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PPRISM
Port Performance Indicators: Selection and Measurement

Towards a culture in measuring port performance

by

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Towards a culture in measuring port performance

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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
Introduction (I)

★ Context
  - ‘Modernisation’ chapter European Ports Policy 2007
  - Call for proposals DG TREN/SUB/1-2009
  - ESPO-led consortium won bid with proposal ‘PPRISM’
★ The project was coordinated by the ESPO secretariat
★ Key role ESPO Technical Committees
★ Research partners
Introduction (II)

- Port sector is vital but largely unknown to Europe
- Port sector is both a dynamic and traditional industry (idem shipping)
- Port authorities and terminal operators measure own performance but share very little
- (Public) benchmarking highly controversial
- Very few reliable and comparable indicators at European level
- Major obstacles: Lack of standardization, Every port is unique, etc..
- PPRISM as a first step to a culture of measurement for the European port sector as a whole
- PPRISM to contribute to greater transparency and awareness about the vital role of ports

Objectives

1. Acceptable and feasible Key Port Performance Indicators to measure the impact of the European Port System on society, environment and economy.
   - Market trends and structure
   - Socio-economic impact
   - Environment
   - Logistic chain and Operations
   - Governance

2. Methods for data collection and analysis

3. Concept of Dashboard and Observatory

Each port is unique  Port Authority/port area?  Confidentiality
Methodology

159 Indicators
- Academic partners and ESPO
- Direct stakeholders assessments (1st phase)
- Direct stakeholders assessments (2nd phase)
- Multi-stakeholder response panel assessment

Min Number of Indicators
14 indicators

WP1: Academic pre-selection

Market Trends & Structure Indicators
- Maritime traffic
- Herfindahl Hirschman Index (HHI)
- Vessel Traffic
- Market Share
- Load Rate
- Container dependency
- Scale size
- Mixed

Logistic Chain and Operational
- Maritime container connectivity
- Intermodal container connectivity
- On-time performance (Sea-going)
- On-time performance (IW, Rail, Road)
- Mean time customs clearance
- Availability of Port Community Systems
- Step time around time

Socio-economic Indicators
- Employment (Direct & Indirect)
- Added value (Direct & Indirect)
- Direct Gross added value per FTE
- Financial health
- Training per FTE
- Investment

Environmental Indicators
- Total energy consumed
- Carbon footprint
- Total water consumption
- Amount of waste
- EMS standard
- Existence of Aspects inventory
- Existence of monitoring programme

Governance Indicators
- Integration port cluster
- Extent of performance management
- Existence of Performance Measurement
- Formal reporting CSR
- Market opinions
- Port authority investment
- Safety/Security
- Port authority employee productivity
- Autonomous management
WP2: Approach to stakeholders’ assessment

Market Trends & Structure Indicators
- Maritime traffic
- Call size

Socio-Economic Indicators
- Employment (Direct)
- Added value (Direct)

Environmental Indicators
- Carbon footprint
- Total water consumption
- Amount of waste
- Environmental management

Logistic Chain and Operational
- Maritime container connectivity*
- Intermodal container connectivity
- Quality of customs procedures*

Governance Indicators
- Integration of port cluster
- Reporting Corporate and Social Responsibility
- Autonomous management

*: indicators piloted with data from external sources
WP3: Pilot – Distribution of the sample

Results: First European Port Performance Dashboard
Achievements to date

★ Partnership and Network of Research & Development
★ Tools and methodologies
★ Assessment and validation - 58 in Pilot
★ Anonymity and confidentiality (see, www.ecoports.com for example)
★ Commitment of the industry to continue efforts in terms of performance management

Next step: PORTOPIA (Ports Observatory for Performance Indicators Analysis)

★ Follow-up proposal submitted under FP7 FRAMEWORK (EU funding framework on R&D)
  □ Call SST.2013.6-2 – Towards a competitive and resource efficient port transport system.
  □ Objective: to develop a ports observatory with a set of indicators measuring EU ports performance, activities and developments.
★ Extended scope: Inland ports & Port Community
★ Extended consortium: Academia, Industry and technological partners
Objectives of PORTOPIA

- Increase participation of EU port authorities, include inland ports and port stakeholders
- Harmonised data, performance and sustainability of data collection, data management and data storage
- Benchmarking module
- Link indicators to policy objectives
- User quality perception measurement tool (AAPA port users perception initiative)
- Long-term sustainable operation of the EPO, in terms of finance and resources, and stakeholder support
- Communication and dissemination of results, leading to broader societal acceptance of port activities
- Ensure link with existing performance management systems of transport sectors and/or logistic chains linked to ports

Outcome of PORTOPIA

- State-of-the-art, sustainable, self-supporting European Ports Observatory, endorsed by port stakeholders, that provides superior value to the industry and its stakeholders by supplying transparent, useful and robust indicators and the contextual analysis of thereof, leading to improved resource efficiency, effectiveness and societal support for the European Port System
Thank you for your attention

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