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ESPO-AAPA cooperation towards ECOPORTS Port Environment Management through ECOSLC

TIME TO HARMONIZE PORT ENVIRONMENTAL MANAGEMENT WORLD-WIDE

HERMAN JOURNÉE
CHAIRMAN ECOSLC FOUNDATION
THE NETHERLANDS

ECOPORTS

102nd AAPA Annual Convention

October 13-17, 2013

Orlando/Port Canaveral, FL

Content

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I. ***Global Cooperation in Port Environmental Management***

II. ECOPORTS: Port Environmental Management System and Standards

III. New Port Strategy: from Environment to Sustainability

Concluding remarks

ECOPORTS

European Sea Ports Organisation (ESPO)

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- Founded in 1993
- Represents European Seaport Authorities

ECOPORTS

What is ECOSLC Foundation

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1. ECO Sustainable Logistic Chain: a neutral, non profit Foundation for
    1. ECOPORTS Port Environmental Management
    2. Sustainability in Ports and Logistics
    3. Certification
2. Independent Organisation
    1. Independent auditor for validation: Lloyds Register
    2. 6 universities from different countries connected
    3. 10 certified trainers
3. World Wide Collaboration

    MOUs for collaboration are in place between ESPO, AAPA and ECO-SLC

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What is ECOSLC Foundation

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4. Member of the new
   European Technology Platform for Sustainable Logistics Innovation
   set up by the European Commission, aiming at a substantial logistics cost reduction for the industry

5. Organisor of a new
   European Security Forum for ports and logistics
   aiming at fore runners cooperation in Ports and Logistics Security Management

6. Implementation of Smart Port-Hinterland Logistics
   Smart Port-Hinterland Sustainable Logistics Business Model: Circle Lines

ECOPORTS

What is Ecoports

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EcoPorts Port Environmental Management System and Standards:

The only standardized tools specifically developed by ports, for ports.

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AAPA, ESPO, ECOSLC/EcoPorts and the environment

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EcoPorts tools reflect **ESPO and AAPA policies**:

- Compliance through voluntary, self-regulation
- Cost-effective and practicable EMS
- Shared knowledge and experience

- Serving Businesses, Communities and Chain
- Transparent Monitoring and Reporting of benchmark environmental performance
- 'Level playing-field' of standards and enforcement

- The value of education and training in implementing EMS

Assistance available

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AAPA – ESPO:
lobbying, policy and legislation

ECOSLC:

- Access to Tools and training for

    1. ECOPORTS Port Environmental Management
    2. Sustainability in Ports and Logistics
    3. Certification

- Public, Private, Science R&D partnerships

Chain Partners Sharing

Sustainable Port and Logistic Chain

Experience

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Content

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I. **Global Collaboration in Ports and Environment**

II. ***ECOPORTS: Port Environmental Management System and Standards***

III. From Environment to Sustainability

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ALL PORTS FACE A COMMON CHALLENGE

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IMPORTANT GROWTH
LIMITS TO PHYSICAL SPACE
LIMITS TO ENVIRONMENTAL SPACE GET STRICTER
INCREASING INFLUENCE OF STAKEHOLDERS

HOW TO PRESERVE YOUR PORT LICENSE TO OPERATE

Start: introduce a port environmental management system

How to start Ecoports

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Create the attitude of
awareness, understanding and commitment
from top management and operational management
to reduce the environmental impact of the port

top down-bottom up approach

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Ecoports Tools: SDM, PERS, Network

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PERS / ISO 14001 / EMAS step by step

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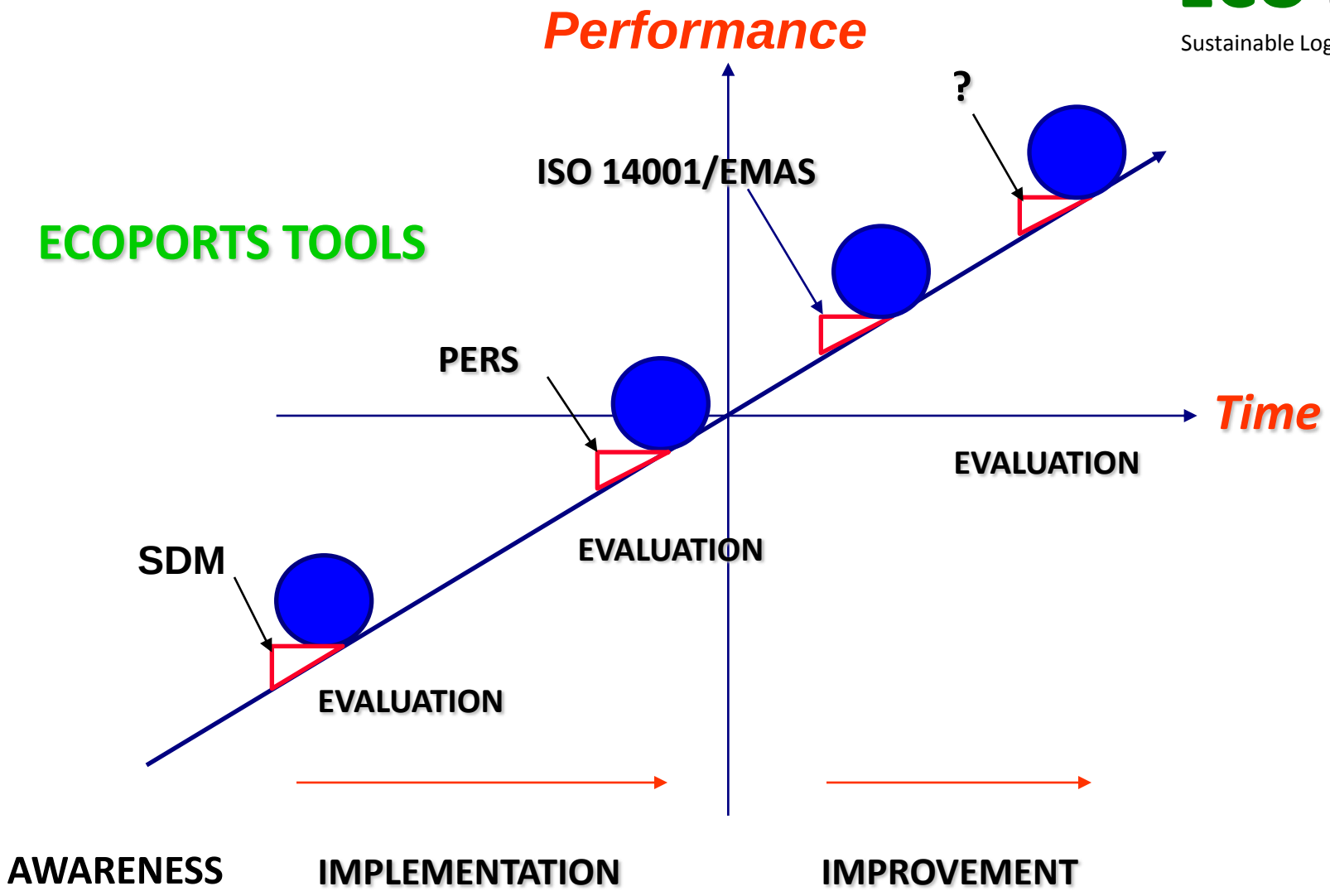

ECOPORTS

SELF DIAGNOSIS METHODOLOGY (SDM)

1. What delivers SDM

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- Initial review of port's environmental management programme
- Check list of organization and procedures
- GAP and SWOT analysis
- Benchmark performance
- Confidential
- It is NOT 'pass' or 'fail'
- Training available www.ecoslc.eu

SELF DIAGNOSIS METHODOLOGY (SDM)

2. Elements of SDM (www.ecoslc.eu)

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- Port profile
- Environmental policy
- Management organisation & personnel

- Environmental training
- Communication
- Operational management

- Emergency planning
- Monitoring and records
- Review and audit

Analysis of the SDM Result

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SWOT ANALYSIS

Of current status and recommendations for improvement

GAP ANALYSIS

With the requirements of PERS

Benchmark based on WORLD- WIDE DATABASE

Strength of the ECOSLC model:

confidential data compiled through SDM analysis may be reported anonymously to the port sector organisation such as AAPA to provide benchmark performance of the sector in discussions with regulators and policy-makers and identify evidence of trends.

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Self Diagnosis Method (SDM) Example GAP Analysis

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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%

Ecoports Tools and Methodologies Workshop Organised by ECOSLC Foundation in Piombino Italy

Port Authority and Coast Guard together to train Ecoports environmental ***Self Diagnosis Method SDM***, assisted by ISPRA, Agency of the Ministry of Environment

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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 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 ECOSLC International 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.

Visibility

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PERS:
Port Environmental Review System

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1. What is PERS

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1. Environmental policy statement

2. Register of environmental aspects and legal requirements

3. Documented responsibilities

4. Conformity review

5. Environment report

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PERS:
Port Environmental Review System

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2. Elements of PERS
www.ecoslc.eu

- Port profile
- Environmental policy statement
- Register of environmental aspects & legal requirements
- Documented responsibilities
- Conformity review
- Environment report
- Examples of best practice

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ECOPORTS PERS CERTIFICATE

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CERTIFICATE OF VERIFICATION

ECOPORTS
PERS CERTIFIED

THIS IS TO CERTIFY THAT
THE DOCUMENTATION OF THE PORT ENVIRONMENTAL REVIEW SYSTEM OF:

Puerto de Santa Marta
Colombia

HAS BEEN REVIEWED BY LLOYD'S REGISTER TO THE FOLLOWING ENVIRONMENTAL MANAGEMENT STANDARD:

Port Environmental Review System (PERS) version 4

THE SYSTEM IS APPLICABLE TO THE:

Activities, products and services of The port authority

Certificate no: 074
Verification date: 4 June 2013

ON BEHALF OF ECOSLC
ECO SLC

ON BEHALF OF LLOYD'S REGISTER ROTTERDAM
Lloyd's Register

A PERS certificate is the confirmation that the PERS requirements have been evaluated and are fulfilled, because the review is based on third party information a PERS certificate is not a value judgement of the port environmental management system and its performance, since these have only been evaluated on the basis of documents supplied by the port.

STATEMENT BY

A EUROPEAN ECOPORTS CERTIFIED PORT ON

BENEFITS OF ECOPORTS:

"Stakeholder relations management was helped: approval received without the need for public enquiry as holding objections withdrawn"

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Port Stakeholders control ports: keep them your friend

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PORT COMPANIES

1. Sea Shipping Line Carriers
2. Logistic Service Providers
3. Transhipment Terminals for
4. Cruise Terminals
5. Warehousing
6. Tug boat Company
7. ICT Port Community System

PERSONNEL

8. Employees
9. Labor Organisation

SOCIETY ASPECT GROUPS

10. Citizens
11. Tourists
12. NGO's
13. Environmentalists

GOVERNMENTAL ORGANISATIONS

14. Labour Inspection
15. Police
16. Fire Brigade
8. Customs
17. Food Inspection
18. Environment Inspection
19. Veterinary Inspection
20. City Planning
21. Port Authority
22. Coast Guard

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Example of first time Stakeholders Workshop
Recent workshop Ecoports in Greece

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VISIBILITY
PERS CERTIFICATION

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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.

Show 25 entries

Search:

Showing 1 to 25 of 69 entries

First Previous 1 2 3 Next Last

Port/Organization	Country	Pers Certified	Iso certified	Website
APSS	Portugal		ISO 14001 Certified	visit website
Aqaba Container Terminal	Jordan			
Autoridad Portuaria de Castellón	Spain	PERS Certified		visit website

EXAMPLE
EXPERIENCE WITH INTRODUCING ECOPORTS
PORT OF DOVER (UK)

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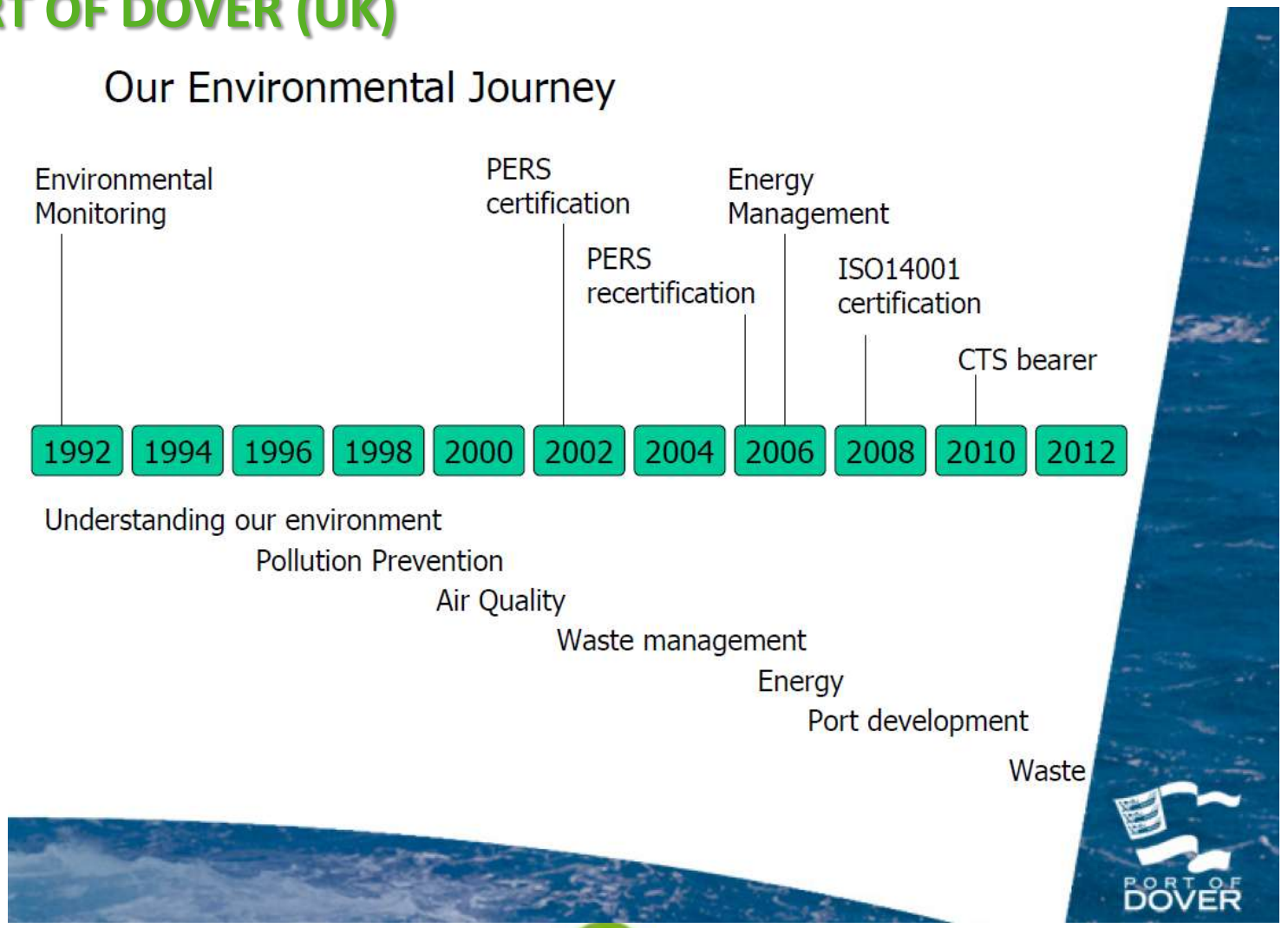

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Potential Revenues for the port from ECOPORTS port environmental management

reported by participants

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1. Better informed ***personnel*** and therefore better use of existing knowledge capacity
2. More interest from ***companies*** to settle:
   (more certainty about costly environmental requirements, good reputation: clean port, cost element of proven practices)
3. Better understanding from ***stakeholders*** (keeping license to operate)

4. Lower cost of ***finance*** (some cases)
   sustainability required by some banks and insurers
5. Lower cost of ***maintenance*** (some cases)
6. Level Playing field: standards in implementation of the ***law***

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Analyses and trends from Ecoports Database

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Trends of selected components of EMS

Indicator	1996	2004	2009	2012	2013	% change 2004-2013
Environmental Policy?	45	58	72	91	86	+28
Policy available to public?	-	59	62	85	82	+23
Policy aimed at compliance+?	32	49	58	73	68	+19
Publishes Environmental Report?	-	31	43	62	64	+33
Designated Environmental personnel?	55	67	69	95	94	+27
Recognized EMS?	-	21	48	62	64	+43
Environmental monitoring programme?	53	65	77	80	79	+14
Performance indicators identified?	-	48	60	71	64	+16

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Benefits of networked collaboration for
Continental Sector – National Organization – Port Authority

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TOP 10 ENVIRONMENTAL ISSUES IN EU PORTS

	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

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Examples of Monitoring Carbon Footprint

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Port	Sources included	Percentages	Years	Results	Comments
A Corunna (Spain)	PA vehicles PA boilers Electricity port area	4 % 7 % 89 %	2009 2008 2007 2006	1124 t CO2 1357 t CO2 1296.5 t CO2 1301 t CO2	Results reported since 2006 Reduction of 13.6 % (2006 -09) Published in Sustainability report 2009
Antwerp (Belgium)	Stationary sources Mobile sources PA buildings Electricity Business travel Commuting	19 % 51 % 10 % 13 % 1 % 6 %	2008	34700 t CO2e	Calculated from 2000 – 2008 Results presented in the GreenPorts Conference 2011, Venice
Dover (UK)	Gas Oil Refrigerant Gases Owned vehicles Electricity	23 % 2 % 1 % 74 %	2009 2008	13279 t CO2 15340 t CO2	Results reported since 2008 Reduction of 13.4 % (2008 -09) Published in their Environmental Bulletin 2009
Oslo (Norway)	Direct emissions Indirect emissions Other indirect emissions	44 % 34 % 22 %	2008 2007	1346 t CO_2e 704 t CO_2e	Increase in 47.7% (2007 - 08) Published in the port of Oslo report: CO2 emissions for the year 2008.
Rotterdam (The Netherlands)	Direct emissions Indirect emissions Other indirect emissions	31 % 15 % 54 %	2008 2007	29094 t CO_2 33043 t CO_2	Results reported since 2007 Reduction of 12 % (2007 - 08) Published in their Annual Report 2009

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Global ports environmental management analysis
First Global pilot based on Ecoports approach

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		Oceania		Asia		Africa		North America		Latin America		ESPO		UK	
	QUESTIONS	% Y	% N	% Y	% N	% Y	% N	% Y	% N	% Y	% N	% Y	% N	%Y	%N
1	Does the port have a separate environmental section in the website?	56	44	4	96	20	80	16	84	20	80	69	31	86	14
2	Does the port have any EMS?	60	40	20	80	32	68	28	72	20	80	48	52	68	32
3	Does the port have any Environmental Policy?	72	28	28	72	36	64	44	56	28	72	72	28	89	11
4	Is the Environmental Policy made available to the public?	36	64	8	92	12	88	24	76	16	84	62	38	89	11
5	Does the port publish an Environmental Report / Review?	56	44	20	80	20	80	36	64	16	84	43	57	54	46
6	Is environmental monitoring carried out in your port?	72	28	32	68	40	60	56	44	24	76	77	23	71	29
7	Has the port identified environmental indicators to monitor trends in environmental performance?	44	56	16	84	24	76	44	56	8	92	60	40	68	32
8	Does the port publish factual data by which the public can assess the trend of its environmental performance?	4	96	0	100	8	92	20	80	0	100	36	64	43	57
	Average	50	50	16	84	24	76	34	66.5	16.5	83.5	58	41.6	71	29

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NEW: ESPO Environmental Monitoring Dashboard for the Port Sector

Environmental Trends

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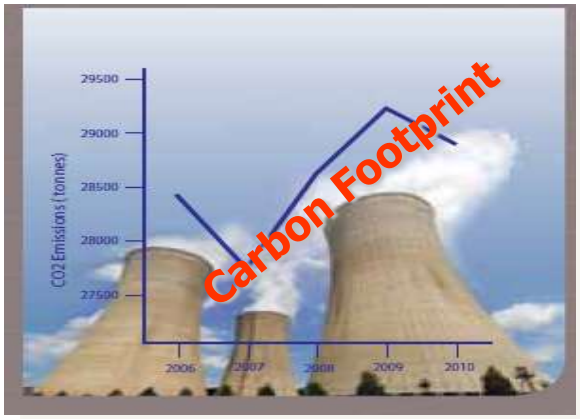

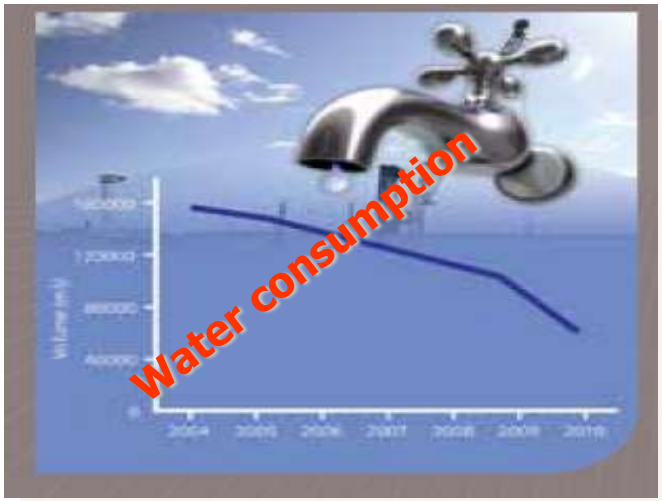

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Changes in Port Strategy

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- From Environment to Sustainability
- From Port orientation to Port and Logistics Orientation
- New Logistic Systems: environmental challenges and solutions

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Transport sector: highest environmental impact (as to CO2)

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Smart Sustainable Logistics

can improve

both logistics and environment

but also costs

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Deepsea transport/logistics: systematic approach,
Daily Maersk: 70 vessels make conveyor belt on the seas

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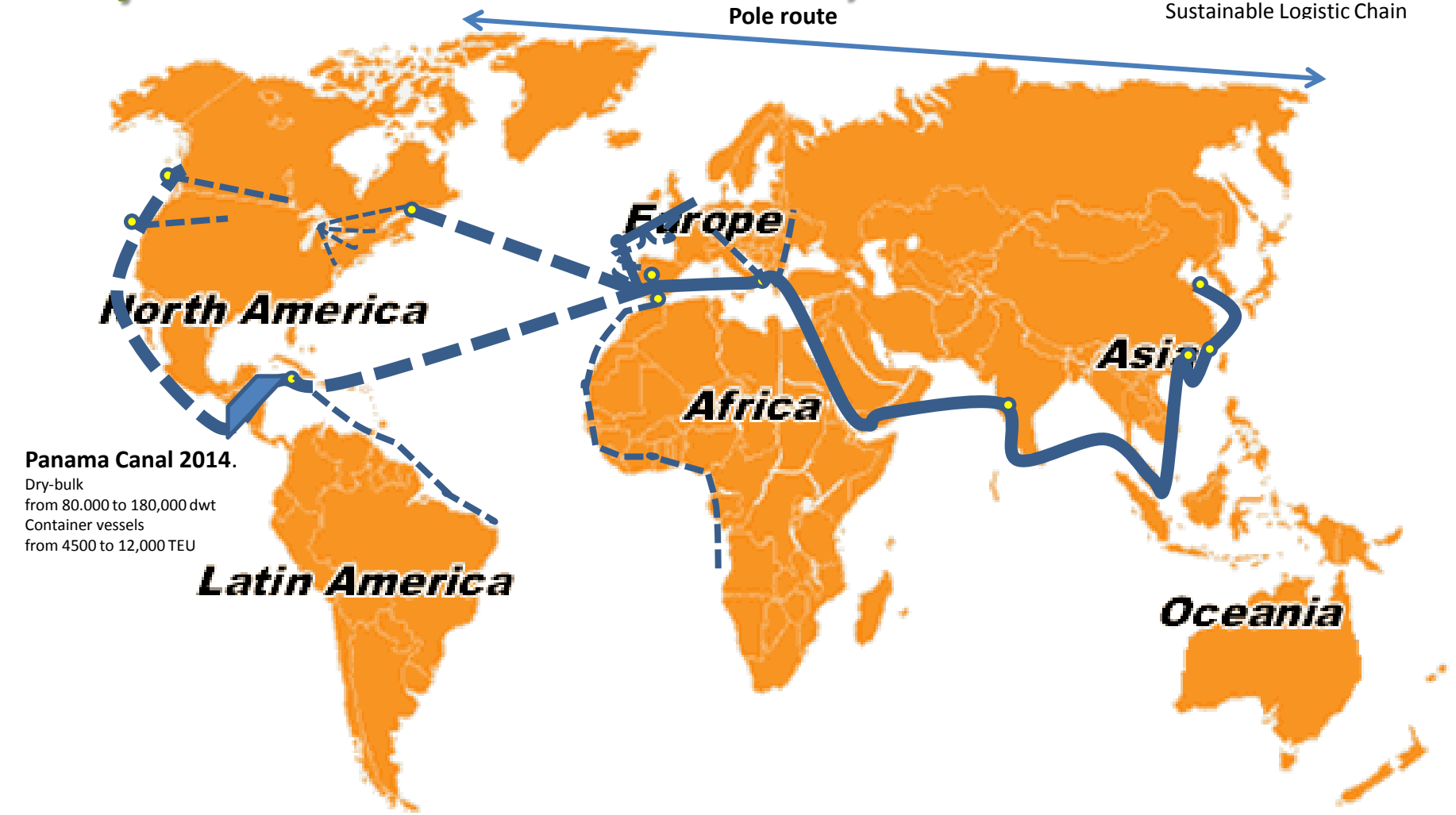

Results
Less costs and environmental impact per container
Next step: P3 Network: 255 vessels

Supply Chain: daily hinterland transport “system”

Results

Cost increases, CO_2 increases, unreliable

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Coming up: new Sustainable Port Strategy:

From "Port" to "Port and Chain" Orientation

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How to introduce a sustainable system in port-hinterland logistics

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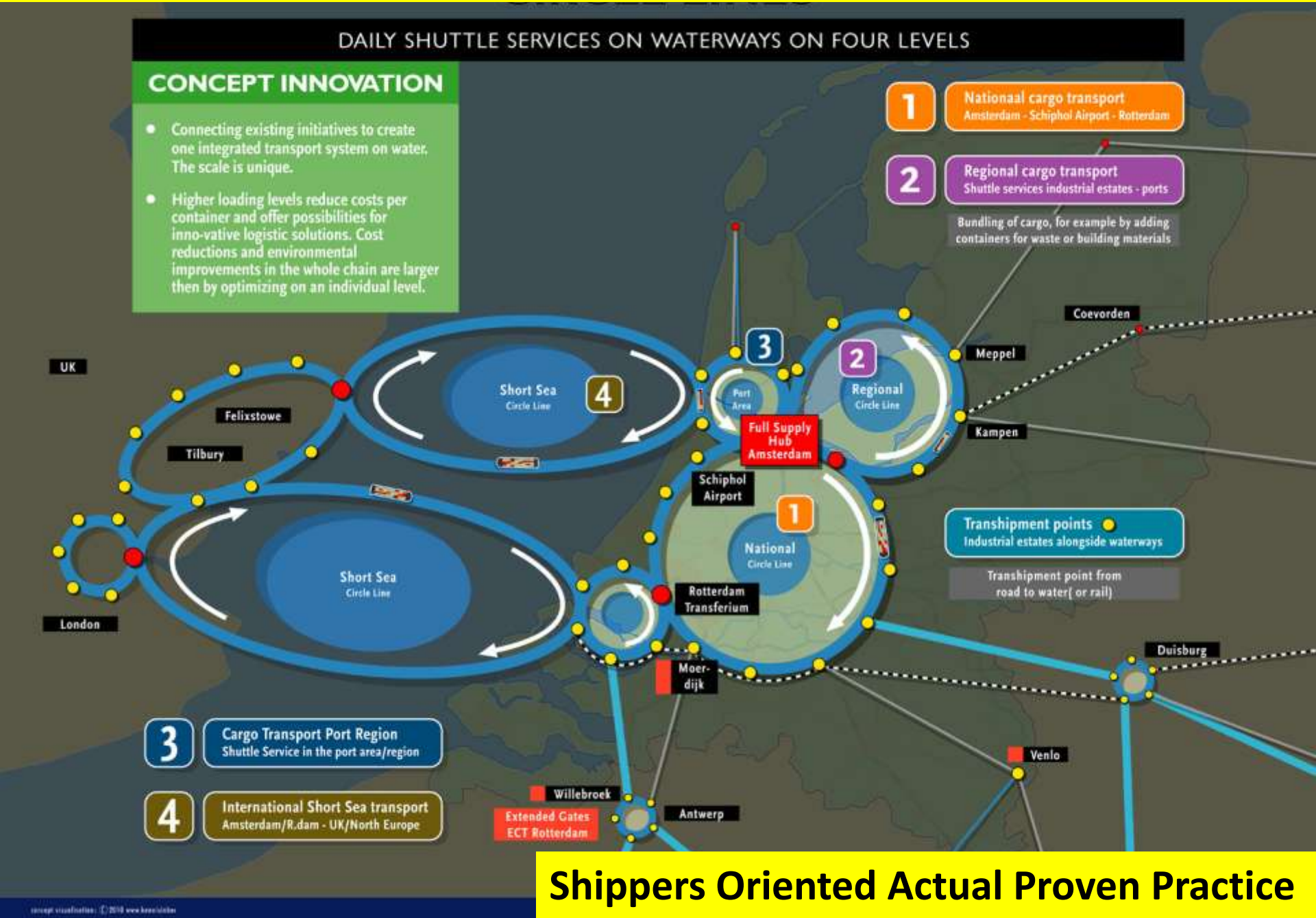
CIRCLE LINES: SMART OPERATIONAL PORT-HINTERLAND LOGISTICS



Shippers Oriented Actual Proven Practice

Smart Port-Hinterland Logistics Results Impressive

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Cost Reductions up till 50%

CO2 reductions up till 80%

per container

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From "Port" to "Port and Chain" Orientation

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CHAIN MANAGEMENT REQUIRES CHAIN INFORMATION

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From "Port" to "Port and Chain" Orientation

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MUCH CHAIN INFORMATION AVAILABLE

1. **Environment:** 200 environmental rules monitored, reported in ports
2. **Safety:** local, national, international, global rules monitored, reported
3. **Security:** local, national, international, global rules monitored, reported
4. **Finance:** payment streams between all partners in the chain
5. **Logistics:** 200 documents per container: all players have logistics information

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From "Port" to "Port and Chain" Orientation

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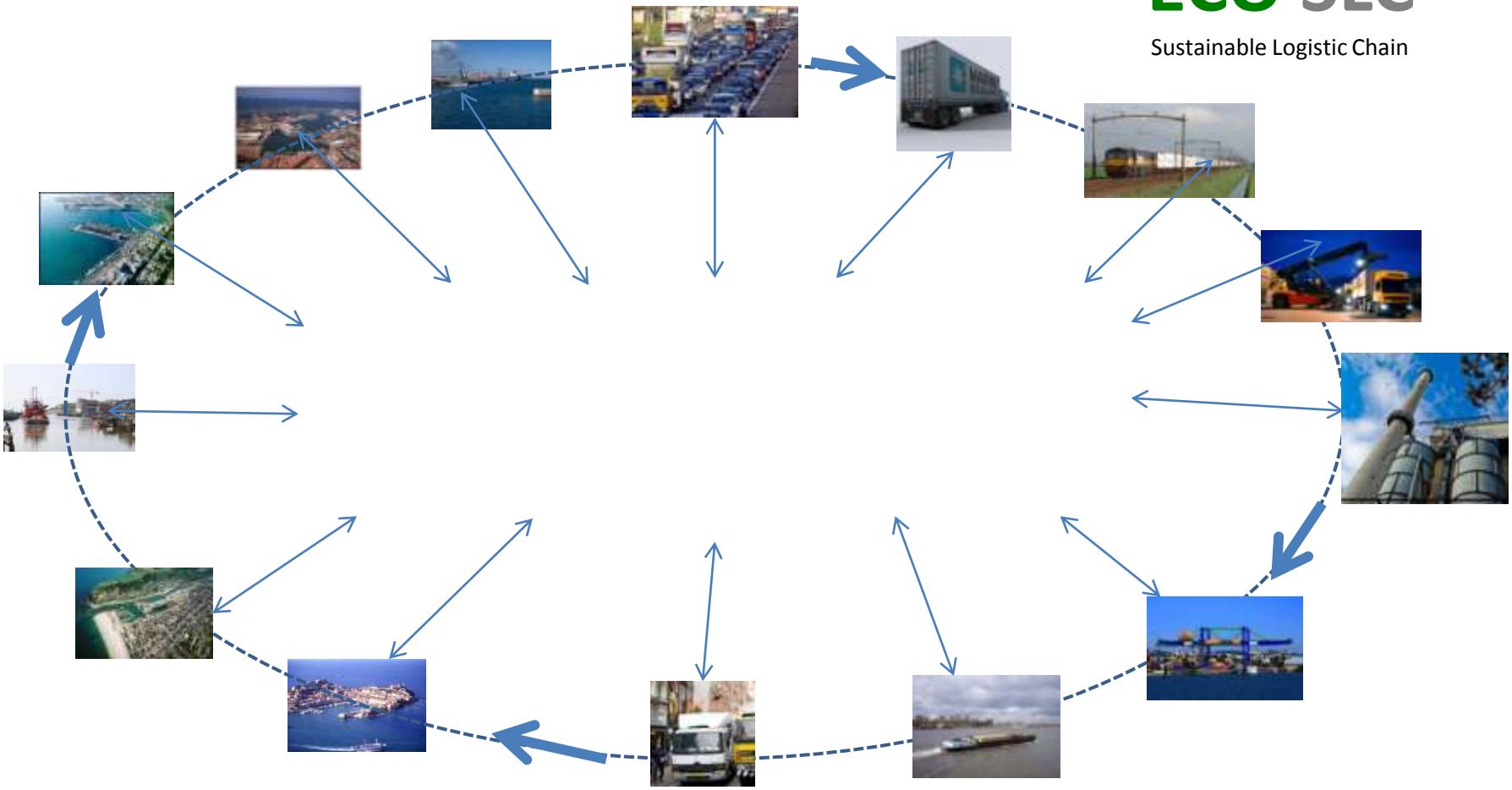

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From "Port" to "Port and Chain" Orientation

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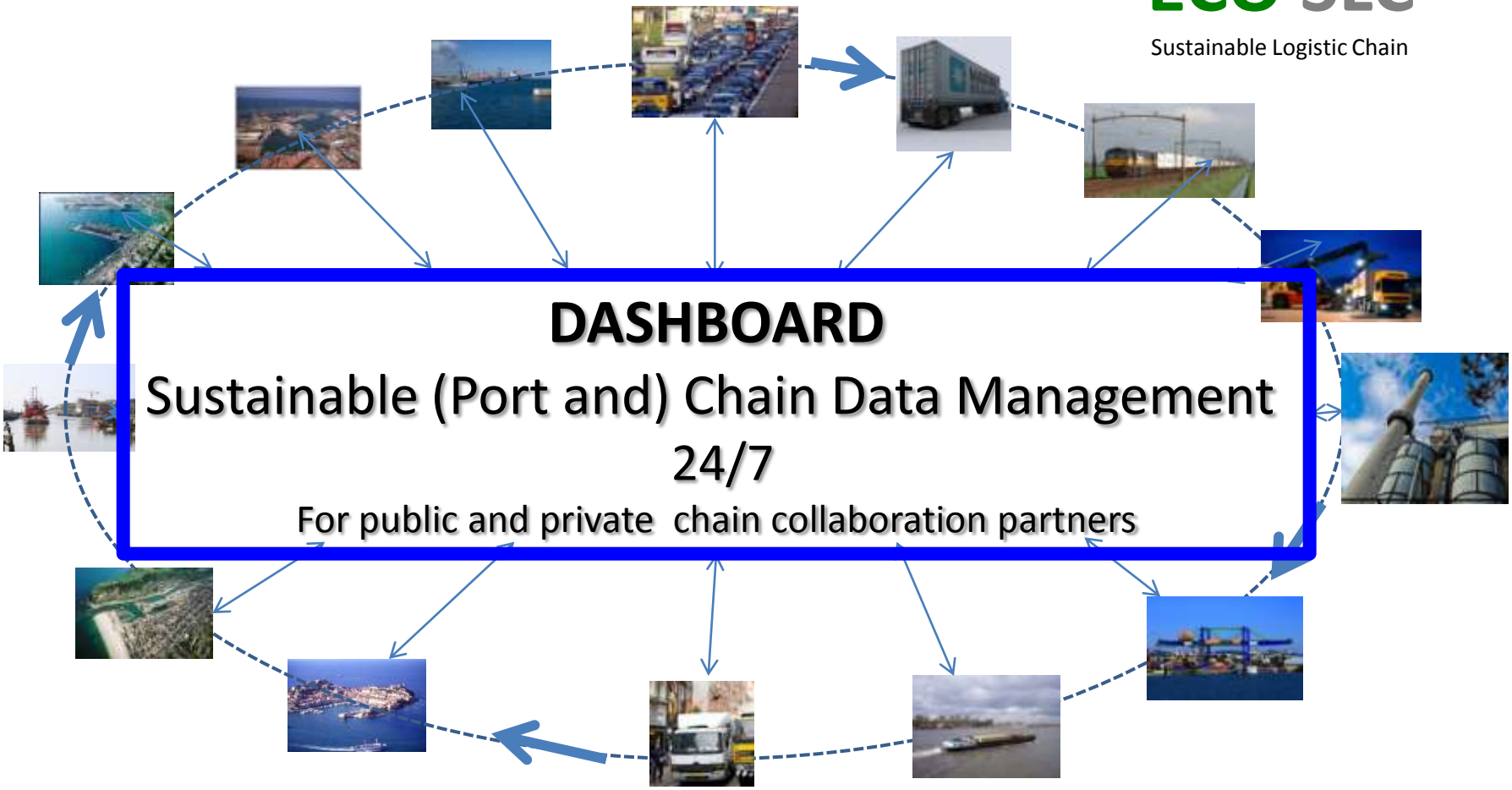

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How to join ECOPORTS:
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1. Access and registration
2. Port profile
3. Complete SDM and get an “EcoPorts” status
4. Submit SDM for review and advice
5. Implement PERS
6. Apply for PERS certification

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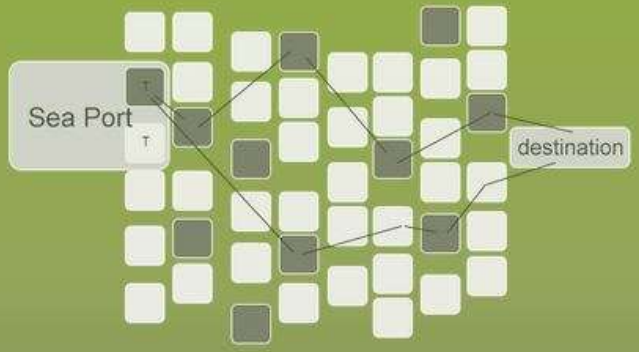

EcoPorts Environmental Management Tools & Services

» Self Diagnosis Method (SDM)
» Port Environmental Review System (PERS)

ECOSLC Logistics Tools & Services

» Sustainable Port Strategy within the chain
» Sustainable Logistic Chain SDM
» Introduction and training workshops

About ECOSLC

ECO Sustainable Logistic Chain Foundation (ECOSLC) is a Foundation, set up in 2010 by a key team of Ecoports Foundation.

EcoPorts tools

Ecoports offers three validated Tools to assist port authorities to develop implement and maintain a credible Environmental Management System (EMS).

Training services

ECOSLC offer training in Ecoports Tools and Ecoports certification in ports outside Europe with the support of ESPO, the European Seaports Organisation.

Join the ECOSLC network

Read about how to join the network and get the full benefits of the provided services

Join now!