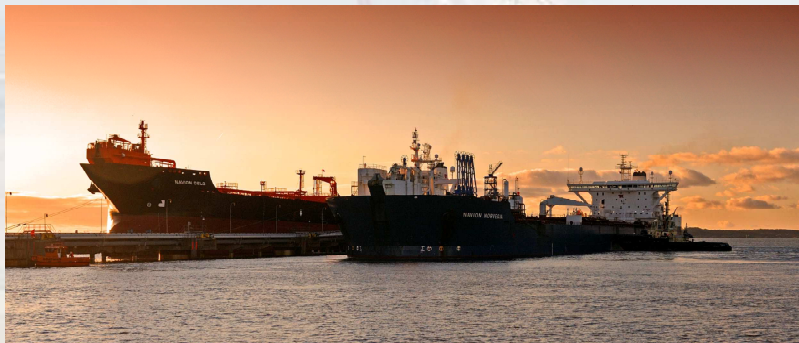




EUROPEAN SEA PORTS ORGANISATION ASBL / VZW
ORGANISATION DES PORTS MARITIMES EUROPEENS ASBL / VZW

ESPO Green Guide in Italian

**Towards excellence on port environmental
management and sustainability**



Port & Shipping TECH, Genoa, 19-20 September 2013

Dr Antonis Michail, Senior Advisor, ESPO



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- 1. ESPO and the environment**
2. ESPO Green Guide
3. Way forward and conclusions



European Sea Ports Organisation

- ★ Founded in 1993
- ★ Represents European seaport authorities
- ★ Members from EU and neighbouring countries
- ★ Secretariat in Brussels
- ★ Recognised counterpart of EU institutions
- ★ A lobby and a knowledge network

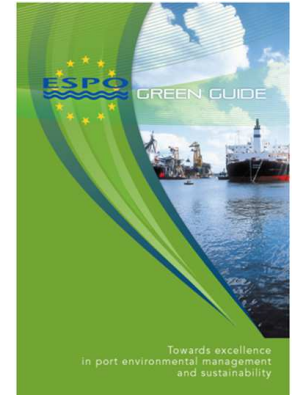




ESPO & the Environment

Encouraging ports to be **proactive in protecting the environment** by:

- ★ Providing guidance and preparing recommendations on environmental management (Green Guide)
- ★ Drafting guidelines on specific issues (e.g. nature protection)
- ★ Developing and promoting tools and methodologies for port environmental management (EcoPorts tools)
- ★ Providing the platform for port cooperation and sharing of environmental experience (EcoPorts network)
- ★ Visibility and credit to frontrunners (ESPO Award, EcoPorts labeling and certification)

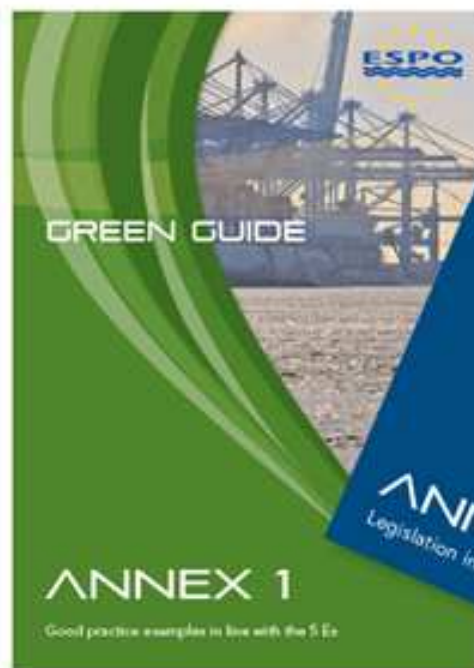
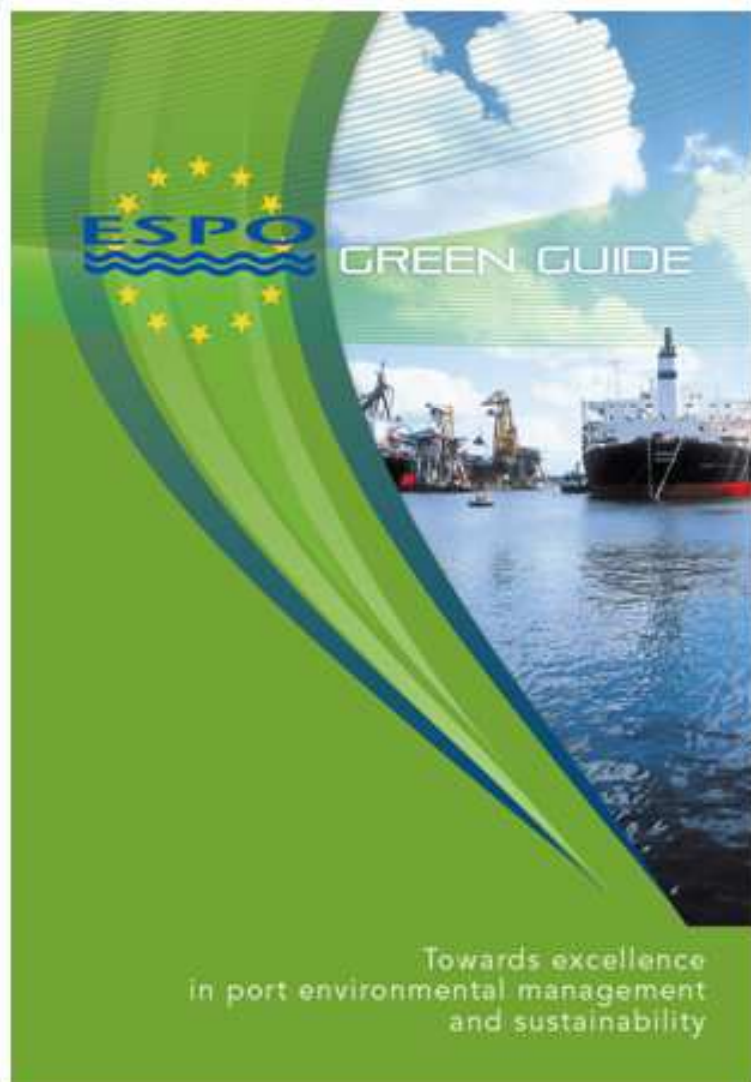




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European port authorities believe in:

1. Achieving voluntary self-regulation that raises standards beyond regulations through a bottom-up approach
2. Cooperation and sharing of knowledge and experience between port authorities on environmental matters
3. Serving in parallel the interests of the business and the local communities aiming towards the sustainable operation of port areas
4. Applying a systematic approach to port environmental management through appropriate structures that enable continuous improvement of performance
5. Being transparent in communicating and reporting on the ports' efforts and environmental performance





In respect to the above principles, European port authorities aim to continuously work towards improving their environmental performance through focused action on:

1. **Exemplifying:** Setting a good example towards the wider port community by demonstrating excellence in managing the environmental performance of their own operations, equipment and assets
2. **Enabling:** Providing the operational and infrastructural conditions within the port area that facilitate port users and enhance improved environmental performance within the port area
3. **Encouraging:** Providing incentives to port users that encourage a change of behaviour and induce them to continuously improve their environmental performance
4. **Engaging:** with port users and/or competent authorities in sharing knowledge, means and skills towards joint projects targeting environmental improvement in the port area and the logistic chain
5. **Enforcing:** Making use of mechanisms that enforce good environmental practice by port users where applicable and ensuring compliance



Applying the 5 Es on 5 top priorities

- ★ Air quality
- ★ Energy conservation and climate change
- ★ Noise management
- ★ Waste management
- ★ Water management



	1996	2004	2009	2013
1	Port Development (water)	Garbage / Port waste	Noise	Air quality
2	Water quality	Dredging: operations	Air quality	Garbage/ Port waste
3	Dredging disposal	Dredging disposal	Garbage / Port waste	Energy Consumption
4	Dredging: operations	Dust	Dredging: operations	Noise
5	Dust	Noise	Dredging: disposal	Ship waste
6	Port Development (land)	Air quality	Relationship with local community	Relationship with local community
7	Contaminated land	Hazardous cargo	Energy consumption	Dredging: operations
8	Habitat loss / degradation	Bunkering	Dust	Dust
9	Traffic volume	Port Development (land)	Port Development (water)	Port development (land)
10	Industrial effluent	Ship discharge (bilge)	Port Development (land)	Water quality



4.2 Air quality management

Challenges

Air quality is an item of the highest priority on the environmental and political agenda. The impacts of air pollutants such as CO, NO_x, SO_x, hydrocarbons (HCs), volatile organic compounds (VOCs), lead and particulates vary in scale and range from locally based to regional and global effects.

Reports by the World Health Organisation (WHO) and the European Environment Agency (EEA) regularly emphasise the potential impact of air pollutants to human health. Air pollution has a consistently high profile in public concern and it is often the target of regulatory control. The European Commission has clearly given priority to the implementation and enforcement of the European air-related legislation, especially the comprehensive Directive 2008/50/EC on ambient air quality and cleaner air for Europe. Several Member States are brought to the European Court of Justice – or are already convicted for the violation of air quality levels.

The European Commission has launched a comprehensive review of its air policy to be completed by 2013 at the latest¹⁰. The EU objective remains to achieve levels of air quality that do not result in unacceptable impacts on, and risks to, human health and the environment. The supporting Commission Staff Working Paper justifies the need of the review since "prompt action is required to further reduce air emissions linked to the most problematic pollutant such as particulate matter, ground-level ozone, and nitrogen dioxide"¹¹. It is argued that transport is one of the main reasons that the current policy efforts, at EU and national level, have not fully delivered the expected results.

This is attributed to various factors such as the increase in transport volumes, the quality of marine fuels in use, the slower than expected modernisation of vehicles fleets, and the differences observed between vehicle operational emissions and limits prescribed by the EURO standards. Overall the European legislation on air quality is expected to strengthen in the years to come.

Ports are most usually situated within or in close proximity to densely populated urban areas that are often critically affected by air pollution. In addition, being major nodes linking and bringing together international transport chains and related economic activities, port areas are often part of critical geographical areas when it comes to air quality considerations. Although port-related emissions contribute only for a part to air quality problems in port and surrounding areas, these problems can affect negatively the image of ports vis-à-vis their surrounding residential zones and put serious pressure on port development ambitions. In fact, air quality is often at the heart of the political and societal debate about economic development plans and port development projects. The emissions of air pollutants by port operations are therefore of high priority to European port authorities. The main challenge that port authorities face is to apply appropriate control mechanisms in order to manage and reduce port related air pollution.



¹⁰ http://ec.europa.eu/environment/air/air_policy.htm

¹¹ Commission Staff Working Paper on the implementation of EU Air Quality Policy and preparing for its comprehensive review (2012(2011) 362 final)

Guidance - Air quality management

Exemplifying: setting the good example when managing own operations

- Investing in low emission and fuel efficient own fleet (vehicles and vessels);
- Making use of state of the art own terminal equipment (e.g. movable and non-movable cranes);
- Using low emission fuels (sulphur, carbon, PM) in operating own fleet (cars, trucks, service vessels) and terminal equipment (e.g. movable and non-movable cranes);
- Investing in projects demonstrating the feasibility of new technologies that reduce air pollution even further than existing state of the art;
- Reporting and communicating port authority achievements.

Enabling: providing conditions that facilitate users and enhance improved performance

- Providing the preparatory or complete infrastructural facilities for Onshore Power Supply (OPS) (cabling, frequency converters, transformers);
- Providing suitable space in the port area for LNG bunkering facilities;
- Applying techniques (e.g. wind screens, buffering zones) to prevent dust dispersion from dry bulk operations and/or road traffic.

Encouraging: providing incentives to greener port users

- Applying an incentive scheme rewarding ship owners and operators that demonstrate an outstanding environmental performance (e.g. ahead of what is required by legislation);
- Applying an incentive scheme to support ship owners/operators that use OPS;
- Applying an incentive scheme to support terminal operators that invest in state of the art terminal equipment;
- Providing visibility to front runners through "best performer of the year" type of awards.

Engaging: with users and/or authorities in sharing knowledge and skills

- Creating and maintaining a database on all port-related emissions and their contribution to air quality levels on local and regional scale, in close cooperation with the port users;
- Organising joint pilot projects and feasibility studies together with port users, especially in fields and areas of overlapping responsibilities. In such way the port authority can create a sense of co-ownership of the air quality challenges;
- Sharing means and expertise (e.g. co-organising workshops and co-hiring experts) for improving air quality;
- Working together with port users and competent authorities in view of deploying OPS and LNG bunkering infrastructure.

Enforcing: setting rules and ensuring compliance

- Restricting the entrance of vehicles (trucks/barges/trains) in certain parts of the port area by establishing low emission zones;
- Controlling the performance of contractors by introducing expected standards regarding emissions into contract documents at the tender stage;
- Incorporating air emissions criteria and good operational practices in tendering procedures associated with concession and lease agreements;
- Undertaking inspections to ensure that port users and/or contractors comply with the rules and agreements.



Annex 1 - Good practice examples

- ★ Dynamic - Version 2
- ★ 76 contributions
- ★ 26 ports - 12 countries
- ★ No Italian ports!
- ★ Online database

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Exemplify

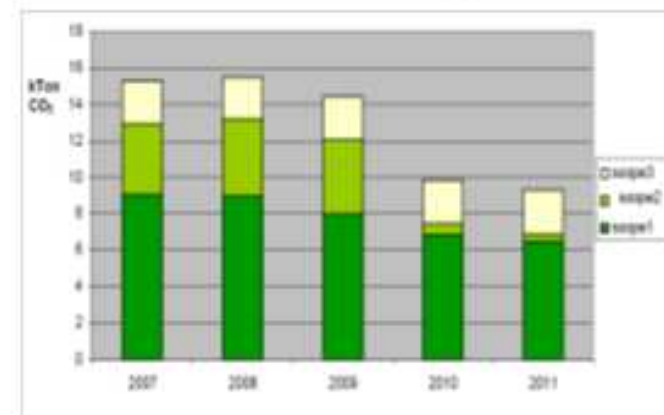
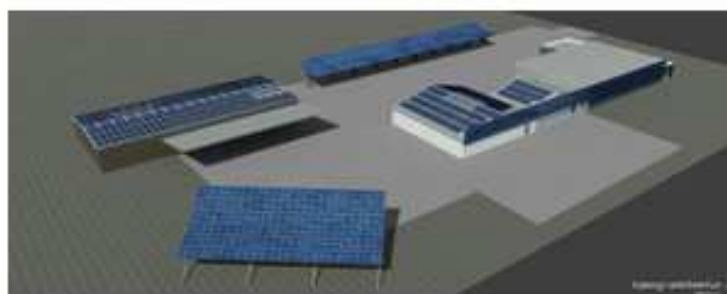
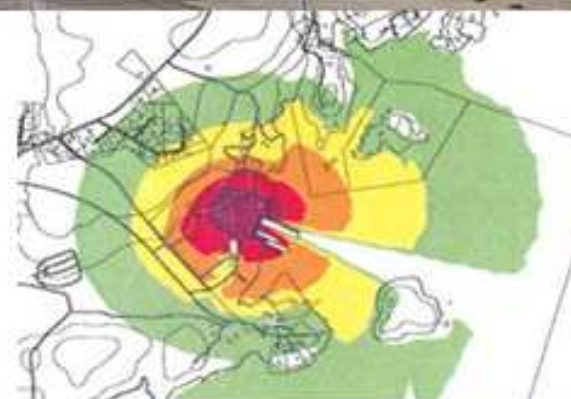


Figure 1: Total CO₂ emissions of scope 1, 2 and (limited) 3 activities over the period 2007-2011



Enable





Encourage

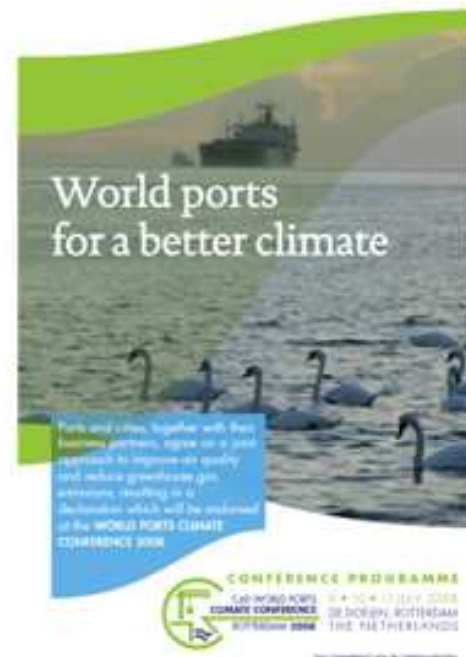
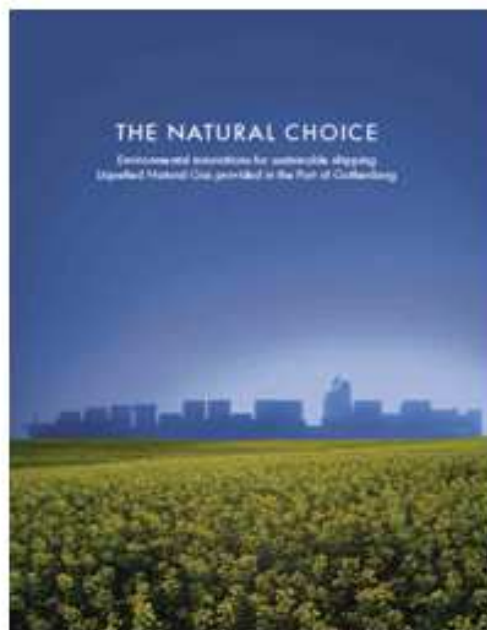


Environmental Ship Index ESI

World
Ports
Climate
Initiative



Engage





and as a last resort ... Enforce





Foreword by the European Commision

The application of the 5 Es (Exemplify, Enable, Encourage, Engage and Enforce) is showing the way towards a comprehensive and integrated approach. The Commission appreciates ESPO's approach in assisting ports to implement the relevant EU rules rigorously and is following this initiative with great interest.

Siim Kallas

Vice-President of the European Commission

In charge of Transport





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More ports joining EcoPorts!

Welcome to the EcoPorts network

This page provides visibility and credit to ports that are currently part of the Network through the interactive map and the list below. The "EcoPort" status is obtained by any port within the broad ESPO membership upon completion of a Self Diagnosis Method (SDM) checklist. The port is awarded in that way for providing data on the performance of its environmental management programme and for contributing in such way to the up-to-date maintenance of the ESPO European Benchmark of performance. Additional credit is provided to ports that are certified with PERS, the only port-sector specific environmental management standard, and ISO 14001.



Login EcoPorts News



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How to join the EcoPorts network and use SDM and PERS

Read about how to join the network and get the full benefits of the provided services
[Read more](#)

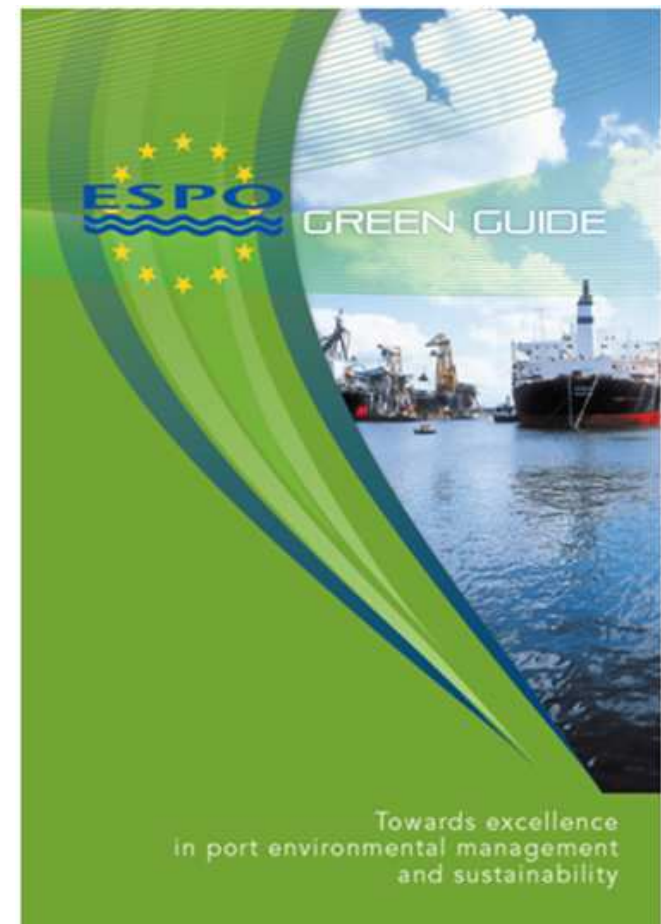
[Join now!](#)



Bringing the Green Guide forward!

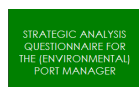
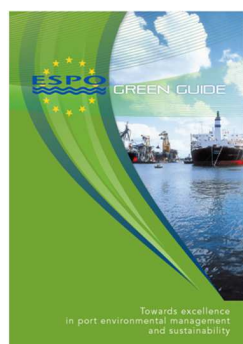
- ★ Further dissemination
- ★ Ports referring to the 5Es in their environmental policy statements
- ★ Contributions to the good practice annex - Ports sharing experiences
- ★ Online database

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Positive trends - Credibility



SDM

SELF DIAGNOSIS METHOD

Environmental Management component	1996 %	2004 %	2009 %	2012 %	Percentage change (2004-2012)
Does the port authority have an environmental policy?	45	58	72	91	+33
Is the policy made available to the public?	-	59	62	85	+26
Does the policy aim to improve environmental standards beyond those required under legislation?	32	49	58	73	+24
Does the port publish an annual environmental review or report?	-	31	43	62	+31
Does the port have designated environmental personnel?	55	67	69	95	+28
Does the port have an environmental management system?	-	21	48	62	+41
Is environmental monitoring carried out in the port?	53	65	77	80	+15
Has your port identified environmental indicators to Monitor trends in environmental performance?	-	48	60	71	+23

* Source: ESPO/EcoPorts surveys and SDM



Conclusions

- ★ Ports are diverse and operate in a multi-pressure environment / Environmental management is challenging but essential (licence to operate and to grow)
- ★ Ports work together and commit to actions
 - Proactive voluntary self-regulation (Green Guide, 5Es)
 - Assisting tools (SDM, PERS), professional cooperation
- ★ Added value for both the sector and individual ports
- ★ Trends provide inspiration for further improvement



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Thank you for your attention!



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