Dredging and sediment management; the significance for the European Port Sector and the Mediterranean Ports

Marc Eisma
“Sediments and Biodiversity: bridging the gap between science and policy”, Venice, 6-9 April 2011
Content

✓ Few words on ESPO
✓ Significance of dredging
✓ Port Sector response
✓ Way forward
Few words on ESPO

- Founded in 1993
- Represents European sea port authorities in all varieties
- +800 ports handling 3.5 bln tonnes of cargo and 350 mln passengers annually
- Recognized counterpart of EU institutions
- Platform with EFIP (European Federation of Inland Ports)
- Integrating EcoPorts since January 2011 (www.ecoports.com)
ESPO and the environment

Both a priority and a challenge

2 main fields of action:

1. Follow-up legislative developments and influence on EU policies
2. Encourage ports to be proactive in protecting the environment:
   - recommendations on environmental management
   - exchange of good practices
   - raise awareness and disseminate information
   - www.ecoports.com
Significance of Dredging in Europe

Source: ESPO / EcoPorts Port Environmental Review 2009

- Synergy ESPO / Ecoports
- Similar exercises 1996, 2004
- Launched February 2009

- 122 ports from 20 European Maritime states; 37 categories
## Significance of Dredging in Europe

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

*Source: ESPO / Ecoports Environmental Review 2009*
## Significance of dredging / port size

<table>
<thead>
<tr>
<th>Category</th>
<th>Significance</th>
<th>Category</th>
<th>Significance</th>
<th>Category</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Garbage/Port waste</td>
<td>Dredging: operations</td>
<td>Air quality</td>
<td></td>
<td>Air quality</td>
<td></td>
</tr>
<tr>
<td>Noise</td>
<td>Air quality</td>
<td>Port development (water)</td>
<td>Noise</td>
<td>Garbage/Port waste</td>
<td></td>
</tr>
<tr>
<td>Dredging: disposal</td>
<td>Energy consumption</td>
<td>Noise</td>
<td>Garbage/Port waste</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dredging: operations</td>
<td>Noise</td>
<td>Dust</td>
<td>Dredging: operations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Energy Consumption</td>
<td>Dust</td>
<td>Relationship with local community</td>
<td>Port development (land)</td>
<td>Relationship with local community</td>
<td></td>
</tr>
<tr>
<td>Dust</td>
<td>Dredging: disposal</td>
<td>Garbage/Port waste</td>
<td></td>
<td>Relationship with local community</td>
<td></td>
</tr>
<tr>
<td>Relationship with local community</td>
<td>Garbage/Port waste</td>
<td>Energy consumption</td>
<td>Dredging: disposal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bunkering</td>
<td>Relationship with local community</td>
<td>Port development (land)</td>
<td>Conservation areas</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ship waste</td>
<td>Ship waste</td>
<td>Ship waste</td>
<td>Port development (water)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cargo spillage (handling)</td>
<td>Port development (land)</td>
<td>Dredging: disposal</td>
<td>Climate change</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: ESPO / Ecoports Environmental Review 2009
Significance of dredging in Med ports

<table>
<thead>
<tr>
<th>2009</th>
<th>Europe (122 ports)</th>
<th>Mediterranean ports (18 ports)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Noise</td>
<td>Air quality</td>
</tr>
<tr>
<td>2</td>
<td>Air quality</td>
<td>Garbage / Port waste</td>
</tr>
<tr>
<td>3</td>
<td>Garbage / Port waste</td>
<td>Dust</td>
</tr>
<tr>
<td>4</td>
<td>Dredging: operations</td>
<td>Noise</td>
</tr>
<tr>
<td>5</td>
<td>Dredging: disposal</td>
<td>Hazardous cargo (handling/storage)</td>
</tr>
<tr>
<td>6</td>
<td>Relationship with local community</td>
<td>Energy consumption</td>
</tr>
<tr>
<td>7</td>
<td>Energy consumption</td>
<td>Water quality</td>
</tr>
<tr>
<td>8</td>
<td>Dust</td>
<td>Relationship with local community</td>
</tr>
<tr>
<td>9</td>
<td>Port development (water)</td>
<td>Sediment contamination (marine)</td>
</tr>
<tr>
<td>10</td>
<td>Port development (land)</td>
<td>Dredging: disposal</td>
</tr>
</tbody>
</table>

Source: ESPO / Ecoports Environmental Review 2009
Conclusions on the significance of dredging

- Dredging and disposal of dredged material are constantly identified as top priority environmental concerns by European seaports since 1996.

- Dredging and disposal of dredged material are identified as priority concerns independently of the port’s size.

- In the Mediterranean dredging seems to have a lower priority ranking but still figures within the top environmental priorities.
Port sector response

- ESPO Code of Practice on the Birds and Habitats Directives (2007)
- EC Guidance Document; the implementation of the Birds and Habitats Directives in Estuaries and Coastal zones (2011)
ESPO Code of Practice on the Birds and Habitats Directives

- Despite long experience with Birds and Habitats Directives, implementation still causes problems for port development.

- Based on existing good practices and projects (New!Delta, Paralia Nature, GEODE, SedNet).

- Recommendations for managing port related activities and the different phases of port related projects/plans, possibly having an adverse effect on designated areas.

- Outstanding issues which cause unnecessary administrative and financial burdens without significant environmental added-value.
ESPO B&H Code of Practice recommendations on dredging:

1. Work with environmental agencies to determine the status of dredging works and to find appropriate regulatory solutions.
2. Actively participate in the management plan process.
3. Disseminate information about sustainable dredging techniques to show this could be part of a Natura 2000 management plan.
4. Carrying out an appropriate assessment could lead to the inclusion of maintenance dredging works in a management plan.
5. Adverse effects of dredging can be mitigated.
6. Try to facilitate stakeholder engagement.
EC Environmental Guidelines

... on the implementation of B&H directives in estuaries and coastal zones, with particular attention to port development and dredging

- Process started 2007 based on a request of the ports and maritime services sector
- Estuary Expert Group (DG ENV, DG MOVE, ports, stakeholders)
- Published March 2011 - Commission Working Document, Guidelines, Technical annex
- Successful process / basis for future work
Guidelines – Key recommendations

• The design of plans or projects should always be based on mutually beneficial strategies according to the ‘working with nature’ concept.
• Damage prevention or avoidance measures should always be preferred to compensation measures.
• Pre-assessments to evaluate the potential for impact of a plan or project on Natura 2000 sites should always be foreseen.
• Thorough and timely stakeholder consultation is always recommended.
Guidelines – Key recommendations

• Maintenance dredging of ports and navigational access should be dealt with in the context of integrated management plans for the entire waterway or the affected Natura 2000 site.

• Capital dredging operations should be designed as a part of sustainable dredging and sediment management schemes.

• Mitigation or compensatory measures should include a pre-defined and validated scheme to monitor the actual impacts and a framework to adapt to the actual impacts.
Position Paper on Sediment EQS*

- NTG does not believe there is a specific requirement for generic European-wide sediment EQS or a role for the Commission to propose such standards.
- Important differences exist between the characteristics and behaviour of water and sediment.
- High levels of natural diversity/variability between river basins plus difficulties collecting representative and relevant sediment samples make it impossible to set meaningful sediment EQS for Europe-wide application.

*Environmental Quality Standard*
Position Paper on Sediment EQS, conclusions:

- Severe doubts about legal basis for setting European-wide sediment EQS
- Such standards are neither scientifically justified nor workable in practice
- NTG recognised that development of sediment EQS at a local (catchment or river basin) level could be supported
- NTG will monitor progress on this issue in the review process of the Priority Substances Directive (WFD)
MSFD Navigation Group

Involvement in Common Implementation Strategy

- Marine Directors
  - Maritime policy: experts, focal points
  - Other relevant groups e.g. Nature Directors

- Strategic Coordination Group (MS, stakeholders, conventions)

- Working group on Good Environmental Status (GES)
- Working group on Information Exchange (DIKE)
- Working group on Economic & Social Assessment (ESA)
Way forward

- Review of the ESPO Environmental Code of Practice
- ESPO inventory of best practices + dissemination
- SedNet provides a good link to science & policy
- Pro-active involvement in the implementation process of relevant (new) EU Directives
Thank you for your attention

Contact ESPO: Antonis.Michail@espo.be