

The 6<sup>th</sup> International Maritime Transport and logistics Conference

# GLOBAL INTEGRATION IN PORTS

FUTURE OPPORTUNITIES



19-21 March 2017 Alexandria - Egypt



**EACH PORT UNIQUE – BUT  
ONE, GLOBAL SECTOR**  
The case for collaboration on  
environmental standards and  
sustainability

**Christopher Wooldridge**



- **Economic and political climate\***
- **Climate change**
- **Carbon emissions and pollution**
- **Waste management**
- **Energy production & consumption**
- **Habitat loss and Species extinction**
- **Environmental Risk\* and Liability\***
- **Stakeholder pressure**
  
- **Human resources**
- **Professional standards**
- **Education & training (R&D)**

Data SIO, NOAA, U.S. Navy, NGA, GEBCO  
Image IBCAO

Image Landsat / Copernicus

Google Earth



# Ports and the Environment

## COMPETITION

- 1) "Only clean ports will survive"
- 2) Differentiated fees
- 3) Efficiency
- 4) Risk reduction
- 5) Sustainability
- 6) Port Development

**COMPLIANCE**



## COLLABORATION

- 7) Level playing field
- 8) Shared costs
- 9) Avoid reinventing wheel
- 10) Knowledge & experience
- 11) Profile of sector
- 12) Voluntary self-regulation



# We have a system – what could possibly go wrong?

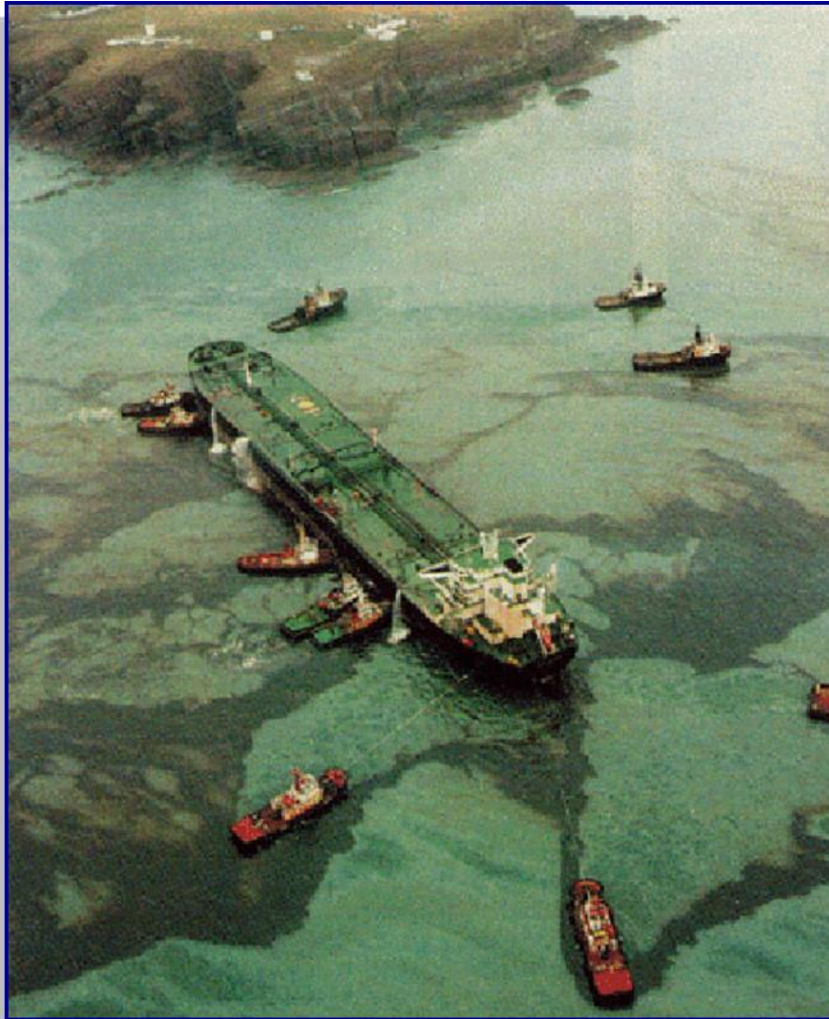


**Environment - Security**  
**Health - Safety**

- Conservation of Wild Birds Directive 1979/409/EEC 1979
- Environmental Impact Assessment (EIA) Directive 1985/337/EEC 1985
- Conservation of Natural Habitats and of Wild Flora and Fauna 1992/43/EEC 1992
- Volatile Organic Compound (VOC) Emissions Directive 1994/63/EC 1994
- Ambient Air Quality Assessment and Management Directive 1996/62/EC 1996
- Integrated Pollution Prevention and Control (IPPC) Directive 1996/61/EC 1996
- Waste Incineration Plants Directive (WIPD) Directive 2000/76/EC 2000
- Water Framework Directive 2000/60/EC 2000
- Port reception facilities for ship-generated waste & cargo residues 2000/59/EC 2000
- Large Combustion Plants Directive (LCP) Directive 2001/80/EC 2001
- Strategic Environmental Assessment (SEA) Directive 2001/42/EC 2001
- Assessment and Management of environmental Noise 2002/49/EC 2002
- Community vessel traffic monitoring information system repealing 2002/59/EC 2002
- Public Access Environmental Information Directive 2003/04 EC 2003
- Environmental Liability Directive 2004/35/EC 2004



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## QUALITY ENVIRONMENTAL MANAGEMENT SYSTEM?

### Who wants to know?

- **Regulators and courts**
- **Marine Governance**
- **Investors/Stakeholders**
- **Insurers and banks**
- **Auditors**
- **Communities/Society**

### What is in it for me?

- **Compliance**
- **Cost and risk reduction**
- **Sustainability**
- **Market opportunity**
- **Positive image**
- **'License to operate'**

**SHOW ME THE EVIDENCE!**



	1996	2004	2009	2013	2016
Port Development (water)		Garbage / Port waste	Noise	Air quality	Air quality
Water quality		Dredging: operations	Air quality	Garbage/ waste Port	Energy Consumption
Dredging disposal		Dredging disposal	Garbage / Port waste	Energy Consumption	Noise
Dredging: operations		Dust	Dredging: operations	Noise	Relationship with local community
Dust		Noise	Dredging: disposal	Ship waste	Garbage/ Port waste
		Air quality	Relationship with local community	Relationship with local community	Ship waste
Contaminated land		Hazardous cargo	Energy consumption	Dredging: operations	
Habitat loss / degradation		Bunkering	Dust	Dust	Water quality
Traffic volume			Port Development (water)		Dust
Industrial effluent		Ship discharge (bilge)		Water quality	Dredging: operations



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	Sector 2016	Small	Medium	Large	Very large
1	Air quality	Air quality	Air quality	Air quality	Air quality
2	Energy Consumption	Garbage/ Port waste	Noise	Energy Consumption	Ship exhaust emissions
3	Noise	Noise	Ship waste	Port development (land related)	Noise
4	Relationship with local community	Relationship with local community	Energy Consumption	Relationship with local community	Water quality
5	Garbage/ Port waste	Energy Consumption	Relationship with local community	Noise	Port development (land related)
6	Ship waste	Ship waste	Dust	Dredging: operations	Energy Consumption
7	Port development (land related)	Water quality	Dredging: operations	Dredging: disposal	Relationship with local community
8	Water quality	Dust	Garbage/ Port waste	Dust	Climate change
9	Dust	Port development (land related)	Water quality	Port development (water related)	Dredging: operations
10	Dredging: operations	Port development (water related)	Ship exhaust emissions	Water quality	Dredging: disposal





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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.



- Port-inspired
- Ports-help-ports
- Retain Initiative
- Level Playing Field
- Influence Policy
- Set and Maintain Standards
- Network of collaboration

Home EcoPorts Network EcoPorts Tools About Publications Join Now Contact

**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!](#)

## PORTS-HELP-PORTS

[www.ecoports.be](http://www.ecoports.be)

[www.ecoslc.eu](http://www.ecoslc.eu)



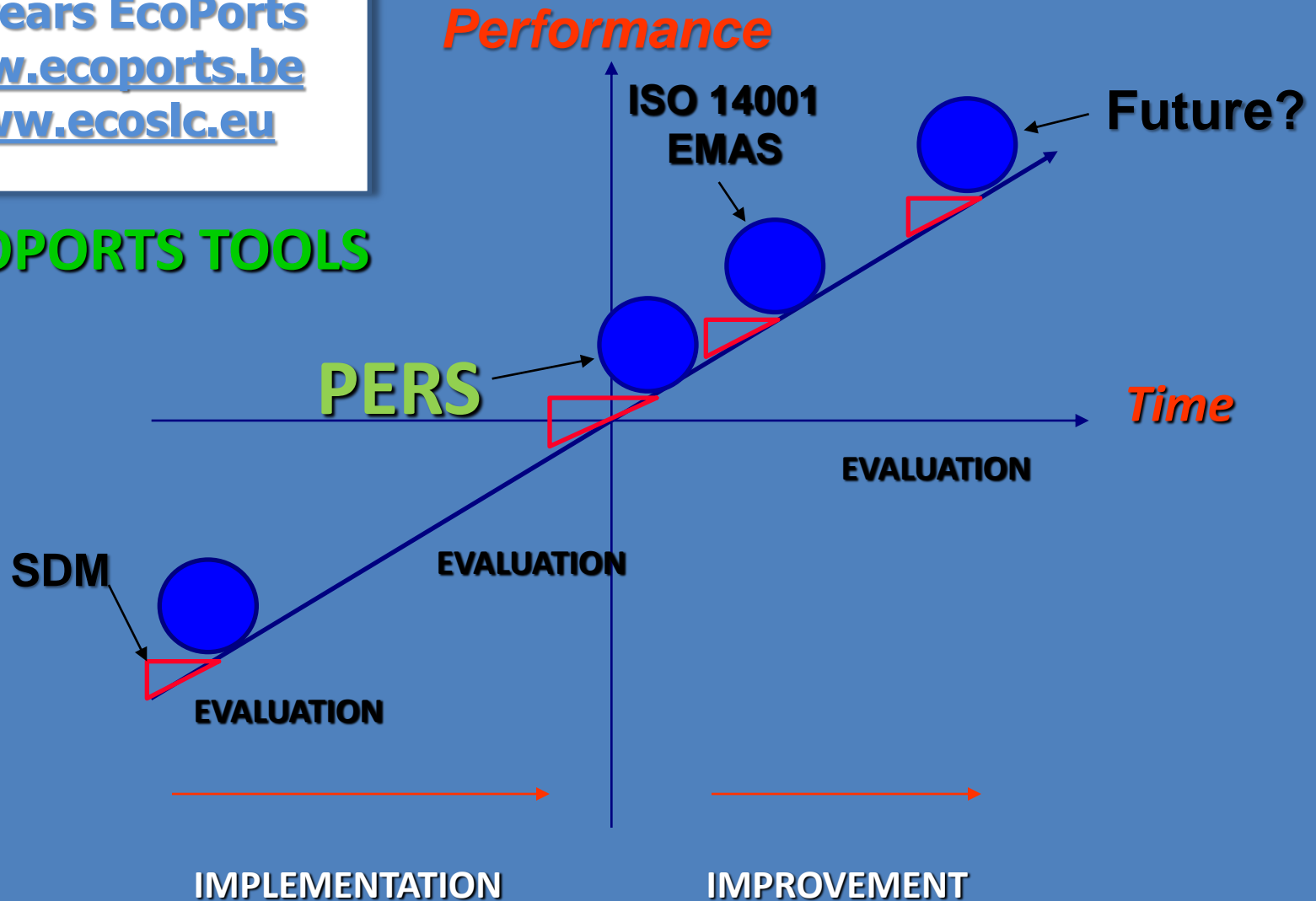
**2017**

**20 years EcoPorts**

[www.ecoport.be](http://www.ecoport.be)

[www.ecoslc.eu](http://www.ecoslc.eu)

## ECOPORTS TOOLS



# “WHAT’S IN IT FOR ME”?



STRATEGIC ANALYSIS  
QUESTIONNAIRE FOR  
THE (ENVIRONMENTAL)  
PORT MANAGER



**SDM**

SELF DIAGNOSIS METHOD

**SELF  
DIAGNOSIS  
METHOD**

**Practicable tools for port professionals**  
**[www.ecoslc.eu](http://www.ecoslc.eu)**



STRATEGIC ANALYSIS  
QUESTIONNAIRE FOR  
THE (ENVIRONMENTAL)  
PORT MANAGER



**SDM**

SELF DIAGNOSIS METHOD

- **Confidential**
- **Data-base**
- **Benchmark**
- **Priority Issues**

- 1) **Environmental policy**
- 2) **Organization and personnel**
- 3) **Awareness and training**
- 4) **Communication**
- 5) **Operational management**
- 6) **Emergency planning**
- 7) **Monitoring**
- 8) **Review and audit**

[www.ecoslc.eu](http://www.ecoslc.eu)





## **Results and analysis**

### **Review of SDM**

- **SWOT analysis**
- **GAP analysis**
- **Preparation for PERS/ISO 14001**
- **Baseline and Benchmark performance\***
- **Information for Environmental Report**
- **Compliance and Awareness**
- **Recommendations**
- **Data-base\* (Confidential and anonymous).**



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		Gap Analysis:	PERS 60.71%	ISO 48.68%	Answers	SWOT	ANS(%)	YES(%)	NO(%)
A.1	Does the Port have an Environmental Policy?					S1	100,0%	87,8%	12,2%
A.2	IF YES,Is the Policy signed by Chief Executive / Senior Management?					S2	89,8%	90,9%	9,1%
A.3	IF YES,Is the Policy communicated to all relevant stakeholders?					S3	89,8%	88,6%	11,4%
A.4	IF YES,Is the policy communicated to all employees?					O1	89,8%	84,1%	15,9%
A.5	IF YES,Is the policy publicly available on the Port's Website?					O2			
A.6	Does the Policy include reference to:Major objectives?					S4	89,8%	90,9%	9,1%
A.7	Does the Policy include reference to:Publication of an Environmental Report?					O3	87,8%	65,1%	34,9%
A.8	Does the Policy include reference to:The identification and control of the port's Significant Environmental Aspects?					S5			
A.9	Does the Policy include reference to:Continual improvement?					S6	89,8%	93,2%	6,8%
A.10	Does the Policy include reference to:Prevention of pollution?					S7	73,5%	86,1%	13,9%
A.11	Does the Policy include reference to:Training employees in environmental issues?					O4	89,8%	75,0%	25,0%

# PORT ENVIRONMENTAL REVIEW SYSTEM



- Environmental policy statement
- Register of environmental aspects
- Register of legal requirements
- Documented responsibilities
- Conformity review
- Environment report





# PERS

- 1) Port profile**
- 2) Environmental policy statement**
- 3) Identification of environmental aspects, legal requirements and performance indicators**
- 4) Documented responsibilities**
- 5) Conformity review on requirements**
- 6) Basic environmental report**
- 7) Selected examples of best practice**





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Port/Organization	Country
Ghent	Belgium
Nantes - Saint Nazaire Port Authority	France
PORT DE COMMERCE DE LORIENT	France
Port of Calais	France
Port of Le Havre Authority	France
Ports of Bremen/Bremerhaven	Germany
IGOUMENITSA PORT AUTHORITY S.A.	Greece
PIRAEUS PORT AUTHORITY SA	Greece
Dublin Port Company	Ireland
Port of Cork	Ireland
Shannon Foynes Port Company	Ireland
Aqaba Container Terminal	Jordan
Groningen Seaports	Netherlands
Port of Den Helder	Netherlands
Port of Moerdijk	Netherlands
Autoridad Portuaria de Castele	Spain
Port of Vigo	Spain
Milford Haven Port Authority	United Kingdom
Peterhead Port Authority	United Kingdom
Shoreham Port Authority	United Kingdom





# ECOPORTS NETWORK





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**AAPA** American Association of Port Authorities  
 Alliance of the Ports of Canada, the Caribbean, Latin America and the United States



[AAPA www.aapa-ports.org](http://www.aapa-ports.org)



**ESPO**  
[www.espo.be](http://www.espo.be)

**MOU**



اتحاد الموانئ البحرية العربية  
**Arab Sea Ports Federation**  
[www.aspf.org.eg](http://www.aspf.org.eg)



**ECOSLC** [www.ecoslc.eu](http://www.ecoslc.eu)

31<sup>st</sup> January - 1<sup>st</sup> February 2017





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[www.aapa-ports.org](http://www.aapa-ports.org)

**ECO SLC**  
 Sustainable Logistic Chain



[www.aspf.org.eg](http://www.aspf.org.eg)



[www.espo.be](http://www.espo.be)

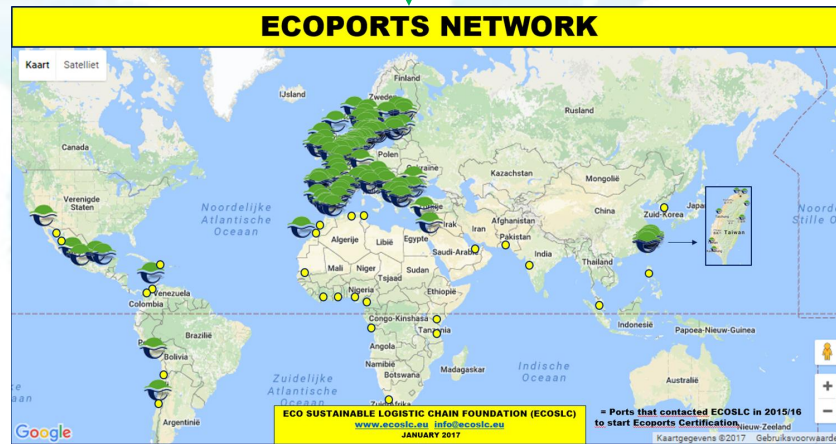


[www.aast.edu](http://www.aast.edu)

MoU + 24 hrs

↓  
**Training Workshop\***

- Universities**
- UPC Barcelona
  - Kaohsiung
  - Thessaloniki
  - Cardiff





# National and International collaboration

1. Port sector Organisations *retain influence*
2. Exchange of knowledge and experience
3. Identify issues and set the agenda
4. Define standards and *demonstrate progress*
5. Report benchmark performance
6. Avoid 're-inventing the wheel'
7. Education and Training\*



1. Quayside
2. Port area
3. Port-city
4. Hinterland
5. Chain

### Logistic Chain:

- Efficiency and impact

### Ports:

- Influence, standard, fees\*

*(Cost Reductions up to 50%,  
CO2 reductions up to 80% per  
container)*





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**Thank  
you for  
your  
attention**

