



**„Port dues strategies and incentives for cruiseline companies for using green port features.”**

## **The Concept Study overview**

**Jakub Piotrowicz, Maritime Institute in Gdańsk**

at the Green Cruise Port Workshop in Kaliningrad, 29.08.2018

Kaliningrad /Russia, 28<sup>th</sup> - 31<sup>st</sup> 2018

# Port dues strategies and incentives for cruise line companies for using green port features

## About Maritime Institute in Gdansk

- Research & Development organization established in 1950 by Ministry of Maritime Transport and Economy (currently Ministry of Maritime Economy and Inland Navigation);
- Leading Polish Institute with ca. 200 employees and 6 Scientific Departments (Economics and Law, Ecology, Environmental Protection, Operational Oceanography, Hydrotechnics, Maritime Electronics) ,Scientific Library and independent Laboratories e.g. Spatial Planning;
- Large research experience in EU co-financed projects (BSR, South Baltic, BONUS , Horizon 2020 programmes etc.) – some selected projects include Green Cruise Port, Cleanship, Trans Baltic, Baltic Master, Submariner, SHEBA, Inter Baltic among others.



## Maritime Institute in Gdansk is Action Leader of Green Cruise Port Work Package 4

Conducting of two Concept Studies:

- **Common standards in the measurement of economic effects by cruise tourism - task 4.1.1 (a) accompanied by Workshop in Gdansk (completed)**
- **Port dues strategies and incentives for cruise line companies for using green port features - task 4.1.1 (b) concluded – the Study will be ready for comments in early Sept**



Port dues strategies and incentives for cruise line companies for using green port features

## Maritime Institute in Gdansk in the Green Cruise Port

„Port dues strategies and incentives for cruise line companies for using green port features „ - task 4.1.1 (b)

Concept study – the final structure:

- General meaning and economic/environmental and human-wellbeing importance of port dues and incentives
- Legislative background : IMO regulations (e.g. on Annex VI on NOx SOx, wastewater ban, new Marine Environment Protection Committee (MEPC) CO2 goal
- Overview of the current used incentives in the BSR with focus on cruise industry, environment and sustainability e.g., Environmental Shipping Index (ESI), Environmental Port Index (EPI), Clean Shipping Index (CSI), RightShip , LNG discount etc.
- Best practices from the global solutions (USA, Asia, Middle East)
- Prospects of new port dues strategies and incentives to make cruise industry greener
- OPS issues
- Required standards and best practices in the cruise industry development
- Recommendations

## Port dues strategies and incentives for cruise line companies for using green port features

# Maritime Institute in Gdansk in the Green Cruise Port

„Port dues strategies and incentives for cruise line companies for using green port features ”- task 4.1.1 (b)

### Methodology:

- Collection and assessment of information regarding successful incentives in cruise ports and attracting port calls of “green” cruise lines
- Available materials overview e.g. EU study „Study on differentiated port infrastructure charges to promote environmentally friendly maritime transport activities and sustainable transportation”
- Analysis of data received from ports (port dues / incentives pricelists), Environmental Ship Index/Clean Shipping Index organizations (Maritime Institute in Gdansk acted as one of supporting Partners of Clean Shipping Index), regions and cruise lines
- Analysis of economic and environmental impacts of incentives
- Conclusions from the GCP workshop in Riga on green port features and incentives
- Collaboration with other GCP Partners and external consultations.

# GREEN PORT FEES DEFINITION

- Green port fees are a market-based tool to address environmental impact of the shipping sector.
- They can be understood as differentiated port fees, dues, or incentives based on ship emissions (e.g. NOX, SOX, CO2), pollutants or other “green” features of the ship, e.g. OPS (onshore power supply)
- Green port fees are already implemented in several Baltic ports (starting from Sweden since 1998) aiming at reducing different types of negative environmental impacts from the shipping.
- This policy instrument can be designed to address different issues like air pollution, greenhouse gases, emissions to water, noise and other sustainability issues

Voluntary ship rating systems are used as basis for discounts including:

- Environmental Ship Index (ESI)
- Environmental Port Index (EPI)
- Blue Angel
- Green Award for (does not correspond to cruisers)
- Clean Shipping Index (CSI)
- Right ship

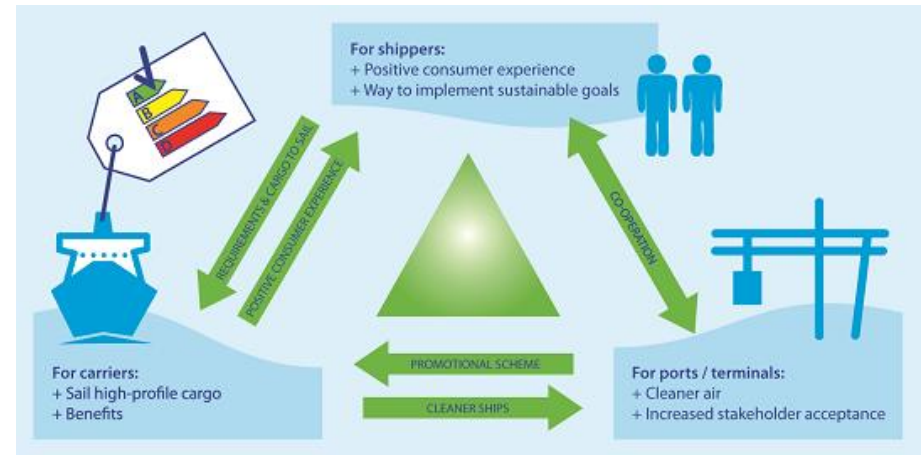
## Voluntary systems used in the selected European ports

Own elaboration based on EU study/SHEBA

Country and Port		Charge Item	Green Incentive Scheme	Ship Rating System
LV	Free Port of Riga	Port Fee	Discount	Green Award
LT	Port of Klaipeda	Sanity dues	Discount	Green Award
BE	Port of Antwerp	Port dues	Discount	IMO, Engine Standard
BE	Port of Zeebrugge	Tonnage dues	Discount	ESI
NL	Port of Rotterdam	Port fees	Discount	ESI, Green Award
NL	Port of Amsterdam	Port fees	Discount	ESI, Green Award
SE	Port of Gothenburg	Port dues	Discount, Additional Levy	ESI, LNG Fuel, Vessels` structure (double bottom and double sides)
SE	Port of Stockholm	Port fee	Discount, Reward	LNG-powered Vessel, Nitric Oxide Certificate issued by Swedish Maritime Administration, Shore Power connection
DE	Port of Kiel	Port charge	Discount	ESI
DE	Port of Rostock	Port dues	Redaction of sur-charge	ESI, Marine diesel with a sulphur content of $\leq 0.1\%$ LNG or a technolog leading to equivalent emission levels, Shore Power connection

## Environmental Ship Index (ESI)

- A voluntary system designed to improve the environmental performance of sea going vessels, developed through World Ports Climate Initiative (WPCI) and the International Association of Ports and Harbors (IAPH) focused on minimizing of ship emissions (SOx, NOx and in longer terms CO2)
- The ESI formula is built up of different parts for NOx, SOx and CO2; additionally a bonus is awarded for the presence of an On-shore Power Supply installation (OPS). The ESI Score ranges from 0 for a ship that meets the environmental performance regulations in force to 100 for a ship that emits no SOX and no NOX
- Participating: several cruise operators and global ports in Europe e.g. Rotterdam, Amsterdam, Hamburg, Rostock, Göteborg, Bergen, Helsinki, Oslo.



Picture: ESI



## Clean Shipping Index (CSI)

- Independent and holistic labelling system of vessels' environmental performance; a practical tool for differentiating port- and fairway fees or choosing more sustainable shipping alternatives.
- Focused on minimizing of ship emissions (SO<sub>x</sub>, NO<sub>x</sub>, CO<sub>2</sub>), chemicals, waste & water, particulate matter
- Reduced port fees by: Brofjorden, PetroPort, Port of Gothenburg, Port of Vancouver, Port of Prince Rupert, Port of Gävle



Picture: CSI

## Environmental Port Index (EPI)

- In June 2017 Norwegian ports have agreed upon a model for a future Environmental Port Index (EPI) which will focus on emissions from ships while at berth.
- „One of the goals of the EPI is to visualize the good work the ships already do to reduce their emissions and their environmental footprint.” – Even Husby, Head of Environment at Port of Bergen
- Current participants in the project are Port of Bergen, Port of Stavanger, Port of Oslo, Port of Aurland/Flåm, Port of Stranda/Geirangerfjord, Port of Ålesund, Port of Molde & Romsdal, Port of Trondheim, Port of Eidfjord, Cruise Destination Hardangerfjord, Port of Tromsø, Norwegian Ports Association, Innovation Norway and The Norwegian Coastal Administration.



Picture: Erik Ask

Port dues strategies and incentives for cruise line companies for using green port features

## „Port dues strategies and incentives for cruise line companies for using green port features ”- task 4.1.1 (b)

### Example from Port of Helsinki

The environmental discount can only be applied for under one of the following three categories. The discount can be up to 3% off the vessel charge and is granted based on a free-form application submitted to the Port, detailing the discount category that the application pertains to as well as the information requested for the category in question, as detailed below.

#### 1. Low emissions

If the vessel has a valid ESI certificate with

- an ESI score of  $\geq 80$ : 3% discount on the vessel charge (e.g. LNG vessels)
- an ESI score of  $\geq 65$ : 2% discount on the vessel charge (vessels that use onshore power while docked at the port, for example)
- ESI points granted for the installation of onshore power supply systems (10 points) are included in the calculation only if the vessel regularly uses onshore power while docked at the Port of Helsinki.

Port dues strategies and incentives for cruise line companies for using green port features

## Maritime Institute in Gdansk in the Green Cruise Port

„Port dues strategies and incentives for cruise line companies for using green port features” - task 4.1.1 (b)

Example from Port of Helsinki (cont.)

### 2. Output noise level

If the vessel's total noise emissions, meaning its maximum sound power level (LWA), while docked at the passenger harbour is below 105 dB, a 2% discount is granted on the vessel charge.

### 3) Environmental innovations/investments

A discount of 1–3% on the vessel charge may also be granted based on investments or innovations that improve a vessel's environmental or energy efficiency, reduce emissions or improve noise abatement.

Additionally: lower waste charges for international cruise ships leaving wastewater in Helsinki.

Port dues strategies and incentives for cruise line companies for using green port features

## Maritime Institute in Gdansk in the Green Cruise Port

### The Polish case:

- 2018 cruise calls: Gdansk: 74, Gdynia: 54, Szczecin: 3
- no special incentives for green ships – Polish ports (Gdansk, Gdynia) use standard
- port dues tariffs (tonnage dues for passenger ships/ferries, waste reception, wharfage and passenger fees) and do not belong to ESI/CSI;
- Cruisers do not have special place in port tariffs list (Gdynia – document from 2007, Gdansk – from 2009);
- NO SPECIAL GREEN FEES ARE DISCUSSED

## EU study „Study on differentiated port infrastructure charges to promote environmentally friendly maritime transport activities and sustainable transportation”\*: THE CRUISE INDUSTRY SCENARIO

„The cruise industry has very specific needs when it comes to environmental charging, which may be different from other shipping sectors. Indeed, a cruise ship that typically calls a certain number of ports (cruise itinerary) several times throughout the year would benefit from a more consistent approach to environmental charging, because that would make it possible to obtain reductions on port dues or waste collection fees in every port of call, based on a set of similar rules. This, in turn, would allow cumulating the rebates, while at the same time reducing the administrative and technical costs of becoming compliant with the scheme. However, at present, environmental charging in the EU is far from being applied consistently throughout ports, with different ports applying different schemes, offering different rebates, and rewarding different environmental programmes (e.g. Environmental Ship Index, Green Award, etc.).

A scenario is thus developed to test whether and to what extent the cruise industry could benefit from a more consistent approach to environmental charging. The scenario envisages several ports adopting the same type of scheme, in such a way as to determine what would happen if a cruise ship were applied the same scheme in every port of call of her itinerary. The scenario envisages a ship calling at 5 different ports across the Mediterranean and the Atlantic Ocean (....) ”

More on:

[\\*https://ec.europa.eu/transport/sites/transport/files/2017-06-differentiated-port-infrastructure-charges-report.pdf](https://ec.europa.eu/transport/sites/transport/files/2017-06-differentiated-port-infrastructure-charges-report.pdf)

# Selected conclusions

- **Green incentives** can lead into economic savings, they also benefit ports, environment, human well-being and business sector
- **Green fees** require collaboration, global system and thinking in long-perspective, at the same time more local initiatives are also needed
- **General cargo shipping and ferry/cruise sector** should not be equally treated – more customized solutions and special green discounts for the cruisers are needed
- **Surveys\*** notice that green port fees are relatively accepted. The environmental impact is described as limited because the reward for green technologies is also very limited and easily compensated by savings of well-organized operations and well-managed fleets. To reach significant reductions of emissions and pollutants other policy options need to be taken on international level. Ports can facilitate this process and green port fees could play a role in a larger set of options to support different environmentally friendly practices. The incentive schemes are generally established on port level, but also harmonized pan-Baltic port fee systems or worldwide systems are discussed with advantages both for shipowners and ports. (\*BONUS SHEBA project)
- **Environmental impacts** can be addressed via the differentiation of the fees according to the emissions and pollutants linked to the individual ships. To increase environmental effect the fees could be based on sailed distance or fuel consumption and not on number of ports called.

Port dues strategies and incentives for cruise line companies for using green port features

## Maritime Institute in Gdansk in the Green Cruise Port

# „Port dues strategies and incentives for cruise line companies for using green port features ” - task 4.1.1 (b)

What's next?

- „Port dues and strategies...” Concept Study to be distributed in early Sept for final remarks and corrections
- Document to be discussed with other Green Cruise Port Partners and stakeholders
- Finalization of the study

THANK YOU!