## Republic of Korea

# MSDI National Report

IHO MSDIWG10
Busan, ROK
4-6 March 2019

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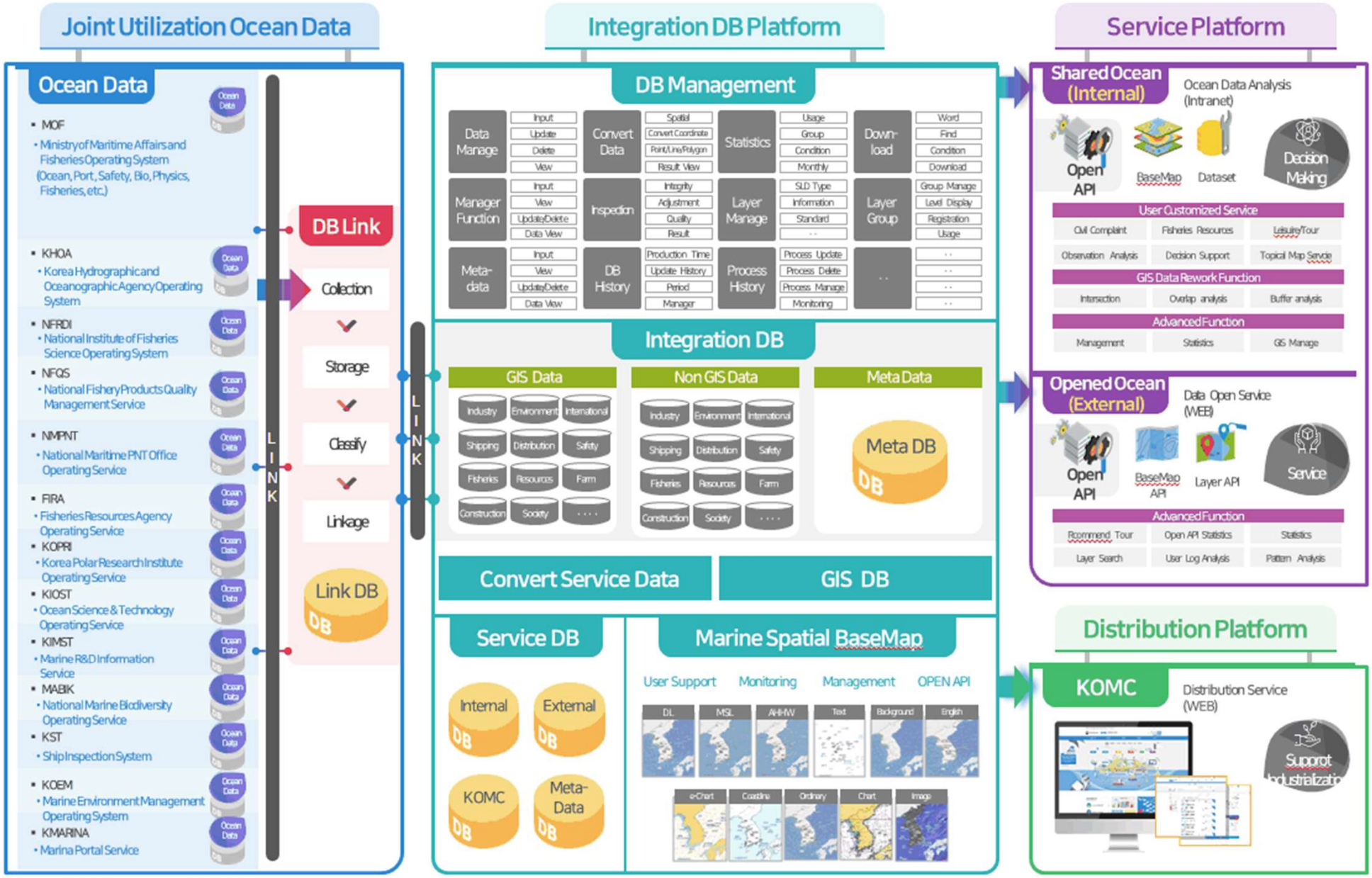
Korea Hydrographic
and Oceanographic Agency

01

Marine Spatial Data Infrastructure

# Current Status of MSDI



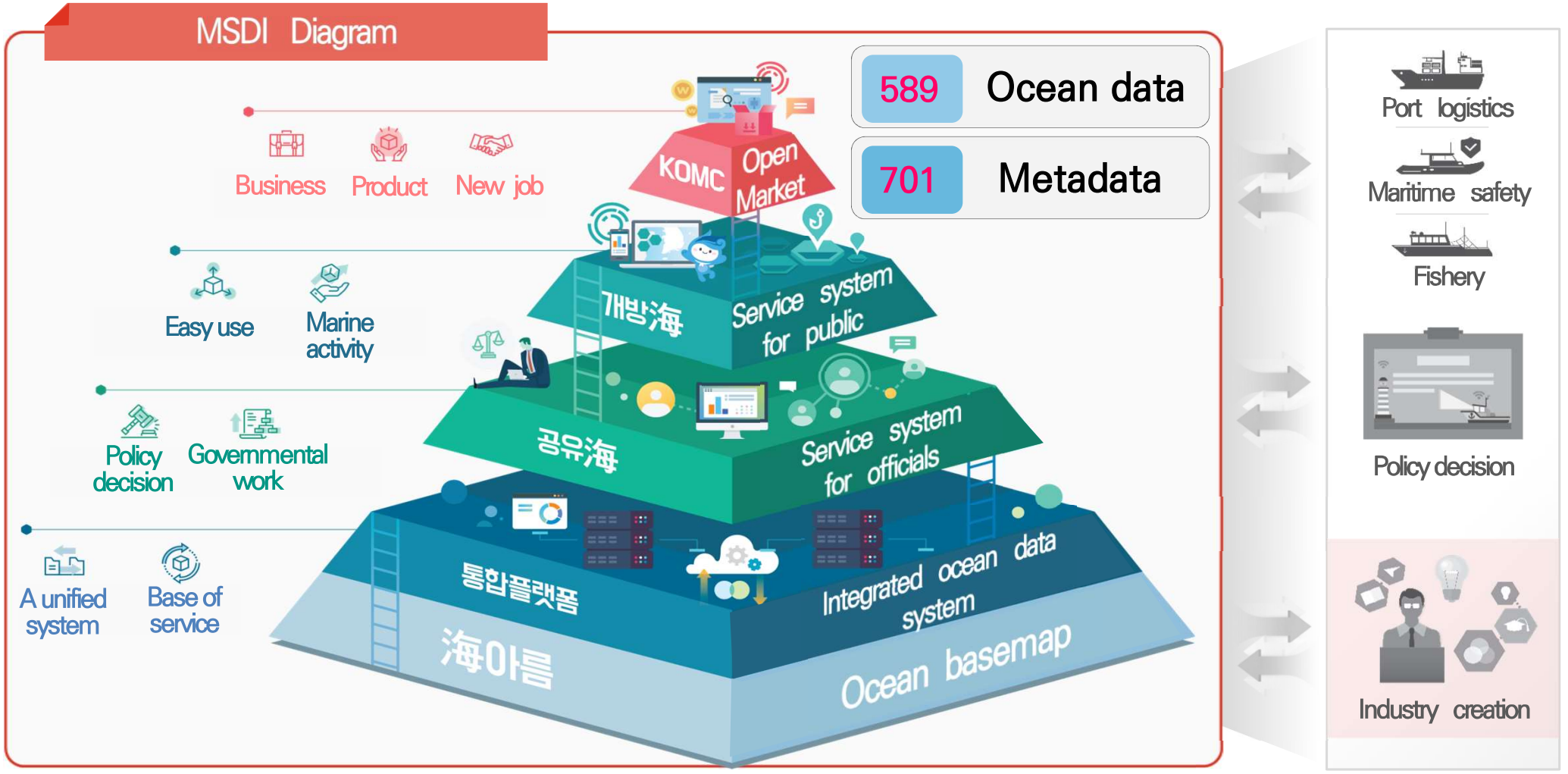
01

Marine Spatial Data Infrastructure

# Current Status of MSDI

STEP | Data integration → Service → Business

## MSDI Diagram



# Report content

## Part. 1 Marine spatial basemap Hae-A-Reum

**Purpose** To provide a platform for various use of marine spatial information

UTM-K, WGS84

# Part. 2 Setup the metadata DB

**Purpose** Efficient management and use of integrated marine information

**Step**

Survey of current status of System & Data → Develop a metadata standard proposal → Hold a briefing session → Survey metadata → Meta DB creation

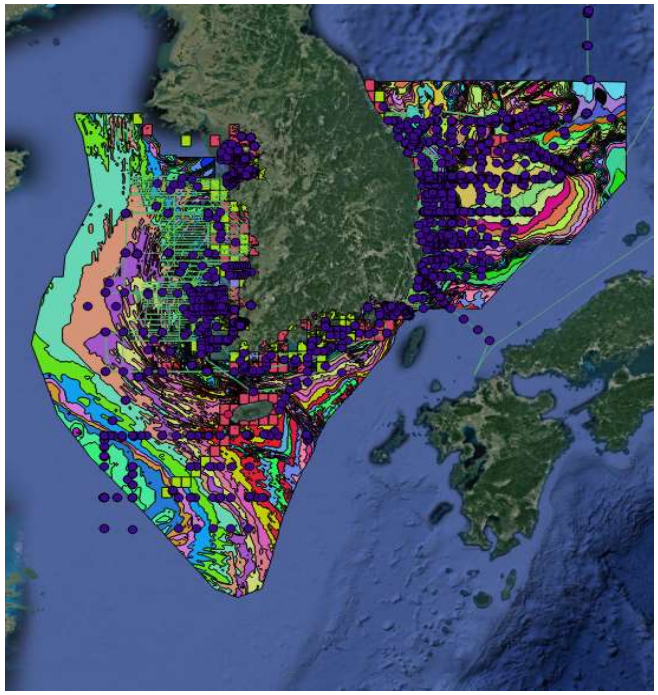
## Set the metadata standard

- 87 Departments
- 78 Data systems
- 701 Metadata
- Web Service

# Part. 3 Data standard

**Purpose** Effective and systematic data classification, management and services

**STEP** Terms Standardization ⇨ Quality Standardization ⇨ Classification standardization ⇨ Code standardization ⇨ Presentation standardization



| Common quality processing | Classification (Organization+Task) |
|---|---|
| Error value | Marine policy |
| Missing value | Fisheries policy |
| Location survey | Shipping logistics |
| Time survey | Maritime safety |
| Meta survey | Harbor |
| Completeness | Public administration |

| | Presentation Method | Criteria | Example |
|---|---|---|---|
| Point | Icon | Icon production | Icon |
| Poly line | Line | Actual line on the sea | Electric wire |
| | Dotted line | Seabed line | Undersea cables |
| | Double lines or Thick line | Statutory line | Territorial waters |
| Poly gon | Box with line | Actual sea area | Fishing ground |
| | Box with dotted line | Seabed area | Aggregate collection area |
| | Box with double lines or Thick line | Statutory area | Firing exercise area |

| | Color | Meaning | Example |
|---|---|---|---|
| SLD | Red | Danger, Beware | Prohibited Area Information |
| | Yellow | Protection, Creation, Positive, Energy | Resource development area, Seabed pipeline |
| | Green | Safety, Trust, Cure, Peace | Leisure safety line, swimming safety line |

## Part. 4 Service System – Two ways

### For official use

Policy decision

Governmental work

Environ-ment

Fisheries resources

Port facility

Obs. data

### For the public

Marine activity

Maritime safety

Sport Info.

Beach info.

Leisure Info.

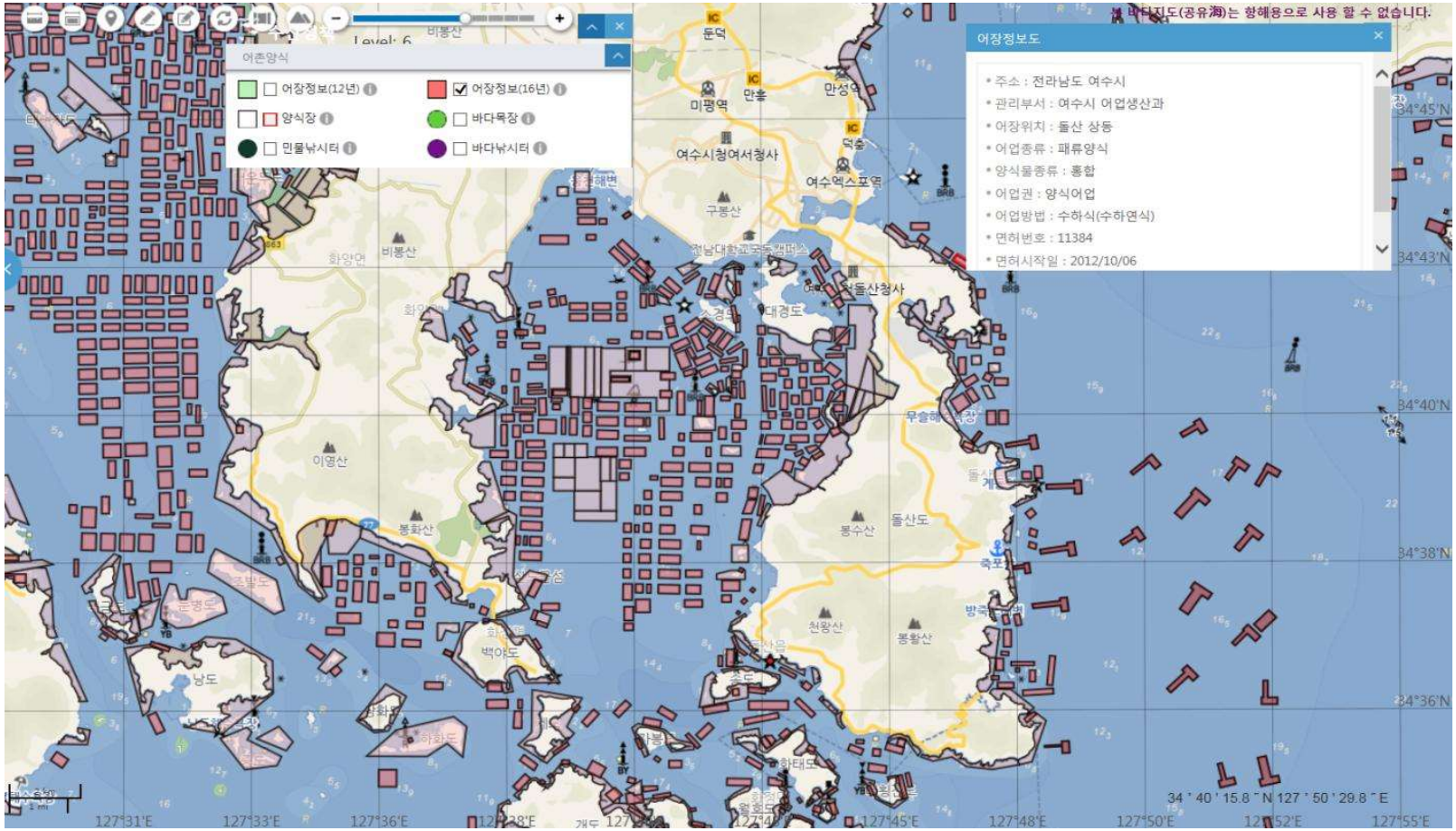
Obs. data

# Part. 4 Service System

## Marine spatial data Main List

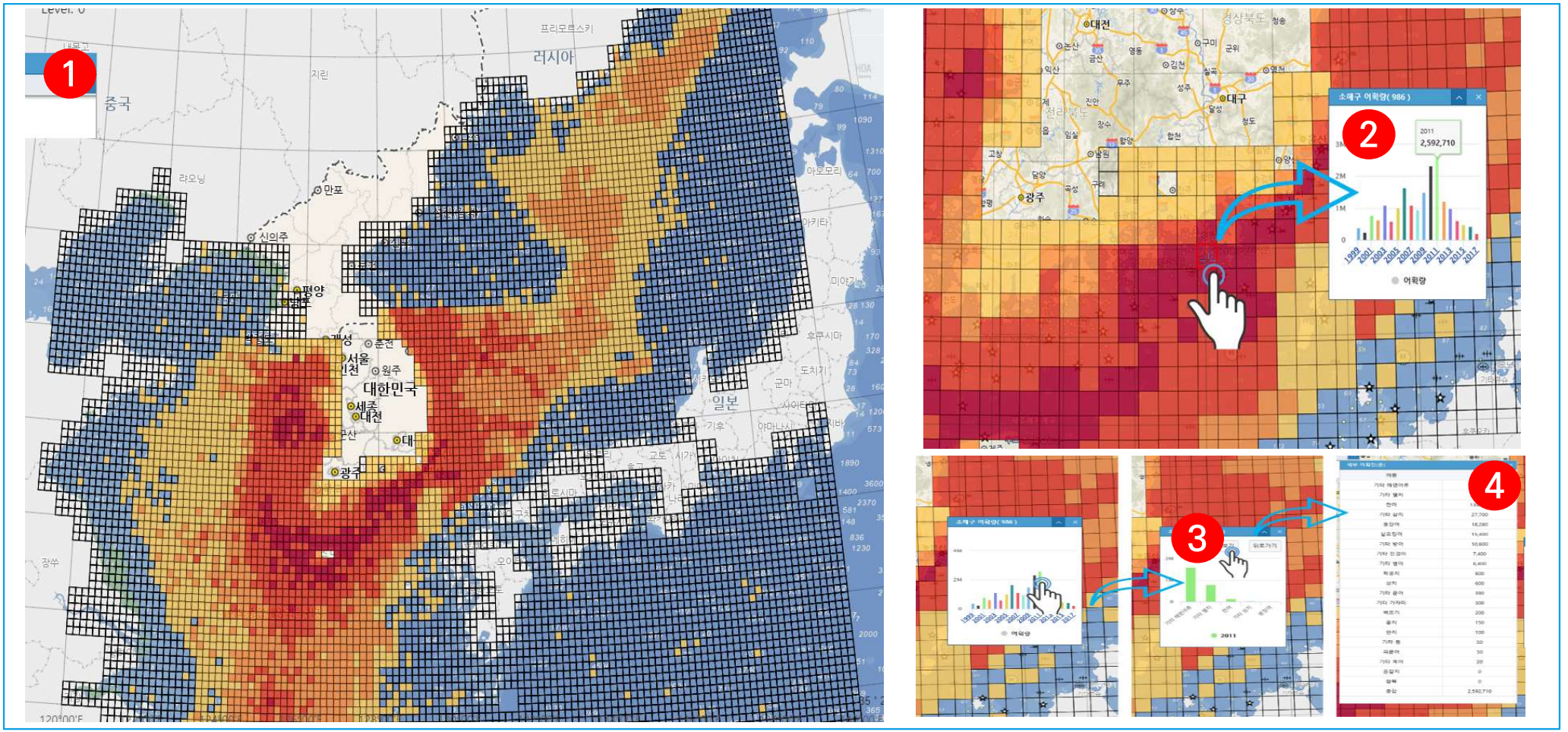
- Industry
- Environment
- Pelagic
- Fishery
- Farming
- Logistics
- Safety
- Construction
- Humanities

## Fishing license

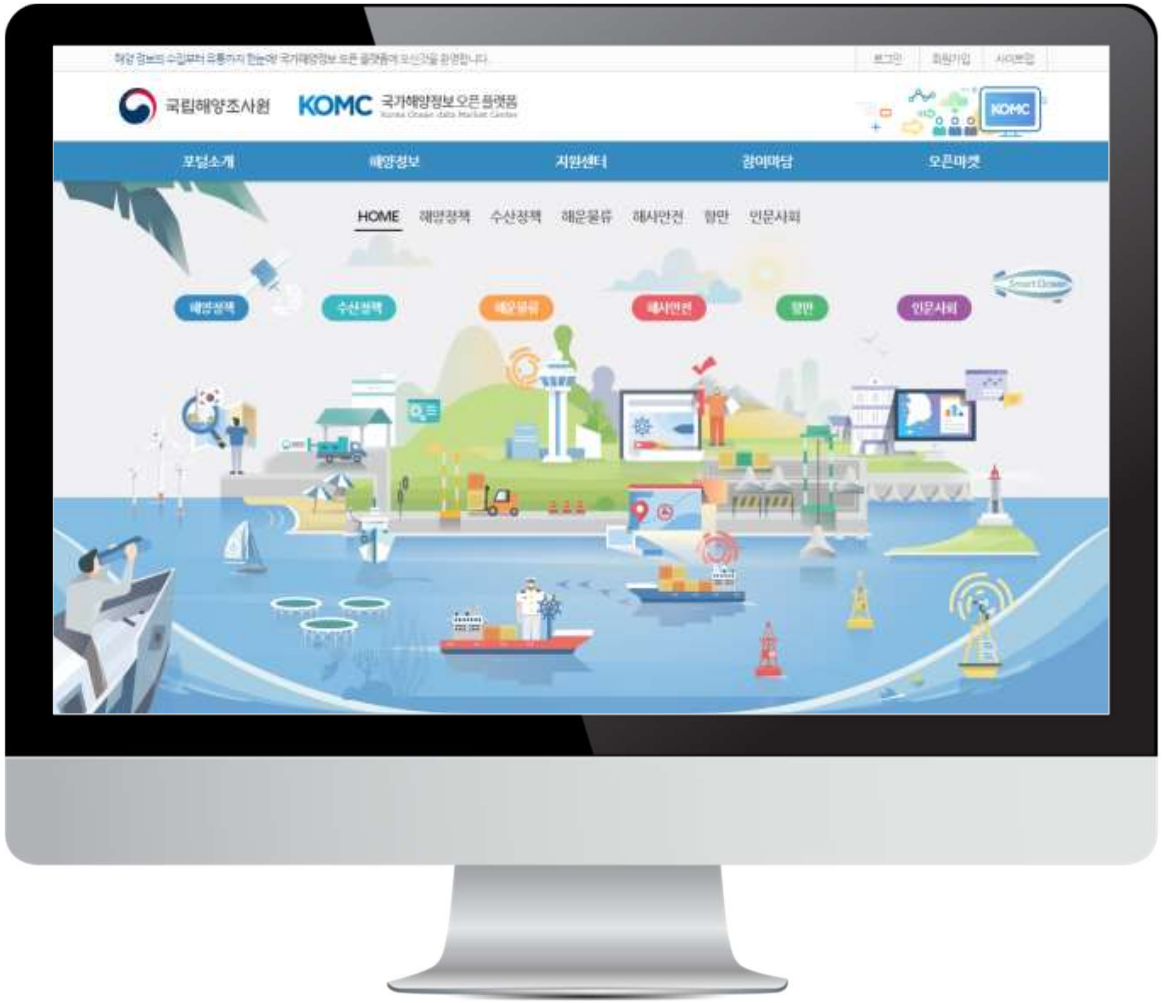


# Part. 4 Service System

## Sector data – Amount of fishery



# Part. 5 Use case – Open Market



PROVISION

- Useful business data
- How to use the data
- Online Market

# Part. 5 Use case – Open API

## 117 types of marine spatial information

Open API Standard

- WMS 1.3.0 — Web Map Service
- WFS 1.1.0 — Web Feature Service

## Open API Use

# Outcomes in 2018

## Establishment of the MSP (Marine Spatial Planning) Law

## Enactment of Regulations on the Integration and Co-utilization of Marine Information

- Marine Information Co-utilization Guideline
- Marine Information Quality Processing Guideline

# Challenges

- Harbor sea fog
- Port traffic
- Amount of fish catch per year
- Economic route

- Data integration (Link / Update)
- Various Service (Customized)
- Business Model (Development)
- Maintenance Laws (For MSDI)

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Marine Spatial Data Infrastructures

# Thank you