



**IHO MSDI Demonstration Workshop  
and Open Forum**

**Marine SDI supporting MyGDI**

**Kamaruddin Yusoff  
National Hydrographic Centre**

**26 Jan 2016**



(Clockwise from top: Mr Haji Julaihi bin Haji Lamat, Mr Park Bong Seok, Lt Kamonchai Pragobjinda, Lt Kamaruddin bin Yusoff, Mr Lim Kar Wooi, Mr Indragiri Yani Wardhono, Mr Chen Lei, Mr Muhammad Akbar bin Paimin, Mr Haji Asrahwi bin Haji Ahmad Bujang, Ms Kermaine Sia, Mr Wu Lingzhi, Ms Nguyen Thi Quoc Anh, Mr Wang Yukai, Mr Lee Brinton, Dr Mike Osborne, Mr Jamie Chen, Mr John Pepper, Mr Yosuke Niimura, Mr Jonathan Pason and Mr Lee Ho Jeong.)





# EAHC Capacity Building Programme - MSDI and Database Management

## **Bangkok, Thailand (20 - 24 Jun 2011)**

- Hosted by the Hydrographic Department of the Royal Thai Navy (NDRTN)
- 20 students from China, Indonesia, Japan, Malaysia, Philippines, Korea, Singapore, Vietnam and Thailand

## **Singapore (7 – 11 Oct 2013)**

- Hosted by the Maritime and Port Authority of Singapore (MPA)
- 16 students from China, Indonesia, Japan, Malaysia, Republic of Korea, Philippines, Singapore and Thailand. including participants from Brunei Darussalam and Vietnam

## **Incheon, Republic of Korea (5-9 November 2012)**

- Hosted by the Korea Hydrographic and Oceanographic Administration (KHOA)
- 15 students from Hong Kong, Indonesia, Japan, Korea, Malaysia, Philippines and Thailand

## **Shanghai, China (18 – 22 Jan 2016)**

- Hosted by the China Maritime Safety Administration (MSA)
- 21 students from China, Indonesia, Japan, Malaysia, Republic of Korea, Philippines, Singapore and Thailand. including participants from Vietnam

**72**  
person

# ***Malaysia Geospatial Data Infrastructure (MyGDI)***

- MyGDI as a National Spatial Data Infrastructure (NSDI)
- Malaysian Center for Geospatial Data Infrastructure (MaCGDI) is a center under Ministry of Natural Resources and Environment (NRE)
- MaCGDI was formed in 2002 to promote the development and implementation of MyGDI
- MaCGDI plays crucial roles to spearhead the geospatial industry in Malaysia.



# WHY MyGDI ?

1

Increase efficiency, reduce duplication of effort and support decision making of government and business

2

Recognition of Geospatial Information as “Infrastructure”

3

Fundamental datasets underpin Business Information



## MyGDI Objectives

To provide mechanism/infrastructure to facilitate the utilisation and sharing of geospatial data among the agencies that use and supply the data;

To assist in the sharing of geospatial information between agencies by providing the latest state-of-the-art information technology hence allowing the dissemination of current and accurate information;

To prevent redundancies of effort in collecting, processing, maintaining, preparing and distributing of geospatial information among related agencies;

To encourage wider use of geospatial data at the state and national levels;

To stimulate and enhancing the awareness about the value of geospatial data and the relevant technology; and

To contribute towards strengthening the development of national geospatial data through collaboration.

## MyGDI Benefits

Avoiding duplication of efforts in the collection and production of **geospatial data**;

Providing consistency in the usage of geospatial data through formulation of **policies** and **standards**;

Enhancing the levels of utilization and awareness of geospatial data besides increasing the varieties of value added products;

Expediting the implementation of electronic government

Propagating the local geospatial data industry; and

Strengthening institutional capacity to produce knowledge workers through human resource development programme.



# MyGDI COMPONENTS

Catalogue Gateway / Portal

Metadata

Framework

Geodata

Standards

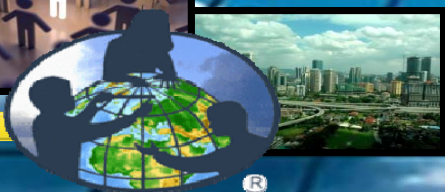
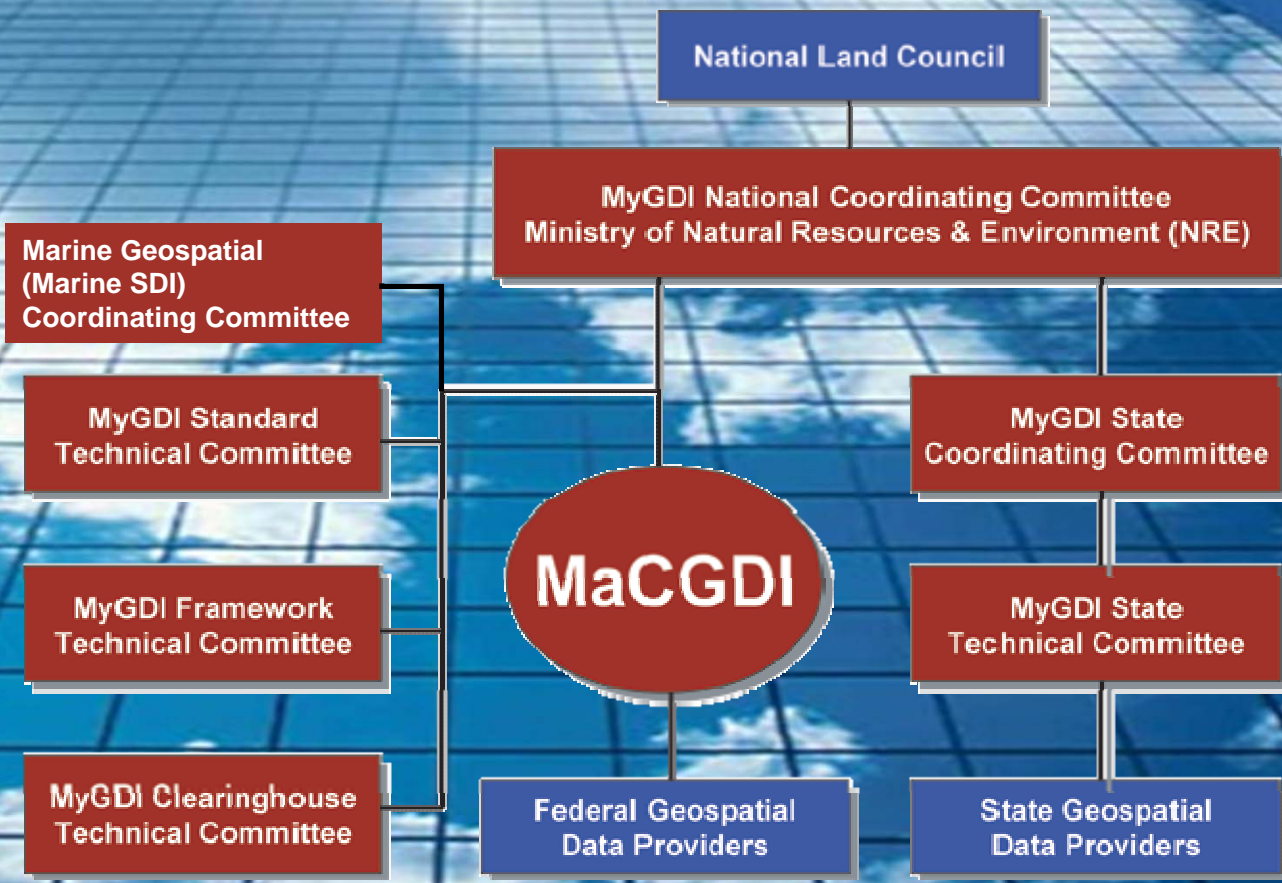
*Partnerships*



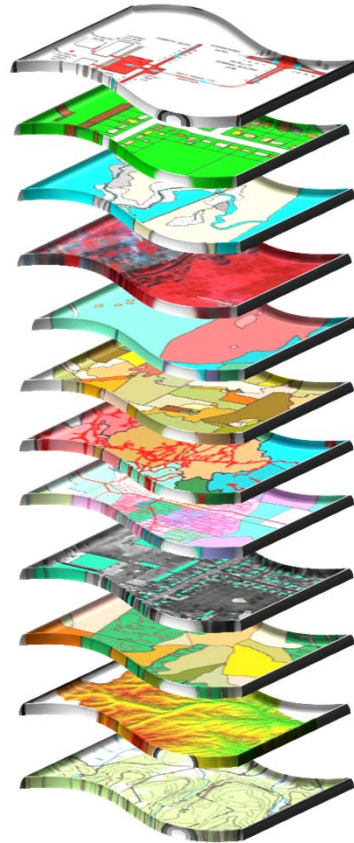


# MyGDI GOVERNANCE

New



# Framework Data Categories



## CATEGORIES

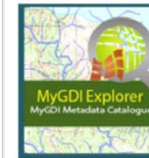
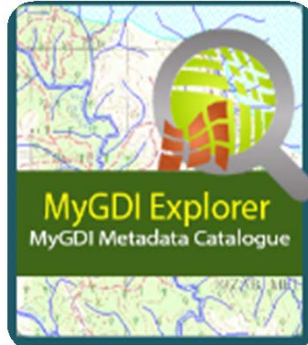
Aeronautical  
Built Environment  
Demarcation  
Geology  
Hydrography  
Hypsography  
Soil  
Transportation  
Utility  
Vegetation  
Special Use  
General

## LEAD AGENCIES

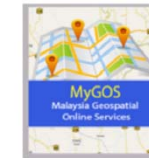
DCA  
JUPEM  
JUPEM  
JMG  
NHC  
JUPEM  
DOA  
JKR  
JUPEM  
DOA  
JUPEM  
JUPEM



# MyGDI Applications



Metadata Catalogue (MyGDI Explorer)  
This application enables users to search relevant geospatial data / information.



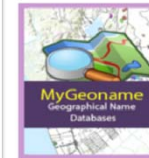
Collaborate and Share your Maps (MyGOS)  
Platform for user to promote sharing of geospatial information.



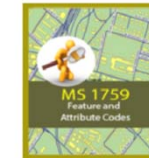
Share Your POI (1Malaysia Map)  
1Malaysia Map was developed for the use of the public to help user to search place of interest such as shop, petrol station and etc via interactive search in this application.



MyGDI Data Sharing  
MyGDI Policy Sharing  
List Data Available  
How to Apply Data



Search Geographic Name (MyGeoname)  
MyGeoName is a database that stores geographic names, locations, the details and description of history and gazetteer notifications



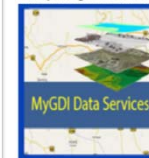
Search for Features Codes and Attributes (MS 1759)  
MS 1759 is a method of encoding feature and attributes that provides the details and description of geospatial information exchange



Search Codes & Name for Land Administrative (UPI)  
Coordination of Code and Name for Land Administrative Boundary, such as State, District, County/Town/City and Section.



MyGeotranslator  
Membantu dan memudahkan agensi pembekal data mengguna pakai standard data geospasial yang telah dibangunkan oleh MaCGDI.



MyGDI Data Services  
MyGDI Data services menyediakan satu antaramuka untuk capaian data-data yang boleh dikongsi di antara Agensi Kerajaan dengan Agensi Kerajaan (G2G).



Download Data Module  
This module enable user to search and download the data that allowed online



Related Services for Agency  
SMANRE  
G4NRE  
G4E  
Editors



Hits Applications

<http://www.mygeoportal.gov.my/data-services>



# MyGEOPORTAL

- Malaysia Geoportal is the visible front-end to MyGDI, the gateways through which users access the geospatial information services
- Access and distribution of geospatial information is at the heart of MyGDI project.
- The success of MyGDI Data Explorer is the ease of use which it allows users to locate and access geospatial resources.

The screenshot shows the Malaysia Geoportal website. At the top, there are language options (English, Melayu) and navigation links (Maklum Balas, Peta Laman, Intranet, Web Email). The main header features the Malaysia Geoportal logo and the tagline "Official Portal for Malaysia Geospatial Serving Your Geospatial Information Needs". Below the header is a navigation menu with links: Utama, MyGDI, MyGOS, Katalog Metadata, Pusat Sumber, FAQ, Pautan GIS, and Bantuan. The main content area is divided into several sections: "Metadata Catalogue Search" with a search bar and filters for "Kerajaan" and "Awam"; "MyGDI Explorer" featuring a globe and the text "Carian maklumat geospatial melalui Katalog Metadata MyGDI"; "Berita Terkini" (Latest News) with a list of recent news items; and a "Pautan Pantas" (Quick Links) section on the right with various resource links. The footer includes "Aplikasi GIS" and the "GEOPORTAL" logo.

This portal allows Users to explore, view and access the implementation of MyGDI, initiatives and its related applications.

[www.mygeoportal.gov.my](http://www.mygeoportal.gov.my)



# MyGDI EXPLORER

[User Manual](#) [MyGeoportal](#) [Login](#) [Register](#) [About](#) [Feedback](#)

[HOME](#) [SEARCH](#) [MYGDI VIEWER](#)

## The MyGDI Explorer

**Metadata Tool** You can simply...

**Find geospatial resources**  
   
**Advanced Search >>>**

**Become a Member**

**Publish Content**

**Related Updates**  
 Makluman Kerja-kerja Pengujian Server Database Melalui Virtual Server Environment. Tarikh Mula: 03 September 2014 (Rabu). Masa: 5:30 petang hingga 12:00 tengah malam. Tujuan: Kerja-kerja Pengujian Server Database Melalui Virtual Server Environment di Pusat Data MaCGDI.  
 Program Pengemaskinian dan Pengisian Metadata Baru Data Geospasial Negeri (SGDC). Rujukan: Laporan Khas untuk agensi Negeri Melaka, Jabatan Unit GIS Negeri Melaka. Tarikh: 2 September 2014.

[MyGeoportal](#) [Welcome, kama\\_yus](#) [Logout](#) [My Profile](#) [User Manual](#) [About](#) [Feedback](#)

[HOME](#) [SEARCH](#) [BROWSE](#) [ADMINISTRATION](#) [MYGDI VIEWER](#)

[Metadata Details](#) [Review Metadata Details](#)

## DATA BATIMETRI PERAIRAN PULAU PINANG

General Information  
 Content Information: Clearinghouse  
 Metadata Language: Bahasa Malaysia (ms)  
 Metadata Create Date: 2014-01-27

Metadata Publisher  
 Organisation Name: Pusat Hidrografi Nasional  
 Name: Lt Kdr Kamaruddin Yusoff TLDM  
 Telephone: 0355442000  
 Email: kama@hydro.gov.my  
 Role: custodian (002)  
 Metadata Standard Name: MyGDI Metadata Standard (Dataset)  
 Metadata Standard Version: Version 1.0 2011

Identification Information  
 Title: DATA BATIMETRI PERAIRAN PULAU PINANG  
 Abstract: Dataset Batimetri bagi Perairan Pulau Pinang ini mengandungi maklumat kedalaman dan uncertainty. Data ini disediakan dalam format Bathymetry Attribute Grids (BAG) sepertimana yang digariskan dalam publikasi S-102 Bathymetry Surface Product Specification yang dikeluarkan oleh International Hydrographic Organization. Selain dari format BAG, ia juga boleh disediakan dalam format-format lain seperti ASCII, GeoTIFF, USGS DEM, ESRI ASCII Grid, Point Cloud dan Image. Selain digunakan untuk penerbitan Carta Nautika ianya juga boleh digunakan untuk coastal management, hydrodynamic modelling, shoreline mapping, maritime boundary delimitation, coral mapping, tsunamiinundation modelling serta lain-lain. Dataset ini diperolehi pada tahun 2013 dengan resolusi ini adalah 0.5 meter.  
 Date: 2014-01-27  
 Date creation (001)  
 Type:  
 Status completed (001)

Responsible Party

TOPIC CATEGORY  
 Topic Category: Imagery and Base Maps, C

Spatial Domain  
 West Bound Longitude: 100.2921  
 East Bound Longitude: 100.4657  
 South Bound Latitude: 5.2252

MyGDI Explorer is a metadata catalogue services which enables user to explore, discover, view and evaluate geospatial data from anywhere and at anytime.

[MyGeoportal](#) [Login](#) [Register](#) [User Manual](#) [About](#) [Feedback](#)

[HOME](#) [SEARCH](#) [BROWSE](#) [MYGDI VIEWER](#)

## Search

Results 1-10 of 37 record(s)

Records shown from: This Site  
[Click here to select different site or configure search.](#)

Expand results [Zoom To Results](#) [Zoom To Searched Area](#)

- [APLIKASI VIEWER](#)
- [APLIKASI G4E NEGERI KEDAH](#)
- [APLIKASI G4E MAJLIS PERBANDARAN LANGKAWI](#)
- [APLIKASI G4E MAJLIS PERBANDARAN KULIM](#)
- [APLIKASI SPANRE](#)
- [APLIKASI GEOPORTAL PERANCANGAN JPBD MELAKA](#)
- [APLIKASI VETERINAR EDITOR \(FLEX VERSION\)](#)
- [APLIKASI VETERINAR EDITOR \(JAVASCRIPT VERSION\)](#)
- [APLIKASI GEOSPATIAL ONLINE SERVICES \(MyGOS\)](#)
- [APLIKASI MYGDI DATA SERVICES \(FLEX VERSION\)](#)

See results through REST  
 API: [GEORSS](#) [ATOM](#) [HTML](#) [FRAGMENT](#) [KML](#) [JSON](#) [CSV](#)

WHERE  
 Anywhere  Intersecting  Fully within

Map data



# GIS4CITIZEN - 1MALAYSIA MAP

**1 Malaysia Map**  
AGeoinformation Viewer for Everyone

Enter address [About](#) [Help](#)

**Places of Interest**

Layer Visibility

- Food and Dining
- Place of Worship
- Petrol Station
- Emergency
- Public Facilities
  - Bus / Taxi Terminal
  - Community Hall
  - Public Bath
  - Public Toilet
  - Library
  - Others
- Educational Institution
- Accomodation
- Bank
- Retail and Services Outlet
  - Department Store
  - Warehouse Store
  - Variety Store
  - Specialty Store
  - General Store
  - Convenient Store
  - Supermarket
  - Hypermarket

The map displays Kuala Lumpur with various points of interest marked by colored circles and icons. Major roads like Jalan Duta, Jalan Segambut, and Jalan Bentong are visible. The interface includes a search bar, a layer visibility panel, and a basemap selection tool.



# Malaysia Geospatial Online Services (MyGOS)

HOME GALLERY MAP SCENE GROUPS

Sign In



## MyGOS

Malaysia Geospatial Online Services

### Public Viewers



1 Malaysia Map Application



Built Environment



Hydrography



Malaysian Chart Catalogue  
2015 - MAL 2

Malaysia Geospatial Online Services (MyGOS) A platform for user to promote sharing of geospatial information. It enables you to turn your data into web-enabled services that your whole organization members can use.

- Online mapping platform
- Content management platform
- Collaborative and sharing platform

[www.mygeoportal.gov.my](http://www.mygeoportal.gov.my)

<https://www.mygos.gov.my/mygos/apps/webappviewer/index.html?id=53b0621c...>

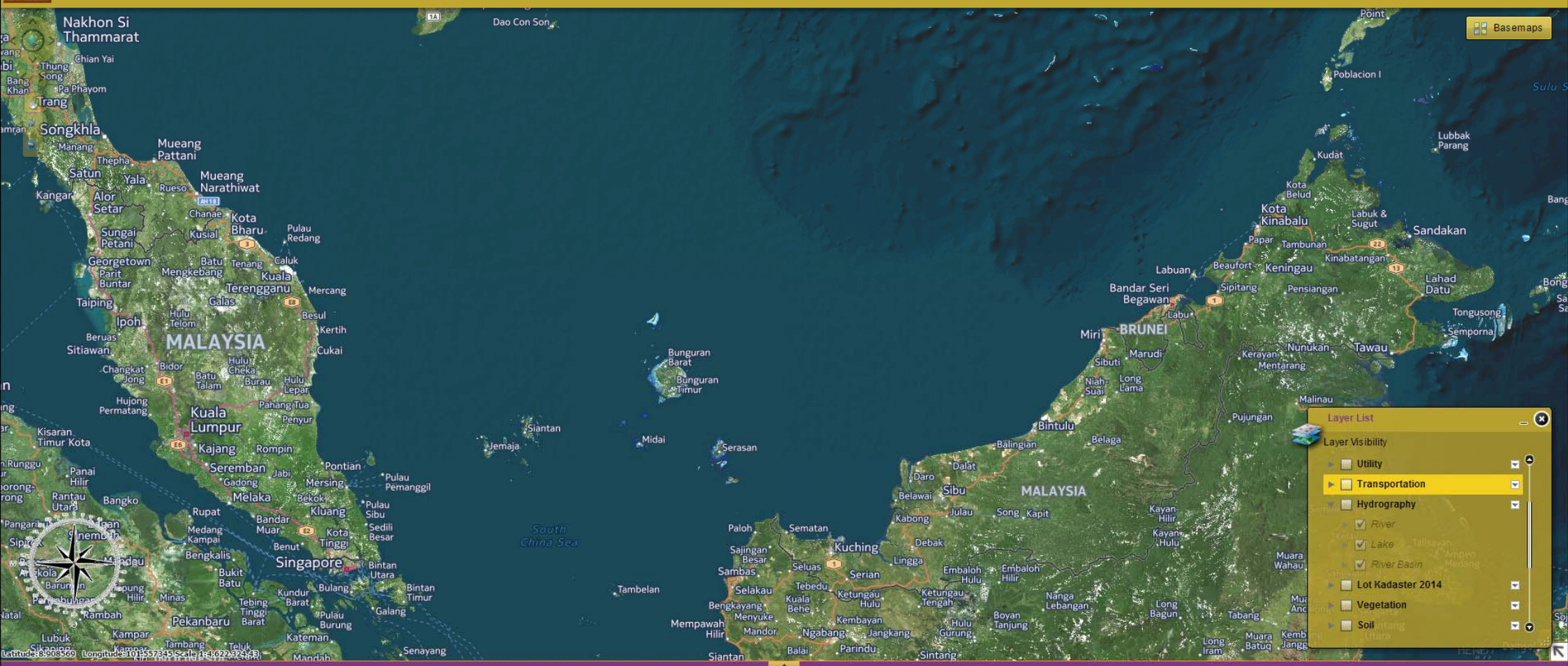
# MyGDI Data Services

https://mygdimap.mygeoportal.gov.my/myservices/

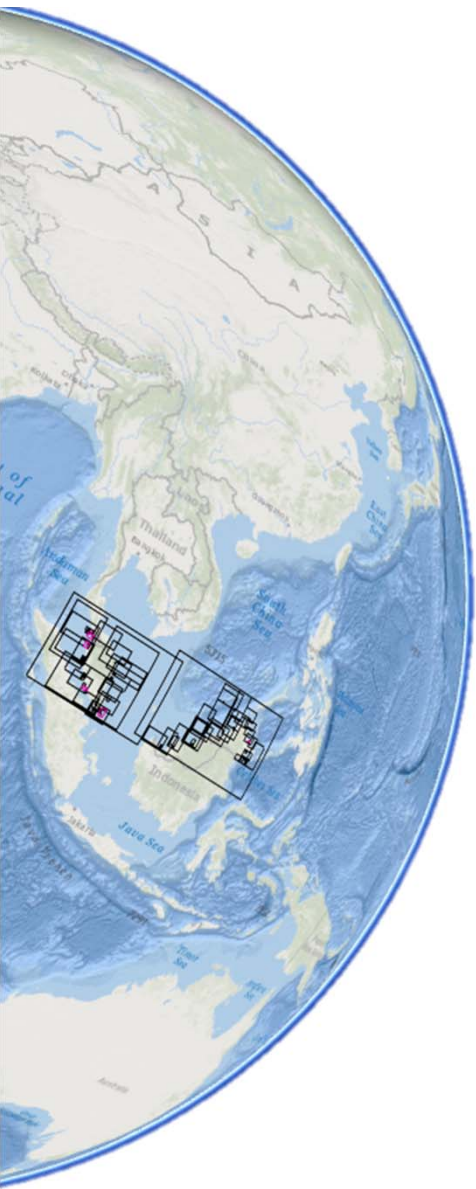
Apps Imported From Firef... Penting



Enter address [About](#)







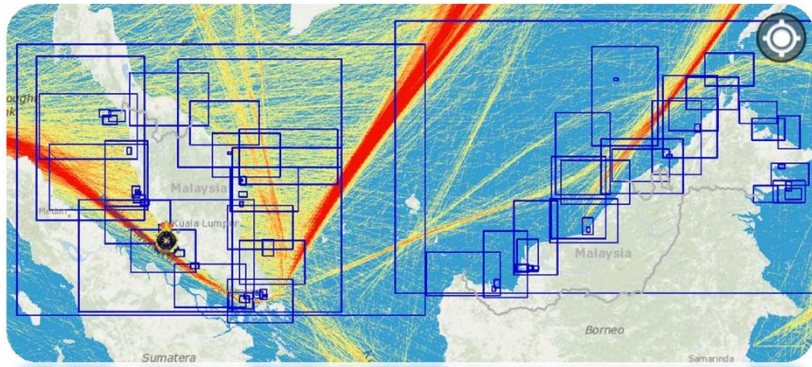
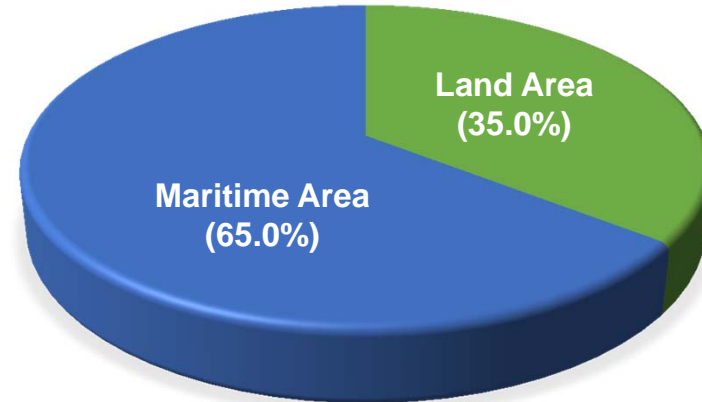
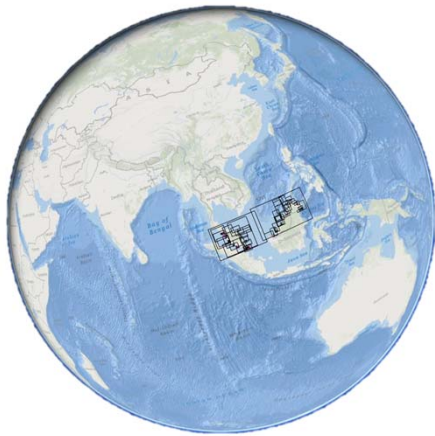
## What Malaysia is the maritime nations?

'The Making Of Malaysia As A Maritime Nation' is appropriate and relevant as it highlights Malaysia's aspiration to be a maritime nation in the true sense.....

Because of our history and the close proximity of many Malaysians to the sea we are inclined to regard Malaysia as a maritime nation. We are situated on the trade routes between India and China, between Europe and the East and naturally served as a port of call between monsoons for supplies and crew for all ships plying this route.

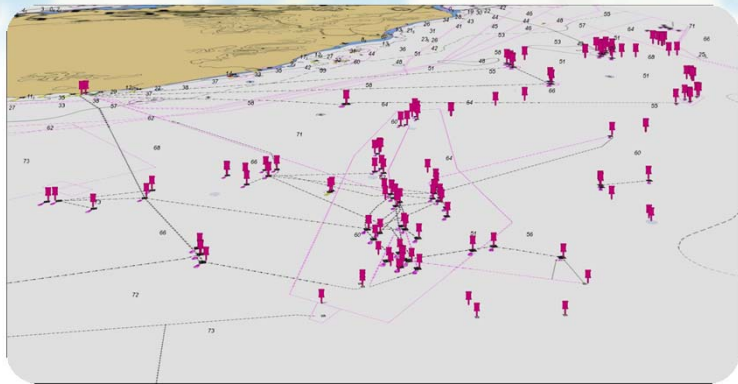
Tun Dr. Mahathir, 1997 (Malaysia's First International Maritime Conference)





Internal Waters	94, 132 km square
Territorial Waters	65, 035 km square
EEZ	379, 820 km square
Continental Shelf	439, 373 km square

<b>Total</b>	<b>598, 540 km square</b>
--------------	---------------------------



**Malaysia as  
a Maritime  
Country**



**Marine SDI**

# Marine Governance

## **PRIME MINISTER DEPT**

- National Security Council
- Economic Planning Unit
- Maritime Enforcement Agency

## **MINISTRY OF SCIENCE, TECHNOLOGY AND INNOVATION**

- National Oceanography Directorate
- Meteorological Dept
- Remote Sensing Agency

## **MINISTRY OF NATURAL RESOURCES AND ENVIRONMENT**

- Centre for Geospatial Data Infrastructure
- Dept of Environment
- Dept of Marine Park

## **MINISTRY OF TRANSPORT**

- Marine Dept
- Port Authority
- Maritime Institute of Malaysia (MIMA)

## **MINISTRY OF AGRICULTURE AND AGRO-BASED INDUSTRY**

- Dept of Fisheries
- Fisheries Development Authority

## **MINISTRY OF DEFENCE**

- Royal Malaysian Navy
- National Hydrographic Centre

## **MINISTRY OF FOREIGN AFFAIRS**

- Multilateral Economic and Environment Division

## **MINISTRY OF HOUSING AND LOCAL GOVERNMENT**

- Town and Country Planning Dept

## **MINISTRY OF INFORMATION, COMMUNICATION AND CULTURE**

- Department of Natural Heritage

## **MINISTRY OF RURAL AND REGIONAL DEVELOPMENT**

- Sustainable Islands and Island Communities

## **MINISTRY OF TOURISM**

- Coastal and Marine Tourism

## **MINISTRY OF ENERGY, GREEN TECHNOLOGY AND WATER**

- Ocean Renewable Energy

# Situational Analysis

Marine Data Management-Knowledge Management

Marine is Complex

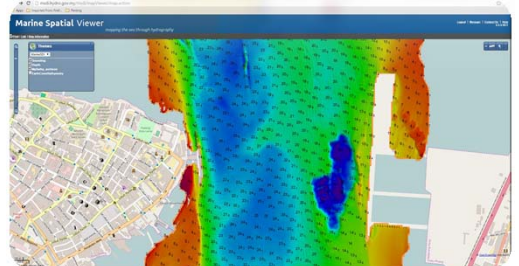
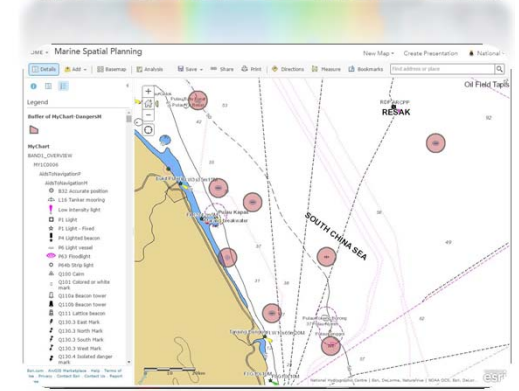
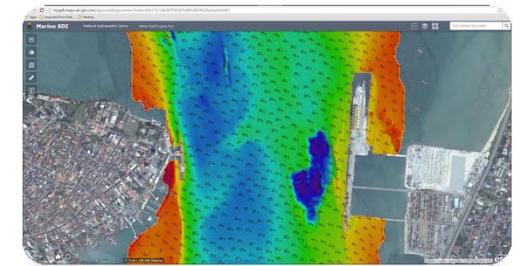
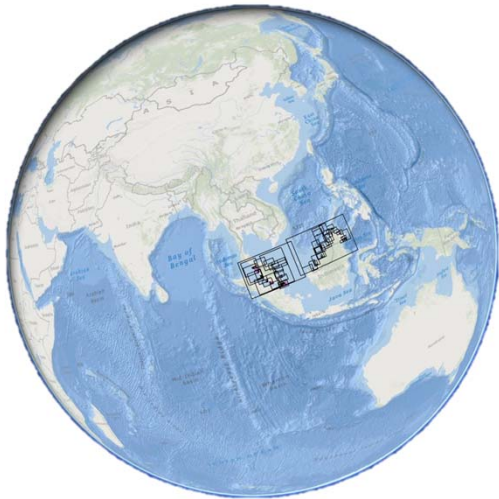
Different jurisdictions under various agencies/ministries

- Heterogeneous  
- Distributed  
- Autonomous

Need mechanism for sharing

Seamless Solution

# Marine SDI





# National Hydrographic Committee



- The Malaysian National Hydrographic Committee was established on 11 September 2002 by the Malaysian Cabinet



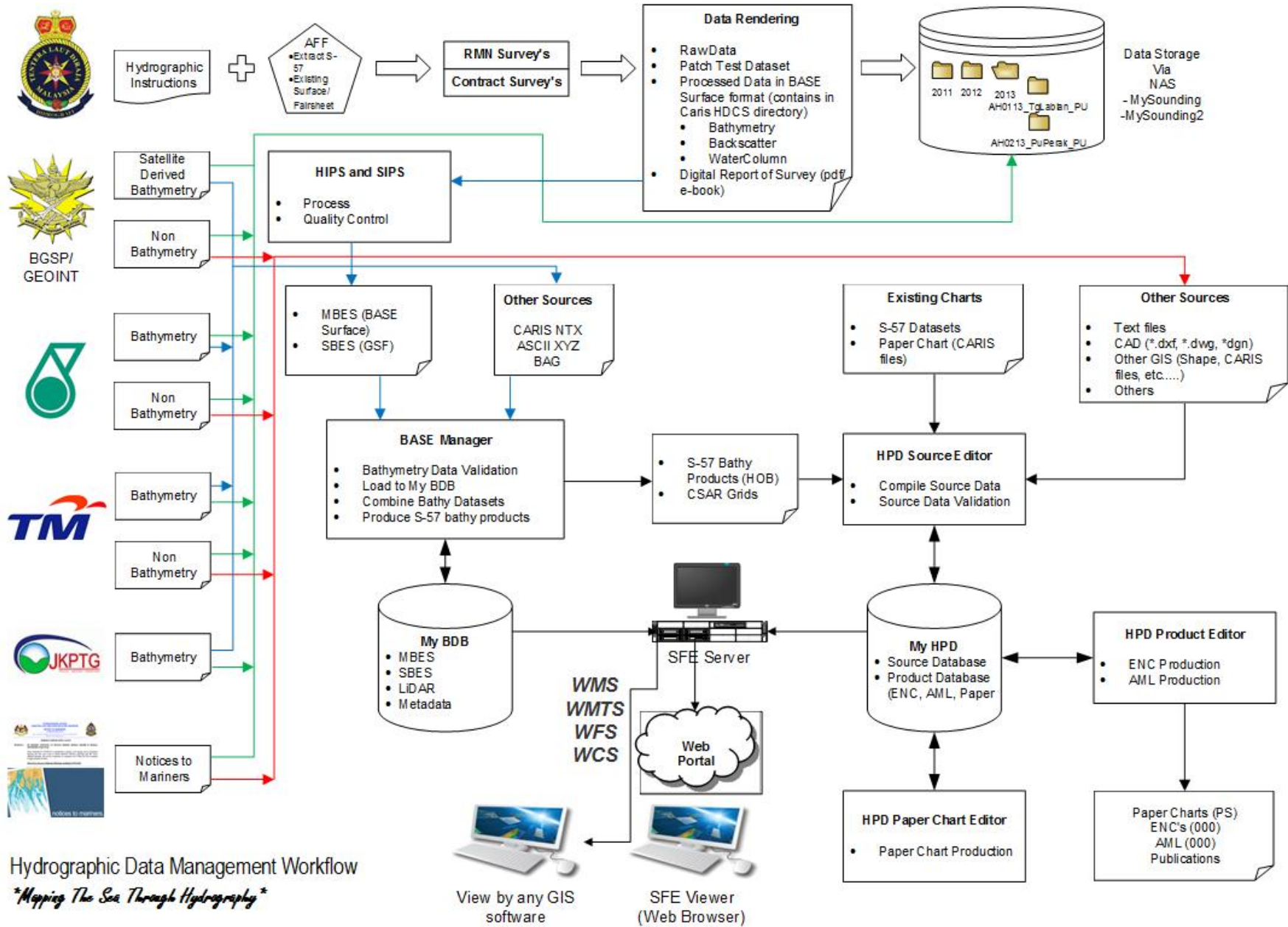
- Director General of the National Hydrographic Centre Malaysia, Chairs.



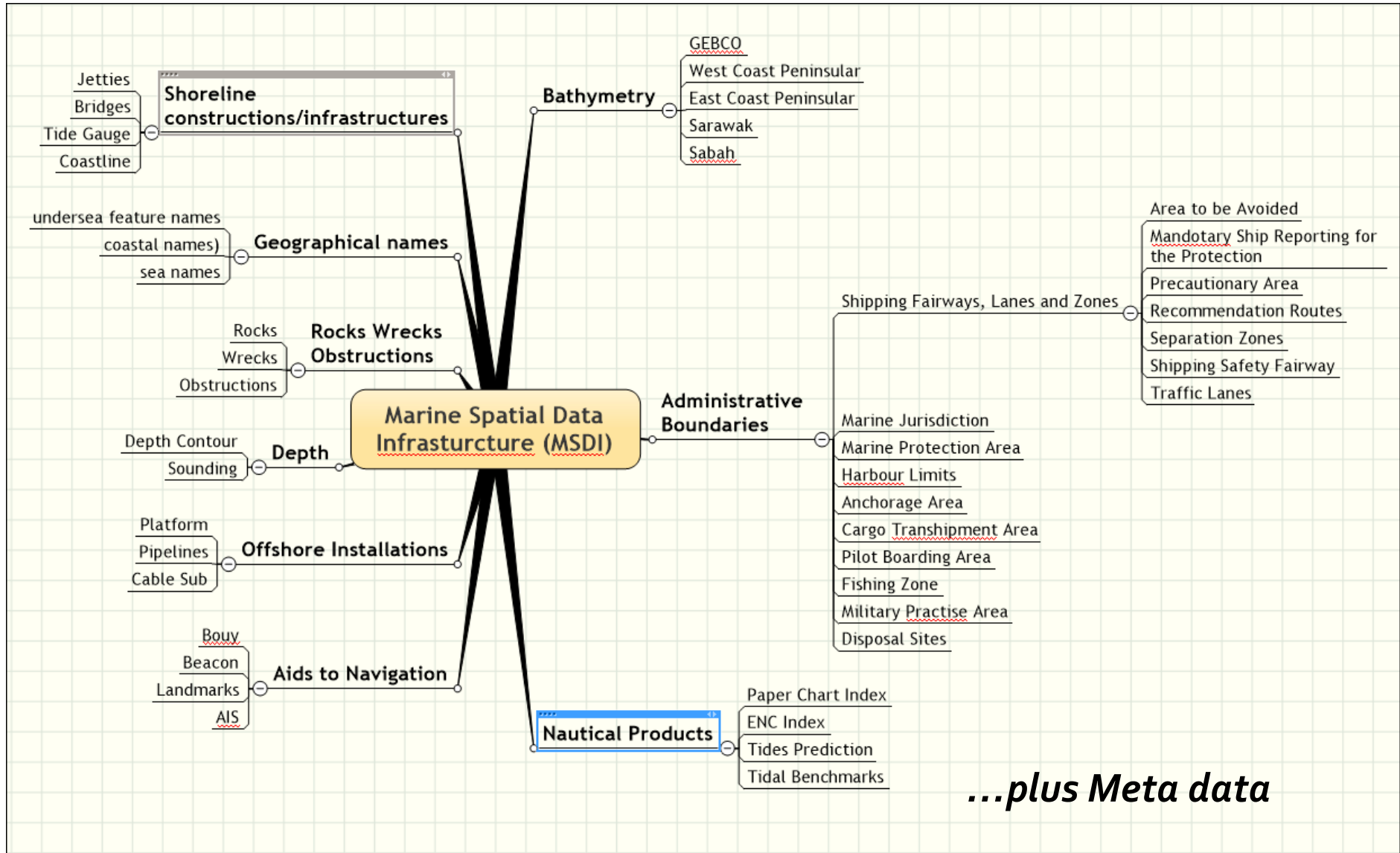
- Members consisting of representatives from the federal agencies, higher institution



# Hydrographic Data Management Workflow

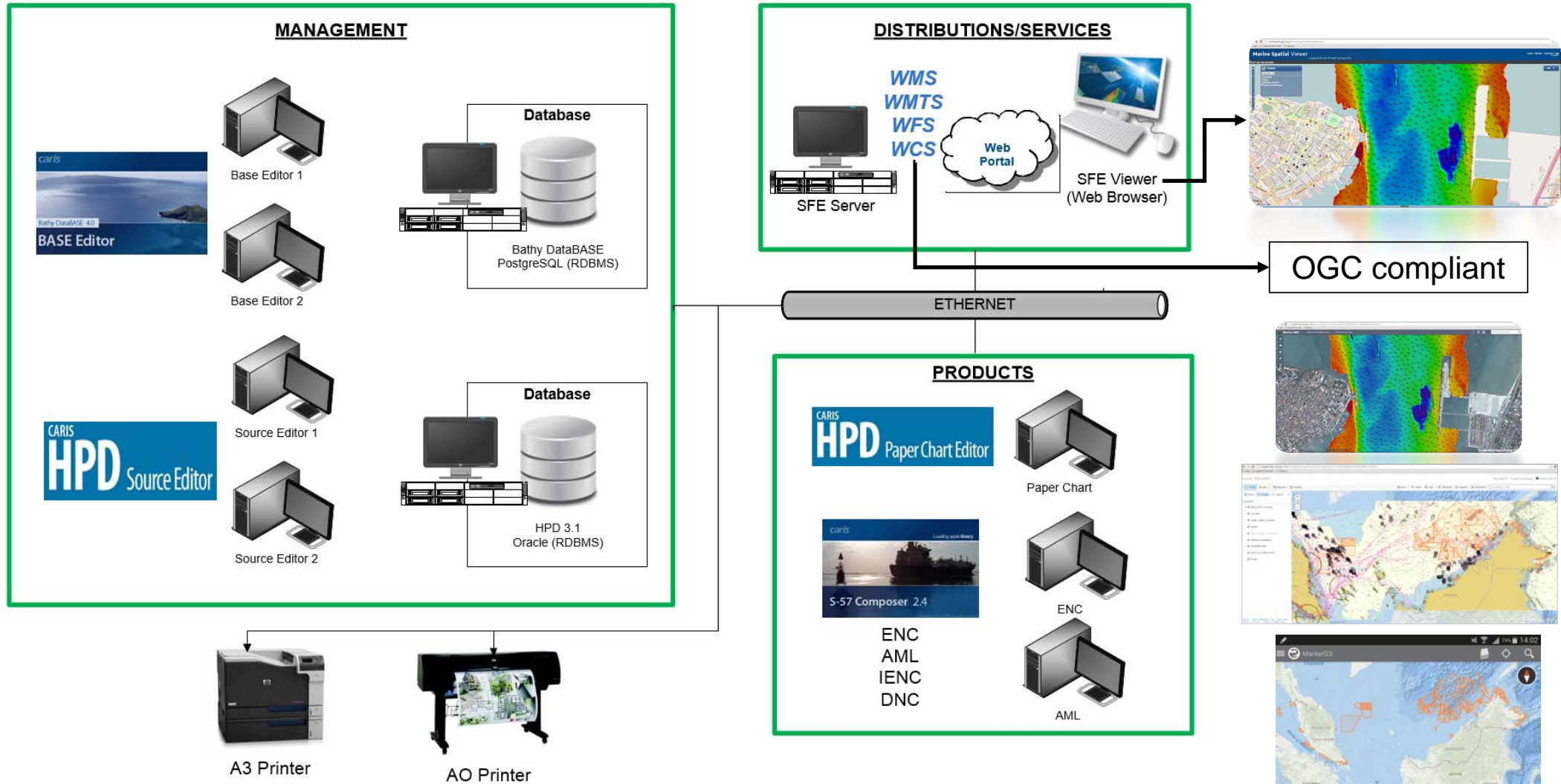


# Geographic Content (Data)

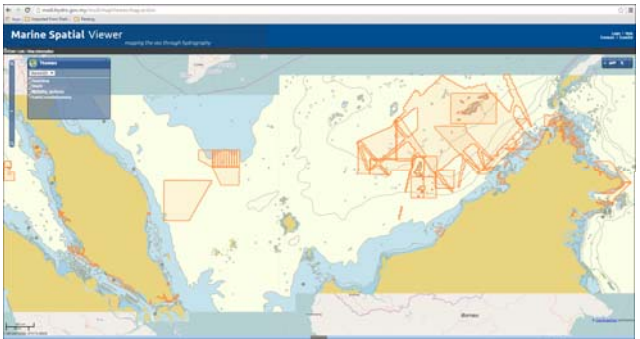
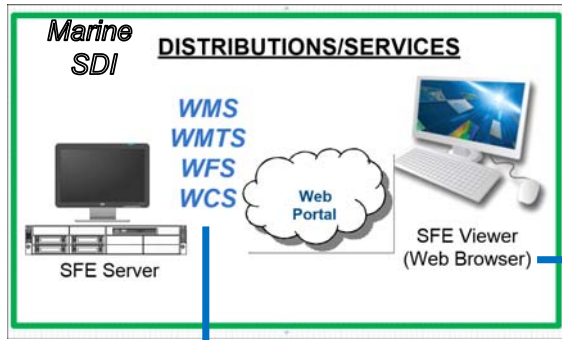




# My Bathy Database (MyBDB) & My Hydrographic Production Database (MyHPD)

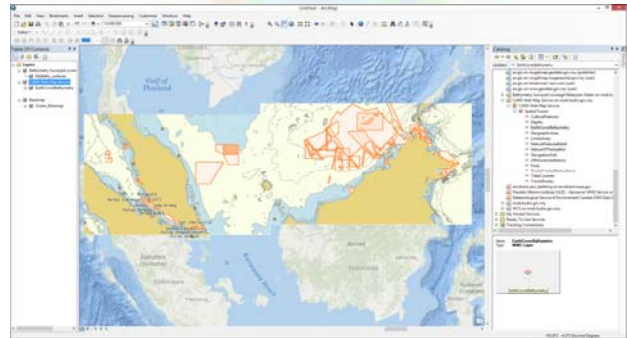


# WEB - Services

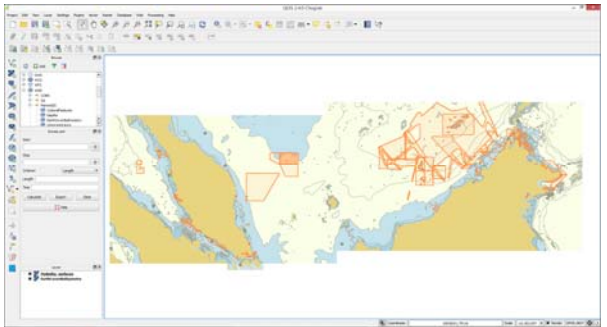


**Caris Spatial Fusion Enterprise 5.9 Viewer**

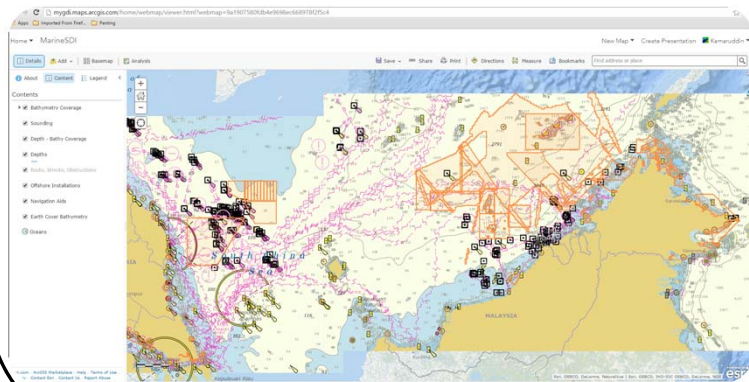
**OGC  
compliant**



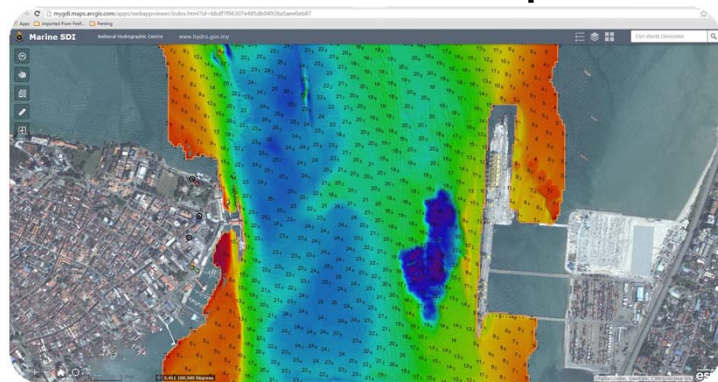
**ArcGIS 10.2 for Desktop**



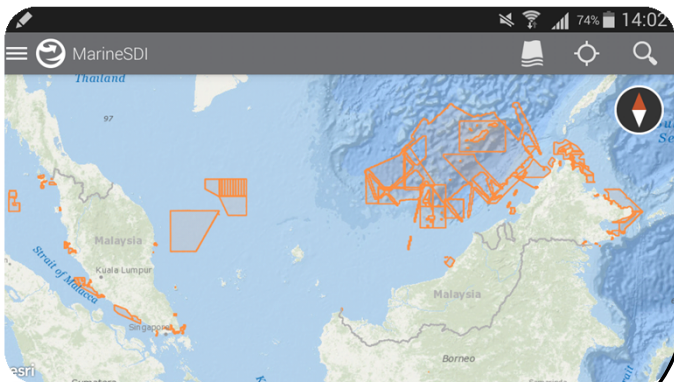
**QGIS 2.4.0 - Chugiak**



**ArcGIS Online - Web Map**



**Web App**

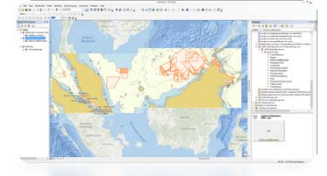
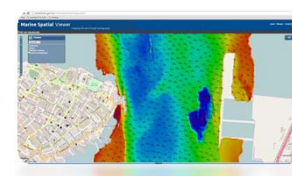
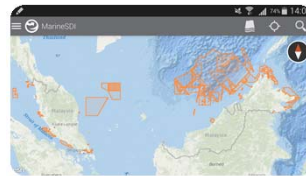
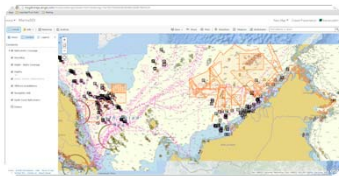
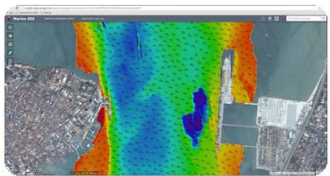


**Explorer for Android**

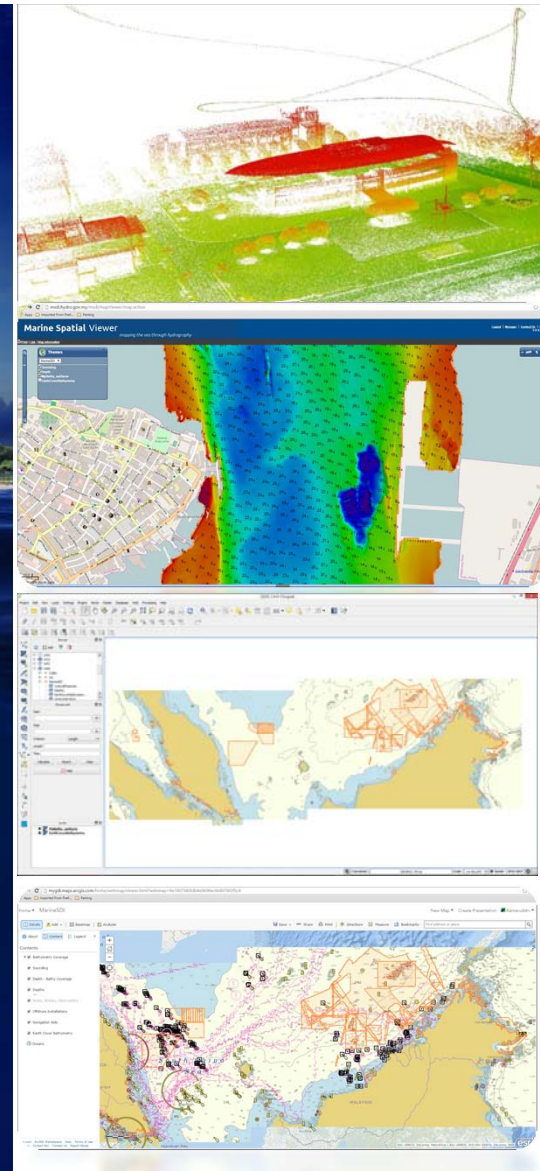
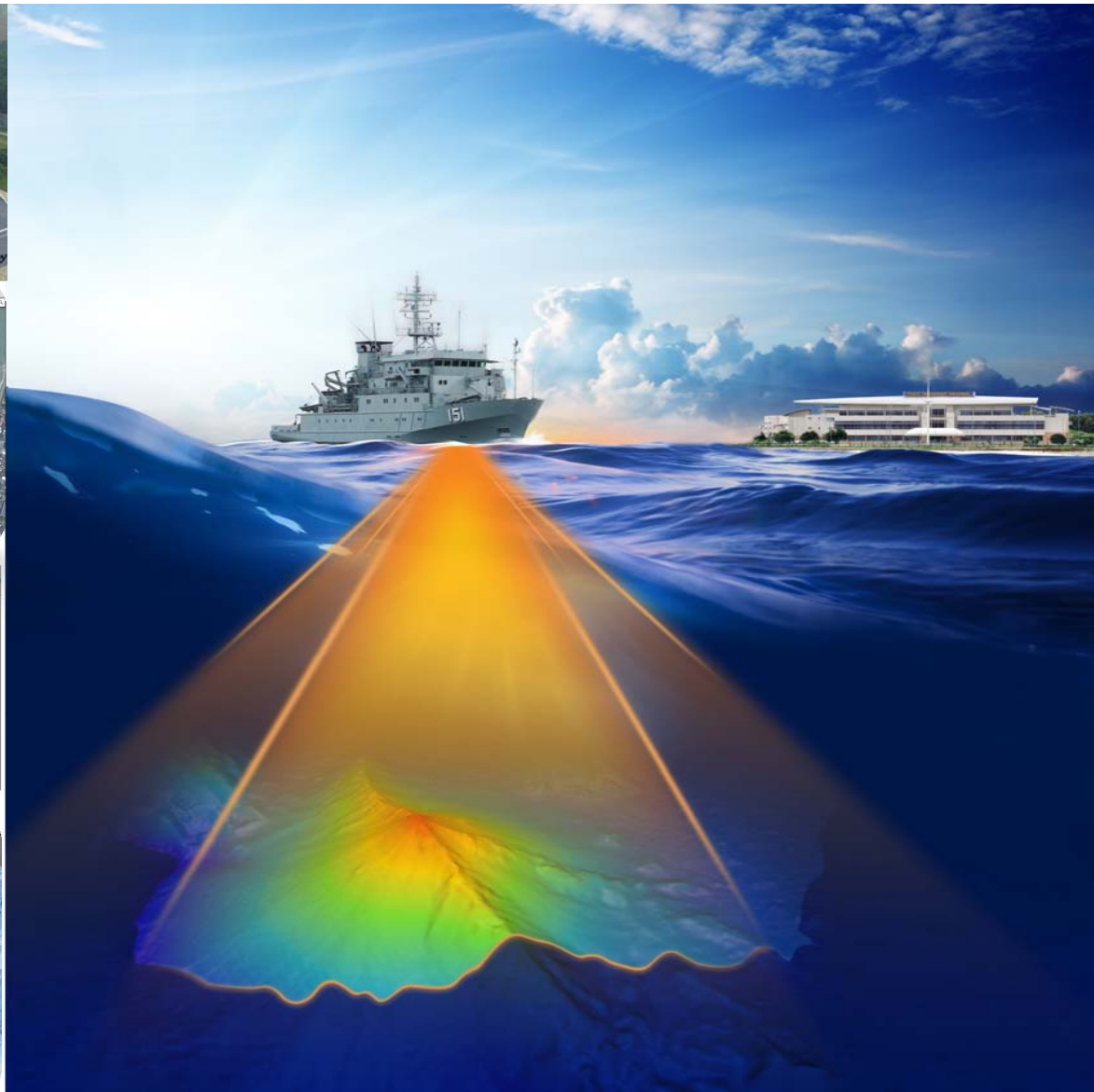
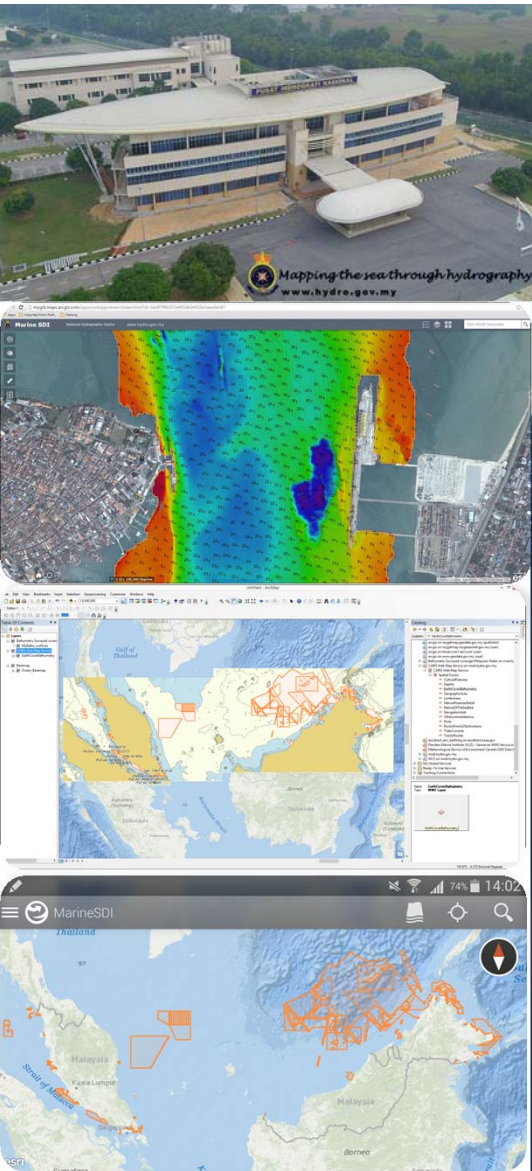


# CONCLUSION

- National Hydrographic Centre – the absolute agency to develop Marine SDI
  - Hydrography data - provides the fundamental backdrop
  - The IHO standards are aligned with ISO and OGC standards
  - ICT ready
  - Good governance through National Hydrographic Committee
- By end 2017 – Marine SDI ready!







**Thank you for your attention**