

Interreg



UNIONE EUROPEA
EVROPSKA UNIJA

ITALIA-SLOVENIJA



CLEAN BERTH

Progetto standard co-finanziato dal Fondo europeo di sviluppo regionale
Standardni projekt sofinancira Evropski sklad za regionalni razvoj

CLEAN BERTH

Cross-border institutional cooperation
for ports environmental sustainability
and energy efficiency



Programme: Interreg V-A Italia-Slovenia

Priority Axis 4: Enhancing capacity building and cross-border governance

Specific Objective: OS 4.1.

Investment Priority: PI 11CTE

Typology: Standard

 [PROJECT WEBSITE](#)

 [LINKEDIN](#)

 [FACEBOOK](#)

 [TWITTER](#)

PARTNERS



Autorità di Sistema Portuale
del Mare Adriatico Orientale
Porti di Trieste e Monfalcone

Port Network Authority of the Eastern Adriatic Sea – Ports of Trieste and Monfalcone – Lead Partner

Website: <https://www.porto.trieste.it>



AUTORITÀ DI SISTEMA PORTUALE
DEL MARE ADRIATICO SETTENTRIONALE
PORTI DI VENEZIA E CHIOGGIA

Port Network Authority of the North Adriatic Sea – Ports of Venice and Chioggia

Website: <https://www.port.venice.it>



CONSORZIO
DI SVILUPPO
ECONOMICO
DEL FRIULI

Consorzio di Sviluppo Economico del Friuli (COSEF)

Website: <https://www.cosef.fvg.it/>



Luka Koper d.d.

Website: <https://www.luka-kp.si/eng/>



UNIVERSITÀ DEL LITORALE
UNIVERZA NA PRIMORSKEM



TURISTICA
FACOLTÀ DI STUDI PER IL TURISMO
FAKULTETA ZA TURISTIČNE STUDIJE

Univerza na Primorskem

Website: <https://www.turistica.si/en>

Interreg



UNIONE EUROPEA
EVROPSKA UNIJA

ITALIA-SLOVENIJA



CLEAN BERTH

Progetto standard co-finanziato dal Fondo europeo di sviluppo regionale
Standardni projekt sofinancira Evropski sklad za regionalni razvoj



THE PROJECT IN NUMBERS



881.842,06 €
Total budget



749.565,75 €
ERDF



5
Partners



30 months
duration



6
ports



10
plans and pilot
actions



1 protocol applying a
cross-border strategy

MAIN OBJECTIVES AND RESULTS

The objective of the CLEAN BERTH project was to strengthen the institutional capacity and cross-border governance of ports in the Programme area with respect to environmental sustainability and energy efficiency issues, thus helping to reduce the impact of their operations on the environment.

Until now, ports in the cross-border area did not have common environmental and energy planning tools, and adopted mitigation measures in an uncoordinated manner, with uneven results in terms of environmental protection.

Therefore, the project defined a cross-border plan for environmental sustainability and port energy efficiency, setting out for each port pilot actions capable of producing tangible results in terms of improved environmental and energy performance.

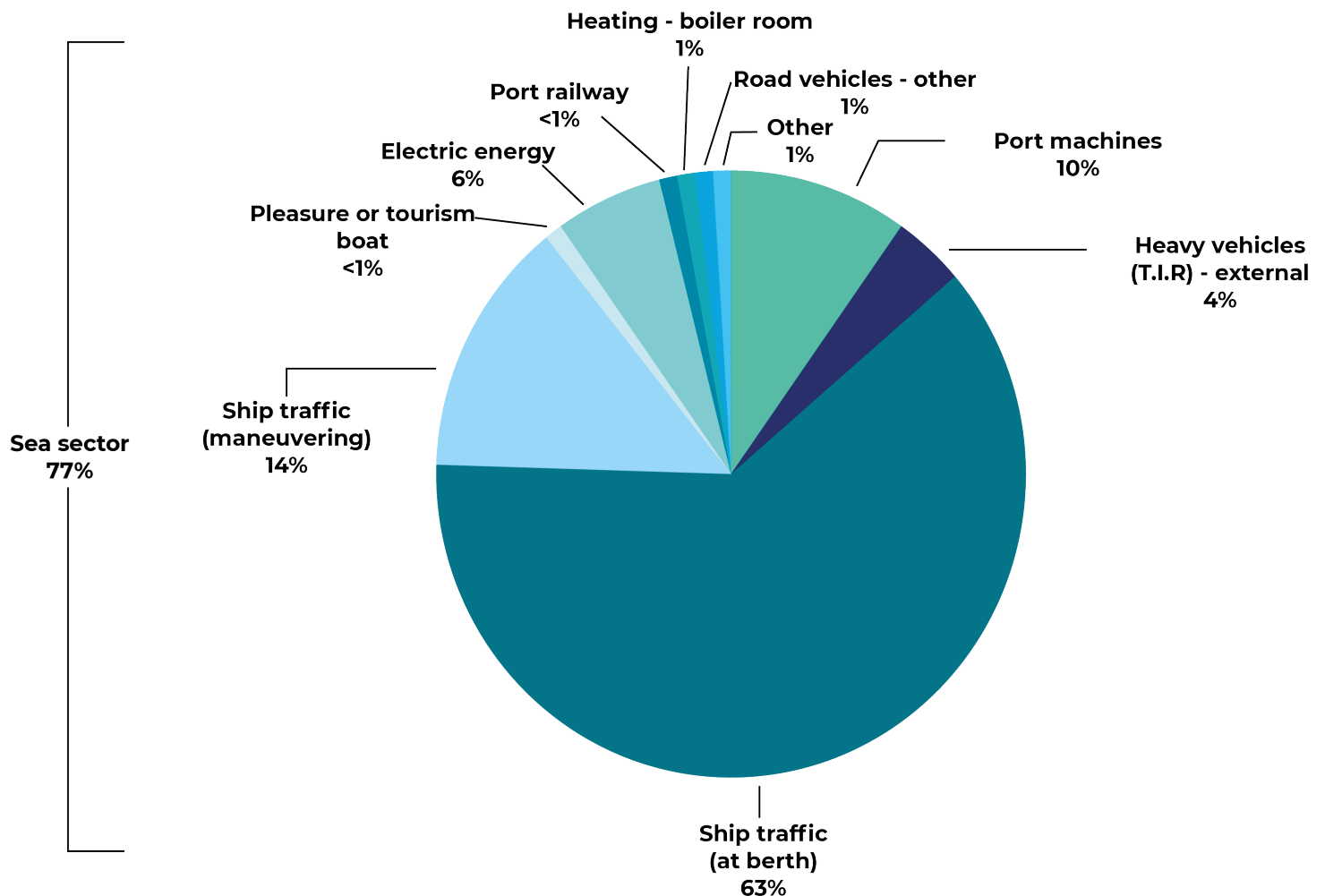
On the basis of what has been learnt, **for the first time all the ports in the Programme area have signed a Protocol for the application of a common strategy in this area, valid at cross-border level**, thus harmonising policies in the medium and long term.



STEP BY STEP

• CONSOLIDATED REPORT ON THE CURRENT SITUATION AND MAIN CRITICAL ISSUES REGARDING ENVIRONMENTAL SUSTAINABILITY AND ENERGY EFFICIENCY OF PORTS IN THE PROGRAMME AREA

The first technical activities of the CLEAN BERTH project were the calculation of the carbon footprint for each port and the identification of [best practices](#) in terms of port environmental sustainability and energy efficiency



The need to reduce greenhouse gas emissions has also been recognized by CLEAN BERTH's partner ports, which are striving to become "green ports" in line with the EU strategy. The preparation of [consolidated report of emissions inventory](#) represented an important first step for all the port's stakeholders and allowed the identification of the activities and devices that produce direct or indirect GHG emissions and the assessment of the quantities of emissions for each activity or source of issue.

The analyzes showed that 77% of CO2 emissions derive from ship traffic, in particular 63% from ships at berth and 14% from ships in maneuver, while the remaining 33% is produced by land traffic, the 10% from port operators and only 4% from heavy vehicles (trucks). These data underline the importance of interventions in the maritime sector, such as the electrification of ports to reduce pollution caused by ships.

• CROSS-BORDER ACTION PLAN FOR ENHANCING ENVIRONMENTAL SUSTAINABILITY AND PORT ENERGY EFFICIENCY

It should be noted that while maritime transport is the most sustainable way to transport goods, port operations have an impact on air quality and greenhouse gas emissions. Another aspect to be considered is the fragmentation of the supply chain that may hinder the realisation of the full economic potential of the territories involved.

The goal is to achieve the progressive reduction of emission factors in the port area. Thanks to CLEAN BERTH, for the first time all the ports of the Program area have defined a [cross-border plan for environmental sustainability and energy efficiency](#). The plan defines for each port a specific pilot action which, thanks to the joint development, will generate significant results in the pursuit of greener objectives. In fact, the joint cross-border action plan identifies the strategies and activities that over the next decade will help ports reduce their environmental impact and strengthen energy efficiency. The interventions concern different areas of port activities, ranging from emissions generated by the administrative management of the port to emissions generated by the operation of the port along the entire port logistics chain, such as:

- Electrification of the docks
- Electrification of port machinery
- Energy requalification
- Building renovation
- Replacement of existing lighting with LED
- Installation of photovoltaic systems



PILOT ACTION

The pilot actions envisaged in the cross-border plan focus mainly on improving air quality (reduction of greenhouse gas emissions) and energy efficiency, in particular

◆ PORT OF TRIESTE



Installation of three charging stations for electric vehicles

[The pilot action of the Port of Trieste](#) involved the construction of three charging infrastructures for electric vehicles in the area of the Port of Trieste.

The charging stations will lead to an estimated overall reduction of 150 tonnes of CO2 emitted by 2030 in the case of using energy from the electricity grid, or 250 tonnes in the case of using a photovoltaic panel system.

◆ PORTO NOGARO

Purchase of an electric vehicle

[The purchase and subsequent use of the electric vehicle](#) will lead to an annual CO2 reduction of 1.76 (in tonnes).





Replacement of part of Porto Nogarò's lighting installations with LED technology

[Replacement of lamp bodies at the perimeter lighting - central and north and south canopies with LED technology](#) - In addition to the economic advantage of reduced electricity consumption costs, the intervention has a strong impact on the environment, with a significant reduction in annual CO2 emissions of 45.81 (in tonnes).

◆ PORT OF VENICE

Purchase of noise pollution monitoring units and installation of equipment to improve energy performance in port areas and infrastructure

The [purchase of the noise pollution monitoring units and installation of equipment to improve energy performance in port areas and infrastructure](#) has enabled Port of Venice to equip itself with a permanent noise monitoring system that allows: the control of potentially noisy activities and sources, the validation of codes of good practice for the containment of noise pollution, the assessment of the impact of mobility and land management policies and strategies in terms of reducing noise induced in the port area.



◆ LUKA KOPER



Installation of charging stations for electric vehicles

The decision to [install electric charging stations](#) fell on the Auto Terminal because considering the pollution of vehicles in the port area, TA vehicles are the most used and cause the highest emissions.



Purchase of two radar instruments for detecting the presence of pollutants in the sea

The investment consisted in the [installation of a radar system for the detection of spills of dangerous substances at sea level](#). The aim was to minimise the impact of a spill or to act as quickly as possible in the case of an accident. The system makes it possible to immediately detect pollution and thus take immediate action to limit the spread of oil slicks outside the port area, thus reducing the consequences (financial and environmental) and clean-up costs.

- **CROSS-BORDER STRATEGY FOR ENHANCING ENVIRONMENTAL SUSTAINABILITY AND PORT ENERGY EFFICIENCY**

The next step involved the preparation of a '[Cross-border Strategy for Enhancing Environmental Sustainability and Port Energy Efficiency](#)' to identify the main challenges in the maritime sector and the general and operational guidelines to jointly and synergistically pursue environmental sustainability goals.

- **PROTOCOL FOR THE ESTABLISHMENT OF A PERMANENT CROSS-BORDER COOPERATION SYSTEM IN THE FIELD OF ENVIRONMENTAL SUSTAINABILITY AND PORT ENERGY EFFICIENCY**

The importance of cross-border cooperation was also emphasised at the [final conference](#) entitled "[Green and Smart Ports in the Adriatic-Ionian Region. The contribution of the European territorial cooperation between Italy, Croatia and Slovenia](#)" organised on 8 June 2022 in Trieste by the Port Network Authority System of the Eastern Adriatic Sea in cooperation with the Friuli Venezia Giulia Region, under the auspices of the European Macro-Strategy for the Adriatic-Ionian Region (EUSAIR) and in collaboration with the DIGSEA, PROMARES and SUSPORT projects co-financed by the Interreg Italy-Croatia Programme 2014-2020.

On the sidelines of the meeting, the CLEAN BERTH project partners signed the "[Protocol for the establishment of a permanent cross-border cooperation system in the field of environmental sustainability and port energy efficiency](#)", aimed at further strengthening the fruitful cooperation established during the implementation of the project.



NEXT STEPS

THE MAIN AREAS OF ACTION WILL BE

- the exchange of best practices
- joint training and awareness-raising initiatives
- joint participation in co-financed projects to promote cross-border cooperation in the field of environmental sustainability and energy efficiency.

In the coming years, the focus will be on finding new solutions in the field of alternative energy sources for use in port logistics.

