# Survey of National Coastal and Marine SDI geoportals: European developments

Roger Longhorn Jade Georis-Creuseveau Joep Crompvoets



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## Presentation

- Context
- Aim & Scope
- Methodology
- Results
- Outlook and conclusion

#### **Context: Marine and Coastal zones specificities**

- Complex area where human, natural and physical components interact
- Over-exploitation of resources and related use conflicts (UNEP, 2012)
- Increasing risks and needs in integrated management
- Implementation of collective processes and tools to enhance knowledge and management (Cicin-Sain *et al.*, 1998 ; Douvere, 2008)



#### Context: Geographic Information Sciences and Technologies – SDIs

- ~1970 : Progress in Geographic Information Sciences and Technologies (Longley et al., 2005)
- ~1990's : development of SDIs to better manage and share spatial data and information (Crompvoets *et al.*, 2004)
- SDI components : data, policy, access networks, standards, and people (Rajabifard *et al.*, 2002)
- ~ 2000's : implementation of Coastal and Marine SDIs (Longhorn, 2005)
  =>Improve the accessibility and the availability of spatial data related to marine /coastal areas
  ( e.g. real time observation, multi-thematic data)
   Not always labeled "SDI"

### Context: ICZM & MSP

- Deliver a sustainable approach to the management of the coastal zones, oceans and seas, across sectors, between different levels of government, and across jurisdictional boundaries
- Related regulations (e.g. European Commission (2008), European Commission (2013), European Commission (2014))

т Catalyst for increasing production, access, sharing, use and integration of coastal and maritime geo-information in order to inform IZCM/MSP decision making (IHO, 2011)

Needs for coastal and marine SDIs : *a priori* evident ? \_\_\_\_ Assessment of the European developments

## Aim & Scope

- Aim: International Web survey to assess the european developments of <u>existing national marine and coastal</u> <u>geoportals</u> of SDIs or similar Web services
- Geoportal: central web gateway (Crompvoets *et al.*, 2004; Maguire et Longley, 2005) way to assess the processes implemented by the country
- Scope: geoportals implemented by national public bodies in Europe enabling the access and the use of geographic data specifically related to marine and/or coastal zones

## Methodology: general overview

- Geoportals inventory : November 2014
  - browsing of the Internet with monitoring tools (e.g. Google alert, Mention, Netvibes)
  - Scanning various international networks and events (GSDI, CoastGis, IHO, IODE, INSPIRE)

- Geoportals characterization: November 2014 and March 2015
  - 12 Characteristics sourced from the geoportal Web pages
    - detailed description of the five SDIs components : Data, Technology, People, Policy, Standards

## **Results: Overview**

- 35 surveyed geoportals
- Implementation around mid 2000's
- Most of the geoportals (94 %) of the non-English countries provide information in two (88 %) or more languages (12 %)

## **Results: typology**

<u>Geoportal</u> <u>Class</u>	<u>Number</u>	<u>Affiliation</u>
Atlas-Like	9	ICAN
Hydro. Office	9	IHO
Oceanographic/ Marine Data Centre	13	IODE and SeadataNet
Hybrid	4	

## **Results: characteristics**

- Name of national geoportal
- Year of first implementation
- Languages used
- Data themes
- Number of datasets
- Level of openness for data access
- Licensing
- Data searching mechanisms
- Data access services
- Monthly number of users
- Number of data suppliers
- Standard metadata

#### **Results: characteristics - Data theme**



March 2015

#### **Results: characteristics – Number of datasets**



#### **Results: characteristics – Level of Openness**



#### **Results: characteristics - Licensing**

- Atlas-Like geoportals : Open License or Specific Data Use Agreements (78 %).
- Hydrographic geoportals : General Conditions of Sale of the distribution agents
- Oceanographic/Marine Data Centre geoportals : IOC Oceanographic Data Exchange Policy

#### **Results: characteristics- Search Mechanisms**



#### **Results: characteristics - Access Mechanisms**



#### **Results: characteristics -Number of data suppliers**



#### **Results: characteristics - Metadata Standards**

- The Hydrographic Office geoportals provide metadata according to the IHO transfer standard for digital hydrographic data (S-57)
- The remaining geoportals provide metadata in the INSPIRE Metadata standard

No evolution between October 2014 and March 2015

## **Conclusion and Outlook**

- European developments underway
- Four types of geoportals enabling t have access to different kinds of data through various mechanisms
- Data and mechanisms are very stable
- Very similar to the 'terrestrial-oriented' geoportals
- Despite the integrated approach promoted by IZCM /MSP access to a wide range of data are not frequent

#### Perspectives

- Survey to assess the real use of geoportals : coordinators
- Survey to assess real usage, satisfaction and needs of geographical information : user

## Thanks for your attention

Roger Longhorn Global Spatial Data Infrastructure (GSDI) Association, USA & Belgium <u>rlonghorn@gsdi.org</u>

Jade Georis-Creuseveau LETG-Brest Geomer, European Institute of Marine Studies, Plouzané, France jade.georis-creuseveau@univ-brest.fr \_and\_jade.georis-creuseveau@cnrs.fr

> Joep Crompvoets KU Leuven, Public Governance Insitute, Leuven, Belgium joep.Crompvoets@soc.kuleuven.be