EMODnet – Phase III

7th EMODnet Technical Working Group Meeting Agenda item 6
Updates, features and perspectives from EMODnet thematic projects
Perspectives from Lot 3. on new developments EMODnet Phase IV

Antonio Novellino | ETT

Overview of planned developments and data/product releases under current contract

((●)) **Expand the existing data resources including new datasets by linking new data sources**

    ((●)) PANGAEA

    ((●)) WOD (via INSTAC)

    ((●)) ICES Ocenographic DB

    ((●)) SOOP

    ((●)) …

Overview of planned developments and data/product releases under current contract

Closing the gap in data flow between operational repository and validated

Substantial gap in the dataflow of physical data from fixed stations flowing from operational data centers (connected to CMEMS and ROOSs) compared to the available quality controlled data archives (SeaDataNet NODC's) resulting in incomplete qualified collections (in time coverage as well as parameters)
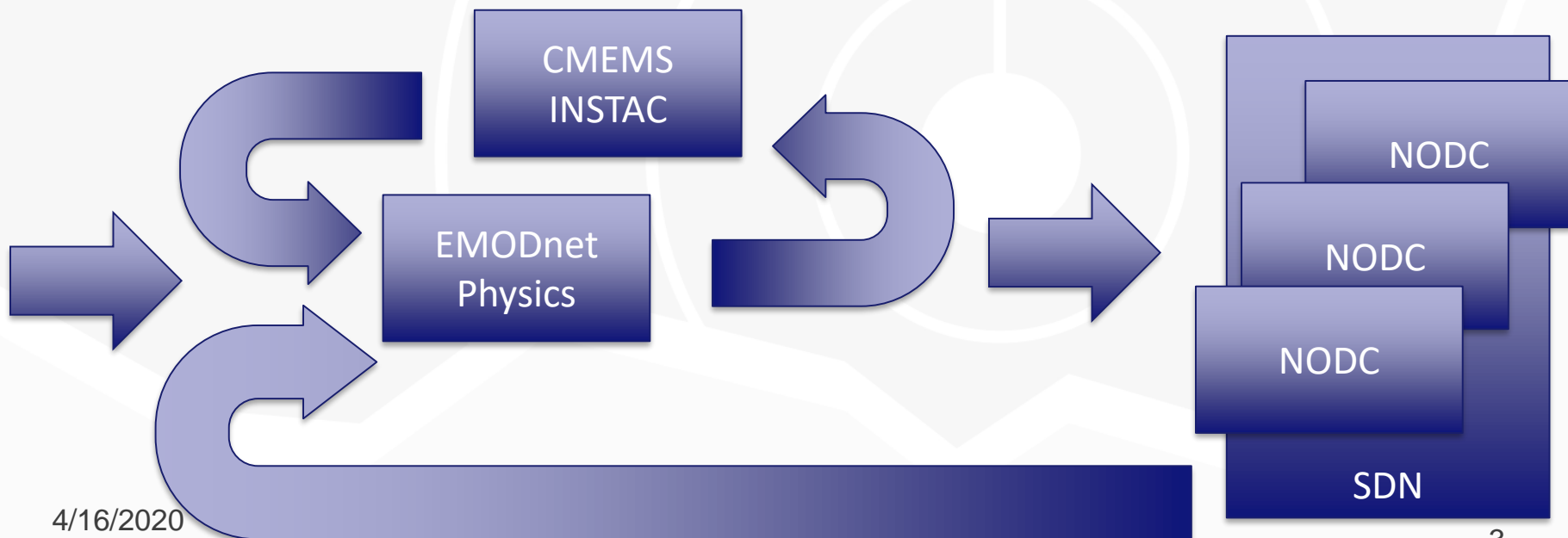
Overview of planned developments and data/product releases under current contract

Products to be updated/released:

((◉)) ice coverage and ice coverage trends
((◉)) noise sound maps
((◉)) Monthly/annual total suspended matter map
((◉)) monthly/annual relative/absolute sea level trend map
((◉)) Monthly/annual fresh water discharge map
((◉)) Seasonal/annual sea water temperature map
((◉)) Seasonal/annual sea water salinity map
((◉)) monthly/annual sea surface horizontal velocity map
((◉)) Seasonal/annual sea state (wave) map

Sea Level

Input

EU Tide Gauge network

PSMSL

IOC GLOSS

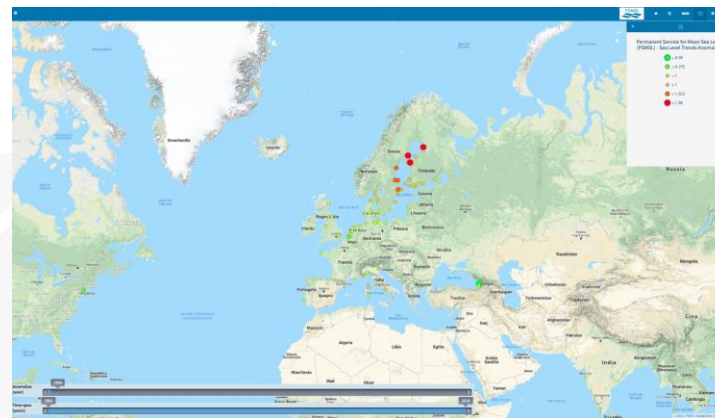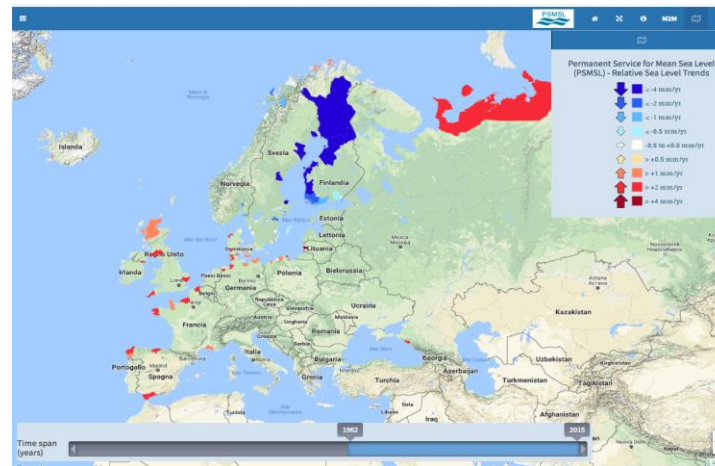SONEL

UHSLC

Output

Nowcast data

Rel Sea Level trends

Abs Sea Level trend

Sea Level Anomalies

Downloadable Volume

Daily to monthly dataset from 2000 stations

…

Temperature in the water body

Input
CMEMS INSTAC
SDN CDIs
IOOS
IMOS
Coriolis
IAPB
PANGAEA
T-MED network
…
SDN climatology
CORA – Coriolis Ocean Dataset for Reanalysis

Output
Nowcast timeseries
Trends
Climatology
Maps

Downloadable Volume
Daily to monthly dataset from 2000 stations
…
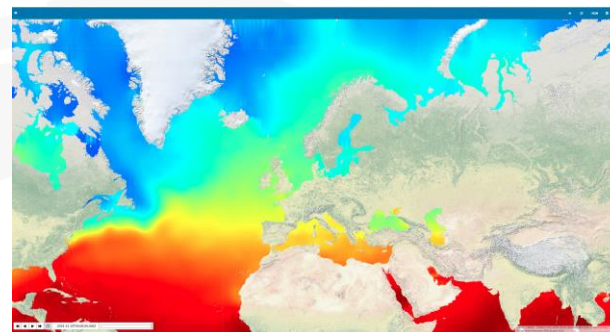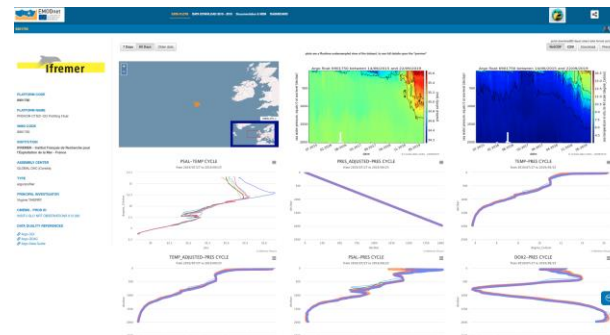
Impulsive Noise
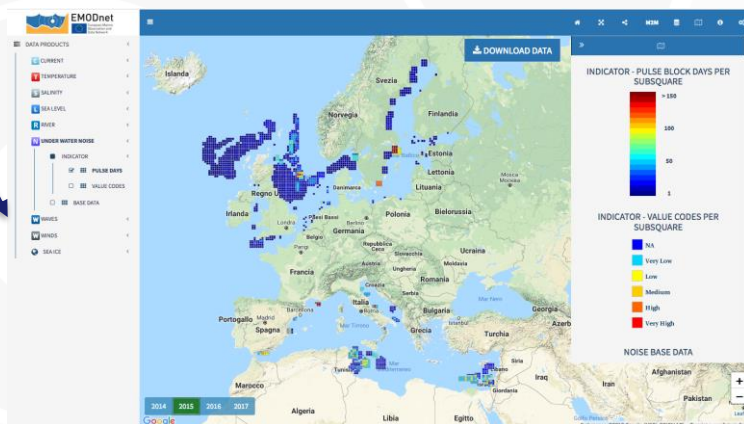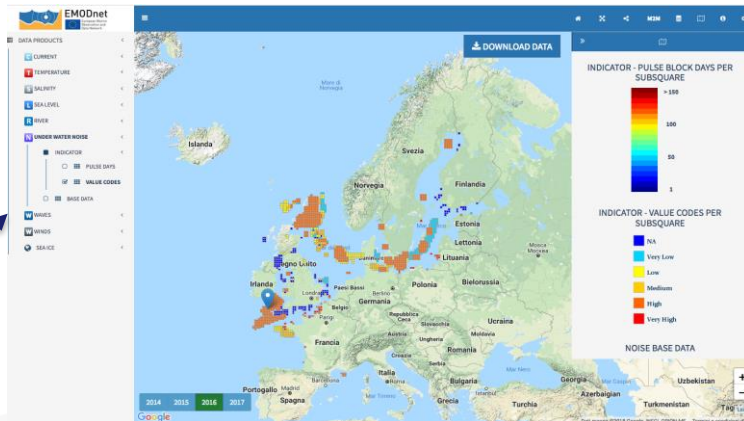

Input
OSPAR – ODIMS
HELCOM - ICES
ACCOBAMS - QuiteMED

Pulse per day per block count

Immagine ICES subrectangles
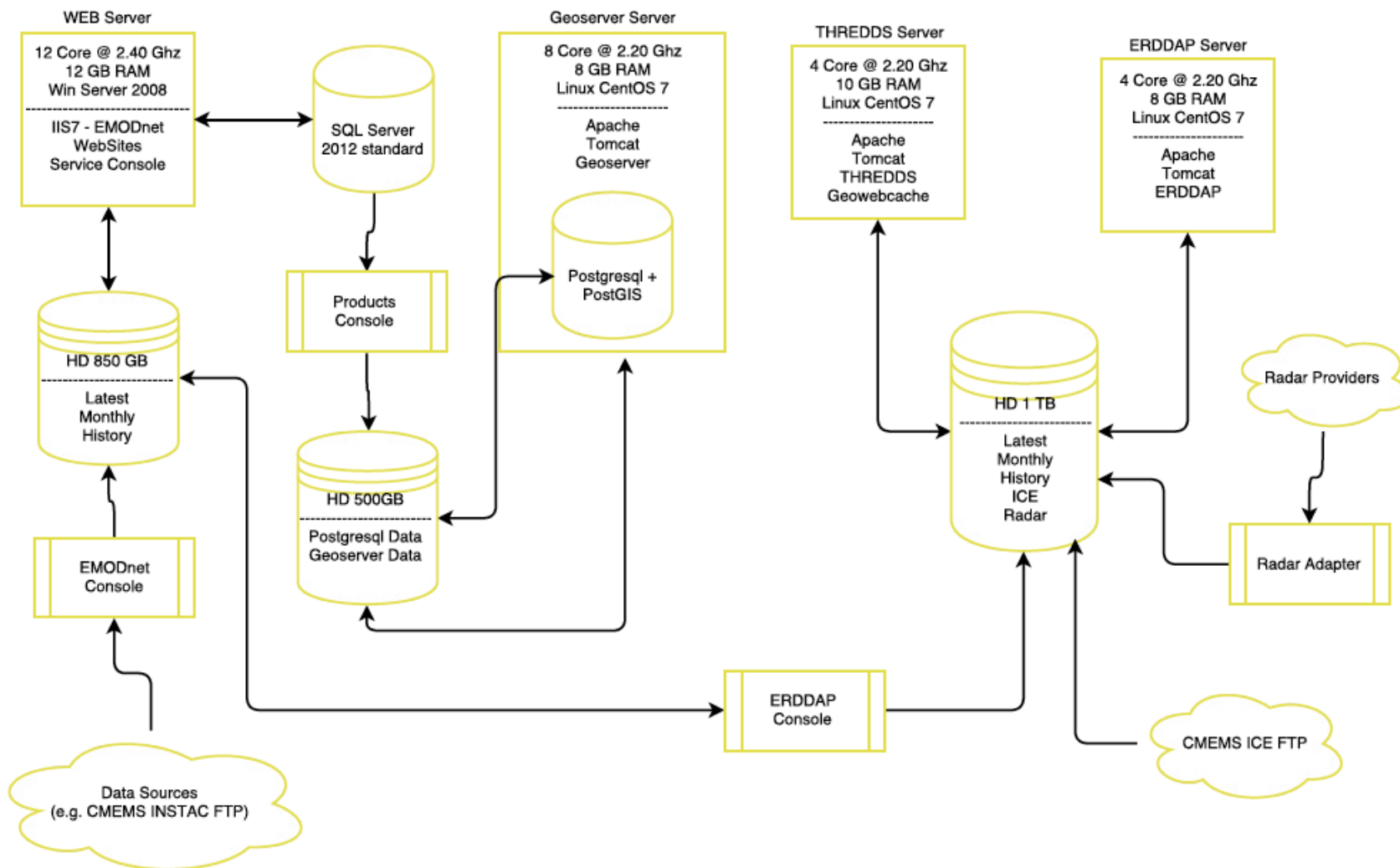
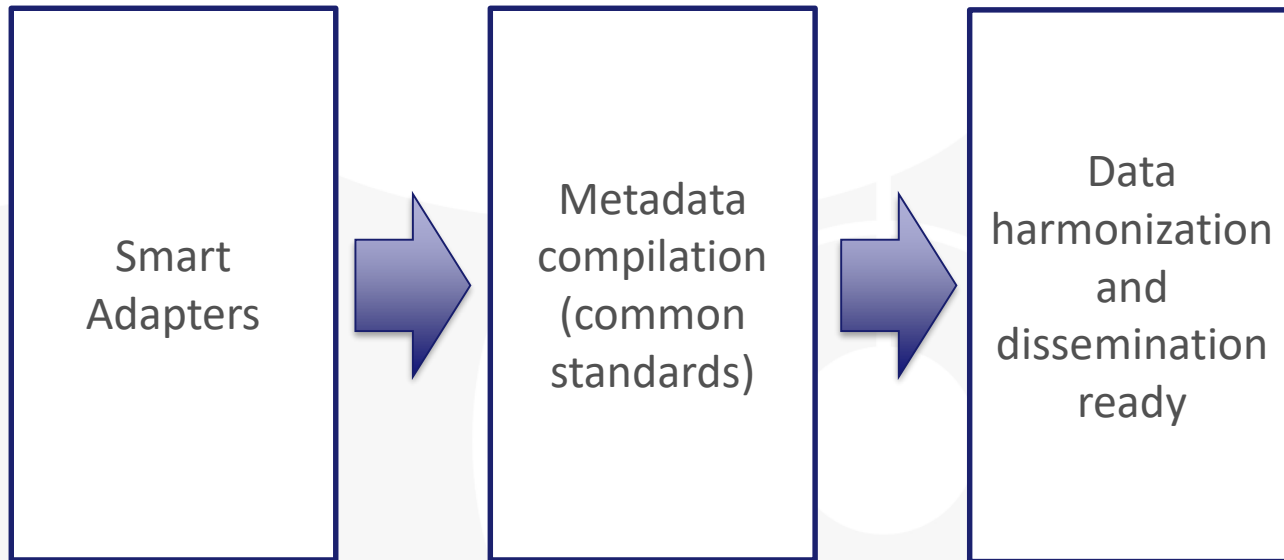Unit: pulse event days per block; period: 2015 – 2018; value code

Overview of technical architecture/infrastructure and key features

EMODnet

WEB Server
12 Core @ 2.40 Ghz
12 GB RAM
Win Server 2008

IIS7 - EMODnet
WebSites
Service Console

SQL Server
2012 standard

Geoserver Server
8 Core @ 2.20 Ghz
8 GB RAM
Linux CentOS 7

Apache
Tomcat
Geoserver

Postgresql +
PostGIS

THREDDS Server
4 Core @ 2.20 Ghz
10 GB RAM
Linux CentOS 7

Apache
Tomcat
THREDDS
Geowebcache

ERDDAP Server
4 Core @ 2.20 Ghz
8 GB RAM
Linux CentOS 7

Apache
Tomcat
ERDDAP

HD 850 GB

Latest
Monthly
History

Products
Console

HD 500GB

Postgresql Data
Geoserver Data

EMODnet
Console

HD 1 TB

Latest
Monthly
History
ICE
Radar

Radar Providers

Radar Adapter

ERDDAP
Console

CMEMS ICE FTP

Data Sources
(e.g. CMEMS INSTAC FTP)

Overview of technical architecture/infrastructure and key features relevant for future developments

Smart Adapters → Metadata compilation (common standards) → Data harmonization and dissemination ready
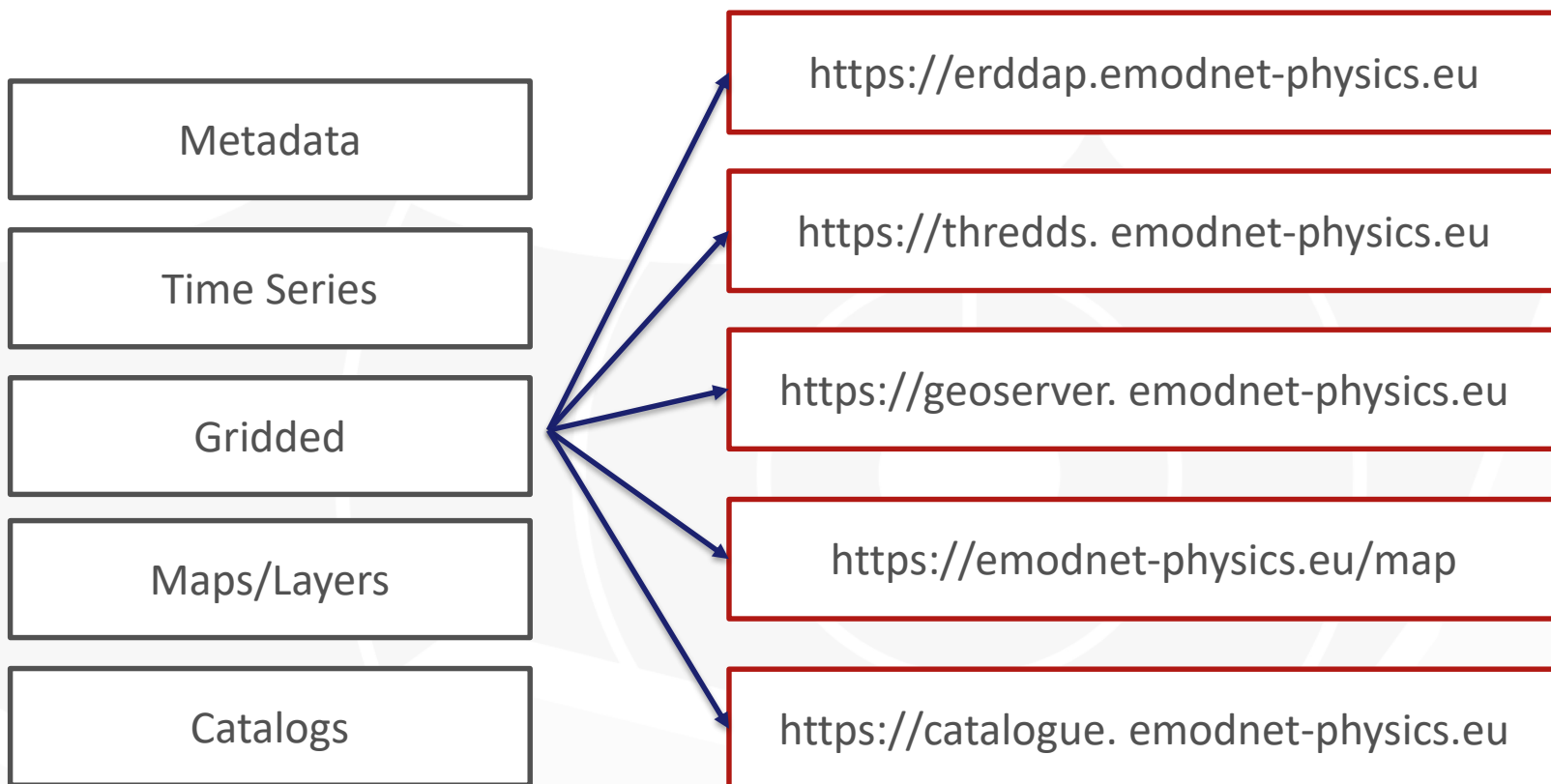
When some it is missing, to design/work on making it ready

Overview of technical architecture/infrastructure and key features relevant for future developments

Overview of technical architecture/infrastructure and key features relevant for future developments

Metadata	https://erddap.emodnet-physics.eu
Time Series	https://thredds. emodnet-physics.eu
Gridded	https://geoserver. emodnet-physics.eu
Maps/Layers	https://emodnet-physics.eu/map
Catalogs	https://catalogue. emodnet-physics.eu

Dissemination Channels
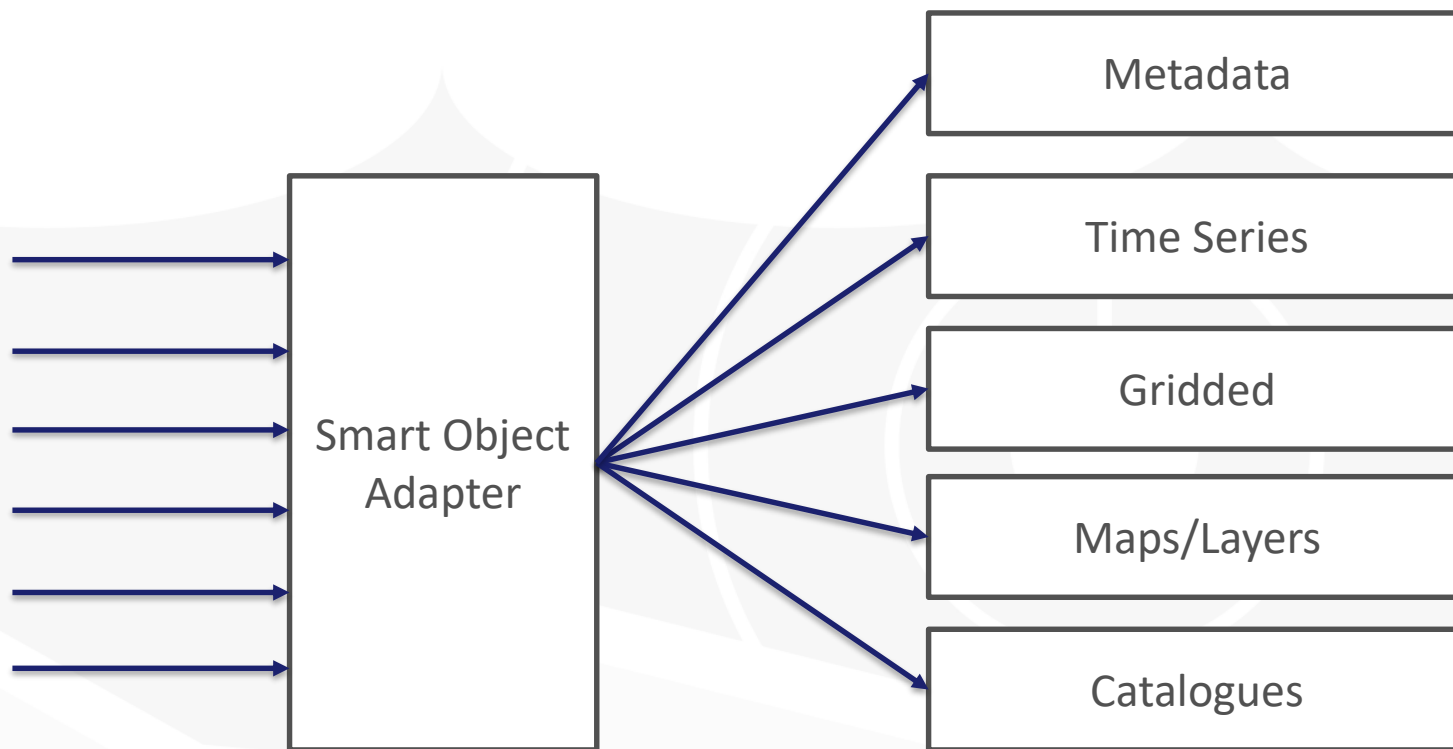
General perspectives on new vision objectives (cf SC meeting item 4)

- Common understanding on data, products, maps, layers, services
- Definition of use case
- Planning of actions
- Development phase/environment – production
- Internal communication
- Structure of the HD

Short, medium & long term implications of the new EMODnet vision objectives (cf SC meeting item 4)

Any technical recommendations and insights to support further developments (If you have any)

@EMODnet

www.emodnet.eu

Your gateway to marine data in Europe