



DOCKS THE FUTURE

defining the concept of "Port of the Future"

Training Package

Concept & Implementation - Outline

Deliverable 5.4

Date: 16th of July 2020

This project has received funding from the *European Union's Horizon 2020 research and innovation programme* under grant agreement No 770064



| Document Status | |
|---------------------|---|
| Deliverable Lead | Magellan |
| Type | Report |
| Work Package | 5 |
| ID | Training Package - Concept & Implementation |
| Due Date | 30 June 2020 |
| Delivery Date | 16 July 2020 |
| Status | Final |
| Dissemination Level | Public |

| Document History | |
|------------------|-------------------------------------|
| Contributions | Magellan, PortExpertise, ISL, UNIGE |
| Version | Final |
| Date | 16 July 2020 |

Disclaimer

The views represented in this document only reflect the views of the authors and not the views of Innovation & Networks Executive Agency (INEA) and the European Commission. INEA and the European Commission are not liable for any use that may be made of the information contained in this document. Furthermore, the information are provided “as is” and no guarantee or warranty is given that the information fit for any particular purpose. The user of the information uses it as its sole risk and liability



| | |
|---------------------------|----|
| Framework..... | 5 |
| INTRODUCTION..... | 5 |
| OBJECTIVE | 5 |
| FORMAT | 5 |
| TECHNICAL CONTENT | 5 |
| AUDIENCE | 6 |
| MATERIAL PREPARATION..... | 7 |
| LESSONS STRUCTURE | 7 |
| RECORDING..... | 11 |
| TIMEFRAME | 12 |
| PROMOTION OUTREACH | 12 |
| CONCLUSION | 13 |
| ANNEX..... | 14 |

DocksTheFuture will further support the achievement of the Port of the Future targets in 2030, via a specific Port of the Future 2030 Road Map that will make use of a number of exploitation tools to foster this aim. Be aware of the role of education and training for people working in the port, DTF is developing a "Port of the Future" training package that could be used to support the Port of the Future concepts via professional and vocational training.

Framework

INTRODUCTION

The capacitation of human resources is essential for the efficient exploitation of the PoF concepts. By making use of data gathered within the project's activities, along with the collaborations with entities with experience on the subject like the OnTheMosWay.eu portal, as well as the DockstheFuture's own website, the project puts together a number of online courses reflecting the knowledge acquired and the concrete technical developments to further exploit.

OBJECTIVE

The aim is to inform, interact with and build synergies between the interested parties, e.g. port workers, port cities authorities, people from the clustered projects, knowledge centres or policy makers. Online courses were created based on workshop conducted by port experts always with the goal of transferring know-how on the developed concept of Port of the Future. Impacts on the future of European ports and port cities to each and every one of the participants with given innovative projects previously is identified through DtF methodology

FORMAT

The online courses are structured with a well-defined training layout, with the themes varying according to the ongoing needs of the project that are called "lessons". The participants are addressed remotely by a speaker who is supported by documentation on the theme of the course. The packages have an introduction to the course, the objectives that should be attained at the end of it, the body of technical information to disseminate in the course, and a conclusion with what the participant is expected to change with the newly acquired knowledge.

TECHNICAL CONTENT

The training package is expected to address the main themes of the Port of the Future concept, and so the content of the training is going to include the main conceptual lines,

but also the technical definitions and details of what it means embracing the elements that form a Port of the Future. The material is created with the project's own conclusions and works, the documentation and projects clustered and developed by the project, and is part of the content of the full training package e.g. the tools, and trainers are selected according to their knowledge of the specific theme of each topic.

More specifically, the topics chosen for creating the training online courses and the corresponding leaders are:

1. The Transferability Analysis for PoF solutions (PortExpertise)
2. The Project Common Index (ISL)
3. The Decision Support System (UNIGE)

Each module of the DFT training package is composed of:

- A. Online lesson – based on 20/25 ppt slides recorded during a private webinar session with well structured slides and summary notes
- B. A certificate of attendance to be downloaded directly online
- C. 2-3 pages of factsheets of the online course topic with references to the public deliverables that can be consulted in full and provide more details of the subject.
- D. A post training evaluation survey (see Annex)

The package will be available on the DTF website and will be integrated using the LearnDash Wordpress plugin tool www.learndash.com, prior to promotion and dissemination in all social media and communication platforms and virtual events. It will be made available for free to anyone interested in getting to know how future Ports are envisioned by 2030.

AUDIENCE

The audience envisaged for this training package has ideally a basic knowledge of any port operations. At the beginning of each course, it is explained what the participant shall know before taking the course. It is addressed mainly to port management operators, port cities authorities, people from the clustered projects.

MATERIAL PREPARATION

Each topic leader presents a total of 20 to 25 slides in a clear and comprehensive way, adding a live demo of the tool developed in the framework of DocksTheFuture.

The material is based on the deliverables produced during the project life and it aims to highlight in a catchy way the main points based on a more detailed work reported in this project's official deliverables.

The overall content is divided in several parts reflected in short videos with the duration of 12' maximum for facilitating the listening and comprehension of the lesson

The recorded presentations are divided in several parts, each part will be uploaded to the LearnDash platform <https://www.learndash.com/> and consequently embedded in the DocksThe Future project website. This MOOC tool represents an advantage as being friendly in navigating through the contents of each lessons within a single course and selecting the related videos/subject that one needs.

LESSONS STRUCTURE

Given the contents, each lesson has its own structure as follows:

The DtF Transferability Analysis (TA), an assessment of the capability of successfully transfer initiatives from one port to others;

| Lesson number | Name | Duration | Learning outcomes |
|---------------|----------------------------|----------|--|
| 1 | Introduction | 4:42 | <ul style="list-style-type: none"> ✓ Know-how on the concept of Port of the Future ✓ Current state of the art towards future vision 2030 ✓ The impact an innovative project could have on the future of European ports and port-cities for each stakeholder |
| 2 | TA Objectives & KPI Part 1 | 13:45 | <ul style="list-style-type: none"> ✓ DtF identified 17 High-level Strategic Objectives related to the Port of the Future projects & initiatives, 47 Tactical objectives, and 110 KPI's and their measures. ✓ Adequacy concepts (adapted by Motorways of the Seas): compliance to innovativeness and potential for peering. ✓ NICHES+ 6-step methodology |
| 3 | TA Objectives & KPI Part 2 | 10:43 | <ul style="list-style-type: none"> ✓ Contribution to one or more of the 5 WSPS Focus Areas, 10 AIVP Agenda 2030 Agenda or the 17 UNSDG's and for each their diversity in Performance |

| | | | |
|---|---------------------------|-------|--|
| | | | <p>Indicators and SMART Measures</p> <ul style="list-style-type: none"> ✓ TA-score (potential expectation) ≠ TA-index (running the Pof TA methodology) ✓ TA-index independent from project's innovativeness |
| 4 | TA methodology Part 1 | 12:51 | <ul style="list-style-type: none"> ✓ PoF TA methodology: complementary; alternative "in competition"; excluding each other ✓ Analysis of the current situation ✓ Pre-work towards the TA are first 4 steps called Risk Assessment & Management Provisions |
| 5 | TA methodology Part 1 | 14:30 | <ul style="list-style-type: none"> ✓ Project management tool ✓ Understanding the ease of transferring a solution from one port to another ✓ Understanding the set of values and assess the conditions are related to step 5 and step 6 ✓ Additional reasons for running the full TA |
| 6 | Tool demonstration Part 1 | 7:25 | <ul style="list-style-type: none"> ✓ Divided in two parts: <ul style="list-style-type: none"> ✓ High Level Strategic Objectives which have been establish by DtF for PoF program ✓ Project Evaluation Preview ✓ Entire concept of DtF solution and tools are all based on the 5 WPSP focus areas ✓ Aggregate all the scores (PCI, IC, PCT, EoT, DSS) |
| 7 | Tool demonstration Part 2 | 11:14 | |
| 8 | Tool demonstration Part 3 | 11:27 | |

The DtF Project Common Index (PCI), is a synthetic index aiming at providing information of the achievement of strategic KPIs by all relevant project;

| Lesson number | Name | Duration | Learning outcomes |
|---------------|---------------------------|----------|--|
| 1 | Introduction & Objectives | 02:01 | <ul style="list-style-type: none"> ✓ Become familiar with the objectives and KPIs for the Port of the Future concept which are developed by the EU-Project Docks The Future |

| | | | |
|---|-------------------------------------|-------|---|
| | | | <ul style="list-style-type: none"> ✓ Formulate your strategic objectives ✓ How to evaluate a project with the PCI tool |
| 2 | Docks The Future objectives and KPI | 13:49 | <ul style="list-style-type: none"> ✓ Structured in 5 WPSP areas, developed 17 high-level strategic objectives and 50+ tactical objectives ✓ High-level strategic objectives shall cover all major objectives for port projects ✓ Tactical objectives are intermediate objectives to high-level strategic objectives ✓ The objective's underlying goal is important ✓ Performance indicator is related to tactical objective ✓ Key performance indicator is related to high-level strategic objectives ✓ Large diversity of projects and ports means large spread of impact even small projects can have positive impacts in various areas ✓ KPIs quantify and classify and the impact of a project ✓ PCI score captures project's contribution to Aggregated KPIs + Innovativeness + Transferability |
| 3 | Value of Innovativeness | 04:09 | <ul style="list-style-type: none"> ✓ Port of the Future prepares ports for future challenges ✓ Port of the Future explicitly fosters innovation ✓ Scale between 0 (implement existing technology) to 4 (deployment of new, highly innovative solutions) |
| 4 | Introduction to the tool | 02:34 | <ul style="list-style-type: none"> ✓ Overview interface ✓ 5 sheets corresponding to the 5 WPSP areas ✓ Additional waste-reduction calculator and emission-reduction calculator available in the tool |
| 5 | Climate & Energy KPI | 08:59 | <ul style="list-style-type: none"> ✓ 2 relevant KPIs: reduction of port-related CO2 and waste reduction ✓ Sub-KPI calculation in tool – Waste Reduction calculator |

| | | | |
|----|------------------------------|-------|---|
| | | | <ul style="list-style-type: none"> ✓ Dredging material measured in m³ and waste in tons per year ✓ Scale score with a minimum of 1 and a maximum of 5 ✓ Possibility of customizing weighted aggregated KPI |
| 6 | Port-City Relations KPI | 09:25 | <ul style="list-style-type: none"> ✓ Scale selection of impact of each KPI in a range of 1 to 5 ✓ Reduction of air emission and noise emission are calculated in a different sheet - Emission-reduction calculator ✓ Possibility of customizing weighted aggregated KPI |
| 7 | Governance and Ethics KPI | 04:14 | <ul style="list-style-type: none"> ✓ 5 relevant KPIs: 3 KPIs with a range scale of 1 to 5, and 2 KPIs with yes/no choice ✓ Possibility of customizing weighted aggregated KPI |
| 8 | Resilient Infrastructure KPI | 03:33 | <ul style="list-style-type: none"> ✓ 3 relevant KPIs identified: for the first KPI you have 2 units to choose (TEUs or tons), the economic KPI is measured in euros per year, the last KPI is qualitatively assessed ✓ Possibility of customizing weighted aggregated KPI |
| 9 | Safety and Security KPI | 02:45 | <ul style="list-style-type: none"> ✓ 2 KPIs identified assessing the security in terms of crime/terror as well as accidents/injuries with estimated effects options of 1 to 5 ✓ Possibility of customizing weighted aggregated KPI |
| 10 | PCI calculation | 02:40 | <ul style="list-style-type: none"> ✓ Possibility to weight KPIs for a special focus in an area that are more relevant for project ✓ Cost for a specific measure required ✓ Need to set innovativeness score and transferability score between 0 and 4 for a specific measure/project |

The DtF Decision Support System (DSS), is a flexible tool to guide port planning with the aim of simplify decision making process, assuring the achievement of long-term goals.

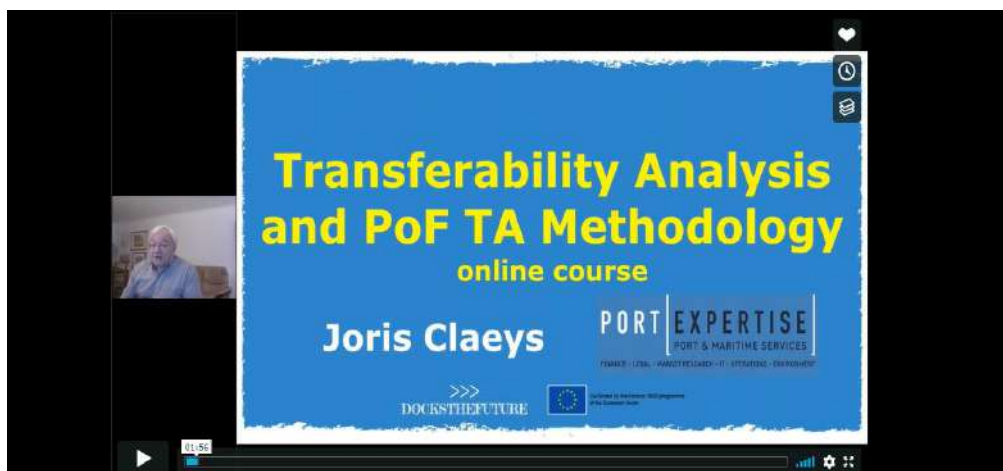
| Lesson number | Title | Duration | Learning outcomes |
|---------------|-------------|----------|--|
| 1 | DSS context | TBD | <ul style="list-style-type: none"> ✓ What is the Decision Support System tool |

| | | | |
|---|-----------------|-----|---|
| | | | <ul style="list-style-type: none"> ✓ How to guide port planning with the aim of simplify decision making process ✓ How to assess and its methodology |
| 2 | DSS tool Part 1 | TBD | <ul style="list-style-type: none"> ✓ Understanding which measures, projects, and initiatives need to be pursued in order to achieve ports' high level strategic objectives |
| 3 | DSS tool Part 2 | TBD | |

RECORDING

All three online courses are recorded in the gotowebinar platform and transported on youtube: Transferability Analysis (TA), Project Common Index and Decision Support System. Each speaker presents the contents supported by PowerPoint presentations. Below is an extract example of the first online course, Transferability Analysis.

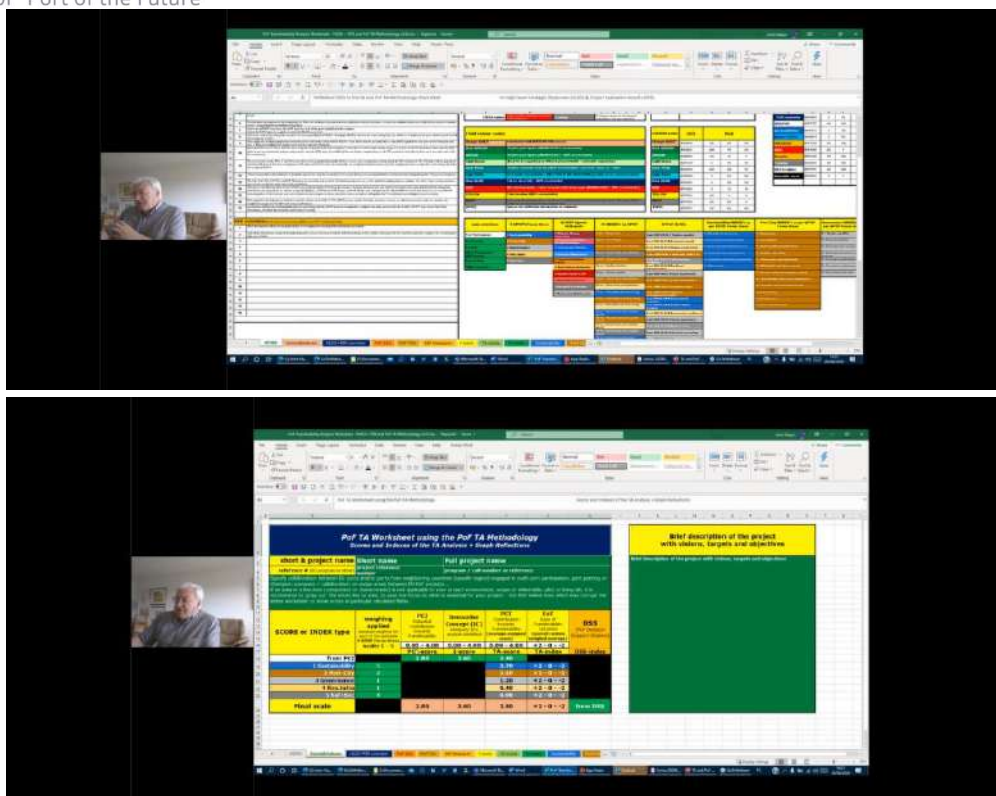
1. Transferability analysis is an index to calculate the impact that an innovative project could have on the future of the European ports and port cities to every stakeholder.



Presentation supported by PPTs

A live demonstration of the project tools i.e. TA, PCI, DSS is presented in a user-friendly manner and it is included in the online course after contextualising the rationale which is based on the full deliverables publicly available on the DockstheFuture website. These are:

- D3.3 Project Common Index: methodology for analysis and monitoring
- D3.4 Project Common Index: analysis and monitoring results
- D5.2 Port of the Future DSS tool
- D5.3 Transferability Analysis



Live project tool demonstration explaining functionalities and how to use in the spreadsheet developed ad hoc

TIMEFRAME

The 3 online courses were held and recorded during June and July 2020 using the gotowebinar platform on the following dates:

Transferability analysis: 26 June 2020
 Project Common Index: 1 July 2020
 Decision Support System: 21 July 2020

PROMOTION OUTREACH

The DocksThe Future training package is going to be published on the project website and promoted through all social media, e.g Twitter, LinkedIn, Facebook. The final event still to take place is another opportunity for further disseminating the package while the Network of Excellence represents the most effective environment for exploiting the project outcome in the long terms where the Ports adhering to the NoE have a direct link to package knowledge. Any questions or clarifications from the participants to the online courses can be address to the following email: press@circletouch.eu.

CONCLUSION

The DocksTheFuture training package aims to provide essential information on how a Port of The Future can improve its performance in order to be more efficient. The package stays alive as long as the Network of Excellence (NoE) is available to any stakeholders since it represents one of the services that the NoE offers and it is part of the project exploitation plan. All tools developed and demonstrated through the 3 online courses by the project experts intend to improve the users's skills, facilitate decisions in port operations, and ultimately transfer the knowledge acquired to other ports where needed. In leading the way towards the Port of the Future, the project provides port stakeholders an exploitable knowledge with several key outcomes that are synthesized in the training package composed of 3 online courses. The users can take the online lessons at any time, at their own pace and further deepening their knowledge through the public deliverables produced in the framework of the project.

ANNEX

Post training evaluation survey

For each of the following topics, please indicate what is their level of importance in a scale from 0 to 5, where 5 is very important and 0 means not important (these topics are related to the online course).

| Topic | 0 | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| Were your training's expectations met? | | | | | | |
| How effective was the course in achieving your learning objectives? | | | | | | |
| Was the expert knowledgeable in the subject matter? | | | | | | |
| Was the content in-depth enough? | | | | | | |
| Was the expert able to explain the topic in a way that the user can relate to? | | | | | | |
| Was the subject for the participants easy to follow and understand? | | | | | | |
| How engaging would you say the overall content was? | | | | | | |
| Was the quality of the content consistent throughout the course? | | | | | | |
| Did you learn something at this training that you will use in your work? | | | | | | |
| How would you rate the course's sequence and flow? | | | | | | |
| Were the multimedia components of the program of good quality (sound, camera, ect)? | | | | | | |
| Was the platform easy to get familiar with? | | | | | | |
| Was the language easy to understand? | | | | | | |
| Would you recommend this course? | | | | | | |



Would you like to make any suggestions to improve the course?