4,50 PM

3.3 Work Package 3: Environmental, Health and Safety Indicators

(1) Short-term status (last 14 months)

a) Overall progress achieved the last 14 months in relation to the tasks and methodology described in the DoW

In the months 37-51 of the project, the working efforts have been focused on i) WP3 indicators' implementation on the PORTOPIA Service Cloud and ii) finalising the Task 3.4. Below the progress achieved in each task is detailed:

i) WP3 indicators' implementation on the PORTOPIA Service Cloud

This section contains the progress done on the categories of safety and environmental indicators:

Safety indicators

The guidelines for the implementation of safety indicators in the Service Cloud were given in the Deliverable 3.1 of PORTOPIA. Initially, the research provided 6 indicators on safety issues, and after a process of validation it was reduced to 1 indicator, called *Nautical accidents*.

In the process of implementing this indicator at the PORTOPIA platform, it was seen that it was not possible to do it. Port stakeholders mentioned that this indicator was not feasible for several reasons, including confidentiality issues, the lack of interest from ports and the shortage of data availability. Based on the previous reasons, it was accepted by the consortium that this category was not possible to be included in the resulting Service Cloud.

Environmental indicators

A set of guidelines for the implementation of selected environmental indicators was also provided in the Deliverable 3.1. The environmental indicators succeeded in the implementation to the PORTOPIA Service Cloud. The inclusion of this category was accepted by ports (through the ESPO Sustainable Development committee) and by the project consortium.

The document 'Environmental User Requirements' was produced aiming to define the requirements from the user perspective regarding the environmental indicators. It was agreed that two dashboards would be produced: one at a Port individual level and another at an EU level. The first one (Port Dashboard) provides benchmark figures in key areas of port environmental management, whereas the second one (EU Dashboard) highlights variations and trends over time of the sector.

The data are obtained through the completion of the Self Diagnosis Method (SDM) checklist and they are delivered to the PORTOPIA Service Cloud via an FTP service. This service returns the data from all submitted SDM's. The environmental section of the PORTOPIA Service Cloud is composed of four differentiated sections:

- **Environmental Management Index:** The Environmental Management Index is a single figure that summarizes 10 Key Environmental Management Indicators. A specific weighting is attributed to each one of the 10 indicators, reflecting its relative significance for environmental management. The Index (final score) is then calculated by multiplying the weightings associated to each environmental management indicator to the percentage of positive responses.

- **Environmental Monitoring Indicators:** It is composed of 11 qualitative indicators concerning the environmental monitoring of the port. The Environmental Monitoring Indicators are represented in a graphical format, providing the information whether the port has answered positively or negatively, and the EU percentage of positive answers.
- **Top 10 Environmental Priorities:** It is a ranking of the top 10 environmental priorities of the port. It is represented in a graphical format, providing a comparison between the port and the EU Top 10 Environmental Priorities.
- **Services to Shipping Indicators:** This category comprises three indicators on the efforts made by the port authority in order to facilitate a greener shipping. Again, these indicators are represented in a graphical format, demonstrating the positive or negative answer of the port and the EU percentage of positive answers.

ii) Task 3.4: Development of an innovative tool for the identification of specific environmental indicators for individual ports

The Task 3.4, entitled *Development of an innovative tool for the identification of specific environmental indicators for individual ports* was completed and delivered in the third Deliverable of WP3 (D3.3) in Month 40 of the project.

The tool is already developed, implemented and validated by several port environmental experts and port managers. In the previous WP3 technical report (M18 – M36), the steps carried out for the development of the *Tool for the identification and implementation of Environmental Indicators in Ports (TEIP)* were presented. It consisted of six steps, being each one crucial for the development of the next one. These ones included the research on environmental indicators used in ports, their classification, selection of criteria for their assessment, the filtering of indicators, the classification of the final indicators, and the creation of interactions between aspects and indicators.

In order to finalize the tool, two more steps were developed in the current reporting period. They are explained below:

1. Creation of the guidelines and recommendations

For each one of the 129 quantitative indicators, a guideline on how to implement properly this indicator was created. In addition, 18 recommendations also were developed. Indicators' guidelines and recommendations appear attached as PDFs in the final step of the tool, where the list of final indicators and recommendations are provided.

2. Validation of the procedure

A comprehensive validation of the TEIP tool was carried out. The on-line link (www.eports.cat/teip) was sent to a broad list of port professionals and stakeholders in order to gain their feedback and opinion about the format and content of the tool. In addition, an on-line webinar was undertaken, where the development of the tool was explained and a case study of a port was presented. Around 20 port-related

professionals participated in the webinar. The feedback obtained from the reviewers was highly considered and much appreciated in order to improve the quality of the tool. Most of the comments and proposed amendments were accepted and, therefore a final updated version of the tool was developed.

a) *Mention any modifications in the approach presented in the DoW*

N/A

b) *Methodological/process problems/issues encountered and solutions applied*

The main barrier found has been the impossibility to implement the safety indicator in the PORTOPIA Service Cloud. For this reason, the chance to include this indicator in the cloud was discarded at this stage.

c) *Delays in execution and how these are being / were caught up.*

An amendment was made to the Document of Work (DoW) in order to provide more time to test and validate the tool. For this reason, although the Task 3.4 was due to June 2016 (M34), it was extended until February 2017 (M42). Finally, D3.3 was submitted in Month 40 (December 2016) although the official delivery date was Month 42.

d) *Status of Deliverables/milestones due within the next 6 months for your WP*

All deliverables concerning WP3 have been submitted.

(2) Longer-term outlook

a) *Currently identified internal and external risks towards completion of longer term milestones/deliverables (and mitigation strategy)*

N/A

b) *Potential methodological/process issues to be addressed longer term*

With relation to the implementation of quantitative environmental indicators in the PORTOPIA service cloud, ESPO will be making proposals regarding this issue, due to the difficulty to reach a consensus among ports.

(3) Dissemination

Scientific articles:

- Puig, M., Michail, A., Wooldridge, C., Darbra, R.M. (2017). Benchmark dynamics in the environmental performance of ports. *Marine Pollution Bulletin*, 121: 111-119.
- Puig, M., Pla, A., Seguí, X., Darbra, R.M. (2017). Tool for the identification and implementation of Environmental Indicators in Ports (TEIP). *Ocean and Coastal Management*, 140: 34-45.

Conferences:

- Puig, M.; Wooldridge, C.; Darbra, R.M. (2017). Development of tools for the identification and implementation of environmental aspects and indicators in ports. *European Transport Conference 2017*. Barcelona.

Books:

- Puig, M. (2016). Methodology for the selection and implementation of environmental aspects and performance indicators in ports. PhD thesis. Universitat Politècnica de Catalunya. Barcelona, November 2016.

(4) Resources spent

During these 15 months of the project, the resources spent within WP3 in person-months are:

UPC: 2MM

ESPO: 0,22 MM

Concerning travel expenses within WP3, the following working meetings have been charged to the project:

UPC:

- Third PORTOPIA external review (Brussels, January 2017).
- Final PORTOPIA event and final external review (Brussels, November 2017)

3.4 Work Package 4: Logistic Chain and Operational Performance Indicators

NOTE: THIS WP ENDED Month 24. The current version of P3 updates e.g. w.r.t. dissemination

(1) Short-term status (last 18 months and short-term outlook for the next 6 months - until March 2017)

a) Overall progress achieved the last 18 months in relation to the tasks and methodology described in the DoW

- Updated data collection for RoRo connectivity indicator.
- Deliverable D.4.3 for terminal productivity.
- Established contact with data provider for intermodal connectivity, academic work on intermodal connectivity.
- Deliverable D.4.4 delivered.

b) Modifications in the approach presented in the DoW and methodological justification - not harming the overall objective of the WP

Access to external data remains problematic, we have moved to first hand data collection where possible. For maritime connectivity data collection has turned out to be impossible. Therefore we have concentrated efforts on RoRo, where first hand data collection is possible. For intermodal connectivity, we have established cooperation with a potential data provider (intermodal links) but focus on the academic part as full data sharing within PORTOPIA was a bridge too far. For terminal productivity, we also have had to shift away from data provision by a third party or the involved ports, towards first hand data collection.

c) Methodological/process problems/issues encountered and solutions applied (if any)

For the terminal productivity indicator, we focus on two important market segments, containers and coal (together these account for about 35% of total EU throughput). For these, we collected data about port assets based on satellite images (publicly available from Google).

d) Delays in execution and how these are being / were caught up

Delivery of WP 4.3 and D.4.4 have been delivered with a delay, as a knock-on effect from the delay in D4.2 and due to the uncertainty regarding data provision by a third party (including ESPO).

e) Status of Deliverables/milestones due within the next 6 months for the WP (deliverables and their status - on track / at risk / off track)

With the deliverables 4.1. to 4.4. all deliverables have been finished, albeit in different form than initially foreseen. The next steps for implementation depend on ongoing conversations between ESPO and the other consortium partners.

(2) Longer-term outlook (beyond the next 6 months)

a) Currently identified internal and external risks towards completion of longer term milestones/deliverables (and mitigation strategy)

The next steps for implementation depend on ongoing conversations between ESPO and the other consortium partners.

b) Potential methodological/process issues to be addressed longer term

All have been addressed before

(3) Dissemination

Presentation of paper on intermodal connections at IAME 2016 conference in Hamburg.

Article published on RoRo connectivity: de Langen, P. W., Udenio, M., Fransoo, J. C., & Helminen, R. (2016). Port connectivity indices: an application to European RoRo shipping. *Journal of Shipping and Trade*, 1(1), 6.

Academic paper on intermodal connections submitted to an academic journal.

Results of intermodal connectivity work presented at a industry conference in Basel (nov 2016).

(4) Resources spent

UTU 1,20 PM

3.5 Work Package 5: Governance (including Financial) Indicators

(1) Short-term status (last 14 months)

a) Overall progress achieved the last 14 months in relation to the tasks and methodology described in the DoW

All deliverables have been achieved and delivered in time. Deliverable 5.2 and 5.3 have been finalized. Deliverable 5.2 relates to the governance indicators, more specifically the set of governance indicators, including ICT requirements. Deliverable 5.3 relates to policy linkages, interrelations and benchmarking suggestions (Governance and financial indicators). An analysis of interrelations with other port performance indicators and port performance in general has been performed, also the relation of financial and governance indicators with policy objectives has been inquired and an analysis of meaningful benchmarking methods has been studied.

b) Modifications in the approach presented in the DoW and methodological justification - not harming the overall objective of the WP

The approach followed is in line with the DoW. Justified delays occurred that were acknowledged in the amended DoW.

c) Methodological/process problems/issues encountered and solutions applied (if any)

N/A

d) Delays in execution and how these are being / were caught up

The Fact Finding Report forms the basis of all developments in WP5. The publication of this report was initially foreseen for March 2015 (month 18 of the project). Due to the additional tasks that were undertaken in the first 12 months of the project (e.g. CEF project survey, “basic” port profile) the work on producing the fact finding report was substantially delayed. This was also due to the changes that were decided in the content of the survey to be used for the data collection (see part (a) above) and the need for validation by the members of ESPO’s governance committee. In line with the delay of the fact finding report which was finally published in June 2016 (month 34 of the project), the timing for accomplishing the three WP5 deliverables was officially amended in summer 2016. The amended timeframes for the three deliverables are:

- D5.1: month 38, October 2016
- D5.2: month 41, January 2017
- D5.3: month 44, April 2017

No further delays are being expected in the accomplishment of these tasks.

e) Status of Deliverables/milestones due within the next 6 months for the WP (deliverables and their status - on track / at risk / off track)

D5.1 has been finalized and delivered in October 2016 as foreseen in the amended DoW.

D5.2 has been finalized

D5.3 has been finalized

(2) Longer-term outlook

a) *Currently identified internal and external risks towards completion of longer term milestones/deliverables (and mitigation strategy)*

N/A

b) *Potential methodological/process issues to be addressed longer term*

N/A

(3) Dissemination

Title	Date	Place
<i>British Ports Association Conference</i>	<i>3 November 2016</i>	<i>Dover</i>
<i>Lunchpodium Port of Rotterdam</i>	<i>15 November 2016</i>	<i>Rotterdam</i>
<i>EU Port Policy course, Artevelde Hogeschool</i>	<i>6 December 2016</i>	<i>Gent</i>
<i>Master course C-MAT on Port performance measurement</i>	<i>24 March 2017</i>	<i>Antwerp</i>
<i>Master course C-MAT on Port environmental management</i>	<i>30 March 2017</i>	<i>Antwerp</i>
<i>Think Climate Conference</i>	<i>27 March 2017</i>	<i>Brussels</i>
<i>Workshop “Regeneration Port and Cities”, organised by the Maltese presidency of the Council of the EU</i>	<i>16 May 2017</i>	<i>Brussels</i>
<i>Green Energy Ports Conference</i>	<i>27-28 June 2017</i>	<i>Vigo</i>
<i>Séminaire Axe Seine - délégation normande (Committee of the regions)</i>	<i>21 June 2017</i>	<i>Brussels</i>
<i>20th International Conference on Transport and Logistics</i>	<i>27-29 September 2017</i>	<i>Odessa</i>
<i>Green Shipping Summit</i>	<i>17 October 2017</i>	<i>Rotterdam</i>
<i>Course on EU port policy, University of Ghent</i>	<i>18 October</i>	<i>Gent</i>
<i>Baltic Ports Conference</i>	<i>7-9 September 2016</i>	<i>Helsinki</i>
<i>GreenPort Conference</i>	<i>13-14 October 2016</i>	<i>Venice</i>
<i>Green Shipping Summit</i>	<i>18 October 2016</i>	<i>Rotterdam</i>
<i>Inland terminals conference (EFIP)</i>	<i>18 November 2017</i>	<i>Basel</i>
<i>Danube Ports Policy day (EFIP)</i>	<i>20 February 2017</i>	<i>Budapest</i>
<i>UNICE, inland navigation working group of the UN (EFIP)</i>	<i>22 February 2017</i>	<i>Geneva</i>
<i>1st Rhine-Alpine Working group IWW and Ports (EFIP)</i>	<i>27 February 2017</i>	<i>Rotterdam</i>
<i>EFIP Executive Committee (EFIP)</i>	<i>28 April 2017</i>	<i>Szczecin-Swinoujscie</i>
<i>2nd Rhine-Alpine Working group IWW and Ports (EFIP)</i>	<i>15 May 2017</i>	<i>Duisbourg</i>
<i>EFIP General Assembly (EFIP)</i>	<i>13 October 2017</i>	<i>Paris</i>
<i>Inland terminals conference (EFIP)</i>	<i>10 November 2017</i>	<i>Rouen</i>
<i>Inland Waterway Transport and Ports VIP-event (EFIP)</i>	<i>15 November 2017</i>	<i>Strasbourg</i>

(4) Resources spent

In line with the amended PORTOPIA DoW, ESPO is the only project partner in WP5. ESPO devoted a total effort of 6,64 person months during the 18-36 month period. This is substantially more than the ESPO effort reported in the first reporting period (2,03 person months for the 1-18 month of the project) but fully justified given that the main part of the work in WP5 took place during the last 18 months as explained above. The amended DoW foresees a total ESPO effort of 11 person months that leaves 2,33 person months to ESPO to accomplish the remaining tasks and deliverables of WP5 by month 44 as foreseen. From month 37 to 51 there is remaining balance for consumables for dissemination of the PORTOPIA project (WP 10). ESPO managed to increase the visibility towards the broader public and dissemination of the project towards ports, while at the same time making rational and economical use of available resources. Furthermore, ESPO managed to keep dissemination costs lower, since a lot of the dissemination events and publications were already covered by ESPO budget.

ESPO: 2,33 PM

3.6 Work Package 6: Integrating users' perception in port performance evaluation

(1) Short-term status (last 14 months)

a) Overall progress achieved the last 14 months in relation to the tasks and methodology described in the DoW

During the last 14 months of the project the Work Package 6 leader submitted two deliverables (D. 6.3 and D.6.4) to the project manager. Both deliverables were submitted with a delay comparing to the actual deadline date according to the Description of Work with no impact on the budget.

Deliverable dates (foreseen/actual):

- **Deliverable 6.3 “State of European ports” report**

Initial foreseen date of delivery (project month): 40 (as per Amendment 2)

Issue Date: 2017-09-05 (as per the title page on the deliverable)/ Project month: 48

- **Deliverable 6.4 “Policy linkages, interrelations and benchmarking suggestions (Port users perceptions indicators)”**

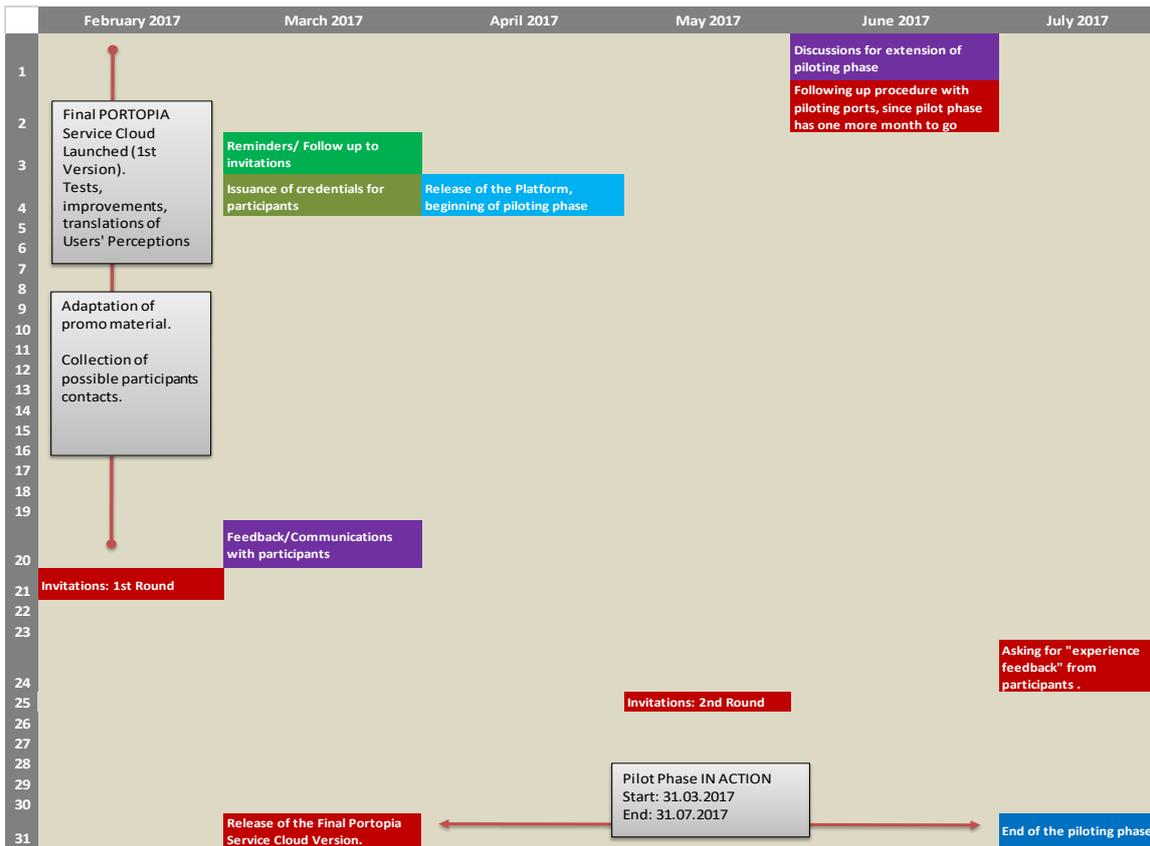
Initial foreseen date of delivery (project month): 48 (as per Amendment 2)

Issue Date: 2017-10-30 / Project month: 50 (following the extension of the project for 3 months, up to 30th of November 2017)

Delays on Deliverable 6.3 caused due to the delay of the development and submission of Deliverable 6.2. The drawbacks faced during the first 30 months of the project resulted in a delay in the submission of Deliverable 6.2 regarding the criteria to be used for measuring the port users' perception on port performance and the guidelines for the development of the ICT tool, which in turn resulted in delays in the submission of the remaining deliverables (D. 6.3 and D. 6.4).

Regarding D6.3, this refers to the implementation and testing of the ICT tool, essential for the launch of the pilot exercise, the core of the deliverable. In the paragraphs below, a brief explanation is given on how the procedure took place and the time boundaries have been set in order to deal with the unavoidable delay.

The whole pilot phase runned between February and July 2017. The ICT tool has been finalized in the end of January, 2017 by Glinnt and the first final version of it has been released in 27th of January, 2017. The Users' Perceptions module has then been made available as a part of the Portopia Service Cloud, at: <http://cloud.portopia.eu>, along with a test/demo environment.



After the launch of the aforementioned first final version, a testing period has followed, with feedback exchange between the University of the Aegean Team and Glintt. In parallel, the texts compiling the whole ICT tool regarding the Port Users’ Perceptions’ environment have been distributed for translations in four (4) different languages aiming at creating a more user-friendly and attractive tool for the ports and their user’s. After we received at least the majority of translations, Glintt adapted the ICT tool accordingly, took over all other relevant modifications that evoked and been suggested by the WP6 leader during the testing period and corrected some bugs found in the system. All relevant promo material has then been updated and adapted accordingly.

A new release of the Portopia Service Cloud followed on the 31th of March, 2017, where, regarding the Users’ Perceptions, the new 2017 survey (for pilot exercise) has been released, translated in 4 languages (EN, PT, GR, ES), ready to initiate the pilot with ports. (Also available in the test/demonstration environment).

The milestones of the overall pilot implementation with regards to the Users’ Perceptions Measurement is presented in the following figure (see left).

Deliverable 6.4 is based on the outcomes of the Deliverable 6.3 and submitted during October 2017, with a small delay comparing with the deadline referred in the amended Description of Works.

b) Modifications in the approach presented in the DoW and methodological justification - not harming the overall objective of the WP

See section a.

c) Methodological/process problems/issues encountered and solutions applied (if any)

See section a.

d) Delays in execution and how these are being / were caught up

See section a.

e) Status of Deliverables/milestones

See section a.

(2) Longer-term outlook

a) Currently identified internal and external risks towards completion of longer term milestones/deliverables (and mitigation strategy).

See section a. Nevertheless, as mentioned before, ESPO is willing to continue to support the PORTOPIA developments in three perspectives for all EU port authorities:

- (1) Market Trends and Structure, and more specifically the new Rapid Exchange System, called “RES+”;
- (2) Environmental indicators, i.e. the ECOPORTS environmental indicators dashboard developed by PORTOPIA;
- (3) The Governance indicators, i.e. having a permanently available governance indicator module on-line.

Furthermore, the basis of the negotiations does not include tools related to the user perceptions module (WP6), believed to be the more promising development in terms of margin creation.

b) Potential methodological/process issues to be addressed longer term

N/A

(3) Dissemination

Conferences attended November 2016-November 2017

- 1) International Association of Maritime Economists Conference. Kyot, Japan 27-30 June 2017.
- 2) 8th International Congress on Transportation Research, Thessaloniki, Greece, 27-29 September 2017.

Dissemination of PORTOPIA content

- Vaggelas G.K., Kladaki E. and Pallis A.A., (2017). “Measuring the missing link in port performance evaluation: Port users perspectives”. Proceedings of the **International Association of Maritime Economists conference**, Kyoto, Japan, 27-30 June 2017.
- Vaggelas G.K., (2017). “Measuring port performance”. Seminar organized by Exantas Institute for Port Training. 4 May 2017, Thessaloniki, Greece.

Peer reviewed publications during the whole duration of the project

- C.1** Vaggelas G.K. and Pallis A.A., (2015). “Port performance: Criteria for measuring users perceptions in different port markets”. **European Conference on Shipping, Intermodalism and Ports (ECONSHIP) 2015**. 24-27 June, Chios, Greece.
- C.2** Pallis A.A. and Vaggelas G.K., (2015). “Beyond productivity: Typology of criteria to understand container port performance”. **5th International Symposium on Ship Operations, Management and Economics (SOME)**. 28-29 May 2015, Athens, Greece.

(4) Resources

All the resources foreseen for the last 14 months of the project have been used. There was a change in the projected workload of the University of the Aegean for the completion of the project, without any change in the University of the Aegean’s budget. The recalculation of the person-months was the result of the withdrawal of University of the Aegean as a partner in Work Package 5 and the withdrawal of ESPO as a partner in Work Package 6.

VUB 1 PM

UTU 2,70 PM

UAEGEAN 10,98 PM

3.7 Work Package 7: Inland Port Performance Indicators

(1) Short-term status (last 14 months)

a) Overall progress achieved the last 6 months in relation to the tasks and methodology described in the DoW

After finalizing and reviewing the D7.2 report “Policy linkages, interrelations and benchmarking suggestions (inland ports performance indicators)” WP 7 focusses on the D7.3 report “Inland port performance dashboard”. This report was originally planned for month 28, but due to some delay in the previous reports it was postponed to month 44 in the first request of the amendment. Besides that, the description of work in task 7.3 was changed to focus on the first annual report for inland ports based on the identified indicators. Finally, the report was finalized and published in month 50.

After the internal workshop between EFIP, VUB and Fraunhofer to finalize the recommended KPIs for the first annual report for inland ports in August 2016, Fraunhofer prepared a template for a possible survey. In addition, a feedback area was added for each KPI to give the pilot ports the opportunity to evaluate each KPI, e.g. their usefulness, comprehensibility and presence of data in inland ports. EFIP sent this survey to four pilot ports and received their feedback in December 2016. Based on this feedback a survey regarding “Market trends and structure” and about “Logistic chain services and port operations” was created by Fraunhofer in cooperation with EFIP and finally sent via e-mail to all members of EFIP.

In March 2017 the results of this survey about “Market trends and structure” and “Logistic chain services and port operations” were gathered. The data in this survey were contributed by 43 ports across Europe. The majority of the participant ports were from Germany (18), followed by France (7), the Netherlands (7) and further by Belgium (3) and Austria (2). From Bulgaria, Poland, Portugal, Romania, Slovakia and Switzerland each one port participated.

In parallel to this, EFIP created a survey on governance and organisation of inland ports. In August 2016, the results of the first Fact Finding Report especially for inland ports were available. In total, there were 32 contributions, which have spread to the different countries as follows: Austria (1), Belgium (5), Croatia (1), France (6), Germany (6) Netherlands (8), Romania (2), Slovakia (1), Spain (1) and Switzerland (1). Chapter 4.5 Governance shows a selection of the results on ten categories.

The first annual report for inland ports was developed basing on the identified indicators in the previous deliverables and shows the results of the four different topics gathered in the three surveys: Environmental survey (June 2015), Fact Finding Report for inland ports (August 2016) and Survey about Market trends and structure and about Logistic chain services and port operations (March 2017). In the next step, all this information was analyzed by Fraunhofer and tested for its reliability. The results were visualized and the most important insights outlined. The review of this report took place over several rounds with all involved partners (VUB and EFIP). Finally the report was finalized in October 2017 and was sent to the members of EFIP. It will be also published on the Portopia website.

b) Modifications in the approach presented in the DoW and methodological justification - not harming the overall objective of the WP

No modifications.

c) Methodological/process problems/issues encountered and solutions applied (if any)

N/A

d) Delays in execution and how these are being / were caught up

D 7.3 was finalized in time, but the internal review process took longer than expected. The internal review process is now completed and the report is finalized.

e) Status of Deliverables/milestones due within the next 6 months for the WP (deliverables and their status - on track / at risk / off track)

N/A

(2) Longer-term outlook

a) Currently identified internal and external risks towards completion of longer term milestones/deliverables (and mitigation strategy)

N/A

b) Potential methodological/process issues to be addressed longer term

N/A

(3) Dissemination

N/A – (See WP5 – EFIP)

(4) Resources

VUB 1 PM

RHV 1,30 PM

Fraunhofer 5,32 PM

ESPO 2,83 PM

3.8 Work Package 8: Development of a strategy map and a balanced view

(1) Short-term status (last 14 months)

a) Overall progress achieved the last 14 months in relation to the tasks and methodology described in the DoW

- Finalisation and delivery of D8.2
- Delivery of D8.3

b) Modifications in the approach presented in the DoW and methodological justification - not harming the overall objective of the WP

None

c) Methodological/process problems/issues encountered and solutions applied (if any)

None

d) Delays in execution and how these are being / were caught up

A small delay was incurred for D8.3 as the WP leader (TU/e) announced termination due to the termination of the employment contract of the WP leader. It was decided to transfer the duties of WP leadership to the coordinator, who subsequently consulted the other WP partners towards delivery of D8.3 (see also 2nd Amendment)

e) Status of Deliverables/milestones due within the next 6 months for the WP (deliverables and their status - on track / at risk / off track)

D8.2 was completed by month 40

D8.3 was completed by Month 50

(2) Longer-term outlook (beyond the next 6 months)

N/A

(3) Dissemination

Development of a 2nd integrated European Industry Sustainability Report

Participation to the IAPH/PIANC Working Group 174 in Amsterdam (January 2017)

(4) Resources spent

VUB 6,03 PM

ESPO 1,50 PM

UTU 3,60 PM

TU/e 0,71 PM

3.9 Work Package 9: Benchmarking European Port Performance

(1) Short-term status (last 14 months)

a) Overall progress achieved the last 14 months in relation to the tasks and methodology described in the DoW

- D9.1 is complete
- D9.2 is complete
- D9.3 is complete
- D9.4 is complete
- D9.5 is complete

This WP is on benchmarking European Port Performance more in particular to develop benchmarking and weighing techniques that allow individual sea and inland ports to compare their activities and operations with the EU average and relevant peer groups, and with ports in other important regions like Asia and the Americas (for seaports).

Deliverable 9.1 (D9.1). We have finished the work on “D9.1) A review of existing benchmarking techniques and practices: a review of existing benchmarking techniques and practices (also in other industries)”. A lot of work has been performed together with GLINTT regarding ICT requirements for the benchmarking tool. These have not yet been translated into a report (D9.5).

Deliverable 9.2 (D9.2) has been completed. It provides an aggregation methodology for all indicators discussed in the indicator document overview

Deliverable 9.3 (D9.3) has been completed. D9.3 offers an indicator based overview of benchmarking techniques. Amongst others the possibility of geographical benchmarking, disaggregation benchmarking and linking to other indicators are discussed. For example, within the scope of the deliverable modal split has been benchmarked for all EU ports outside of the IT system.

Deliverable 9.3 involves the selection of appropriate benchmarking techniques taking into account the specificities of the indicators considered and the needs of the respective port authorities and other users. This implies the benchmarking technique is customised thereby avoiding a "one size fits all" approach in benchmarking practices for all indicators. The report is structured along five sections, each discussing the selection and customisation of benchmarking techniques for indicators of one of the five performance indicators groups considered in Portopia.

Deliverable D9.4 (D9.4) on international benchmarking (Report on the international benchmarking of all relevant indicators) has been finalized. The WP leaders responsible for the different categories of indicators have been approached to deliver inputs on the international practices for their respective category of indicators. This information has been combined to provide an overview of data and benchmarking practices used in other parts of the world (mainly focusing on Asia and North America with case-based examples from Africa and South and Latin America). Deliverable 9.4 (D9.4) aims at exploring possibilities for benchmarking the performance of the European port system on specific

indicators against non-European port systems or sub-systems in other parts of the world (North America, South America, Asia, Australasia and Africa). This required (a) an analysis of port-related performance indicators and associated methods in use in other parts of the world by individual ports and organisations such as the Association of American Port Authorities - AAPA, the United Nations, etc.; (b) an exploration on the comparability and possible convergence between data collection and data presentation methods used/proposed in Europe and elsewhere, and (c) the identification of areas where international benchmarking already makes sense at present or could be made relevant in the future (i.e. provided steps are taken to come to a more standardised data collection and presentation). This report is the first ever report to provide an extensive review of potential port performance studies and data sources which could support international benchmarking exercises on port performance. The report reveals that PORTOPIA can be regarded as the most comprehensive port performance project in the world. PORTOPIA can therefore in principle develop itself as a global best practice on comprehensive port performance measurement and reporting. We believe that individual port authorities remain the key sources for a lot of data needed to feed port performance measurement systems. Therefore, we recommend to enhance cooperation with port associations (IAPH in the first place) in view of developing international standards for performance measurement and data collection. We believe the report can be very helpful for exploring further possibilities for international cooperation on port performance data collection and reporting. No further action required.

Deliverable D9.5 (D9.5) has been finalized. The report focuses on the ICT requirements for the benchmarking tool (i.e. the benchmarking and weighing tools in the ICT system of EPO). Quite a few meetings between GLINTT, the WP leader and the project co-ordinator have resulted in tangible ICT implementation of benchmarking techniques. These realizations and proposed solutions are described in this deliverable. Deliverable 9.5 is about the implementation of the benchmarking and weighing tools in the ICT system of the EPO. This report mainly combines the insights and approaches presented in a range of other documents: (a) The methodological approaches per category of indicators as presented in WP1 to 5; (b) D9.1, D9.2 and D9.3 on benchmarking methods and techniques; (c) The user entry requirements for the different modules to be implemented in the PORTOPIA service cloud; (d) The documents on the RES system. We also illustrated some of the implementation issues by using a demo version of the PORTOPIA service cloud. The report focuses on the three modules that are being implemented in the PORTOPIA service cloud: (a) Market trends (with a specific focus on RES); (b) Environment; (c) Governance. Each time we made a distinction between benchmarking at individual port level (i.e. the port dashboard) and at EU level (i.e. the EU dashboard). We took into account the specificities of the indicators considered and the needs of the respective port authorities and other users, as fully detailed in deliverable 9.3. No further action required.

b) Modifications in the approach presented in the DoW and methodological justification - not harming the overall objective of the WP

N/A

c) Methodological/process problems/issues encountered and solutions applied (if any)

N/A

d) Delays in execution and how these are being / were caught up

D9.4 is completed

D9.5 is completed

e) Status of Deliverables/milestones due within the next 6 months for the WP (deliverables and their status - on track / at risk / off track)

D9.4 is completed, minor delay. D9.4: planned delivery date = month 35 (Augustus 2016); actual delivery date = month 48 (September 2017). No impact on budget.

Will provide an outline of existing international benchmarks of different organisations and explain the gap with the current Portopia system.

D9.5 is completed, minor delay. D9.5: planned delivery date = month 44 (May 2017); actual delivery date = month 49 (October 2017). No impact on budget.

An amendment was requested for these two deliverables. Deliverables have been completed within the overall project timeline and do not delay any other deliverables or IT implementations.

(2) Longer-term outlook

a) Currently identified internal and external risks towards completion of longer term milestones/deliverables (and mitigation strategy)

N/A

b) Potential methodological/process issues to be addressed longer term

N/A

(3) Dissemination

None.

(4) Resources spent

VUB 1 PM

ESPO 0,79 PM

UTU 0,70 PM

UA 1,60 PM

UNIGE 1,20 PM

3.10 Work Package 10: Stakeholder Management, Dissemination and Communication

(1) Short-term status (last 14 months)

a) Overall progress achieved the last 14 months in relation to the tasks and methodology described in the DoW

Task 10.2: External Communication and dissemination

The main dissemination **events** that took place during the last 14 months are summarized below.

ESPO Conference 2017

The annual ESPO Conference 2017 took place on 1-2 June in Barcelona (Spain) and attracted around 250 port professionals and stakeholders. Like every year, the conference offered an excellent platform for informing external stakeholders about PORTOPIA and for disseminating the progress and results. During the first day of the conference, a special session was dedicated to EcoPorts, the main environmental initiative of the European port sector. Port representatives were encouraged to join the EcoPorts network. The first step to become an EcoPorts member includes answering a number of questions about the port. This data is confidentially shared with PORTOPIA. During this session, the participants also received the new EcoPorts leaflet.

As usual, PORTOPIA also had a stand where people could get first-hand information on the project and its developments and could access and get familiarised with the PORTOPIA platform. For the event, a new PORTOPIA leaflet had been created, which was also distributed at the stand, along with Save the Date postcards for the final event of PORTOPIA in November 2017. These Save the Date postcards were also distributed in the conference room. Finally, during the breaks, a slide show including information on PORTOPIA was shown in the conference room.

Website

In the last six months ESPO has been regularly updating the Portopia website with new posts on reports, studies and articles. The input for the website was provided both by ESPO as well as the VUB. A list of updates during the last 18 months follows below.

News: The news items that were published since the launch of the website are the following:

- JOC Terminal Productivity Whitepaper (20 February 2014)
<http://www.PORTOPIA.eu/?p=117>
- World Economic Forum – New Report provides blueprint to close infrastructure financing gap (20 February 2014)
<http://www.PORTOPIA.eu/?p=114>
- World Bank Report: Connecting to compete (20 February 2014)
<http://www.PORTOPIA.eu/?p=109>
- Port of Amsterdam on PORTOPIA (1 April 2014)

- <http://www.PORTOPIA.eu/?p=735>
- Shipping continuous to be wealth generator (2 April 2014)
<http://www.PORTOPIA.eu/?p=635>
- PORTOPIA's global network expands (17 April 2014)
<http://www.PORTOPIA.eu/?p=374>
- Atlantic plan seminar unveils PORTOPIA (2 May 2014)
<http://www.PORTOPIA.eu/?p=506>
- Ports discover PORTOPIA at 2014 ESPO Conference (22 May 2014)
<http://www.PORTOPIA.eu/?p=522>
- The Port of Gdansk on PORTOPIA (2 September 2014)
<http://www.PORTOPIA.eu/?p=739>
- Danish Green Guide unveiled (5 September 2014)
<http://www.PORTOPIA.eu/?p=807>
- Northern Corridor Performance Dashboard (19 November 2014)
<http://www.PORTOPIA.eu/?p=567>
- The economic footprint of rail transport (20 November 2014)
<http://www.PORTOPIA.eu/?p=581>
- Study: ports contribute highly to global trade (20 November 2014)
<http://www.PORTOPIA.eu/?p=578>
- Report: Review of Maritime Transport (21 November 2014)
<http://www.PORTOPIA.eu/?p=598>
- New JOC Paper on global port productivity (24 November 2014)
<http://www.PORTOPIA.eu/?p=624>
- PORTOPIA seeks new connectivity data (20 January 2015)
<http://www.PORTOPIA.eu/?p=844>
- Container transshipment volumes (28 January 2015)
<http://www.PORTOPIA.eu/?p=753>
- A review of existing benchmarking techniques and practices (29 January 2015)
<http://www.PORTOPIA.eu/?p=745>
- The Freeport of Riga on PORTOPIA (30 January 2015)
<http://www.PORTOPIA.eu/?p=896>
- Shipping continues to drive European economy (4 March 2015)
<http://www.PORTOPIA.eu/?p=905>

- The Port of Zeebrugge on PORTOPIA (4 March 2015)
<http://www.PORTOPIA.eu/?p=899>
- Cruise passengers drop in 2014 (19 March 2015)
<http://www.PORTOPIA.eu/?p=923>
- How much container volume can a weekly service bring to your port? (8 April 2015)
<http://www.PORTOPIA.eu/?p=932>
- Top 15 – Container Ports in Europe (21 April 2015)
<http://www.PORTOPIA.eu/?p=942>
- Ship recycling in Frederikshavn (21 April 2015)
<http://www.PORTOPIA.eu/?p=946>
- Holland vs Belgium in the container business (18 May 2015)
<http://www.PORTOPIA.eu/?p=968>
- Transshipment near the straits of Gibraltar (18 May 2015)
<http://www.PORTOPIA.eu/?p=972>
- EU ports traffic data on your smartphone (26 May 2015)
<http://www.PORTOPIA.eu/?p=978>
- PORTOPIA in the European Maritime Day in Athens (16 June 2015)
<http://www.PORTOPIA.eu/?p=994>
- ITF study on the impact of mega-ship (3 June 2015)
<http://www.PORTOPIA.eu/?p=987>
- Understanding container port performance (16 June 2015)
<http://www.PORTOPIA.eu/?p=992>
- ESPO traffic data of year 2015 (25 June 2015)
<http://www.PORTOPIA.eu/?p=1028>
- PPRN: Identifying themes for future port research (11 September 2015)
<http://www.PORTOPIA.eu/?p=1087>
- PORTOPIA month 18 news and project status (11 September 2015)
<http://www.PORTOPIA.eu/?p=1092>
- Report: Review of Maritime Transport (23 October 2015)
<http://www.PORTOPIA.eu/?p=1094>
- European Ports on Port Performance (6 November 2015)
<http://www.PORTOPIA.eu/?p=1098>

- ESPO Traffic Data Q2 and Q3 of 2015 (24 November 2015)
<http://www.PORTOPIA.eu/?p=1104>
- EU Transport Scoreboard 2015 (24 November 2015)
<http://www.PORTOPIA.eu/?p=1106>
- Sines and the Algarve on Port Performance (30 November 2015)
<http://www.PORTOPIA.eu/?p=1108>
- New Video on PORTOPIA Service Cloud (11 December 2015)
<http://www.PORTOPIA.eu/?p=1116>
- Environmental Ship Index: 5th anniversary (21 December 2015)
<http://www.PORTOPIA.eu/?p=1118>
- Rotterdam on port performance (21 December 2015)
<http://www.PORTOPIA.eu/?p=1120>
- Helsinki on port performance (29 January 2016)
<http://www.PORTOPIA.eu/?p=1127>
- PORTOPIA Port Performance Conference (12 February 2016)
<http://www.PORTOPIA.eu/?p=1131>
- Eurostat Ports Freight and Passenger Statistics (17 March 2016)
<http://www.PORTOPIA.eu/?p=1180>
- Bilbao on Port Performance (2 March 2016)
<http://www.PORTOPIA.eu/?p=1169>
- ESPO/EcoPorts Environmental Review 2016 (23 March 2016)
<http://www.PORTOPIA.eu/?p=1488>
- Top 10 Environmental Priorities of Ports (25 March 2016)
<http://www.PORTOPIA.eu/?p=1186>
- PORTOPIA Port Performance Conference (5 April 2016)
<http://www.PORTOPIA.eu/?p=1247>
- Milford Haven on Port Performance (14 April 2016)
<http://www.PORTOPIA.eu/?p=1192>
- Nantes – Saint Nazaire on Port Performance (23 June 2016)
<http://www.PORTOPIA.eu/?p=1222>
- Reykjavik on Port Performance (23 June 2016)
<http://www.PORTOPIA.eu/?p=1225>
- Trends in EU Port Governance (23 June 2016)

- <http://www.PORTOPIA.eu/?p=1235>
- Five Dutch Ports achieve Pers Certification (24 June 2016)
<http://www.PORTOPIA.eu/?p=1239>
- Introducing PORTOPIA to Italian Ports (11 July 2016)
<http://www.PORTOPIA.eu/?p=1290>
- Constantza on Port Performance (8 August 2016)
<http://www.PORTOPIA.eu/?p=1293>
- Koper on Port Performance (17 October 2016)
<http://www.PORTOPIA.eu/?p=1302>
- Valenciaport on port performance (3 January 2017)
<http://www.PORTOPIA.eu/?p=1310>
- Review of Maritime transport 2016 (10 January 2017)
<http://www.PORTOPIA.eu/?p=1327>
- The hybrid nature of port authorities (19 January 2017)
<http://www.PORTOPIA.eu/?p=1342>
- EcoPorts celebrates 20th anniversary (27 January 2017)
<http://www.PORTOPIA.eu/?p=1375>
- Port authorities pursue economic & non-economic objectives (17 February 2017)
<http://www.PORTOPIA.eu/?p=1412>
- Top 15 container ports in Europe in 2016 (20 February 2017)
<http://www.PORTOPIA.eu/?p=1438>
- Port of Thessaloniki on port performance (3 February 2017)
<http://www.PORTOPIA.eu/?p=1395>
- Port of Kokkola on port performance (2 March 2017)
<http://www.PORTOPIA.eu/?p=1432>
- Main port services in private hands (14 March 2017)
<http://www.PORTOPIA.eu/?p=1441>
- Port performance in the U.S. (20 March 2017)
<http://www.PORTOPIA.eu/?p=1445>
- Israel Ports Company on port performance (4 April 2017)
<http://www.PORTOPIA.eu/?p=1451>
- The Straits of Gibraltar: container port activity (18 April 2017)
<http://www.PORTOPIA.eu/?p=1477>

- Trends in EU ports governance: optimising land use (25 April 2017)
<http://www.PORTOPIA.eu/?p=1491>
- Port of Leixões (PT) on port performance (3 May 2017)
<http://www.PORTOPIA.eu/?p=1498>
- Trends in top 10 container ports (5 May 2017)
<http://www.PORTOPIA.eu/?p=1502>
- Trends in EU ports governance: ports and their community (11 May 2017)
<http://www.PORTOPIA.eu/?p=1507>
- New PORTOPIA leaflet (6 June 2017)
<http://www.PORTOPIA.eu/?p=1527>
- Identify and implement environmental indicators (8 June 2017)
<http://www.PORTOPIA.eu/?p=1532>
- Urban ports and societal integration of port activities (27 June 2017)
<http://www.PORTOPIA.eu/?p=1544>
- Port of Trieste (IT) on port performance (10 July 2017)
<http://www.PORTOPIA.eu/?p=1552>
- Save the Date: PORTOPIA final event (18 July 2017)
<http://www.PORTOPIA.eu/?p=1561>
- Local governments and ports (19 July 2017)
<http://www.PORTOPIA.eu/?p=1564>
- Port authorities are proactive TEN-T workers (24 July 2017)
<http://www.PORTOPIA.eu/?p=1570>
- Top EU container port regions (2 August 2017)
<http://www.portopia.eu/?p=1586>
- Stimulatin Innovation (14 August 2017)
<http://www.portopia.eu/?p=1580>
- Clemence Cheng (UK) on port performance (4 September 2017)
<http://www.portopia.eu/?p=1611>
- Ports are home and key partners of industrial clusters (27 September 2017)
<http://www.portopia.eu/?p=1637>
- Paolo Emilio Signorini on port performance (2 October 2017)
<http://www.portopia.eu/?p=1645>
- EU transport in figures (20 October 2017)

<http://www.portopia.eu/?p=1665>

- Review of Maritime Transport 2017 (26 October 2017)
<http://www.portopia.eu/?p=1670>
- Ports are key players in energy sector (2 November 2017)
<http://www.portopia.eu/?p=1676>
- PORTOPIA partners present outcome of their project (10 November 2017)
<http://www.portopia.eu/?p=1692>
- Top 10 Environmental priorities 2017 (27 November 2017)
<http://www.portopia.eu/?p=1765>
- Energy management and electricity provision in ports (28 November 2017)
<http://www.portopia.eu/?p=1768>

Blog:

- Amsterdam port(s) performance measuring (27 February 2014)
<http://www.PORTOPIA.eu/?p=632>
- Study: the economics of Dutch inland ports (17 March 2014)
<http://www.PORTOPIA.eu/?p=94>
- Venice Port authority: KPIs monitoring (17 April 2014)
<http://www.PORTOPIA.eu/?p=376>
- Economic importance of port spans supply chain (22 May 2014)
<http://www.PORTOPIA.eu/?p=537>
- ‘Port utopia’ or PORTOPIA? (15 December 2014)
<http://www.PORTOPIA.eu/?p=825>
- PORTOPIA Month 18: news and project status (11 September 2015)
<http://www.PORTOPIA.eu/?p=1092>
- Double interview: Isabelle Ryckbost and Michael Dooms (11 April 2017)
<http://www.PORTOPIA.eu/?p=1459>
- Interview Aernoud Willeumier (28 August 2017)
<http://www.portopia.eu/?p=1593>

Events:

- PORTOPIA takes centre stage at PAPC (26 November 2014)
<http://www.PORTOPIA.eu/?p=640>
- ESPO Conference 2015: no ports, no energy. No energy, no ports. (5 March 2015)
<http://www.PORTOPIA.eu/?p=909>

- PORTOPIA workshop in Bremen port on 29 April (11 May 2015)
<http://www.PORTOPIA.eu/?p=950>
- Visit us at ESPO 2015 conference (18 May 2015)
<http://www.PORTOPIA.eu/?p=957>
- PORTOPIA month 18 news and project status (11 September 2015)
<http://www.PORTOPIA.eu/?p=1092>
- PORTOPIA Port Performance Conference (12 February 2016)
<http://www.PORTOPIA.eu/?p=1131>
- PORTOPIA Port Performance Conference (5 April 2016)
<http://www.PORTOPIA.eu/?p=1247>
- Introducing PORTOPIA to Italian ports (11 July 2016)
<http://www.PORTOPIA.eu/?p=1290>
- Visit us at ESPO Conference 2017 in Barcelona! (30 May 2017)
<http://www.PORTOPIA.eu/?p=1559>
- Save the Date: PORTOPIA final event (18 July 2017)
<http://www.PORTOPIA.eu/?p=1561>
- PORTOPIA Final Event (1 September 2017)
<http://www.portopia.eu/?p=1606>

Social media

PORTOPIA is being promoted through various social media:

- Twitter:

PORTOPIA has its own Twitter account, which reaches approximately 90 people, through which it disseminates relevant news about the project as well as news on port performance in general. In addition, ESPO uses its own Twitter account, which reaches approximately 1130 people, to promote relevant PORTOPIA news.

- Facebook

PORTOPIA has its own Facebook account, which reaches approximately 650 people, through which it disseminates relevant news about the project as well as news on port performance in general.

- LinkedIn

PORTOPIA has its own LinkedIn page, which reaches approximately 150 people, and is used to promote the project towards professionals.

- Youtube

ESPO uses its own Youtube account to disseminate PORTOPIA videos (such as for example the video made in 2015 to present the PORTOPIA Service Cloud).

PORTOPIA in International conferences

Events	Date	Place	Attendees
11th Port Performance Research Network (PPRN) workshop	2 July	Marseille	Michaël Doms (VUB)
OECD conference Port cities	9 September 2013	Rotterdam	Isabelle Ryckbost (ESPO)
Smart Rivers	25 September 2013	Liège	Isabelle Ryckbost (ESPO)
Norwegian ports association seminar	3 October 2013	Oslo	Isabelle Ryckbost (ESPO)
NVB (Dutch inland ports) annual meeting	4 October 2013	Meppel	Isabelle Ryckbost (ESPO)
BPA conference	10 October 2013	Grimsby	Isabelle Ryckbost (ESPO)
Green Port Conference	10 October 2013	Antwerp	Isabelle Ryckbost (ESPO) Antonis Michail (ESPO)
Interview PanEuropeanNetworks	17 October 2013	Brussels	Isabelle Ryckbost (ESPO)
Lecture ITMMA	18 November 2013	Antwerp	Antonis Michail (ESPO)
PEMA 10th anniversary	6 February 2014	Amsterdam	Isabelle Ryckbost (ESPO)
CPRM Transport working group	27 February 2014	Brussels	Isabelle Ryckbost (ESPO)
Baltic Ports Organisation Environmental Seminar	5 March 2014	Gdansk	Antonis Michail (ESPO)
Atlantic ports, logistics and maritime transport as drivers of economic	29 April 2014	Gijon	Eugenio Quintieri (ESPO)

development (event organized by the EC)			
Maritime Spatial Planning Conference	6 June 2014	Athens	Antonis Michail (ESPO)
Technological innovation in Ports and Terminals training	6 June 2014	Livorno - Venice	Isabelle Ryckbost (ESPO)
12th PPRN workshop	15 July 2014	Norfolk, Virginia	Michaël Doods (VUB)
Danish Ports environmental workshop	4 September 2014	Copenhagen	Antonis Michail (ESPO)
SATAMA 14 Port conference	8 October 2014	Vaasa	Isabelle Ryckbost (ESPO)
Greenports Conference	15-16 October 2014	Barcelona	Antonis Michail (ESPO) Isabelle Ryckbost (ESPO)
APEC training (seminar)	23 October 2014	Antwerp	Antonis Michail (ESPO)
10th Pan African Port Cooperation (PAPC) Conference	16-19 November 2014	Kenia	Michaël Doods (VUB)
Spanish ports environmental workshop	18-19 November 2014	Cartagena	Antonis Michail (ESPO)
APEC workshop for Indonesian ports delegation	28 November 2014	Antwerp	Antonis Michail (ESPO)
UIRR event on intermodal transport	4 December 2014	Brussels	Eugenio Quintieri (ESPO)
Lecture ITMMA Master course	28 December 2014	Antwerp	Antonis Michail (ESPO)
Conference on smart cooperation in coastal and maritime tourism	20 January 2015	Brussels	Isabelle Ryckbost (ESPO)
Mermaid Project	9-10 March 2015	Coruna	Antonis Michail (ESPO)
Green Ship Technology Conference	11 March 2015	Copenhagen	Antonis Michail (ESPO)

Transport Week	18-19 March 2015	Gdansk	Isabelle Ryckbost (ESPO)
International Conference FUTURMED	27 March 2015	Olbia	Antonis Michail (ESPO)
Baltic Ports Organization Seminar on OPS	15 April 2015	Ystad	Antonis Michail (ESPO)
European Maritime Days	28-29 May 2015	Athens	Antonis Michail (ESPO) Michaël Doods (VUB)
Port Innovation Day	4 June 2015	Livorno	Eugenio Quintieri (ESPO)
Third Maritime Congress	10 June 2015	Szczecin	Isabelle Ryckbost (ESPO)
Green Energy Ports Conference	15-17 June 2015	Vigo	Antonis Michail (ESPO)
Port environmental management seminar	18 June 2015	Aviles	Antonis Michail (ESPO)
European Conference on Shipping and Intermodalism and Ports (ECONSHIP) 2015	23-26 June 2015	Chios, Greece	G. Vaggelas & A. Pallis (University of the Aegean)
Presentation for Union des Ports de France	6 July 2015	Paris	Isabelle Ryckbost (ESPO)
13th PPRN workshop	23 August 2015	Kuala Lumpur, Malaysia	Michaël Doods (VUB)
APEC Seminar on port environmental policy and technology	2-13 September 2015	Antwerp	Antonis Michail (ESPO)
Green Shipping Summit	17 September 2015	Genoa	Antonis Michail (ESPO)
Greenport Congress	7-9 October 2015	Copenhagen	Antonis Michail (ESPO)

WiderMos, Connecting Shipping and TEN-T Core Network Corrdors	28-29 October 2015	La Spezia	Eugenio Quintieri (ESPO)
Irish Ports Association meeting	2 December 2015	Dublin	Isabelle Ryckbost (ESPO)
C-MAT Master course, lecture	24 March 2016	Antwerp	Antonis Michail (ESPO)
GLEC Transshipment Workshop	16-17 June 2016	London	Antonis Michail (ESPO)
Naples Shipping week	1 July 2016	Naples	Eugenio Quintieri (ESPO)
Think Climate, PIANC	7 July 2016	Brussels	Antonis Michail (ESPO)
Workshop on the future of European transport	11 July 2016	London	Eugenio Quintieri (ESPO)
14th PPRN workshop	23 August 2016	Hamburg	Michaël Dooms (VUB) George Vaggelas (University of the Aegean)
Baltic Ports Conference	7-9 September 2016	Helsinki	Isabelle Ryckbost (ESPO)
GreenPort Conference	13-14 October 2016	Venice	Isabelle Ryckbost (ESPO)
Green Shipping Summit	18 October 2016	Rotterdam	Isabelle Ryckbost (ESPO)
British Ports Association Conference	3 November 2016	Dover	Isabelle Ryckbost (ESPO)
Lunchpodium Port of Rotterdam	15 November 2016	Rotterdam	Isabelle Ryckbost (ESPO)
EU Port Policy course, Artevelde Hogeschool	6 December 2016	Gent	Isabelle Ryckbost (ESPO)

Master course C-MAT on Port performance measurement	24 March 2017	Antwerp	Eugenio Quintieri (ESPO)
Master course C-MAT on Port environmental management	30 March 2017	Antwerp	Sotiris Raptis (ESPO)
Think Climate Conference	27 March 2017	Brussels	Isabelle Ryckbost (ESPO)
Workshop “Regeneration Port and Cities”, organised by the Maltese presidency of the Council of the EU	16 May 2017	Brussels	Isabelle Ryckbost (ESPO)
Séminaire Axe Seine - délégation normande (Committee of the regions)	21 June 2017	Brussels	Isabelle Ryckbost (ESPO)
15th PPRN workshop	26 June 2017	Kyoto, Japan	Michaël Doods (VUB)
Green Energy Ports Conference	27-28 June 2017	Vigo	Sotiris Raptis (ESPO)
20th International Conference on Transport and Logistics	27-29 September 2017	Odessa	Isabelle Ryckbost (ESPO)
Green Shipping Summit	17 October 2017	Rotterdam	Isabelle Ryckbost (ESPO)
Course on EU port policy, University of Ghent	18 October 2017	Gent	Isabelle Ryckbost (ESPO)
5th session of the Multi-Year Expert Meeting on Transport, Trade Logistics and Trade Facilitation	24 October 2017	Geneva	Michaël Doods (VUB)

b) Modifications in the approach presented in the DoW and methodological justification - not harming the overall objective of the WP

N/A

c) Methodological/process problems/issues encountered and solutions applied (if any)

N/A

d) Delays in execution and how these are being / were caught up

N/A

e) Status of Deliverables/milestones

N/A

(2) Longer-term outlook (beyond the next 6 months)*a) Currently identified internal and external risks towards completion of longer term milestones/deliverables (and mitigation strategy)*

None

b) Potential methodological/process issues to be addressed longer term

None

(3) Dissemination

Title	Date	Place
<i>British Ports Association Conference</i>	<i>3 November 2016</i>	<i>Dover</i>
<i>Lunchpodium Port of Rotterdam</i>	<i>15 November 2016</i>	<i>Rotterdam</i>
<i>EU Port Policy course, Artevelde Hogeschool</i>	<i>6 December 2016</i>	<i>Gent</i>
<i>Master course C-MAT on Port performance measurement</i>	<i>24 March 2017</i>	<i>Antwerp</i>
<i>Master course C-MAT on Port environmental management</i>	<i>30 March 2017</i>	<i>Antwerp</i>
<i>Think Climate Conference</i>	<i>27 March 2017</i>	<i>Brussels</i>
<i>Workshop "Regeneration Port and Cities", organised by the Maltese presidency of the Council of the EU</i>	<i>16 May 2017</i>	<i>Brussels</i>
<i>Green Energy Ports Conference</i>	<i>27-28 June 2017</i>	<i>Vigo</i>
<i>Séminaire Axe Seine - délégation normande (Committee of the regions)</i>	<i>21 June 2017</i>	<i>Brussels</i>
<i>20th International Conference on Transport and Logistics</i>	<i>27-29 September 2017</i>	<i>Odessa</i>
<i>Green Shipping Summit</i>	<i>17 October 2017</i>	<i>Rotterdam</i>
<i>Course on EU port policy, University of Ghent</i>	<i>18 October</i>	<i>Gent</i>
<i>Baltic Ports Conference</i>	<i>7-9 September 2016</i>	<i>Helsinki</i>
<i>GreenPort Conference</i>	<i>13-14 October 2016</i>	<i>Venice</i>
<i>Green Shipping Summit</i>	<i>18 October 2016</i>	<i>Rotterdam</i>
<i>Inland terminals conference (EFIP)</i>	<i>18 November 2017</i>	<i>Basel</i>

<i>Danube Ports Policy day (EFIP)</i>	<i>20 February 2017</i>	<i>Budapest</i>
<i>UNICE, inland navigation working group of the UN (EFIP)</i>	<i>22 February 2017</i>	<i>Geneva</i>
<i>1st Rhine-Alpine Working group IWW and Ports (EFIP)</i>	<i>27 February 2017</i>	<i>Rotterdam</i>
<i>EFIP Executive Committee (EFIP)</i>	<i>28 April 2017</i>	<i>Szczecin-Swinoujscie</i>
<i>2nd Rhine-Alpine Working group IWW and Ports (EFIP)</i>	<i>15 May 2017</i>	<i>Duisbourg</i>
<i>EFIP General Assembly (EFIP)</i>	<i>13 October 2017</i>	<i>Paris</i>
<i>Inland terminals conference (EFIP)</i>	<i>10 November 2017</i>	<i>Rouen</i>
<i>Inland Waterway Transport and Ports VIP-event (EFIP)</i>	<i>15 November 2017</i>	<i>Strasbourg</i>

(4) Resources spent

ESPO 3,32 PM

3.11 Work Package 11: Development of an ICT and Knowledge Management System

(1) Short-term status (last 14 months)

a) Overall progress achieved the last 14 months in relation to the tasks and methodology described in the DoW

During 2017, Glintt's work was mainly focused on implementing and maturing functionalities, related with other WP's deliverables, and also on the construction of the data warehouse that supports and improves the performance of the Data Analysis tool.

The following sections will explain how Glintt approached each challenge.

With the implementation of the new Subscription Model, the Rapid Exchange System tool had to be refactored, to take that into account. These changes allowed ports to have more flexibility, in terms of data reporting.

Also, during 2017, the Data Analysis tool was transformed, in order to use a proper data warehouse structure. As per Deliverable 11.4, a data warehouse was created, with a new data structure, designed specifically to answer and improve the performance of the early prototypes, with the first module to see its data in the new data warehouse structure being the Rapid Exchange System. To achieve this, a set of data transformation processes were design, to migrate data from the operational database to the data warehouse.

This newer version of the Data Analysis tool proved to be much more efficient, in terms of response time, than the early prototypes, without losing any of the previously available information.

Before opening the User Perceptions tool to a group of volunteer pilot ports (7 European port authorities), some additional work was needed, in order to assure that the tool supported several languages. The phase one survey was translated to five languages (English, Greek, Portuguese, Spanish and Italian), allowing the European port authorities to send their customized surveys to their users, in their native language.

While there were already a set of statistical functionalities developed, a new interface was created to aggregate the whole set of answers (from all users of every participating port – phase II answers) provided for the same User Perceptions exercise, with the possibility of validating the satisfaction and importance for all individual criteria and for all markets. By the end of the Portopia project, we could conclude that 20% of the invited users answered to the surveys sent by the ports, and that the average satisfaction results were quite positive.

The first step needed to start the implementation of the Environmental indicators (WP3) previously specified, was the integration of data (that was necessary to calculate the indicators) from the ESPO's EcoPorts system. This integration happens every night, so that Portopia Service Cloud can always have the most recent information to calculate the indicators.

With the data on Portopia's side, two dashboards were implemented. The first, the Port Dashboard, allowed ports to compare their individual answers (provided in the EcoPorts SDM) with the averages for the European Ports. The second dashboard (EU Dashboard) also calculates the European averages for the same indicators, but shows the platform users the evolution over time of the indicators.

The Data Analysis tool also grew, with the development of two new OLAP cubes. One that allows the analysis of the most recent data for each port (that can be used to calculate

real time indicators) and another cube, with all the historical information stored in the system. The new Environmental cubes use data that is migrated to the data warehouse, in a process very similar to the one designed for the Rapid Exchange System.

Portopia's Governance module was specified to be the natural evolution of the previously executed (ESPO) Fact Finding exercises. By creating this tool, the European port authorities have the possibility of updating their governance profile whenever it changes, instead of having to wait for a new Fact Finding exercise to be launched by ESPO.

An interface was developed to collect data from the port authorities, with a large set of questions, for several data categories (Ownership and Legal Form, Functions, Accounting Principles, Corporate Social Responsibility and Financial Capability). Also, and because the ports governance profile does not change that often, data from the 2010 and 2015 exercises were integrated into the platform, via Excel files with the answers already provided by the ports. With this, a port that had already participated in, at least, one of the exercises, would already have some of their governance profile available in the platform.

As an output of the data available in the system, Glintt developed two new dashboards, using the same logic applied to the Environmental module: one Port Dashboard (with a set of selected indicators), used by the port authorities to benchmark their profile with the average of the European ports, and one EU Dashboard, with the evolution over time of the same indicators.

The potential number of indicators was much bigger than the number of implemented indicators, but due to time/resources constraints, Glintt and ESPO agreed on the number and type of indicators that would be initially implemented.

To allow the calculation of new indicators, new OLAP cubes were designed and implemented, to give some users the possibility of exploring the whole set of available data.

Deliverables 11.3, 11.4, 11.5 and 11.6 were implemented transversally through the several functional modules of Portopia Service Cloud. But, while the modules were implemented isolated from each other (minus the core structure of the platform), all together build a dynamic and stable platform knowledge management system, that allows ports to provide information and, in return, have access to a set of dashboards and benchmarking tools, as per the previously mentioned expected deliverables.

b) Modifications in the approach presented in the DoW and methodological justification - not harming the overall objective of the WP

None

c) Methodological/process problems/issues encountered and solutions applied (if any)

/

d) Delays in execution and how these are being / were caught up

N/A.

e) Status of Deliverables/milestones

See above.

(2) Longer-term outlook

a) Currently identified internal and external risks towards completion of longer term milestones/deliverables (and mitigation strategy)

An intensive collaboration was needed between academic partners, Glintt and also directly with ports, validating all the ICT specifications/prototypes and KPI's that were being developed in the different work packages and implemented on Portopia Service Cloud.

b) Potential methodological/process issues to be addressed longer term

In order to avoid too much refactoring in the works developed in the scope of each WP, it's important that the ICT requirements are validated by, at least, the WP's leaders. This validation can also include other stakeholders, but it is important that it happens, preferentially, before the software implementation begins.

(3) Dissemination

/

(4) Resources spent

VUB 3 PM

SO SA 2,46 PM

Glintt 41,22 PM

3.12 Work Package 12: Implementation of the European Port Observatory

(1) Short-term status (last 14 months and short-term outlook for the next 6 months – until March 2017)

a) Overall progress achieved the last 14 months in relation to the tasks and methodology described in the DoW

As mentioned in the general part of this progress report, both the complexity and trust issues prevented to reach agreement on a business plan by Months 24 and 36, although significant parts of the thought process as well as first financial figures were made available (although they remained rough estimates given that the technological developments were still ongoing). First approaches to the business plan were made available and were delivered.

Over the last 14 months, mainly bilateral and informal contacts have taken place, given the apparent sensitivity of the topic. Also, management changes at the technological partner (Glantt) proved to be challenging in terms of business plan discussions.

The deadline for an agreement on a business plan has now been set at Month 42 (February 2017). In view of reaching this deadline:

- The coordinator has held bilateral talks with both ESPO and Glantt separately
 - o With agreement on an organizational structure (for the ESPO part)
 - o Financial framework: to be concluded between ESPO and Glantt
- Further meetings were foreseen during the month of February 2017

These meetings were non-conclusive and the coordinator engaged with a new technology partner. Six months of further intense negotiation led to a favourable vote at the ESPO Annual General Meeting to continue the project under the auspices of ESPO, with a new technology provider. We refer to the introduction of this report for a full account of the process.

b) Modifications in the approach presented in the DoW and methodological justification - not harming the overall objective of the WP

Changes in timelines due to the dynamic nature of negotiations and the need to integrate a new partner.

c) Methodological/process problems/issues encountered and solutions applied (if any)

None

d) Delays in execution and how these are being / were caught up

None

e) Status of Deliverables/milestones due within the next 6 months for the WP (deliverables and their status - on track / at risk / off track)

Preparation of the autonomous phase, given the introduction of a new technology partner, is potentially at risk (but beyond coordinator control given decisions to be taken by other parties). The coordinator ensured full knowledge transfer during meetings in the later stages of the project.

(2) Longer-term outlook (beyond the next 6 months)

a) Currently identified internal and external risks towards completion of longer term milestones/deliverables (and mitigation strategy)

Discussions and alternatives for the organizational structure and financial plan of the so-called ‘Observatory’ have been discussed at many occasions. However, legal and stakeholder complexity has delayed the process, which has taken the form of a negotiated agreement and is subject to validation procedures beyond the consortium’s control (e.g. ESPO GA and ExCo approval for the establishment and role of the future organization, as well as Glintt’s and ESPO’s non-approval of the financial framework). In particular the financial discussion has proven a risk.

Therefore, the coordinator has engaged with other external parties, to gauge their interest to play in role after the project’s ending. An agreement was reached during the project phase for the continuation of the project.

b) Potential methodological/process issues to be addressed longer term

N/A

(3) Dissemination

A full list of events is available in the annex.

A paper on the PORTOPIA business model and stakeholder challenges is under review (minor revision) at the Journal of Cleaner Production, and is expected to be published during 2018

(4) Resources spent

VUB 6,03 PM

ESPO 1,48 PM

UAEGEAN 1,33 PM

3.13 Work Package 13: Project Management

(1) Short-term status (last 14 months and short-term outlook for the next 6 months – until March 2017)

a) Overall progress achieved the last 14 months in relation to the tasks and methodology described in the DoW

ISAC and GSC: see dissemination work package.

GSC has convened in Kuala Lumpur, August 2015, Malaysia, during the IAME conference 2015 (specific session within the PPRN workshop), during the IAME conference 2016, Hamburg, Germany, following the same format (August 2016), and during the IAME conference 2017 in Kyoto, Japan (June 2017).

PORTOPIA results were also disseminated to experts of the IAPH-PIANC Workgroup 174 on Sustainability reporting.

b) Modifications in the approach presented in the DoW and methodological justification - not harming the overall objective of the WP

None

c) Methodological/process problems/issues encountered and solutions applied (if any)

None

d) Delays in execution and how these are being / were caught up

This has been solved by substantial coordinator follow-up and interim-solutions such as standardized meeting reports.

e) Status of Deliverables/milestones due within the next 6 months for the WP (deliverables and their status - on track / at risk / off track)

Summarized Technical Progress Reports have been delivered, although the Month 42 report was not delivered given that it was scheduled in the middle of an amendment procedure, with significant impact on timing and resources. As such, this report would not have been of any value. Through the request for amendment, the PO received detailed insights into the status of the various WPs in terms of progress and requested changes.

(2) Longer-term outlook (beyond the next 6 months)

a) Currently identified internal and external risks towards completion of longer term milestones/deliverables (and mitigation strategy)

N/A

b) Potential methodological/process issues to be addressed longer term

N/A

(3) Dissemination

See WP10 and WP12.

(4) Resources spent

VUB 6 PM

4 ANNEXES

- List of events with stakeholders
- Resources overview

Events with stakeholders P1+P2		M1-M36
Event	Location	Date
GreenPort Congress	Antwerp, Belgium	15-17 October 2013
Conference on development of the EcoPorts Standard	Taipei City, Taiwan	29 October 2013
EcoPorts Workshop	Kaohsiung, Taiwan	30 October – 1 November 2013
EAS Committee of ESPO	Rome, Italy	30 October 2013
Sustainable Ports, Sustainable Shipping Network	Geneva, Switzerland	16 November 2013
EFIP General Assembly	Strasbourg, France	30 November 2013
Executive Committee of ESPO	Brussels, Belgium	10 December 2013
Sectorial Social Dialogue on Ports (SSDCP)	Brussels, Belgium	18 December 2013
Meeting with ECSA (Associated Partner)	Brussels, Belgium	10 December 2013
Meeting with EMPA (Associated Partner)	Brussels, Belgium	10 December 2013
Meeting with CLECAT (Associated Partner)	Brussels, Belgium	11 December 2013
Meeting with FEPORT (Associated Partner)	Brussels, Belgium	11 December 2013
Meeting with ETA and EBA (Associated Partner)	Brussels, Belgium	11 December 2013
Meeting with ESC (Associated Partner)	Brussels, Belgium	16 December 2013
German Inland Ports	Berlin, Germany	11 February 2014
Meeting with Baltic Ports Organization	Brussels, Belgium	25 February 2014
Meeting with the Port of Antwerp	Antwerp, Belgium	3 March 2014
Meeting with BPA and UkMPG	London, UK	5 March 2014
Environmental Seminar of BPO	Gdansk, Poland	5 March 2014
EAS Committee of ESPO	London, UK	5-6 March 2014
IL Committee of ESPO	Bilbao, Spain	27 March 2014
Executive Committee of EFIP	Bratislava, Slovakia	28 March 2014
PMAESA	Mombasa, Kenya	11 March 2014
Presentation at Tongji University and Jiao Tong University	Shanghai, China	28 March 2014
SD Committee of ESPO	Piraeus, Greece	27-28 March 2014
PG Committee of ESPO	Brussels, Belgium	31 March 2014

Maritime Women: Global Leadership 2nd International Conference	Malmö, Sweden	31 March – 1 April 2014
TEN ECOPORT Conference	Tirana, Albania	3 April 2014
Atlantic Action Plan Seminar	Asturias, Spain	28 April 2014
Atlantic ports, logistics and maritime transport as drivers of economic development	Gijón, Spain	29 April 2014
Presentation to the Portuguese Ports Association	Lisbon, Portugal	9 May 2014
ESPO 2014 Conference	Gothenburg, Sweden	15-16 May 2014
Ecotoolbox Project of the Port of Antwerp	Antwerp, Belgium	28 May 2014 & 11 June 2014
Presentation at the Port of Rotterdam	Rotterdam, The Netherlands	2 June 2014
Meeting between VUB, ESPO and Port of Rotterdam	Brussels, Belgium	13 June 2014
LH Lab Forum	Le Havre, France	1 July 2014
Executive Committee of ESPO	Koper, Slovenia	1 July 2014
Executive Committee of ESPO	Brussels, Belgium	4 July 2014
PPRN Workshop	Norfolk, USA	15 July 2014
WMO Master's Degree Module, World maritime University	Malmö, Sweden	4-5 September 2014
EAS Committee of ESPO	Lisbon, Portugal	17-18 September 2014
Meeting on App Development of Port of Amsterdam	Lisbon, Portugal	18 September 2014
IAPH PIANC Working Group 174: Sustainability Reporting for Ports	Antwerp, Belgium	9-10 October 2014
SD Committee of ESPO	Barcelona, Spain	14 October 2014
Greenport Conference	Barcelona, Spain	15-17 October 2014
ETA-Glintt Workshop	Sintra, Portugal	29-31 October 2014
National conference	Kaohsiung, Taiwan	14 November 2014
The 10th Pan African Port Co-operation (PAPC) conference	Mombasa, Kenya	16-19 November 2014
Ports Sustainability	Cartagena, Spain	18-19 November 2014
ESPO Steering Group for PORTOPIA	Brussels, Belgium	3 December 2014
EMPA Board Meeting	Antwerp, Belgium	22 January 2015
ESPO Marine Affairs Committee Workshop	Brussels, Belgium	19 March 2015
Second Period (Only general events represented; specific dissemination see WPs activity reports)		
IAPH-PIANC Meeting	Valencia, Spain	20- 21 April 2015
EFIP Executive Committee	Trier, Germany	24 April 2015
EA&S committee ESPO	Bremen, Germany	29 April 2015

ESPO 2015	Athens, Greece	21,22 nd May 2015
PPRN Workshop	Kuala Lumpur, Malaysia	23 rd August 2015
IAPH-PIANC meeting	Beijing, China	25, 26 th October 2015
IAPH-PIANC meeting and Second European Port Performance Conference (EPPC2)	Lisbon, Portugal	21-22-23 rd March 2016
Meeting with IMDO	Dublin, Ireland	31 May 2016
ESPO2016	Dublin, Ireland	2 & 3 June 2016
Meeting with Assoport	Rome, Italy	July 4 th , 2016
PPRN Workshop	Hamburg, Germany	23 rd August, 2016
Follow-Up Meeting with the Irish Maritime Development Office	Hamburg, Germany	25 August 2016

Period 3

TEMPLATE A2: LIST OF DISSEMINATION ACTIVITIES								
NO.	Type of activities	Main leader	Title	Date/Period	Place	Type of audience	Size of audience	Countries addressed
1	Web seminar	Rosa Mari Darbra	Columbus – TEAP web seminar. “Presentation of the TEAP and TEIP tools and development of a practical case study”	17th November 2016			18 participants	
2	Conference	Puig, M.; Wooldridge, C.; Darbra, R.M.	European Transport Conference 2017- “Development of tools for the identification and implementation of environmental aspects and indicators in ports”	4-6 October 2017	Barcelona			
3	Conference	Pallis A.A. and Vaggelas G.K.	5th International Symposium on Ship Operations, Management and Economics (SOME) - “Beyond productivity: Typology of criteria to understand container port performance”	28-29 May 2015	Athens			

4	Conference	Vaggelas G.K. and Pallis A.A.	European Conference on Shipping, Intermodalism and Ports (ECONSHIP) - "Port performance: Criteria for measuring users' perceptions in different port markets".	24-27 June 2015	Chios (Greece)			
5	Seminar	Vaggelas G.K.	Seminar organized by Exantas Institute for "Port Training -Measuring port performance"	04-May-17	Thessaloniki			
6	Conference	Vaggelas G.K., Kladaki E. and Pallis A.A	International Association of Maritime Economists Conference – "Measuring the missing link in port performance evaluation: Port users' perspectives"	27-30 June 2017	Kyoto			
7	Conference	Vaggelas G.K.	8th International Congress on Transportation Research	27-29 September 2017	Thessaloniki			
8	Conference	PORTOPIA consortium	ESPO Conference 2017	01-02 June 2017	Barcelona	Industry; Policy Makers	~250	International
9	Workshop	VUB-GLINTT	UNCTAD – PORTOPIA meeting	17-Oct-17	Geneva	Policy Makers	~10	International
10	Conference	PORTOPIA consortium	PORTOPIA Final Event	09-Nov-17	Brussels	Industry; Policy Makers	~150	International

Project Periodic Report 3– Month 37 to 51

11	Conference	Isabelle Ryckbost (ESPO)	British Ports Association Conference	03-Nov-16	Dover			
12	Conference	Isabelle Ryckbost (ESPO)	Lunchpodium Port of Rotterdam	15-Nov-16	Rotterdam			
13	Course lecture	Isabelle Ryckbost (ESPO)	EU Port Policy course, Artevelde Hogeschool	06-Dec-16	Gent			
14	Course lecture	Eugenio Quintieri (ESPO)	Master course C-MAT on Port performance measurement	24-Mar-17	Antwerp			
15	Course lecture	Sotiris Raptis (ESPO)	Master course C-MAT on Port environmental management	30-Mar-17	Antwerp			
16	Conference	Isabelle Ryckbost (ESPO)	Think Climate Conference	27-Mar-17	Brussels			
17	Workshop	Isabelle Ryckbost (ESPO)	Workshop “Regeneration Port and Cities”, organised by the Maltese presidency of the Council of the EU	16-May-17	Brussels			
18	Conference	Sotiris Raptis (ESPO)	Green Energy Ports Conference	27-28 June 2017	Vigo			

19	Seminar	Isabelle Ryckbost (ESPO)	Séminaire Axe Seine - délégation normande (Committee of the regions)	21-Jun-17	Brussels			
20	Conference	Isabelle Ryckbost (ESPO)	20th International Conference on Transport and Logistics	27-29 September 2017	Odessa			
21	Conference	Isabelle Ryckbost (ESPO)	Green Shipping Summit	17-Oct-17	Rotterdam			
22	Course lecture	Isabelle Ryckbost (ESPO)	Course on EU port policy, University of Ghent	18-Oct	Gent			
23	Conference	Isabelle Ryckbost (ESPO)	Baltic Ports Conference	7-9 September 2016	Helsinki			
24	Conference	Isabelle Ryckbost (ESPO)	GreenPort Conference	13-14 October 2016	Venice			
25	Conference	Isabelle Ryckbost (ESPO)	Green Shipping Summit	18-Oct-16	Rotterdam			
26	Conference	Michaël Dooms (VUB)	5th session of the Multi-Year Expert Meeting on Transport, Trade Logistics and Trade Facilitation	24-Oct-17	Geneva			

Project Periodic Report 3– Month 37 to 51

27	Workshop	Michaël Doms (VUB)	15th PPRN workshop	26-Jun-17	Kyoto			
28	Conference	EFIP	Inland terminals conference	18-Nov-17	Basel			
29	Conference	EFIP	Danube Ports Policy day	20-Feb-17	Budapest			
30	Conference	EFIP	UNICE, inland navigation working group of the UN	22-Feb-17	Geneva			
31	Conference	EFIP	1 st Rhine-Alpine Working group IWW and Ports	27-Feb-17	Rotterdam			
32	Assembly	EFIP	EFIP Executive Committee	28-Apr-17	Szczecin-Swinoujscie			
33	Conference	EFIP	2nd Rhine-Alpine Working group IWW and Ports	15-May-17	Duisbourg			
34	Assembly	EFIP	EFIP General Assembly	13 October 2017	Paris			
35	Conference	EFIP	Inland terminals conference	10-Nov-17	Rouen			
36	Conference	EFIP	Inland Waterway Transport and Ports VIP-event	15-Nov-17	Strasbourg			
37	Workshop	Michaël Doms (VUB)	11th Port Performance Research Network (PPRN) workshop	02-Jul-13	Marseille			
38	Conference	Isabelle Ryckbost (ESPO)	OECD conference Port cities	09-Sep-13	Rotterdam			

Project Periodic Report 3– Month 37 to 51

39	Conference	Isabelle Ryckbost (ESPO)	Smart Rivers	25-Sep-13	Liège			
40	Seminar	Isabelle Ryckbost (ESPO)	Norwegian ports association seminar	03-Oct-13	Oslo			
41	Meeting	Isabelle Ryckbost (ESPO)	NVB (Dutch inland ports) annual meeting	04-Oct-13	Meppel			
42	Conference	Isabelle Ryckbost (ESPO)	BPA conference	10-Oct-13	Grimsby			
43	Conference	Isabelle Ryckbost (ESPO), Antonis Michail (ESPO)	Green Port Conference	10-Oct-13	Antwerp			
44	Interview	Isabelle Ryckbost (ESPO)	Interview PanEuropeanNetworks	17-Oct-13	Brussels			
45	Lecture	Antonis Michail (ESPO)	Lecture ITMMA	18-Nov-13	Antwerp			
46	Meeting	Isabelle Ryckbost (ESPO)	PEMA 10th anniversary	06-Feb-14	Amsterdam			

47	Working Group	Isabelle Ryckbost (ESPO)	CPRM Transport working group	27-Feb-14	Brussels			
48	Seminar	Antonis Michail (ESPO)	Baltic Ports Organisation Environmental Seminar	05-Mar-14	Gdansk			
49	Conference	Eugenio Quintieri (ESPO)	Atlantic ports, logistics and maritime transport as drivers of economic development (event organized by the EC)	29-Apr-14	Gijon			
50	Conference	Antonis Michail (ESPO)	Maritime Spatial Planning Conference	06-Jun-14	Athens			
51	Training	Isabelle Ryckbost (ESPO)	Technological innovation in Ports and Terminals training	06-Jun-14	Livorno - Venice			
52	Workshop	Michaël Dooms (VUB)	12th PPRN workshop	15-Jul-14	Norfolk, Virginia			
53	Workshop	Antonis Michail (ESPO)	Danish Ports environmental workshop	04-Sep-14	Copenhagen			
54	Conference	Isabelle Ryckbost (ESPO)	SATAMA 14 Port conference	08-Oct-14	Vaasa			

55	Conference	Antonis Michail (ESPO), Isabelle Ryckbost (ESPO)	Greenports Conference	15-16 October 2014	Barcelona			
56	Seminar	Antonis Michail (ESPO)	APEC training (seminar)	23-Oct-14	Antwerp			
57	Conference	Michaël Doods (VUB)	10th Pan African Port Cooperation (PAPC) Conference	16-19 November 2014	Kenia			
58	Workshop	Antonis Michail (ESPO)	Spanish ports environmental workshop	18-19 November 2014	Cartagena			
59	Workshop	Antonis Michail (ESPO)	APEC workshop for Indonesian ports delegation	28-Nov-14	Antwerp			
60	Event	Eugenio Quintieri (ESPO)	UIRR event on intermodal transport	04-Dec-14	Brussels			
61	Lecture	Antonis Michail (ESPO)	Lecture ITMMA Master course	28-Dec-14	Antwerp			
62	Conference	Isabelle Ryckbost (ESPO)	Conference on smart cooperation in coastal and maritime tourism	20-Jan-15	Brussels			

63	Project	Antonis Michail (ESPO)	Mermaid Project	9-10 March 2015	Coruna			
64	Conference	Antonis Michail (ESPO)	Green Ship Technology Conference	11-Mar-15	Copenhaguen			
65	Event	Isabelle Ryckbost (ESPO)	Transport Week	18-19 March 2015	Gdansk			
66	Conference	Antonis Michail (ESPO)	International Conference FUTURMED	27-Mar-15	Olbia			
67	Seminar	Antonis Michail (ESPO)	Baltic Ports Organization Seminar on OPS	15-Apr-15	Ystad			
68	Event	Antonis Michail (ESPO), Michaël Dooms (VUB)	European Maritime Days	28-29 May 2015	Athens			
69	Event	Eugenio Quintieri (ESPO)	Port Innovation Day	04-Jun-15	Livorno			
70	Congress	Isabelle Ryckbost (ESPO)	Third Maritime Congress	10-Jun-15	Szczecin			

71	Conference	Antonis Michail (ESPO)	Green Energy Ports Conference	15-17 June 2015	Vigo			
72	Seminar	Antonis Michail (ESPO)	Port environmental management seminar	18-Jun-15	Aviles			
73	Conference	G. Vaggelas & A. Pallis (University of the Aegean)	European Conference on Shipping and Intermodalism and Ports (ECONSHIP) 2015	23-26 June 2015	Chios, Greece			
74	Event	Isabelle Ryckbost (ESPO)	Presentation for Union des Ports de France	06-Jul-15	Paris			
75	Workshop	Michaël Dooms (VUB)	13th PPRN workshop	23-Aug-15	Kuala Lumpur, Malaysia			
76	Seminar	Antonis Michail (ESPO)	APEC Seminar on port environmental policy and technology	2-13 September 2015	Antwerp			
77	Summit	Antonis Michail (ESPO)	Green Shipping Summit	17-Sep-15	Genoa			
78	Congress	Antonis Michail (ESPO)	Greenport Congress	7-9 October 2015	Copenhagen			

Project Periodic Report 3– Month 37 to 51

79	Event	Eugenio Quintieri (ESPO)	WiderMos, Connecting Shipping and TEN-T Core Network Corrdors	28-29 October 2015	La Spezia			
80	Meeting	Isabelle Ryckbost (ESPO)	Irish Ports Association meeting	02-Dec-15	Dublin			
81	Lecture	Antonis Michail (ESPO)	C-MAT Master course, lecture	24-Mar-16	Antwerp			
82	Workshop	Antonis Michail (ESPO)	GLEC Transshipment Workshop	16-17 June 2016	London			
83	Conference	Michaël Doods (VUB)	AIVP/IACP world conference (on cities and ports)	5-7 October, 2016	Rotterdam			
84	Event	Eugenio Quintieri (ESPO)	Naples Shipping week	01-Jul-16	Naples			
85	Event	Antonis Michail (ESPO)	Think Climate, PIANC	07-Jul-16	Brussels			
86	Workshop	Eugenio Quintieri (ESPO)	Workshop on the future of European transport	11-Jul-16	London			

87	Workshop	Michaël Doms (VUB), George Vaggelas (University of the Aegean)	14th PPRN workshop	23-Aug-16	Hamburg			
88	Workgroup	Michael Doms (VUB), Magali Geerts (VUB)	IAPH-PIANC workgroup 174 on Sustainability reporting	20/21 January 2017	Amsterdam			
89	Workshop	Michaël Doms (VUB), Pedro Santos (Glintt)	Workshop with UNCTAD	17-18 October 2017	Geneva			
90	Conference	Michaël Doms (VUB)	PMAESA conference technical workshop on ICT and performance management	November 21 st , 2017	Livingstone, Zambia			
91	Conference	Michaël Doms (VUB)	PMAESA conference: plenary presentation of PORTOPIA results	November 23 rd , 2017	Livingstone, Zambia			

DELIVERABLES & RESOURCES											
Del. No.	Deliverable Name	Version	WP no.	Lead Beneficiary	Nature	Dissemination level	Delivery date (planned)	Delivery date (actual)	Status: Submitted/Not Submitted	Resources (Person Months)	Comments
D.1.4	Policy linkages and benchmarking suggestions (Market trends and structure)	2	1	UNIVERSITEIT ANTWERPEN	R	RE	Planned for final review (10/11/2017).	10/11/2017	Yes. Submitted. Revised version.	0,30 (UA)	Resubmission for final review.
D1.5	Combined or ratio-based indicators (including interrelations)	1	1	UNIVERSITEIT ANTWERPEN	R	PU	June 2016	August 2017	Yes.	0,30 (UA)	/
D.2.1	Socio-Economic Impact Calculation Method	2	2	REGIONALE ECONOMIE, HAVEN- EN VERVOERSEC ONOMIE (RHV) BV	R	PU	Planned for final review (10/11/2017).	10/11/2017	Yes. Submitted. Revised version.	0,33 (VUB) 1,50 (RHV)	Resubmission for final review.
D.2.2	Other socio-economic indicators	1	2	REGIONALE ECONOMIE, HAVEN- EN VERVOERSEC ONOMIE (RHV) BV	R	PU	August 2017	October 2017	Yes.	0,33 (VUB) 1,50 (RHV)	/
D.2.3	Policy linkages, interrelations and benchmarking suggestions	1	2	REGIONALE ECONOMIE, HAVEN- EN VERVOERSEC	R	PU	October 2017	October 2017	Yes.	0,34 (VUB) 1,50 (RHV)	/

Project Periodic Report 3– Month 37 to 51

	(Socio-economic indicators)			ONOMIE (RHV) BV							
D.3.3	Innovative tool for individualized environmental indicators	2	3	UNIVERSITAT POLITECNICA DE CATALUNYA	R	PU	Planned for final review (10/11/2017).	10/11/2017	Yes. Submitted. Revised version.	0,22 (ESPO) 2,00 (UPC)	Resubmission for final review.
D.4.4	Policy linkages, interrelations and benchmarking suggestions (Logistics chain and operational performance indicators)	1	4	TURUN YLIOPISTO	R	PU	April 2017	January 2017	Yes.	1,20 (UTU)	/
D.5.1	Fact Finding report 2015	2	5	EUROPEAN SEA PORTS ORGANISATION ASBL	R	PU	Planned for final review (10/11/2017).	10/11/2017	Yes. Submitted. Revised version.	0,77 (ESPO)	Resubmission for final review.
D.5.2	Governance indicators	1	5	EUROPEAN SEA PORTS ORGANISATION ASBL	R	RE	January 2017	January 2017	Yes.	0,78 (ESPO)	/
D.5.3	Policy linkages, interrelations and benchmarking suggestions (Governance and financial indicators)	1	5	EUROPEAN SEA PORTS ORGANISATION ASBL	R	PU	June 2017	June 2017	Yes.	0,78 (ESPO)	/
D.6.3	“State of European ports” report	1	6	PANEPISTIMIO AIGAIU	R	CO	December 2016	September 2017	Yes.	0,50 (VUB) 1,35 (UTU) 5,49 (UAEGEAN)	/

D.6.4	Policy linkages, interrelations and benchmarking suggestions (Port user perception indicators)	1	6	PANEPISTIMIO AIGAIYOU	R	PU	August 2017	October 2017	Yes.	0,50 (VUB) 1,35 (UTU) 5,49 (UAEGEAN)	/
D.7.3	Inland Port Performance Dashboard	1	7	FRAUNHOFER-GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V	R	PU	April 2017	October 2017	Yes.	1,00 (VUB) 1,30 (RHV) 2,83 (ESPO) 5,32 (Fraunhofer)	/
D.8.2	Interaction with other performance management systems and models	1	8	TU/e	R	PU	August 2016	November 2016	Yes.	0,71 (TU/e)	/
D.8.3	Balanced and policy related performance view (Matching Policy and Port Performance Indicators)	1	8	TURUN YLIOPISTO & VRIJE UNIVERSITEIT BRUSSEL	R	PU	October 2017	November 2017	Yes.	1,50 (ESPO) 3,60 (UTU) 6,03 (VUB)	/

D.9.2	Indicators aggregation methodology	2	9	UNIVERSITEIT ANTWERPEN & UNIVERSITA DEGLI STUDI DI GENOVA	R	PU	Planned for final review (10/11/2017).	10/11/2017	Yes. Submitted. Revised version.	0,18 (UTU) 0,20 (ESPO) 0,25 (VUB) 0,30 (UNIGE) 0,40 (UA)	Resubmission for final review.
D.9.3	Selection and customisation of benchmarking techniques	1	9	UNIVERSITEIT ANTWERPEN & UNIVERSITA DEGLI STUDI DI GENOVA	R	PU	October 2015	October 2017	Yes.	0,18 (UTU) 0,20 (ESPO) 0,25 (VUB) 0,30 (UNIGE) 0,40 (UA)	/
D.9.4	International benchmarking	1	9	UNIVERSITEIT ANTWERPEN & UNIVERSITA DEGLI STUDI DI GENOVA	R	PU	August 2016	September 2017	Yes.	0,18 (UTU) 0,20 (ESPO) 0,25 (VUB) 0,30 (UNIGE) 0,40 (UA)	/
D.9.5	ICT requirements for the benchmarking tool	1	9	UNIVERSITEIT ANTWERPEN & UNIVERSITA DEGLI STUDI DI GENOVA	R	PU	May 2017	October 2017	Yes.	0,16 (UTU) 0,19 (ESPO) 0,25 (VUB) 0,30 (UNIGE) 0,40 (UA)	/
D.10.2	Compilation of communication and dissemination material	1	10	EUROPEAN SEA PORTS ORGANISATION ASBL	R	PU	October 2017	November 2017	Yes.	3,32 (ESPO)	/
D.11.3	Knowledge Management System and standardised interface	1	11	GLINTT INOV SA	O	RE	July 2017	October 2017	Yes.	0,62 (SO) 0,75 (VUB) 10,31 (GLINTT)	/
D.11.4	European Ports Observatory data warehouse	1	11	GLINTT INOV SA	O	RE	July 2017	October 2017	Yes.	0,62 (SO) 0,75 (VUB) 10,31 (GLINTT)	/

Project Periodic Report 3– Month 37 to 51

D.11.5	Ports KPI's / Port Dashboards / Reporting Tool	1	11	GLINTT INOV SA	R	RE	September 2017	October 2017	Yes.	0,62 (SO) 0,75 (VUB) 10,31 (GLINTT)	/
D.11.6	Benchmarking Tool	1	11	GLINTT INOV SA	O	PU	September 2017	October 2017	Yes.	0,60 (SO) 0,75 (VUB) 10,29 (GLINTT)	/
D.12.2	Valorisation perspectives and strategy	2	12	VRIJE UNIVERSITEIT BRUSSEL	R	CO	Planned for final review (10/11/2017).	10/11/2017	Yes. Submitted. Revised version.	0,33 (AEGEAN) 0,37 (ESPO) 1,51 (VUB)	/
D.12.3	Integrated Business Plan and Agreement	1	12	VRIJE UNIVERSITEIT BRUSSEL	R	CO	February 2017	July 2017	Yes.	0,33 (AEGEAN) 0,37 (ESPO) 1,51 (VUB)	/
D.12.6	Evaluation report and autonomous phase preparation	1	12	VRIJE UNIVERSITEIT BRUSSEL	R	CO	November 2017	January 2017		0,33 (AEGEAN) 0,37 (ESPO) 1,51 (VUB)	/
D.12.7	3rd EPPC and final event	1	12	VRIJE UNIVERSITEIT BRUSSEL	R	CO	November 2017	November 2017		0,34 (AEGEAN) 0,37 (ESPO) 1,50 (VUB)	/
D.13.2	Project Final Report	1	13	VRIJE UNIVERSITEIT BRUSSEL	R	PU	February 2017	February 2017		6,00 (VUB)	/

Project Periodic Report 3– Month 37 to 51

Partner/Work Package	WP1	WP2	WP3	WP4	WP5	WP6	WP7	WP8	WP9	WP10	WP11	WP12	WP13	Total
VUB	0,00	1,00	0,00	0,00	0,00	1,00	1,00	6,03	1,00	0,00	3,00	6,03	6,00	25,06
RHV BV	0,00	4,50	0,00	0,00	0,00	0,00	1,30	0,00	0,00	0,00	0,00	0,00	0,00	5,80
Fraunhofer	0,00	0,00	0,00	0,00	0,00	0,00	5,32	0,00	0,00	0,00	0,00	0,00	0,00	5,32
TU/e	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,71	0,00	0,00	0,00	0,00	0,00	0,71
ESPO	0,00	0,00	0,22	0,00	2,33	0,00	2,83	1,50	0,79	3,32	0,00	1,48	0,00	12,47
UTU	0,00	0,00	0,00	1,20	0,00	2,70	0,00	3,60	0,70	0,00	0,00	0,00	0,00	8,20
SO SA	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	2,46	0,00	0,00	2,46
UAEGEAN	0,00	0,00	0,00	0,00	0,00	10,98	0,00	0,00	0,00	0,00	0,00	1,33	0,00	12,31
UPC	0,00	0,00	2,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	2,00
Glintt Ino	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	41,22	0,00	0,00	41,22
UA	0,60	0,00	0,00	0,00	0,00	0,00	0,00	0,00	1,60	0,00	0,00	0,00	0,00	2,20
UNIGE	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	1,20	0,00	0,00	0,00	0,00	1,20
Total	0,60	5,50	2,22	1,20	2,33	14,68	10,45	11,84	5,29	3,32	46,68	8,84	6,00	118,95