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# National Report for MSDI Republic of Korea

IHO MSDI WG Meeting, 30 Jan. – 3 Feb. 2023 .

1. Marine Information collection and management
2. Marine Base Map
3. Marine Information Streaming Service



Korea Hydrographic  
and Oceanographic Agency

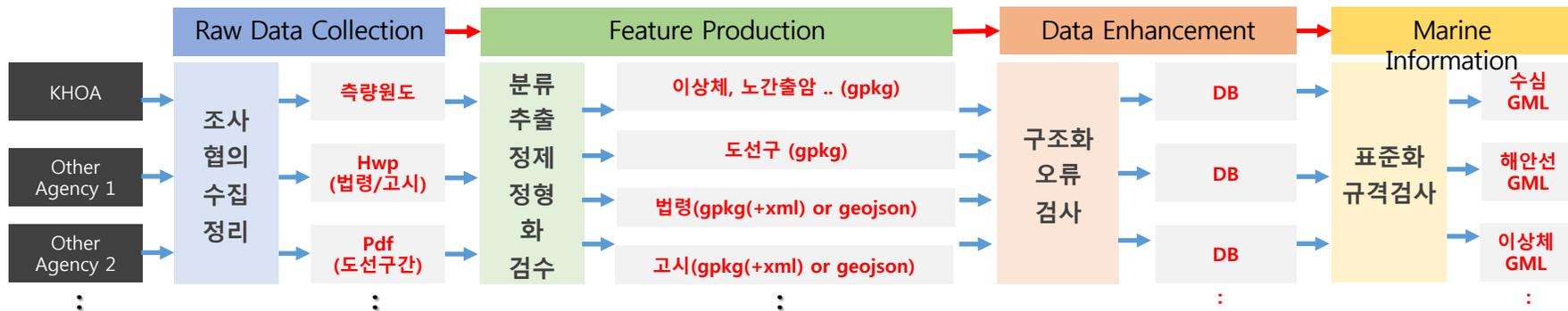


# 1. Marine Geospatial Data Collection and Management

## Efficient, consistent and valid marine data collection and management

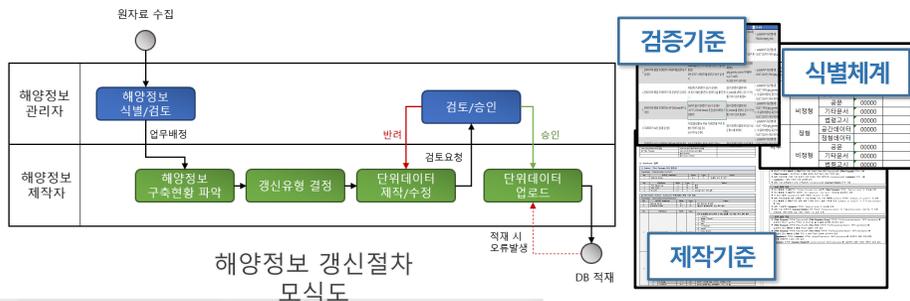
### Marine Data Collection and Management Process

- Transform a product-based service into an object-based (or feature-based) marine information DB service.
- Feature Production is based on standards such as S-100

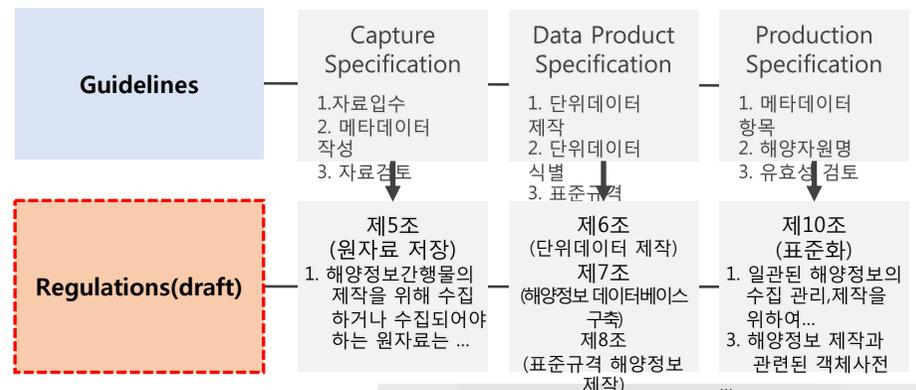


### Data Capture and Data Production Specification Guidelines

- To ensure consistency, improve efficiency, inform quality control operations and control changes

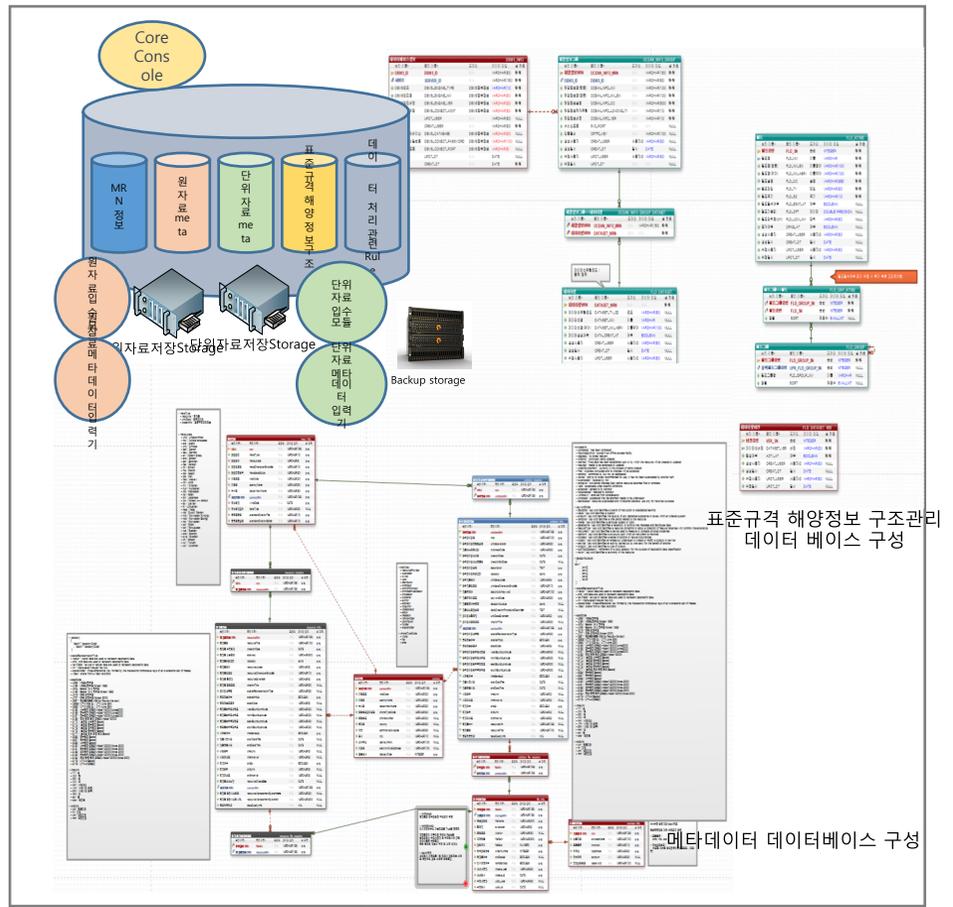


### Marine Data Collection and Management Regulations



# 1. Marine Geospatial Data Collection and Management

System architecture and DB design for consistency, traceability, and scalability



# 2. Marine Base Map

## Marine Base Map Production

### Limitations of current marine spatial data



Data only for safe navigation



Height datum difference



Land-sea interaction issues



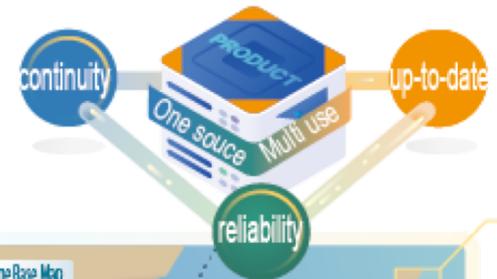
Absence of national marine base map

Unsuitable for land-sea interaction and coastal development

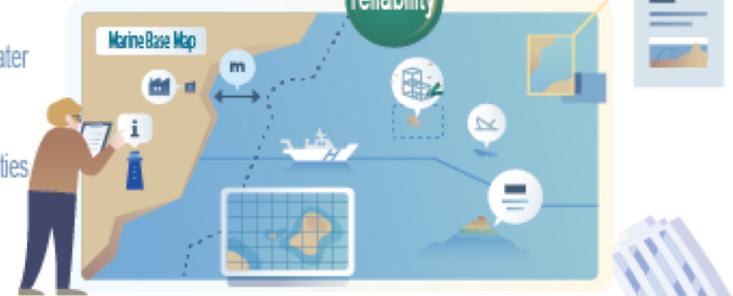
Diversitication of marine information utilization

Providing marine terrian and feature information

## Marine Base Map



- Depth of water
- Coastline
- Marine facilities
- ...



Marine Information for various purposes



# 2. Marine Base Map

Safe navigation vs **general purpose** and **continuous** basic spatial information

## ➤ Marine Base Map Pilot Project (Jeju port)

Layers

contour line

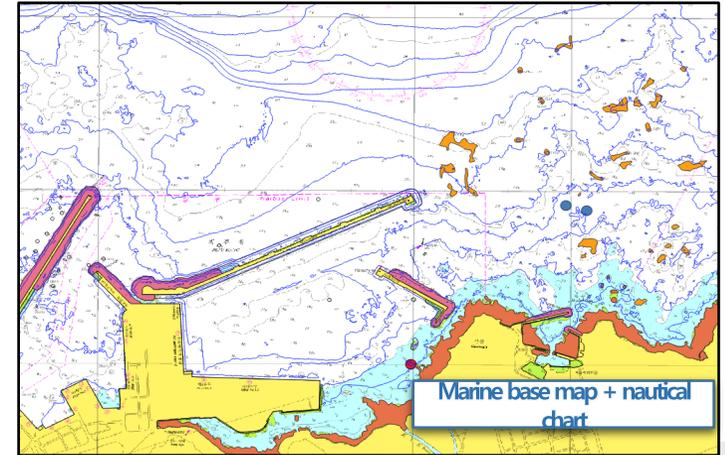
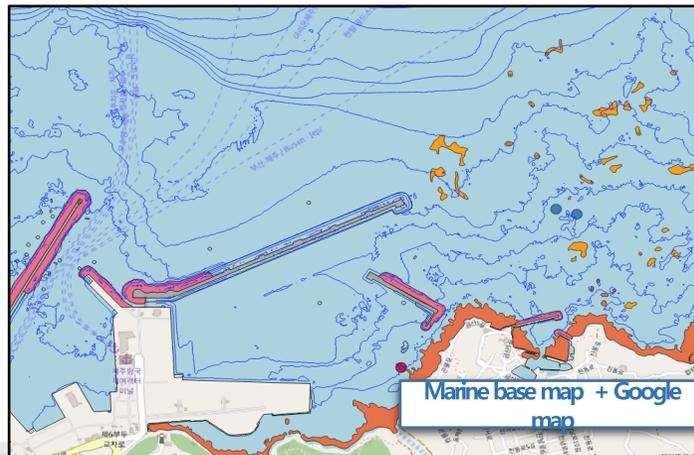
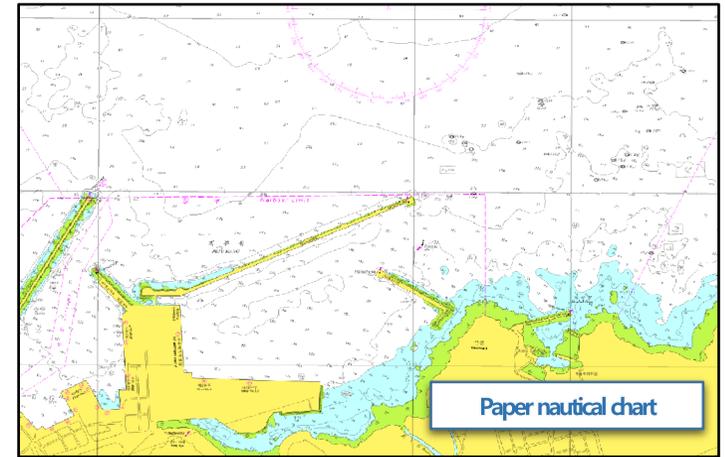
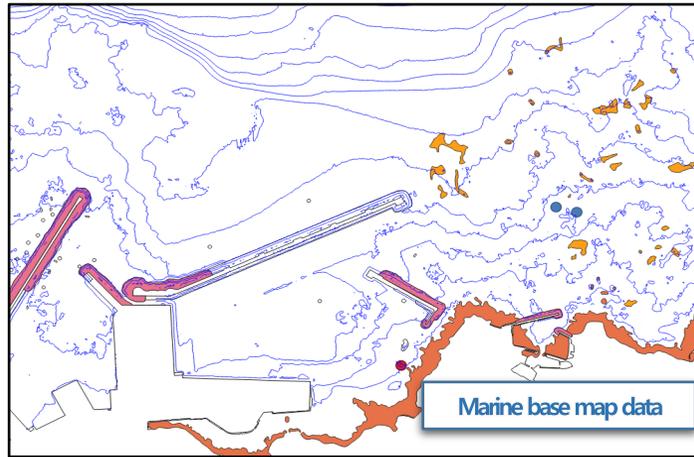
coastline

TTP

low tide exposure

artificial reef

submerged rock



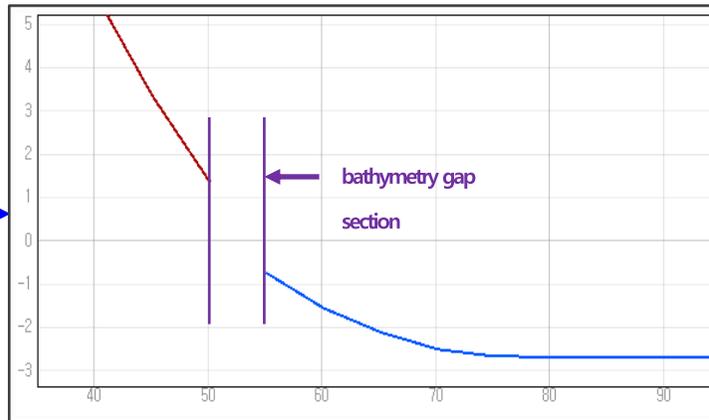
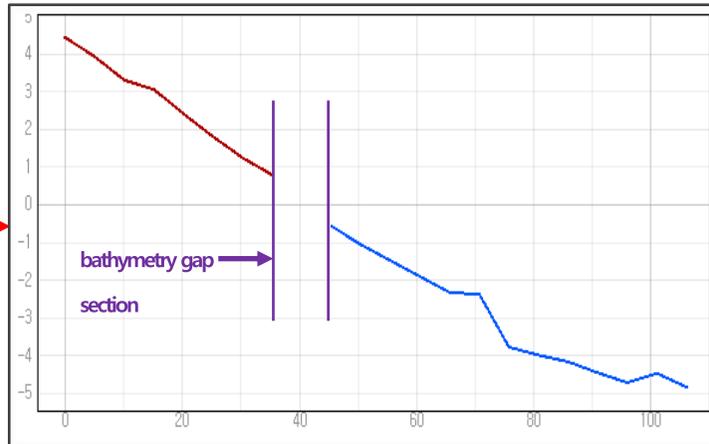
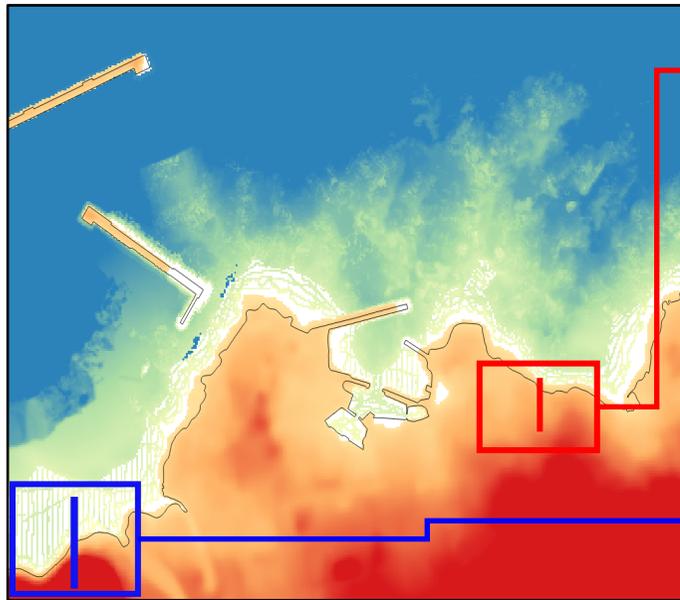
# 2. Marine Base Map

Safe navigation vs **general purpose** and **continuous** basic spatial information

Land and sea continuity test (raster)

✓ Topographic map

- Submarine topography: 5m
- Terrestrial topography: 5m



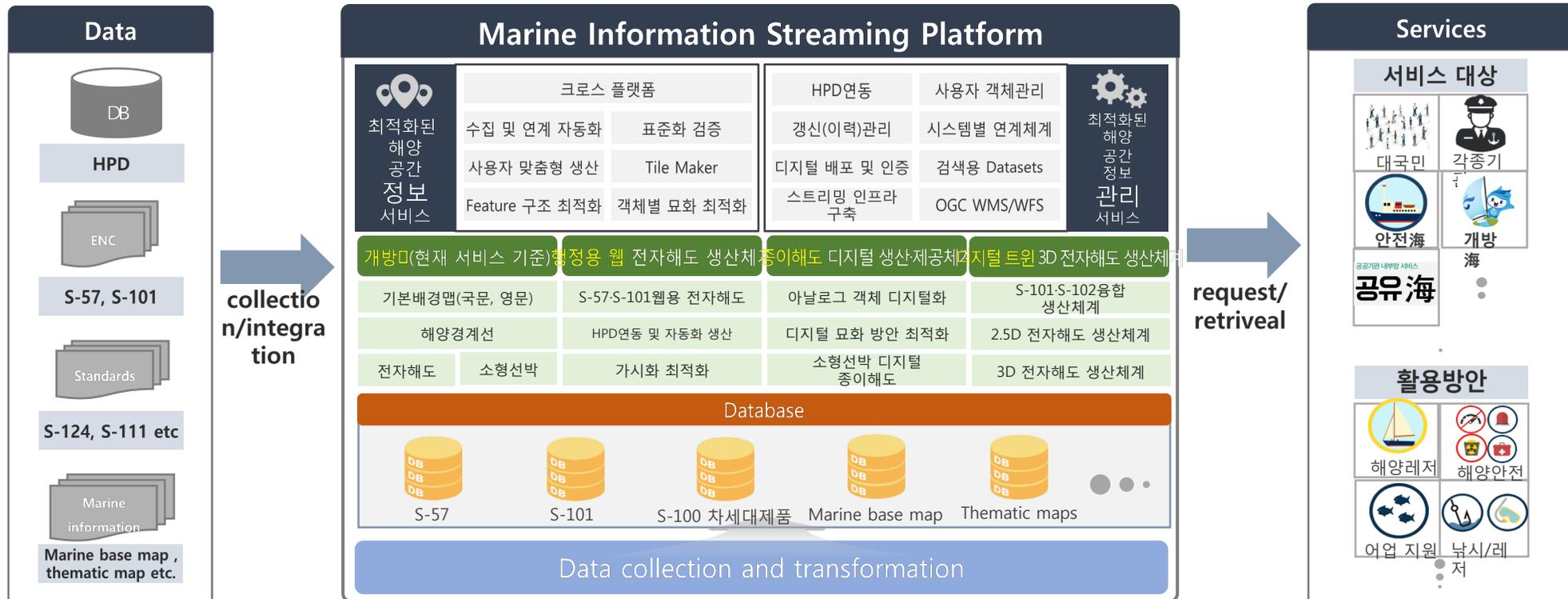
✓ In the natural coastline area, continuity is broken due to gaps in SBES survey data

# 3. Marine Information Streaming Service

## Continuous user-customized streaming service

### Marin information streaming service?

: Near-real-time maritime information service that continuously produces and updates topography, facilities, and related information necessary for maritime activities



# 3. Marine Information Streaming Service

Marine information streaming service content planning and pilot production suitable for mobile environment and small vessels

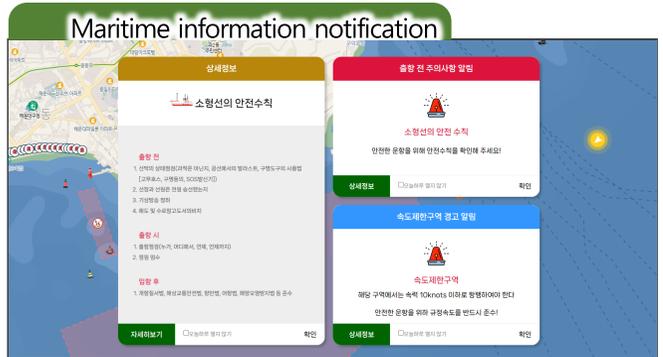
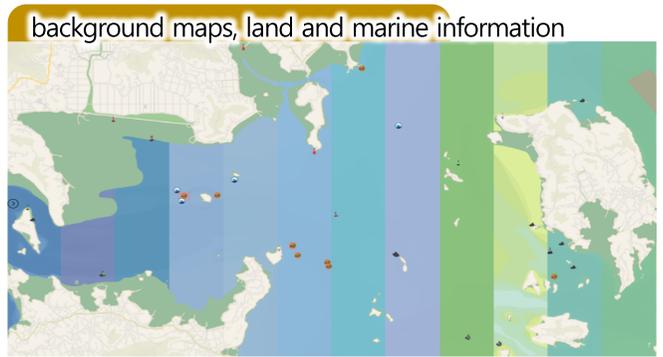
## Marine information streaming service

Portrayal design improvements

Streaming Background Map

Provides various background maps, land and marine information

Maritime information notification



- Establishment of a multi-platform (PC, Mobile) production environment as a response to the increase in demand for mobile services due to the generalization of smartphone use and the increase in device performance
- Improved readability and visibility by adjusting the symbol design size and font size for mobile and tablet users

