Exploiting Oceans of Data for Maritime Applications

BIG DATA OCEAN
EXPLOITING OCEANS OF DATA FOR MARITIME APPLICATIONS

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http://www.bigdataocean.eu/
## BigDataOcean Fact Sheet

<table>
<thead>
<tr>
<th><strong>BigDataOcean</strong></th>
<th><strong>Exploiting Oceans of Data for Maritime Applications</strong></th>
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<tbody>
<tr>
<td><strong>Project Number</strong></td>
<td>732310</td>
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<tr>
<td><strong>Starting Date</strong></td>
<td>01/01/2017</td>
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<tr>
<td><strong>Project Duration</strong></td>
<td>30 months</td>
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<td><strong>Call (part) Identifier</strong></td>
<td>H2020-ICT-2016-1</td>
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<td><strong>Topic</strong></td>
<td>ICT-14-2016-2017 Big Data PPP: cross-sectorial and cross-lingual data integration and experimentation</td>
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Around 80% of global trade by volume is carried by sea.

....and around 70% of global trade by value
Objective

Develop a **Maritime Big Data marketplace**

that delivers out-of-the-box, value-added analytic services for maritime applications

by exploiting cross-sector data streams
Challenges

- Undeveloped Blue Data sharing and linking between enterprises and entities of the maritime domain and other domains
- Isolated maritime applications and services (vendor-lock-ins)
- Different standards and formats
- Huge potential from cross-sectorial blue data applications – still unexploited
- Access to out-of-the-box Big Data services, advanced queries and analytics
Blue Data Maritime Services

- Maritime Industries
- Entrepreneurs
- Data Industries
- Policy Makers
- Data Researchers
- Maritime NGOs
New business services
Cross-domain knowledge sharing
Evidence-based analytics
Decision support models
BigDataOcean Pilots

1. Fault Prediction & Proactive Maintenance
2. Mare Protection
3. Wave Power as Clean Energy Source
BigDataOcean Services

- Find Maritime Data & Services
- Query / Interlink Datasets
- Visualize Datasets
- Analyze Datasets
- Create (real-time) dashboards / Reports
- Service Composition
- Templated Service Parameterization
- On-demand Services
BigDataOcean Unique Offering

- BigDataOcean Maritime Services Marketplace
- Re-use of “blue” data and queries coming from different sources and stakeholders
- Mashup of maritime industry data and oceanographic data
- Creation and re-use of Maritime Services and visualizations
- Out-of-the-box big data processing framework
- Out-of-the-box analytic and visualisation tools
- On-demand Maritime Big Data Services
BigDataOcean Architecture

Big Maritime Data Architecture

Stakeholders
- PUBLIC AUTHORITIES
- ENTREPRENEURS
- MARITIME COMPANIES
- NGOS
- LOCAL COMMUNITIES
- SCIENTISTS
- ENERGY COMPANIES

APPLICATIONS
- QUERY PROCESSING
- DATA ANALYTICS
- DATA CURATION
- DATA VISUALISATION
- DATA INTEGRATION

APIs
- SEMANTIC ENRICHMENT

OPEN DATA
- SENSOR/IoT DATA
- SECONDARY DATA
- SCIENTIFIC DATA
- SOCIAL DATA
- HISTORICAL DATA
- BIOLOGICAL DATA
BigDataOcean Tools & Resources

- BigDataOcean platform first major release
- Collection of Big Maritime Data
- Four Pilots led by maritime industry and research
CONTACT

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