14th Meso American & Caribbean Sea Hydrographic Commission

Sint Maarten, The Netherlands Dec. 10th 2013

# Maritime Data Management

## (Sistema de Administracion de Datos Marinos)

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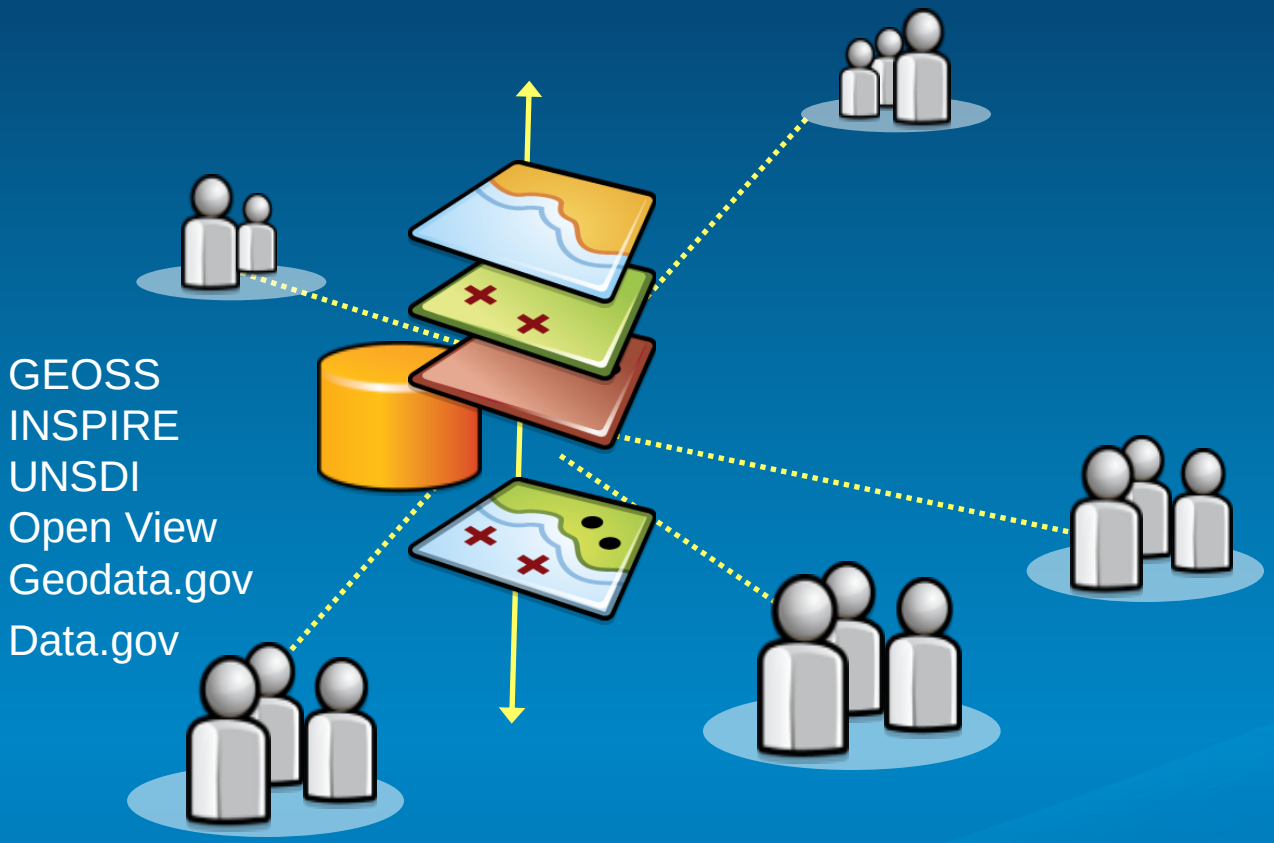
# Maritime Data Manage

*Managing a Complex Environment*

1. Energy, Renewable
2. Energy, Nonrenewable
3. Lease Block
4. Restricted Areas
5. Heritage Protected Areas
6. Exploration
7. Security (Port security, law enforcement, sovereignty)
8. Material Extraction
9. Navigation
10. Facility Management (Ports, Harbor, Military)
11. State Submerged Land
12. Federal Submerged Land
13. Fishing
14. Transmission
15. Ocean Disposal
16. Recreation Areas
17. Marine Protected Areas

# Data Sharing Has Been a Key to This Success

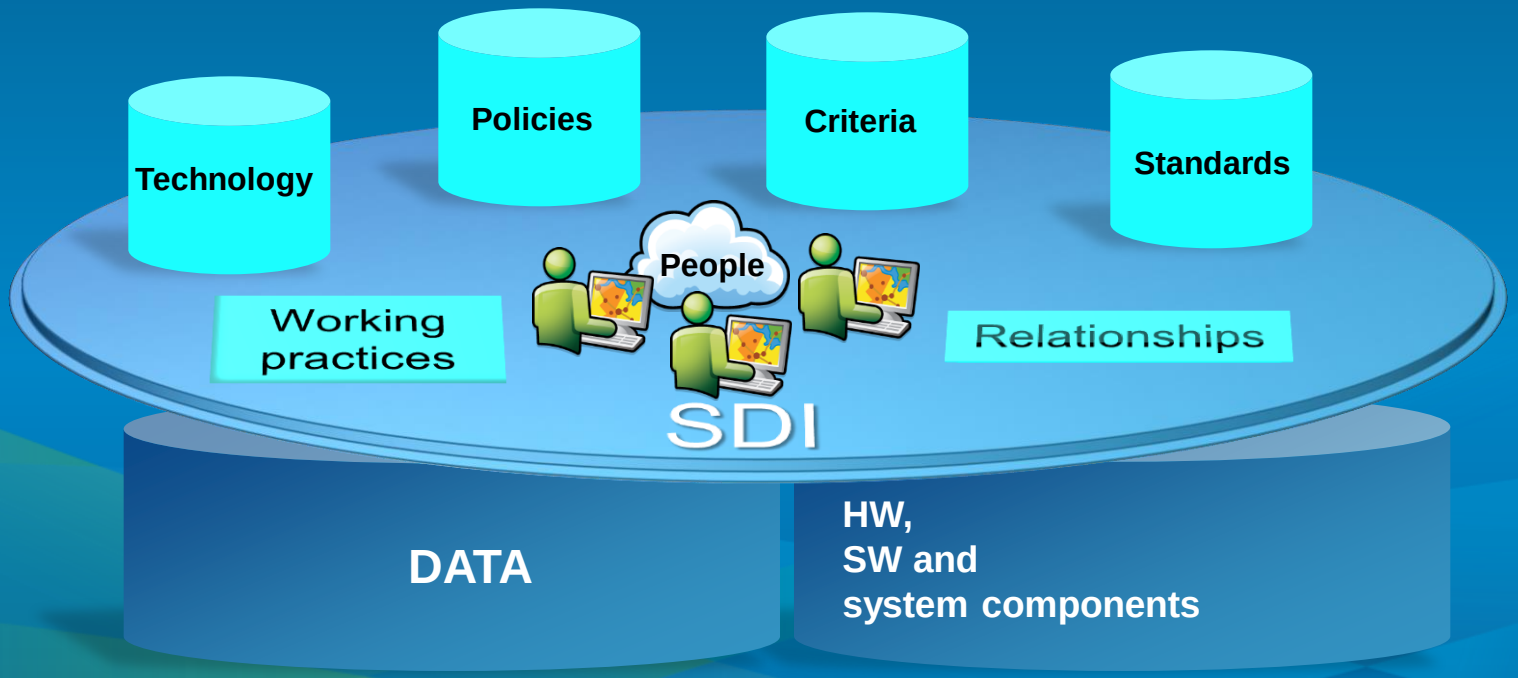
## Many Agencies Consider Sharing Part Of Mission



# Spatial Data Infrastructure

## Constituents

- SDI is “the relevant base collection of technologies, policies and institutional arrangements that facilitate the availability of and access to spatial data.” (Ref: Global Spatial Data Infrastructure Cookbook).



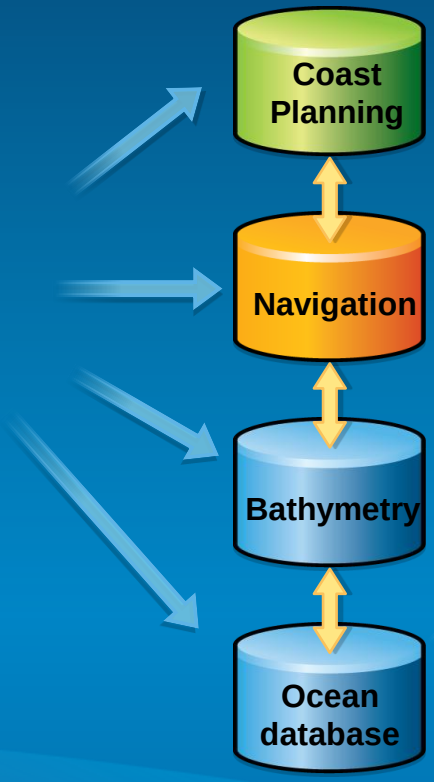
# How a Marine SDI is built

# A Marine GIS as the Core of MSDI

## Marine Data Management System

**Production System Inputs**

- Hydrographic data
- Oceanographic data
- Mariners
- Other Agencies
- Other Countries
- Public

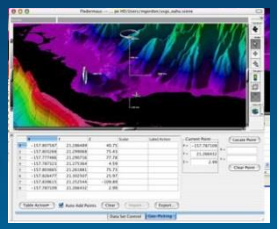



**Production System Outputs**

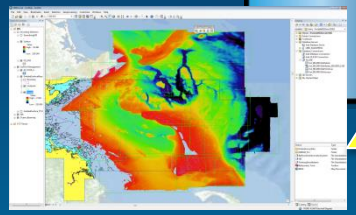
- Navy Users
- Marines
- Mariners
- Armed Forces
- Government Agencies
- Scientists
- Mobile Applications
- Server Based Analysis

- *…Interoperability, flexibility and scalability*

# A Maritime Data Management System

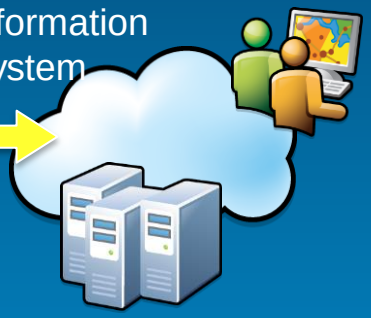


BAG files

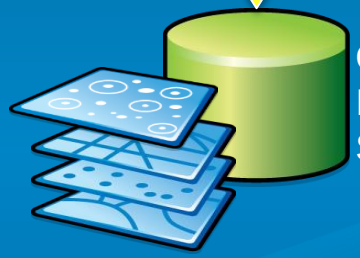


Bathymetric Information System

Nautical Information System



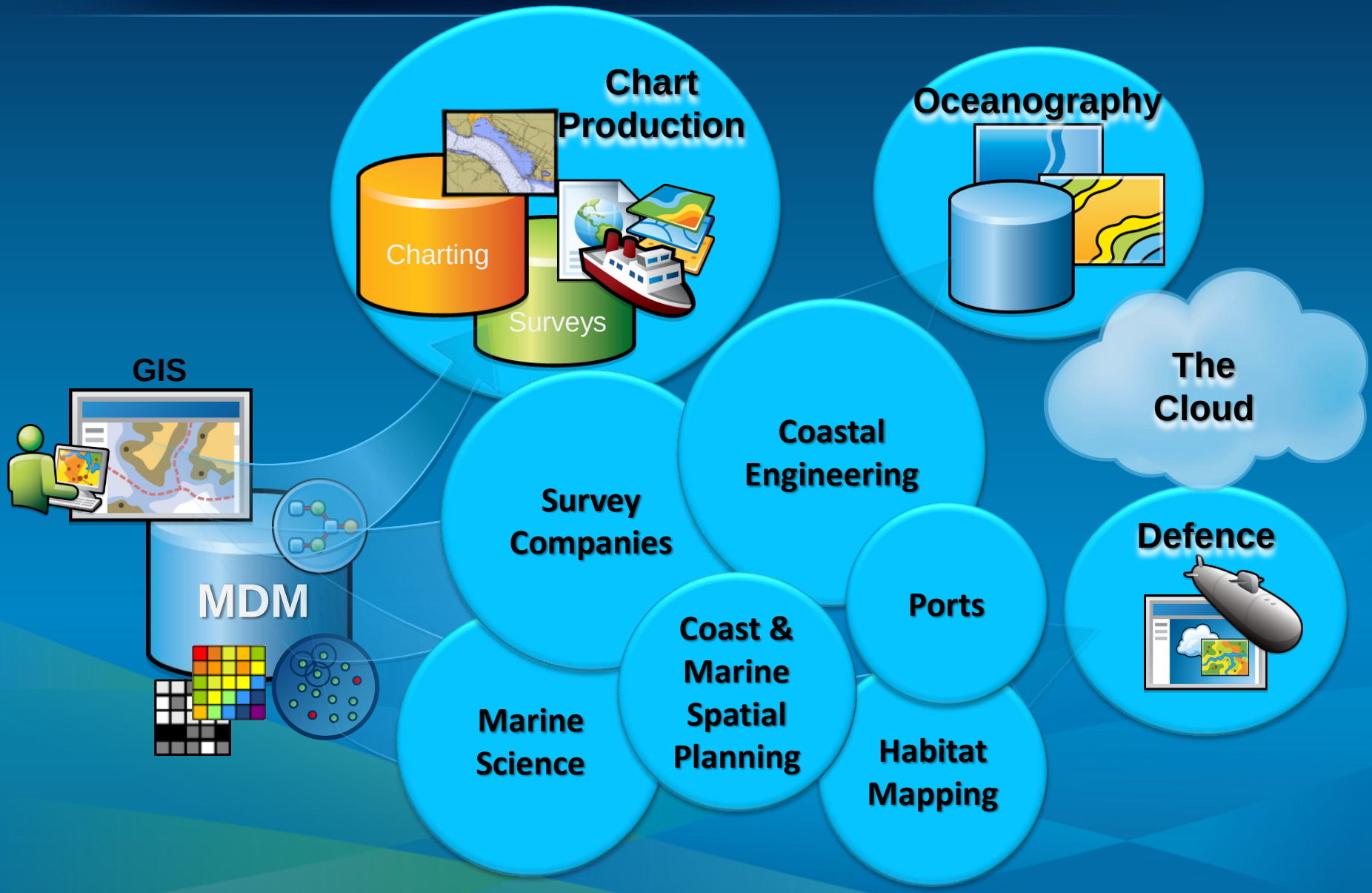
Hydrographic Survey



Oceanographic Information System

1. New bathymetry and metadata
2. Geodetic, AtoNs, Hazards, Port's data
3. SVP, CTD, Tides, Currents, Sediments, backscatter, etc.

# Hydrography is more than charts



# Sharing through ArcGIS Online:

http://esriho.maps.arcgis.com/home/index.html

## Telling your story with Story Maps

- Top 10 Hurricanes in the US:http://storymaps.esri.com/stories/2012/top-ten-hurricanes/
- Coral Reefs at Risk:

- http://www.arcgis.com/apps/Compare/storytelling_tabbed/index.html?appid=f537896f8e30481e901938eb049a73a0

esri

**Thank you**

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