# Atlantic Blue Ports Newsletter #3

June 2020

The Atlantic Blue Ports project is aiming to improve the port based services for the discharge and treatment of ships effluents including oil and ballast water. The project's goal is to create awareness and motivation to stop discharge at sea using the Atlantic Area as a support platform to prototype, test, demonstrate and communicate activities. The project has gathered together a consortium of 28 partners and associated stakeholders representing ports, PRF operators, public authorities, SMEs and universities from across the Atlantic Area.

For more information on the project, its aims and objectives, achievements and partners please visit www.atlanticblueports.com

Atlantic Blue Ports Video
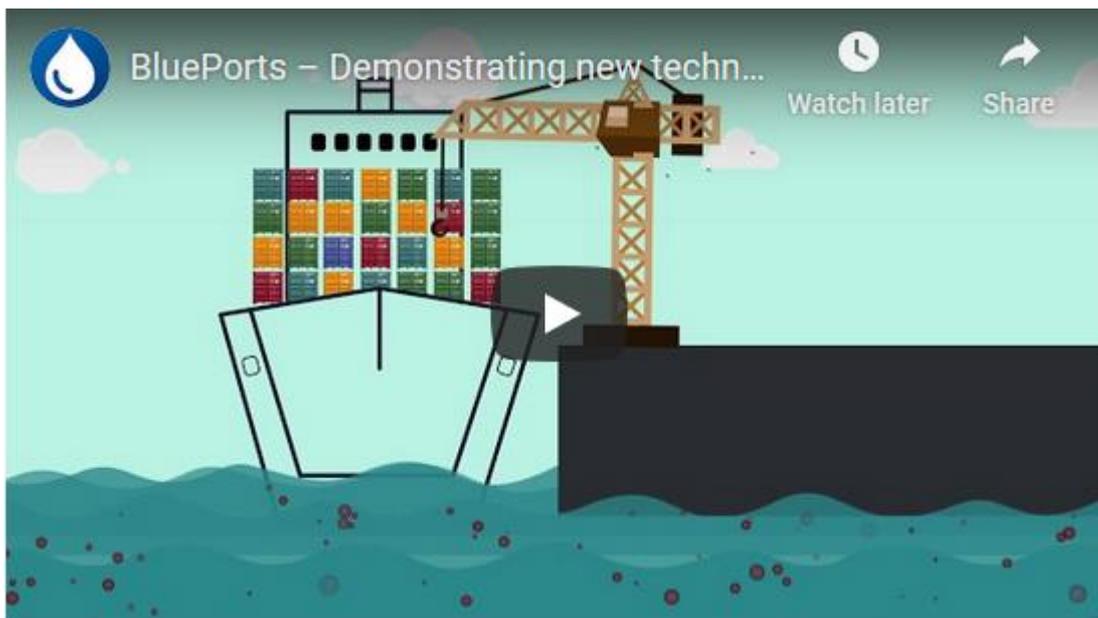
An excellent video demonstrating the issues and regulations concerning ballast water from ships as well as showcasing new technologies for ballast water treatment services in ports has been produced by the Portuguese project partners Bentley (software modelling), Eco-Oil (MARPOL operator) and the Port of Lisbon. The video gives a very clear and concise overview of the issues, regulations and new technologies as well as introducing the Atlantic Blue Ports project and the InvaSave approved technology developed by Damen and being tested by Eco-Oil in the Port of Lisbon. View the video here.

4th Project Workshop and Progress Meeting, Madrid, February 2020

The project held its 4th Project Workshop and Progress Meeting with the Spanish Task Force (almost 30 participants) in mid-February in Madrid, at the premises of 'Puertos del Estado'. The workshop was a very fruitful exchange with discussions illustrating the various issues being tackled by the project, including:

- The implementation of the Ballast Water Management Convention
- The interest and necessity of new port based solutions to meet the Convention
- The economic challenge of the Convention that requires ship owner to invest in new systems
- The challenge facing scientists who need to monitor sea water and detect invasive species, especially in port areas with restricted access due to the ISPS regulation

The project partners also discussed the different project activities including communication, Task Force studies (involving 210 organisations), pilot activities and project management (reporting, implementation planing, etc).

The project had been aiming to hold an event and have a stand at the European Maritime Day in Cork in May 2020 but with the outbreak of the Coronavirus Pandemic this has been postponed.

Testing of InvaSave Ballast Water Treatment Services in Ports

InvaSave is a mobile system, presented in the form of a standard container, which can be placed close to a ship) on the quay, on a barge or in a truck. The water pumped from the ship into the ballast tank is treated with high density UV to destroy the micro-organisms, in accordance with the International Convention on ballast water management. InvaSave is currently the only port processing system that has been certified by the IMO. The system is innovative and provides a vital service in the event of failure of on-board systems or where on-board systems do not exist.

Project Partner Damen have developed the InvaSave 300 Mobile Ballast Water Treatment System which, through this project, has been tested in Las Palmas in the Canary Islands, Lisbon, Gijon and will be tested in Brest this year.

Las Palmas Testing:

The first test of the InvaSave 300 Mobile Ballast Water Treatment System took place in Las Palmas in January 2019. The University of Las Palmas and the Port produced a video of the testing which details the issues surrounding invasive species being discharged in ballast water and explains the reasons why ports and MARPOL operators need to engage with the smooth implementation of the IMO Ballast Water Management Convention. The video can be viewed here.

Gijon Testing:

In order to learn how InvaSave works and how the tests were carried out in Gijon, take a look at the excellent video produced by the Port of Gijon and Lunaga (Marpol operator) click here.

Lisbon Testing:

The Damen InvaSave technology was tested in Lisbon during the European Maritime Day 2019. Project partner Eco-Oil operated the Ballast Water Treatment equipment during the demonstrations while Damen gave guided tours of InvaSave to all the visitors. The demonstrations raised awareness of the crucial importance of Ballast Water Treatment for environmental concerns, diversity and sustainability. The testing continued for a month after the European Maritime Day within the port of Lisbon.

Brest Testing:

The InvaSave system arrived in the Port of Brest in December 2019 for a period of pre-operational tests. This involved developing technical solutions as well as looking at the economic model of the system for the port of Brest. The demonstrations caught the interest of both the public authority and the Captain of the port, as well as potential operators and research groups, including Ifremer and Genavir.

The tests in Brest will enable analysis of the business case for Brest as well as forecasting of the possible geographic locations of new ballast water treatment systems in the Channel/Atlantic maritime area.

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Market Analysis and Economic Feasibility Study for mobile shore-based ballast water treatment solutions

Article kindly submitted by Christos Kontovas from Liverpool John Moores University.

The Ballast Water Management Convention (BWMC) requires that vessels manage their ballast water according to specific standards. For most vessels, compliance will require fitting a ballast water treatment (BWT) system. However, in some cases, a mobile solution such as a containerised system (such as the Invasave 300 system by the project partner DAMEN) as an alternative to an onboard system might be a more viable solution. These mobile treatment systems are also particularly suitable for barges, supply vessels, vessels engaged in short sea shipping or those with minimal and predictable ballasting operations.

In addition, these mobile systems are an excellent solution as a contingency measure, in line with the latest discussions at the IMO. A paper that was given at a recent conference in Athens presents the initial findings of a comprehensive market analysis and economic feasibility study that analyses the costs and benefits of the proposed system under various scenarios.

The economic analysis focuses mainly on investigating the scenario where a port/terminal operator is offering the service of treating ballast water onshore against a fee. Based on the costs, and the potential benefits, i.e. revenue, from the proposed systems, operators (such as port operator, port reception facilities or even shipowner associations) could have some good insights on whether this could be a service that they might wish to add to their services portfolios or not.

Our study will now deliver a business plan, analysing the average total costs (including CAPEX and OPEX). We will send a questionnaire to get feedback on acceptable prices. We count on you to contribute.

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This analysis is useful for ship operators that do not have a BWS onboard (or is malfunctioning) to investigate the alternative of using a third-party service provider, and thus avoid any capital expenses and other losses e.g. penalties due to non-compliance or due to delayed port activities.

Our results show that mobile systems are indeed cost-effective solutions under some specific scenarios and we also feel that this type of solution has not been well examined as an alternative to onboard systems.

In addition, this can serve as an excellent measure to deal with contingencies.

Details of the full paper are as follows:

Kontovas, CA (2019) "The market and economics of mobile port-based Ballast Water Treatment solutions", 2019 Annual conference of the International Association of Maritime Economists, 25 - 28 June 2019, Athens, Greece.

Available online at: http://researchonline.ljmu.ac.uk/id/eprint/11726/1/IAME2019%20-%20BWM%20Kontovas%20preprint.pdf

LJMU questionnaire on the alternatives methods to comply with the BWM Convention

Masters student at LJMU, Mr. Antonio Fauceglia, has conducted a dissertation project on the analysis and prioritisation of compliance alternatives.

This was based on a questionnaire where experts were asked to provide their opinion on the importance of various aspects (e.g. technical, economic, environmental) for the different methods to comply with the Convention, e.g. Ballast water exchange, onboard systems, port based systems etc.

The questionnaire is still available, in case you would like to express your opinion :
http://tinyurl.com/ljmuballastwater

The results from this dissertation (and updated results) will be published in the future.

Working Groups/Task Force

In order to receive updates from the project as well as details of project activities and events please sign up to the interest group here and encourage your colleagues and relevant contacts to do so also.

Subscribers will be asked to indicate their specialist areas of interest from technology, economy, environmental issues. regulations and booking services.

The Interest Group/Task Force will enable the project to communicate with the right experts at National, European and International levels.

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Interreg Atlantic Area
European Regional Development Fund

EUROPEAN UNION

@BluePorts
discharge polluted water in port, not at sea

Project Partners:

Port de Brest
CCI MÉTROPOLITAINE BRETAGNE OUEST

DAMEN GREEN SOLUTIONS

Bentley
Advancing Infrastructure

UNIVERSIDAD DE LAS PALMAS DE GRAN CANARIA

PORT of CORK
DEEPWATER MULTI-MODAL PORT

LIVERPOOL JOHN MOORES UNIVERSITY

Port of Gijón
Gijón Port Authority

PORTOS DA MADEIRA

marine southeast

Puertos de Las Palmas
Autoridad Portuaria de Las Palmas

TRADEBE

ECOOIL

SeaTopic
from expertise to operation

Porto de Lisboa

Puerto de Sevilla

Partnership

Cork
Port of Cork
Cluster (associated)
IMARE (associated)

Liverpool :
University LJMU
Port & Mersey Maritime (associated)

Madeira
Port authority
University (associated)

Acores (associated)
Port authority (3 ports)
(PRF operator)

Gran Canaries
Las Palmas University
Las Palmas Port Authority

Porto Port Authority (associated)
Cluster Forum Oceano (associated)

Lisbon/ South Portugal
Bentley (Coordinator PT)
Eco-Oil
Lisbon, Setubal, Sines ports (associated)
DGPM and DGRM (associated)

Southampton
Marine South East
And WOC (associated)

Damen Green (NL)
(Gorinchem)

Brest Port (CCIMBO, Lead Partner)
Brittany Region, IFM, & universities
(associated)

Gijon
Port Authority (SP Coordinator)
LUNAQUA (PRF operator)
University Oviedo (associated)

Seville Port Authority
University (associated)