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Project partners keep track of the focus group sessions in their respective geographical areas and elaborate draft reports which are then collected in a final report to be produced by the WP leader (in English) summarizing the main outcomes and findings.

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#### 1. Introduction

The Deliverable reports the activity of the Project Partners for the tasks 1.1 "Involvement of key stakeholders", in the scope of the WPT1 "Development of Sustainable and Low-carbon Port Action Plans". The description covers the methodological activities of the WP Leader VIU as well as the results of the implementation phase that was performed by the PPs Ports.

Focus group sessions support the development of the Action Plan Guidelines (Deliverable T1.2.1), gathering together both institutional and non-institutional actors and stakeholders being concerned at several degrees and with different roles in the definition and subsequent implementation of sustainable and low-carbon port strategies and activities.

For facilitating PPs Ports in the design of the stakeholder engagement strategy, VIU defined a methodological tool for properly setting-up the Focus Group in each Port area (Chapter 2 of this report). The tool contains the steps on how to set the objectives and expected outcomes of the Focus Group, identify the external drivers for stakeholder engagement and the role of the Focus Group within the decision-making process of the Ports' Action Plans. Moreover, the tool provides also practical suggestions on how to organize Focus Group meetings with the aim of adopting a common transnational format among the project's partners. The indications regarded the activities for defining the participants, identifying the proper moderator/facilitator, selecting the topics to be addressed, outlining the agenda, briefing the stakeholders, preparing the relevant materials as well as any follow-up activities.

Starting from this "methodological tool", the PPs received a questionnaire/check list for designing their own strategy in the focus group organization (Chapter 3). The filled-in questionnaires are attached in Annex I.

Having defined the strategy and the contribution of the Focus Group, within the process of defining their Action Plans, PPs Ports organized the focus groups meetings between April and May 2018. The insights of the meetings are being summarized in Chapter n.4. From the project point of view, an overall look at the aggregated data that came from the meetings are illustrated (number of participants, number of stakeholders involved per typology), along with the main inputs per Port Partner with regard to the development of the local Action Plans (Chapter n.5). The entire reports of the Focus Groups (based on a common template that was provided) are attached in Annex II.

## 2. Guidelines for Focus Group organization

#### 2.1. Goal

Focus group sessions will be held in each port geographical area to gather opinions and input from institutional actors and technical and trade stakeholders involved in the definition and subsequent implementation of port strategies and activities. They should be organized prior to the elaboration of the ports' operational action plans. SUPAIR associated partners will also play an important active role in the organization and implementation of such activities, as well as participating in the respective focus groups.

#### **2.2.** Role

The purpose of focus group sessions is to discuss into detail a number of relevant topics leading to the adoption of measures aiming at moving towards more sustainable, low carbon and greener ports.

## 2.3. Participants

Focus group sessions will involve a wide spectrum of actors, all of them being concerned at several degrees and with different roles in the definition and subsequent implementation of port strategies and activities.

Institutional actors representing the decision-making level will sit together with technical and trade stakeholders responsible for implementation processes. This way, possible conflicts of interests will be taken into account from the very beginning, in order to find shared and largely agreed upon solutions allowing for a smooth implementation of the plans at a later stage.

A tentative (non-exhaustive) list of participants includes: public authorities at city, county/regional and national level, Chambers of Commerce, Port Authorities and Port Authorities' Associations, professors/researchers and technical experts, terminal operators, transport companies, shipping companies, etc. In addition to the interactions within focus group sessions, consultations with all relevant actors will continue all along the process of the definition of the plans.

#### 2.4. Results

Involved project partners should keep track of the focus group sessions in their respective geographical areas and elaborate draft reports which are then collected in a final report to be produced by the WP leader (in English). The outcomes of the sessions will be integrated in the "Guidelines for Sustainable and Low Carbon Ports" that will present the common transnational methodology including, among other things, scenario building and regulatory framework analysis, best practice assessment, data collection tools, action plans' requirements analysis, KPIs definition and assessment and monitoring activities. The Guidelines will be used as the main methodological reference in the subsequent development of the ports' operational plans.

## 3. Check-list / Questionnaire

Local conditions in project partners' port areas vary significantly by many respects (strategic vs operational targets, stakeholders' attitudes, institutional profiles of project partners, different administrative and economic framework, etc.) and should be taken into account when organizing the focus groups. For this reason, a flexible/open methodology is provided to project partners guiding them on how to properly setup the Focus Group in each Port area in the form of the following check- list.

STEP 1 - STRATEGY DESIGN

STEP 2 - SET-UP THE PARTECIPATION'S GOAL

STEP 3 - DEFINE THE PARTECIPANTS

STEP 4 – IDENTIFY THE MODERATOR/FACILITATOR

STEP 5 – SELECT THE TOPICS TO BE ADRESSED

STEP 6 – OUTLINE OF THE AGENDA

STEP 7 - BRIEF STAKEHOLDERS AND PREPARE MATERIALS

STEP 8 - MANAGE THE FOCUS GROUP

STEP 9 - FOLLOW UP ACTIVITIES

#### **PARTNER'S PROFILE**

Type of port (public/private)

Please, fill in here

Previous experiences of your team in managing focus groups

Please, fill in here

Previous experiences of your Organization in participation / engagement of stakeholders

Please, fill in here

#### **STEP 1 - STRATEGY DESIGN**

The goal is to set-up the strategic priorities for stakeholder engagement in the Focus Group. This stage is crucial to ensure the identification of material issues and stakeholders.

- Have you identified which issues appear to be most important for long-term success and sustainability of Ports' Operational Action Plan?
- Within the decision making process of the Ports' Operational Plans, which are the most important objectives that the Focus Group will help us to achieve?
- What benefits I am expecting from the Focus Group?
- What are our external drivers for stakeholder engagement? What are the risks of not engaging?

Please, fill in here

#### STEP 2 - SET-UP THE PARTICIPATION'S GOAL

Participation can be seen as a continuous scale, or continuum, ranging from low- to high-level of stakeholder involvement. These are the four (general) levels:

**Inform**: To provide the stakeholder(s) with balanced and objective information to enable people to understand the problem, alternatives and/or solutions;

**Consult**: To obtain stakeholder(s) feedback on analysis, alternatives and/or decisions. It involves acknowledging concerns and providing feedback on how stakeholder input can influence the decision;

**Collaborate/Partnership**: To work as a partner with the stakeholder(s) on each aspect of the decision, including the development of alternatives and the identification of the preferred solution;

**Empower/Control**: A process of capacitating the stakeholder(s) through involvement and collaboration so that they are able to make informed decisions and to take responsibility for final decision-making;

■ What level of commitment I am asking to the focus group members? Please select among the four above mentioned levels of participation (*Inform - Consult - Collaborate - Empower*) and motivate this choice.



Please, fill in here		

#### **STEP 3 – DEFINE THE PARTICIPANTS**

Starting from the Identification of Focus Group's goals within the ports' operational action plan (step1), which are the stakeholders that I have to involve for a good Focus Group?

The decision should consider all the stakeholders that, for different reasons, can influence the success of the plan.

Please indicate for the following categories:

- Institution denomination
- Representative

#### **PUBLIC STAKEHOLDERS**

Port community: ......
Metropolitan area: ......
Regional area: ......
National: ......
Others, including sector-specific (eg, energy bodies, etc.): ......
Chambers of Commerce:.....

#### **PRIVATE STAKEHOLDERS**

Shipper: ......
Logistics operator: .....
Forwarders: .....
Carrier (road/rail/shipping): ......
Terminal operator: .....
other: (please specify): .....

#### **EXTERNAL**

Professors/researchers and technical experts: ...... Energy providers

NGOs Others: .....

#### **STEP 4 – IDENTIFY THE MODERATOR/FACILITATOR**

Starting from the Identification of Focus Group's goals within the ports' operational action plan (step1), who is the person facilitating discussions within the Focus Group?

Journalist



- Technician
- Expert<sup>1</sup>

The moderator/facilitator should have general knowledge of the topics to be discussed in the focus group and a good experience in moderating focus groups or public debates

Please, fill in here with the profile and name of the moderator<sup>2</sup>

#### STEP 5 - SELECT THE TOPICS TO BE ADDRESSED

Starting from the Identification of Focus Group's goals within the ports' operational action plan (step1), which are the topics to be addressed?

Some hints are following:

- Common definitions<sup>3</sup>\*\*, for instance gathering participants 'opinions on the SUPAIR general topic:
   "sustainable port as a key element of wider low carbon mobility strategies" (what is a sustainable port?)
- Detailed challenges and opportunities of current scenario leading to the adoption of SUPAIR proposed measures and solutions
- Port community needs and requirements
- Technical features and impacts of proposed actions
- Potential conflicts of interests while implementing actions
- Coordination issues among plans at different levels (regional, metropolitan, local, etc.)

Please, fill in here

### STEP 6 - OUTLINE OF THE AGENDA

Please provide the draft agenda of the Focus Group's meeting Proposed structure:

- Registration & welcome coffee
- Opening speech (by the moderator/facilitator)

<sup>&</sup>lt;sup>1</sup> including SUPAIR technical partners

<sup>&</sup>lt;sup>2</sup> 5 out of 7 port authorities have dedicated budget under the "External expertise and services" budget line to hire a focus group moderator.

<sup>&</sup>lt;sup>3</sup> common definitions could indeed feed the Transnational Strategy as a kind of common standards of sustainability in ports

- Short SUPAIR project presentation and agenda
- Objectives and output
- Short stakeholders presentation
- Discussion on the list of topics
- Wrap-up & summary (by the moderator/facilitator)
- Outcomes evaluation (eg, questionnaire)

Please, fill in here your draft agenda

#### STEP 7 - BRIEF STAKEHOLDERS AND PREPARE MATERIALS

The local Port Authority has to develop and provide the participants with the briefing materials needed to ensure the success of the focus group. Comprehensive and balanced briefing materials will be made available to participants in good time.

These materials should be considered (minimum):

- The purpose and scope of the involvement
- Info about SUPAIR Project
- Focus group agenda

### STEP 8 - MANAGE THE FOCUS GROUP

Some practical aspects must be cared for handling the focus group meeting:

- Starting the meeting with a welcome coffee
- Foreseeing also some refreshments for a break or for the meeting's closure.
- Setting the room properly for a working session, i.e. with a layout of the tables facilitating the viz-a-viz discussion ("U" shape of the tables or a round table). Please avoid conference-like or cathedra-like shape.
- Having an active role of the facilitator in managing the work of the focus group, i.e. facilitating the
  discussion, getting the involvement of the attendants, maintaining the discussion on the topics of
  the agenda, caring on fulfilling the scheduling.
- Foreseeing a person of the team who takes notes of the discussion and support the facilitator.

#### STEP 9 - FOLLOW UP ACTIVITIES

Following focus group activities, local project partners are asked to prepare a draft report according to the proposed common structure in which outcomes are elaborated and main findings summarized. Draft report contents should then be shared with participants to get possible feedback. Subsequently, it has to be sent to WPL by the end of March. WPL will prepare the final report which will feed the upcoming Guidelines.

## 4. Findings from the focus groups

In this section, the figures resulting from the reports of the focus groups meetings (the entire reports are in the Annex II) are commented. The aim is to have an aggregated picture at the project level for comparing the different strategies adopted by the PPs Ports. As for the number of participants and stakeholders involved (Fig. 1 and Fig. 2), the data reflect the spectrum of ways for engaging relevant stakeholders. These different approaches vary from the case of Koper, where along with the local organizations, citizens and associations also attended, reflecting the needs of engaging the local community into the development of the Action Plan. On the other hand, the case of Trieste reflects the choice of the Port to work with a small group of people targeting the intermediary associations of terminal operators and freight forwarders. Being the most critical issues different from one port to the other , the variety of actors involved is a natural rational consequence.

Looking at the typology of the stakeholders involved (Fig. 3), data indicate the different role, contribution and strategy of the Focus Group adopted by the PPs ports. The PPs Ports achieved a balanced participation of stakeholders among Public Authorities, Research Institutions and Private Companies (see also the breakdown of the stakeholders involved in each Port in the Tab 1). On the other hand, the case of Venice (just Privates involved) suggest that the goal of the Local Action plan will need the commitment of the Port in offering information and reaching the involvement of Privates more than enforcing the partnership with other Public Authorities.

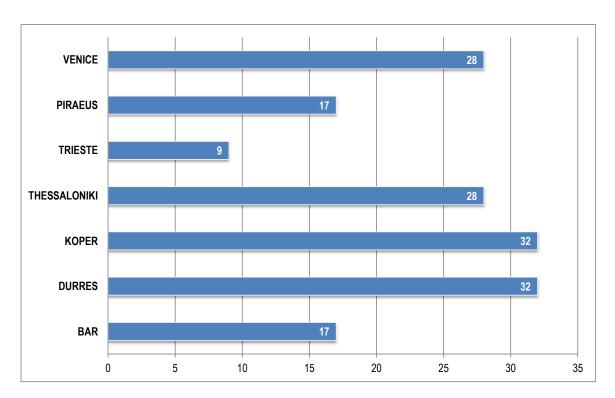


Fig. 1 Focus Group meetings: number of participants per PPs Ports

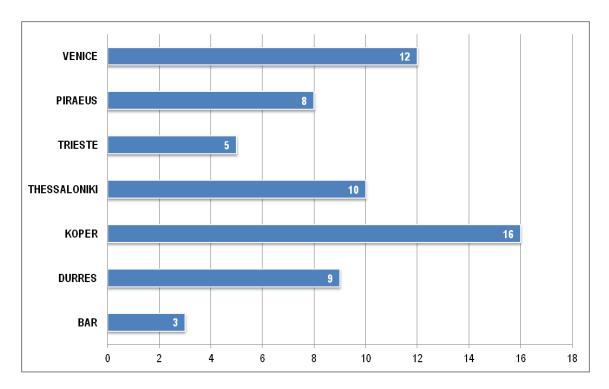


Fig. 2 Focus Group meetings: number of stakeholders involved per PPs Ports

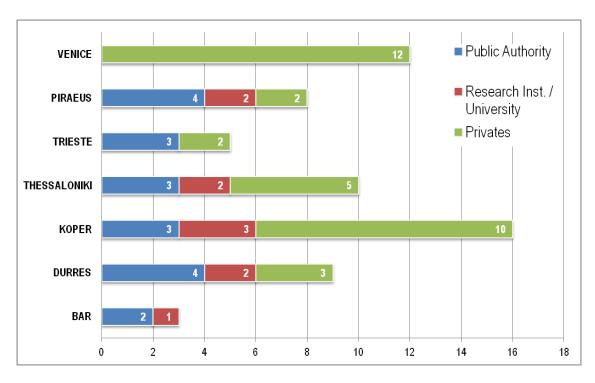


Fig. 3 Focus Group meetings: number of stakeholders involved per typology and per PPs Ports

PORTS	N. PARTICIPANTS	N. STAKEHOLDERS INVOLVED
01 - BAR	17	1 National Authority + 1 Educational institution + 1 Port Authority
02 - DURRES	1 <sup>st</sup> meeting <b>18</b>	1 Public Authority (Durres Municipality) + 1 Albanian Institute of Transport + 3 Private Operator (1 Terminal and 1 shipper, 1 association)
02 - DURRES	2 <sup>nd</sup> meeting <b>23</b>	4 Public Authority (Durres Municipality, 1 Ministry of Tourism and Environment, Durres Prefecture, Regional Council of Durres) + 2 University / Albanian Institute of Transport + 3 Private (Travel Agencies)
03 - KOPER	32	3 Public Authority + 3 University / Research Inst. + 10 Privates
04 - THESSALONIKI	28	3 Local Public Authority + 2 Research Body / University + 5 Privates
05 - TRIESTE	9	3 Public Authority (1 National, 1 Regional, 1 local) + 2 Privates Associations (Logistic operator, Freight Forwarders)

06 - PIRAEUS	17	4 Public Authority/Agency (2 National, 1 Regional, 1 local) + 2 University / Research Inst. + 2 Public Energy Corporation
07 - VENICE	28	1 Public-Privat Association + 11 Privates (10 Terminal Operators + Public Utilities Agency)

Tab 1 – Focus Group meetings: number of stakeholders involved per typology and per PPs Ports

## 5. Inputs to the Action Plans development

In the following pages, one sheet per PPs Ports summaries the inputs raised in each local contest for the development of the Action Plans. The entire reports are attached in the annex II.

# 01 - PORT OF BAR



## **MEETING RESULTS - INPUTS FOR THE ACTION PLAN**

#### **BENEFITS**

- Recognized principal directions of the port EMS development;
- Agreed cooperation between the stakeholders in the field of improving port EMS;
- Identified key bottlenecks of the port EMS efficiency;
- Confirmed the highest possible importance of the implemented cargo handling technologies for optimizing environmental aspects in the ports;
- Defined necessity of investing in increasing utilization rate of renewable energy sources in the ports (solar energy, LNG...)

#### **PROBLEMS**

- Lack of necessary regulations in national/local policies especially those related to renewable energy sources;
- Insufficient investing in developing cargo handling technologies in the ports;
- Low general awareness in contributing to the EMS improvements (waste selection);
- Not optimal level of knowledge related to the potentials of using renewable energy sources in the ports;

## 02 - PORT OF DURRES



#### MEETING RESULTS - INPUTS FOR THE ACTION PLAN

## **Durres Port Authority Suggestions:**

- Improving the mobility pathway of passangers/tourist at ferry/cruise terminal in/out.
- Laying of ecological containers at the outer port facilities. We think these baskets are to help us to differentiate waste collection.
- Revitalization of Green Spaces through the Port Territory.

#### **Municipality of Durres Suggestion:**

- Establishing an e-biking rental/sharing service in the cruise terminal, (linked to the city service)
- Establish Info Points along all touristic paths within the city.

## **Albanian Institute Suggestions:**

- Improve accessibility for disabled low mobility passangers.
- The pedestrian crossing, located near the ferry Terminal, which starts from the city Train station and ends at the ferry terminal facilities.

### **Ministry of Tourism & Environment**

 The Ministry of Tourism and Environment has been engaged for years in the revitalization of green spaces throughout the country. The ministry's representative strongly supported the suggestion of the Port of Durres to choose the option of revitalization of the green spaces. The Albanian government's mission is integration into the EU and the environment is a fundamental aspect for a European country.

#### **Travel agencies**

 The travel agencies supported the idea of establishing an e-biking rental/sharing service in the cruise terminal, (linked to the city service). This service will help them in the touristic season so the passengers will have a friendly transport from the cruises and ships at the port to the city center

## 03- PORT OF KOPER



#### **MEETING RESULTS - INPUTS FOR THE ACTION PLAN**

- "The townspeople have been warning of noise for a long time, while a drop ship over the edge was a container ship MSC Katrina, a month ago": Koper's townspeople require decisive and prompt action to limit noise from the port, and the management responds that it has 38 measures ready and is ready to listen to people. Citizens have warned of the noise for a long time, and a drop over the edge was a container vessel MSC Katrina of the Italian shipping company MSC, which shortened three days of sleep.
- According to harbor regulations, the noise of the day must not exceed 73 decibels, in the evening of 68 and at night 63 decibels. If during the day it is not so disruptive, because it comes from other sources, it is completely different at night. Koprivnik Silvo Pahor said: "The most disturbing are ro-ro ships, which have been berthed the last two years in the first basin, almost literally in front of our bedrooms. We awake on the night seven times, we cannot sleep —
- administration to continue these activities.
   There is still a current green obstacle that

- the man describes this, so we demand immediate action by Luka Koper."
- Sabina Mozetič, the director of the municipal administration of Koper, warned that the most disturbing were the ships that are berthed to the so called "zero pier", where there are also passenger ships. But the latter are not a problem because they leave the port during the evening hours, while the cargo vessels have ignition generators and cooling and ventilation devices that exceed the noise limits.
- "As early as 2004, we agreed with thendirector of the Port of Koper Brun Korelič, that ships would move to more remote berths, but this wasn't realized in all these years. With the previous administration, we agreed on a common fund, in which the municipality would also contribute to help the nearest inhabitants repair facades, windows and doors in order to at least partially defend themselves against the worst. We have great confidence in the new
- Among the 38 measures, the sound insulation of cold stores near the city is planned, as well as the installation of an

- would go from "Kroštola" to the old wall. Because of the fear of noise in the administrative procedure, we are opposed to the extension of the first pier. If they wish to find a common language and protect the inhabitants from noise, the port and city would have been easier to co-exist, "Mozetič said.
- Jadran Klinec, director of the Maritime
   Administration of the Republic of Slovenia,
   says that international legislation did not
   provide with limit values for noise from
   vessels, and this should be done at a
   national level. "We repeatedly called on the
   Ministry of the Environment, but they don't
   understand how important this is for the
   development of the economy. If they had a
   legal basis, the shipowners would be
   sanctioned or you would have to replace
   bulky ships. There is a lack of
   understanding of the state, "Klinec believes.
- The Port of Koper has joined the Neptunes association with ten other European ports to try to set standards for controlling and limiting noise. Chairman of the Management Board, Dimitrij Zadel, told the people of Koper that the problems are aware: "We are trying to do everything to mitigate the negative effects. We are dealing with 38 measures. Of course, it cannot be done overnight. In a year, we will build a new ro-ro mooring, which will be far enough from the city."
- Boštjan Pavlič, head of the field of employee for Health and environmental protection in the Port of Koper, said that they already purchased ten electric bridge lifts in order to replace all sound warning devices with quieter ones, they have installed the power station for tugboats and military ships, they've limited the speed in the port, noise measurements are constantly posted on the web portal, they will place the tires on the containers and will replace the shafts on the ground with flat ones.

- anti-noise wall, the measurement of noise from vessels, the tethering of the noisier to the farther pier and the preparation of a study of electrification of the port. The measures include the extension of the quays, which are opposed by the municipality of Koper.
- Jure Prezel from the Faculty of Mechanical Engineering in Ljubljana emphasized that noise pollution has the biggest problem in the low frequency, which the younger do not even perceive. According to him, the problem would have to be solved even at the source with silencers, but for that there is no legal basis in the world.
- Among the possible noise reduction measures, there is the construction of a high warehouse between the city and the pier, an anti-noise barrier and even the installation of loudspeakers that would eliminate noise from the vessels with an alternative noise. Among the more innovative measures could be fountains that would override noise by noise of water, or the afforestation of the border between the city and the port.
- The port's electrification would be a bit of a bite. In the port, it would take 78 to 103 megawatt of power (the current connection power of the Port of Koper is ten megawatts), which is as much higher electricity need as, for example, produced by HPP Vuzenica. In addition, 63 million euros of investments would be needed to set up new electricity infrastructure. Of the 2,000 vessels that are currently entering the Port of Koper each year, they have not yet found any vessel that could be connected to an electrical installation.

# 04- PORT OF THESSALONIKI



#### MEETING RESULTS - INPUTS FOR THE ACTION PLAN

- The Municipalities of Thessaloniki and Delta are both in the process of implementing their Sustainable Urban Mobility Plans. Since their plans are not ready yet, the SUPAIR Focus Group gave these two Municipalities the opportunity to consider and discuss the issues pertaining to the port.
- One of the main issues for the Municipality of Thessaloniki is the port's rail access point. Trains serving the port now enter the port area through Gate 11 as illustrated in the following link
- https://goo.gl/maps/vdR9Egj65RK2. The municipality of Thessaloniki considers within its planning to transform this road into a traffic calming zone and move the train's access gate to the west side of the port.
- Such a change would largely comply with the urban mobility planning of the Municipality.
- stemming from other parties such as the custom office, also need to be efficiently tackled. This issue will be taken into careful account when designing the truck flow management plan within the framework of the port's Action Plan. In addition,

- For Delta Municipality the main issue proves to be the management of truck flows serving the port. It was highlighted that there is a great need to design, within the boundaries of the Municipality, parking spaces for trucks idling outside the port and this will be included in the Sustainable Urban Mobility Plan of the Municipality.
- Another issue of great importance that was brought up in the discussion was the urgent need to complete all infrastructure projects that will ensure that the port is efficiently connected with the national road and rail network. The Greek State needs to speedup the relevant processes and conclude the necessary works as the latter are essential for decongesting Gate 16, and reduce in this way the number of idling trucks, as well as provide the proper ground for changing the port's modal share in favor of rail transport.
- Within the above context, the significant delays that trucks are experiencing
- In relation to the port's Energy Management Plan, there was also no conflict with the existing Sustainable
- Energy Action Plan of the Municipality of Thessaloniki. There is a potential for ThPA

- automation opportunities with regard to gate processes will also be considered since they can significantly contribute towards reducing existing delays.
- All participants provided their support to the interventions foreseen in the SUPAIR Action Plan of the Thessaloniki Port Authority and no conflicts arose with the planning at the local and regional level. On the contrary, areas of alignment were identified and the participants agreed that the focus group meeting served as a starting basis for their cooperation and integrated planning.

to also act as a producer of electricity, exploiting renewable energy sources (e.g. by installing photovoltaic panels with net metering), and significantly reduce in that way the associated energy costs. Furthermore, there is a potential for renegotiation of electricity costs and tariffs with PPC SA that could result to reductions of costs for Thessaloniki Port Authority which is considered an important costumer

# **05 - PORT OF TRIESTE**



#### **MEETING RESULTS - INPUTS FOR THE ACTION PLAN**

#### **POSITIVE FINDINGS**

- Evolution of regulation and technology readiness to further support the development of effective low-carbon solutions for maritime transport;
- Existing stable cooperation among all public and private stakeholders and reciprocal supportive dialogue;
- Shared common interest and objectives;
- Relevant previous and on-going experiences from other EU projects > key lessons learnt to be re-used.

#### **CHALLENGES**

- Still on-going preparation of the national guidelines for the development of the Port Energy Plan;
- Need to integrate incentives and disincentives in national policies, including regulatory, economic and fiscal measures;
- Lack of national dedicated funding scheme

## **06- PORT OF PIRAEUS**



#### **MEETING RESULTS - INPUTS FOR THE ACTION PLAN**

The Focus group meeting involved a wide spectrum of actors, all of them being actively involved in the fields of port carbon footprint assessment and energy management planning, covering different aspects with regard to the implementation of strategies and activities related to the environmental priorities of the port. The Action Plan to be developed for the Port of Piraeus will focus on 2 key interventions:

 Development of a system for the detailed calculation and assessment of the carbon footprint of port activities, with the aim to define existing inefficiencies and gaps and investigate, through a best practice review, appropriate measures for addressing them. Special attention will be paid to technical feasibility and financial sustainability will be assessed.

as well as for the alignment and effective coordination of port strategies with relevant local strategic plans such as regional transport

2. Establishment of an energy management plan, with the framework of which an energy mapping and consumption assessment process will be undertaken, enabling to identify the port's main energy consumers and define and prioritize, as a next step, promising technologies that can be implemented for improving the port's energy efficiency. Special attention will be paid to electrification (e.g. use of electric vehicles serving passengers from the cruise terminal) and the wider exploitation of RES (e.g. solar covering the energy requirements of port activities / buildings, etc.).

Different points of view were expressed during the meeting when discussing challenges and opportunities for moving towards a sustainable and low-carbon port,

 Use of alternative fuels such as LNG and promotion of natural gas, indicating the potential of

plans, SEAPs, SECAPs and SUMPs (existing or under preparation). The dynamics of PPA SA to further enhance environmental performance were underlined during the meeting both for the passenger and container terminals highlighting the great need of undertaking sustainable interventions, actions and strategies for the port. Additionally, it was highlighted that a main issue affecting the overall environmental performance of the port, is the absence of a detailed and reliable database setting a solid baseline upon which future port actions and strategies can be structured. As far as the carbon footprint assessment system is concerned, there is a need to adopt a hybrid system that combines both pollutant measurements and calculations to solve this issue of data availability and accuracy.

Key issues that both interventions should take into consideration, as discussed amongst the participants of the Focus Group, include the following:

- Efficient management of traffic in the port area considering also associated implications to the nearby urban roadway network
- Accessibility to the hinterland including rail connection
- Sufficient parking areas
- Modernization of diesel equipment in the port area
- Improvement of the quality of conventional fuels
- Reduction of NOx concentration in the port area resulting from vessels' operations
- Investigation of the implementation of on-shore power systems (OPS), taking into consideration The reduction of air emissions but also the life cycle of energy production (i.e. a significant share should be produced from renewable energy sources)

development of the required infrastructure and the provision of financial incentives were highlighted as important elements for driving the required investments. Successfully addressing all the above issues requires the participation of various organizations and experts, who can collectively ensure the delivery of the expected outputs. Therefore all participants pointed out the necessity for efficient coordination and

- Relevant technologies to achieve a 90-100% reduction of sulphur emissions, 25% reduction of Carbon dioxide and 70% of particulates
- Use of scrubbers which extract SO2 from fuel

As far as the efficient management of the port's energy consumption is concerned, the efficient and detailed mapping of the latter is being considered as a precondition for successfully identifying major energy consumers, identifying actions to cost-effectively meet the port's energy requirements and efficiently monitoring the process towards further improving the port's energy profile. Within the meeting, various best practices and future actions were mentioned and analyzed that can also be applied in PPA SA, including the upgrade of the port as an energy hub, Smart Grids, battery management systems, energy bunkering, where the port will have the capacity to store energy in the evening and provide it to the grid in the morning, and the concept of energy clouding, a solution that can be adopted when there is not enough energy storage space in ports. Additionally, significant steps to be taken towards the effective accommodation of electric ships were discussed, including: a) tax-free electricity to be used for the powering of vessels when in ports (in accordance with existing marine fuels), b) the increase of the use of renewable energy sources in the port, in combination with energy storage facilities (e.g. provided at local level), c) co-generation of electricity from clean fuels (eq LNG) and d) the development of targeted solutions addressing the existing needs and priorities of the port such as mobile cold ironing, which can significantly lower down implementation costs. Overall, the identification of interest groups for the

collaboration amongst relevant stakeholders and commonly acknowledged this meeting as the starting point of a targeted group that will support all project activities thus ensure the alignment of different initiatives currently undertaken or foreseen, sharing all relevant knowledge among the group, setting in that way basis for collective, combined benefits to be achieved and avoiding any duplication of work.

# **07- PORT OF VENICE**



#### **MEETING RESULTS - INPUTS FOR THE ACTION PLAN**

#### **STRENGTHS**

- Port of Venice is a green port that strives to further reduce port operations carbon footprint
- 2. Port stakeholders fully support this policy with innovative applications

#### **WEAKNESSES**

 Different levels of Laws and guidelines can rule out the private appetite for port investments

#### **OPPORTUNITIES**

- 1. Public funding blended with private capitals and financing
- 2. Applying KAIZEN and other total quality procedures in the companies, so to help reduce energy-intensive operations

#### **THREATS**

 Public Private cooperation is needed to achieve further developments in order not to to leverage the results and harmonize energy consumptions in the public and private areas of the Cargo commercial port of Venice Marghera (high complexity one of the biggest industrial areas in Europe - 2000 ha)

## **ANNEX I – Questionnaires on Focus Group strategy**

- Port of Bar
- Port of Durres
- Port of Koper
- Port of Thessaloniki
- Port of Trieste
- Port of Piraeus
- Port of Venice

## **ANNEX II – Reports of Focus Group meetings**

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- Port of Durres
- Port of Koper
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