

# **FLUX UN/CEFACT standard for fisheries**

## **The business case**

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Integrated Fisheries Data Management**



# EC DG Maritime Affairs and Fisheries

## Mission statement

- **The Directorate-General for Maritime Affairs and Fisheries works**
  - to develop the potential of the European maritime economy and
  - to secure a safe and stable supply of seafood, sustainable fisheries, healthy seas and prosperous coastal communities
  - for today's Europeans and for future generations.
- **This involves formulating, developing and implementing the Common Fisheries Policy**
  - the cornerstone of our actions for a sustainable exploitation of fisheries resources;
  - and promoting an integrated approach to all maritime policies.

# 2007:The EU Court of Auditors report

- **Catch data are incomplete and unreliable**
  - **Lack of integration and harmonisation**
  - **Very limited interoperability between systems**
- “ If the political authorities want the CFP to achieve its objective of sustainable exploitation of the fisheries the Commission should ensure that
- the electronic system for recording and reporting fishing activity data is implemented as quickly and widely as possible**
- and should strengthen controls on the data forwarded to it, notably by extending the analyses that it performs on individual data.”

# 2009: Fisheries Data Management Action Plan

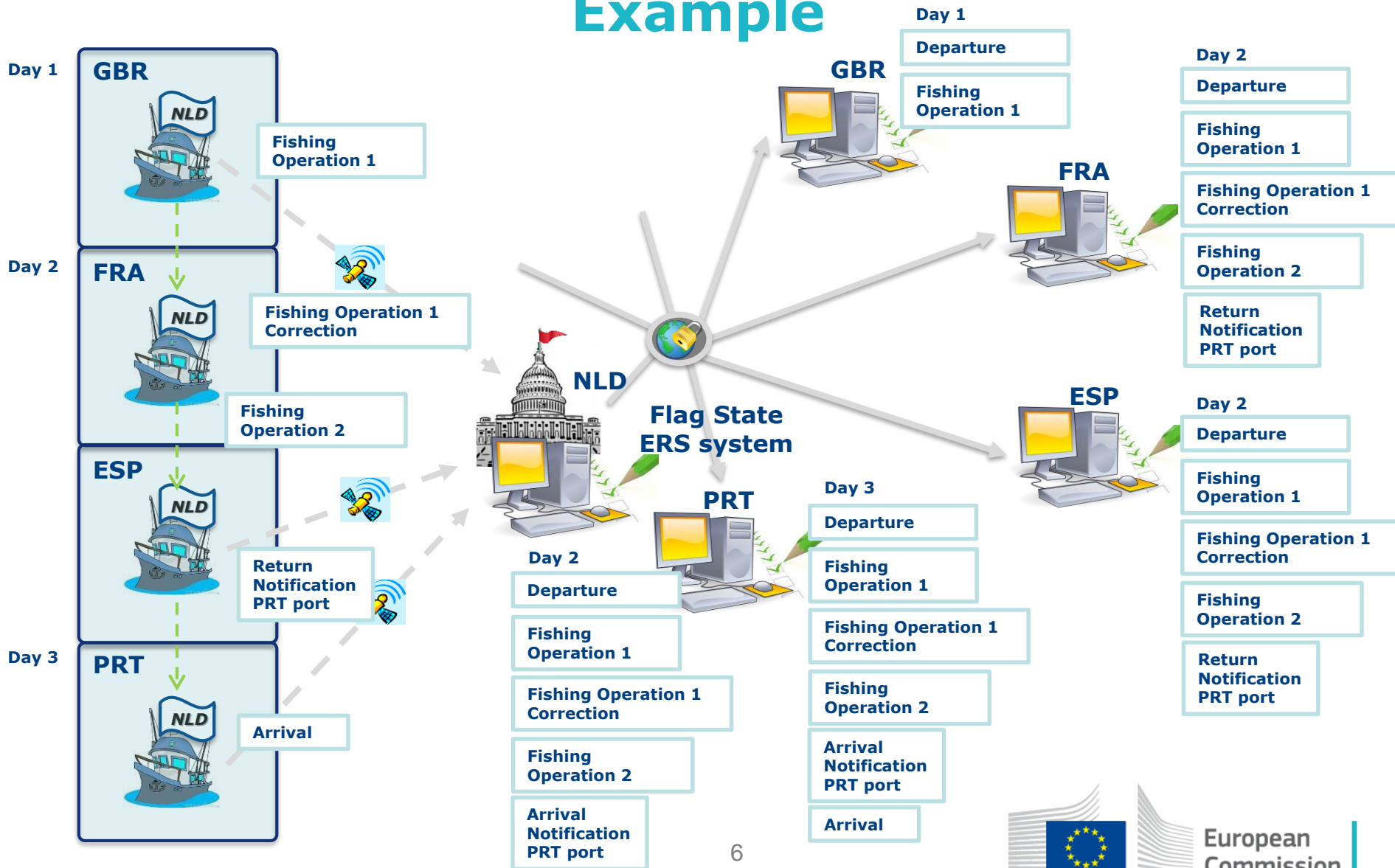
- **Integrated Fisheries Data Management unit**
  - Created on 16 December 2009
- **Task:**
  - To define and implement an integrated policy on fisheries data management, and
  - To come from the 2007 situation to an improved, integrated fisheries data management.

# The challenge in the EU

- **Now 28 Member States – 23 active in sea fisheries**
- **Member States shall control**
  - Activities in their waters (coastal state responsibility)
  - Activities by their vessels (flag state responsibility)
- **European Fisheries Control Agency coordinates some control via Joint Deployment Plans**
- **EU is guardian of the treaty:**
  - Shall ensure that MS control on a non-discriminatory basis (Level playing field)
- **EU has exclusive competence**
  - EU is considered flag state when dealing with non-EU organisations and states

• **Effective information exchange is needed**

# Workflow Fishing Activity Report Example

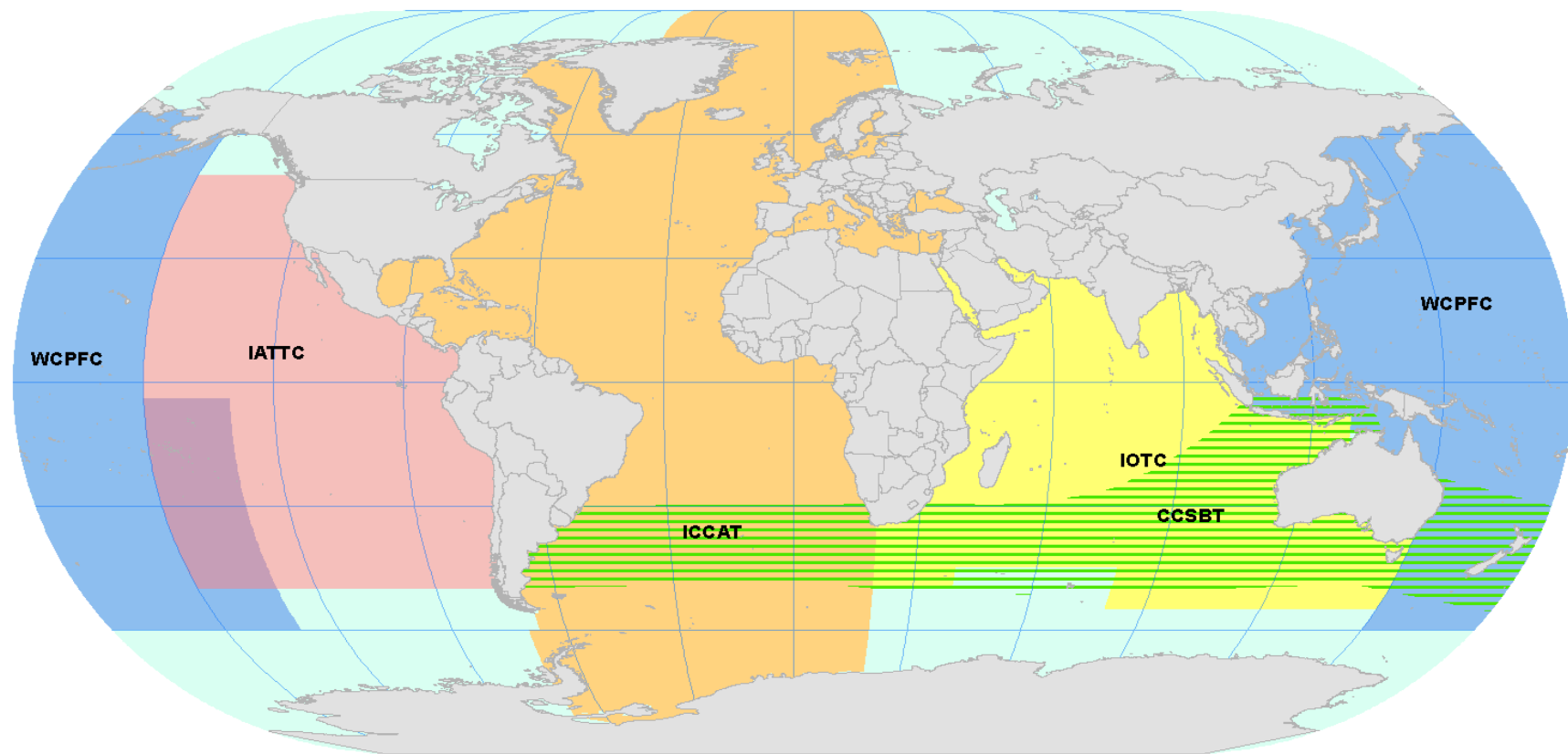







# The wider context

- **EU Fishing vessels can fish all over the world**
- **Fishing is controlled by many organisations:**
  - National authorities
  - Non-EU states in Fisheries Partnership Agreements
  - Regional Fisheries Management Organisations
- **Monitoring is largely based on logbook data**
- **Paper is gradually replaced by Electronic Reporting Systems**
- **Different and incompatible ERS systems**
  - for example in EU and Norway
- **Every new ERS version requires high costs for fishermen and flag state**

## Example of EU fisheries – international

### RFMOs for Highly Migratory Fish Stocks (Tuna and Tuna-like)



-  CCSBT - Commission for the Conservation of Southern Bluefin Tuna
-  IATTC - Inter-American Tropical Tuna Commission
-  ICCAT - International Commission for the Conservation of Atlantic Tuna
-  IOTC - Indian Ocean Tuna Commission
-  WCPFC - Commission for the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean

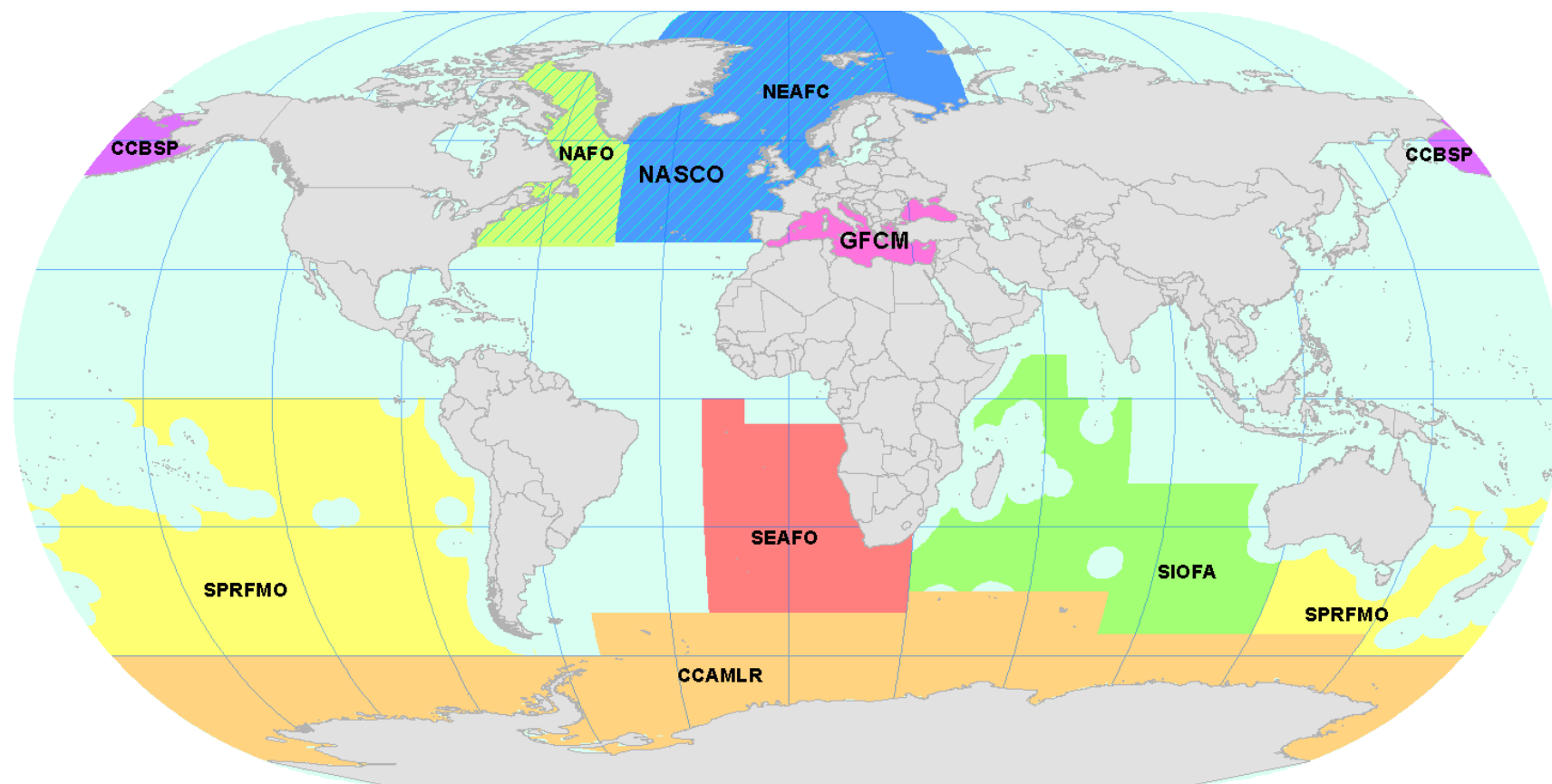
Source Geographical Data: DG MARE B2, ESTAT GISCO  
Cartography: DG MARE B2 GIS and Data Analysis Team - 28/06/2011

Projection System: Eckert III - Scale approx. 1:88,000,000  
The boundaries shown on this map are for illustrative purposes only.

Map reference: RFMO Tuna A3 110628



## RFMOs (non-Tuna)



- CCAMLR - Commission for the Conservation of Antarctic Marine Living Resources
- CCBS - Convention on the Conservation and Management of the Pollock Resources in the Central Bering Sea
- GFCM - General Fisheries Commission for the Mediterranean
- NAFO - Northwest Atlantic Fisheries Organization
- NASCO - North Atlantic Salmon Conservation Organization
- NEAFC - North-East Atlantic Fisheries Commission
- SEAFO - South-East Atlantic Fisheries Organisation
- SIOFA - South Indian Ocean Fisheries Agreement
- SPRFMO - South Pacific Regional Fisheries Management Organisation

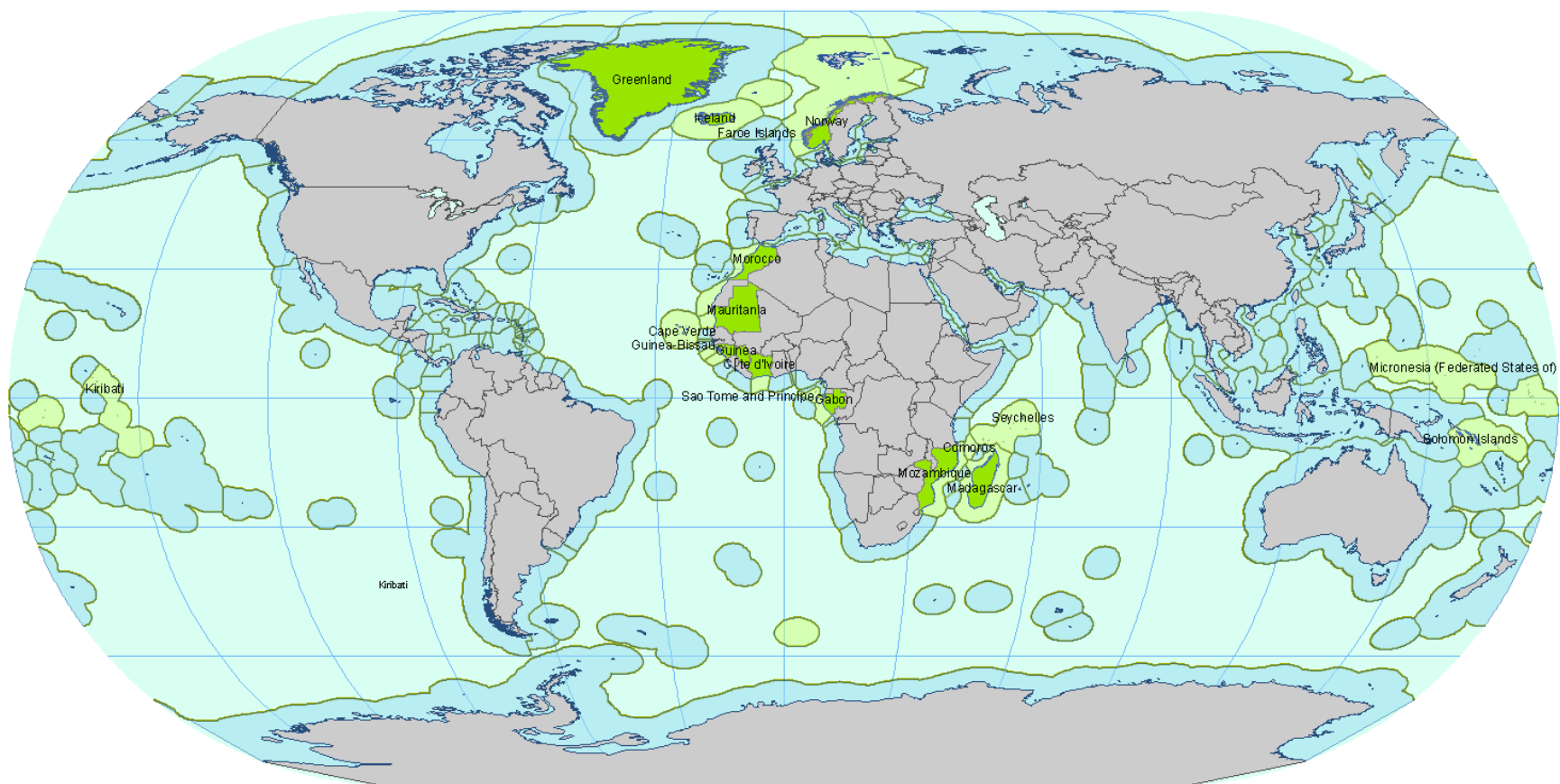
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Map reference: RFMO Tuna A3 20110628



# Fisheries Partnership Agreements



- FPA territories
- World EEZs
- EEZ of FPA territories

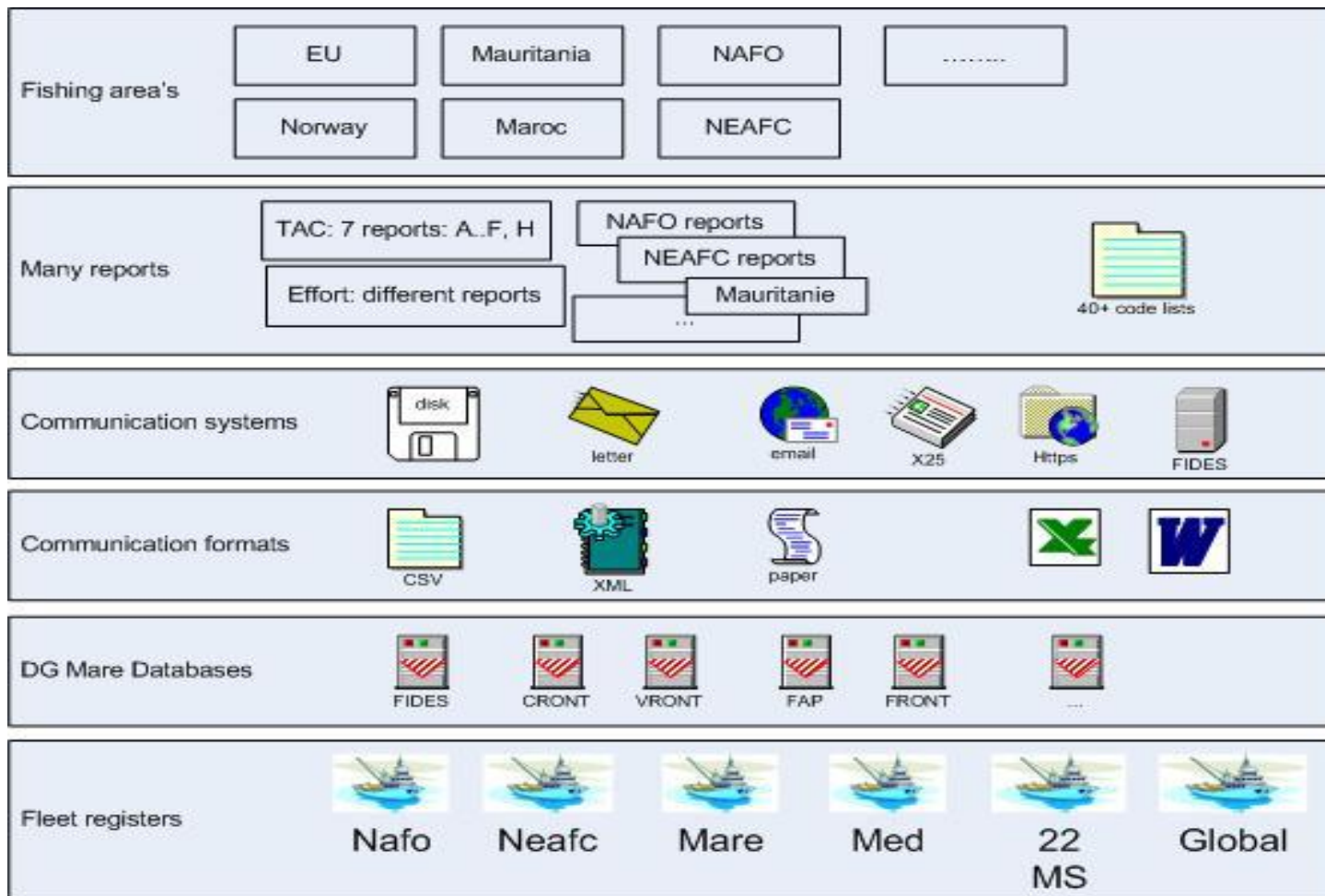
Source Geographical Data: D.G. MARE B2, ESTAT GISCO  
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 Map Reference: 20100910\_World fish zones & agreements  
 Projection System: Eckert III - Scale approx. 1:80,000,000  
 The boundaries shown on this map are for illustrative purposes only.



# Further issues in 2010

- **Technical requirements in EU legislation were interpreted differently in EU Member States**
- **Non-harmonised IT developments**
  - Huge costs for system development but little or no operational result
- **Confusion as to the meaning of:**
  - Code lists
  - Data exchange formats
  - Error codes
- **Data exchanges using email, fax, paper... but also ... web services, xml...**

# EU 2010 situation



# 2010 IFDM program

## 1. Simplify data communication

- Data Exchange Highway – star shape network
- Central node for EU to non-EU parties
- Transportation layer between MS and central node

## 2. Cooperation in IT development

- Monthly meetings of Member States experts
- Dreams of an open source community

## 3. Harmonisation of codes

- Master Data Register for code lists

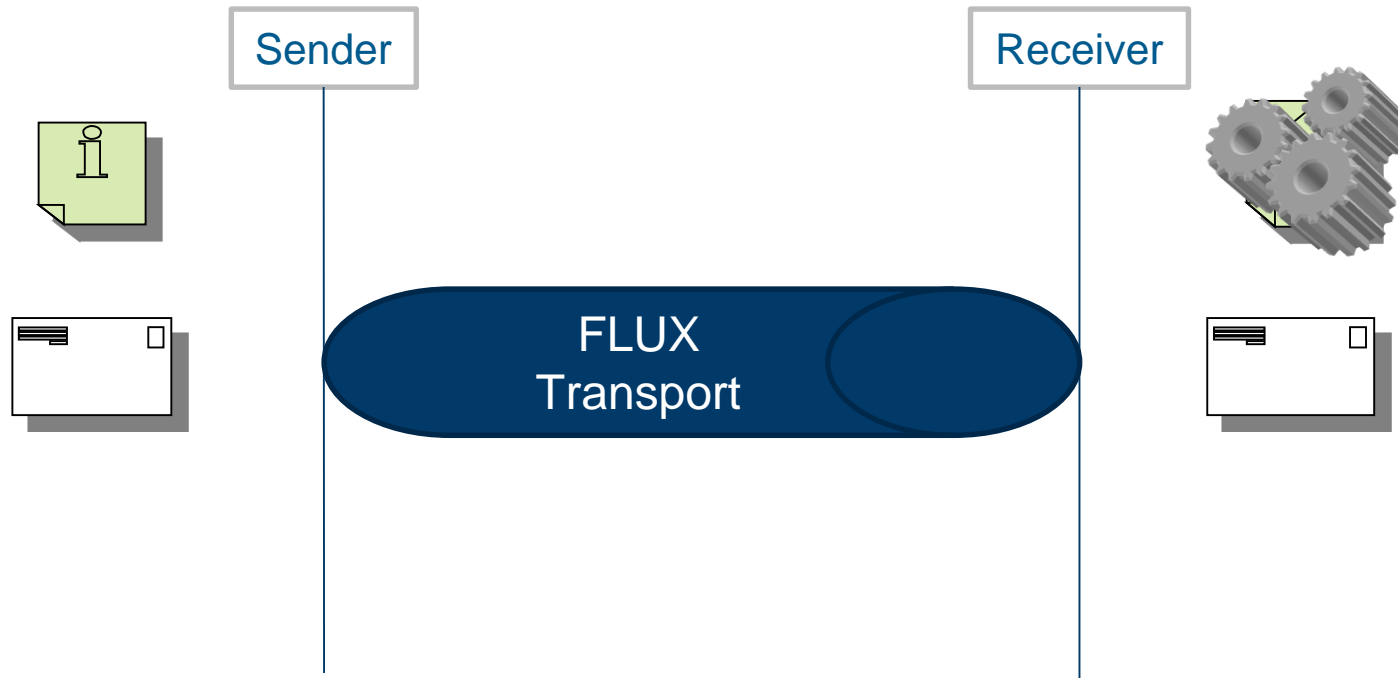
## 4. Standards for data exchanges

- Copy what exists

# Transportation Layer

- **Electronic network for fisheries data exchanges as made available by COM**
- **Open Source tool**
- **Connections:**
  - Central node
  - DG MARE
  - EU Member States
  - EFCA
  - NEAFC
  - NAFO
  - Norway

# Transportation layer

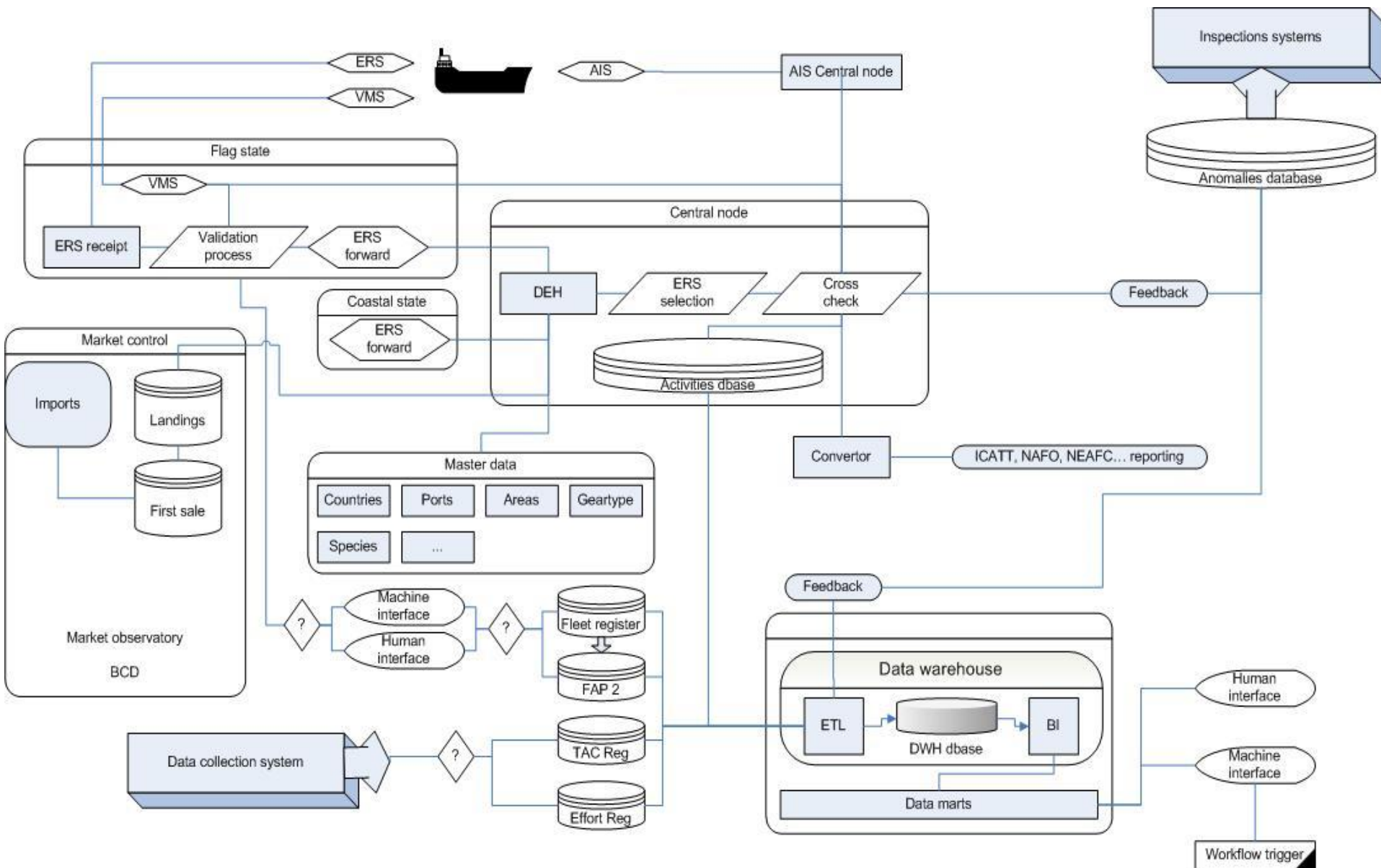


# Master data register

**Master data is a single source of basic business data used across multiple systems, e.g.**

- **Economic Zones**
- **Fish Freshness**
- **Fish Packaging**
- **Fish Presentation**
- **Fish Preservation State**
- **Fish Size Category**
- **Gear Type**
- **Location**
- **Product Destination**
- **FAO Major Fishing Areas**
- **ICES Statistical Rectangles**
- **Species**
- **Vessel Activity**
- **Vessel Type**
- **...**
- **[http://ec.europa.eu/fisheries/cfp/control/codes/index\\_en.htm](http://ec.europa.eu/fisheries/cfp/control/codes/index_en.htm)**

# The 2010 Blueprint for the future

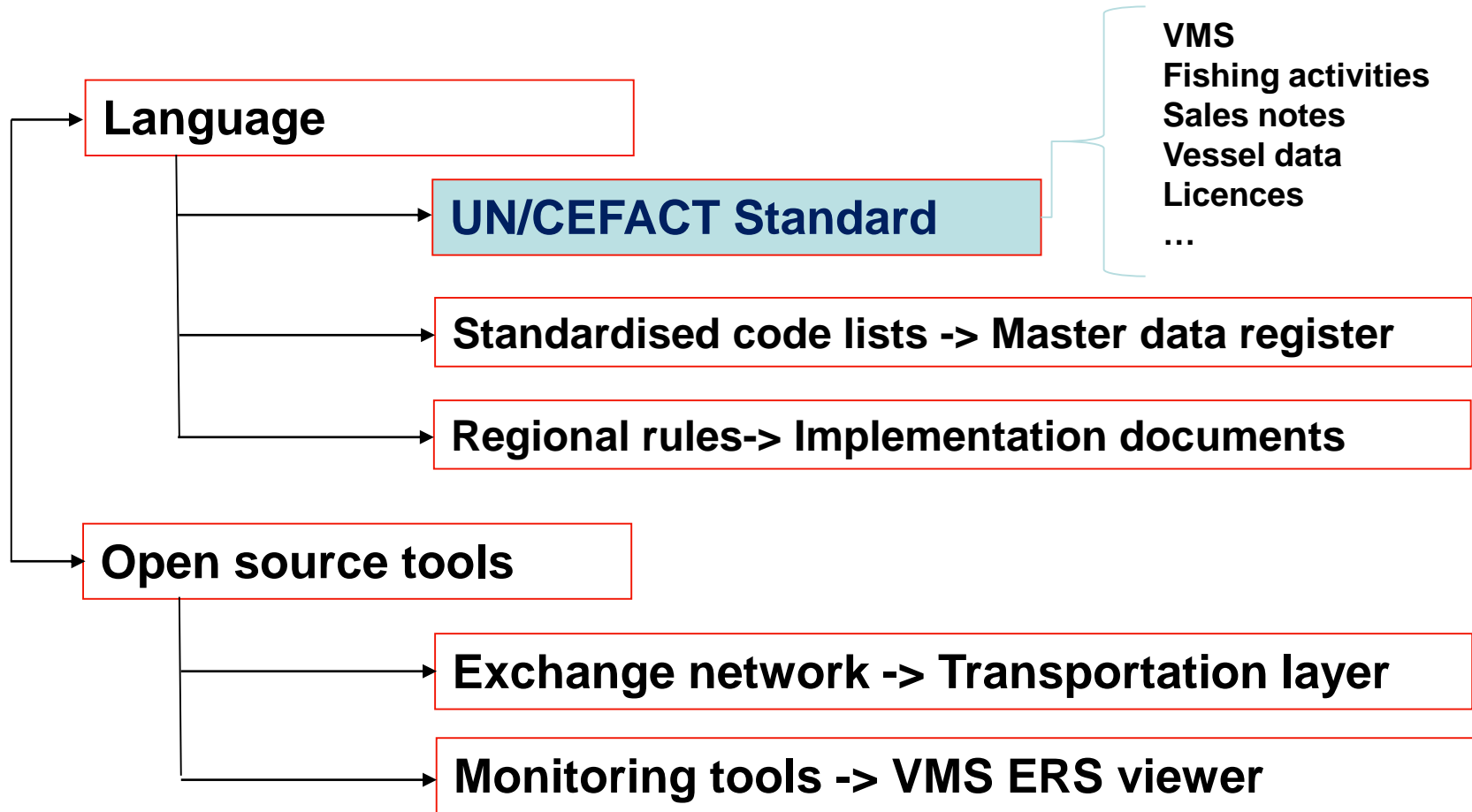


# 2012: a UN/CEFACT standard?

- **February 2012 – meeting with UN/CEFACT**
  - UNECE creates world standards for electronic reporting
  - UN/CEFACT standards already used in many domains,
    - *e.g. import, traceability, food safety, e-signatures*
  - UN/CEFACT - FLUX standard for fisheries
    - *XML message exchange*
  - Not part of UN/CEFACT:
    - *Physical transport of messages*
    - *Code lists*
    - *Use of the standard depends on regional / coastal rules*
      - this is described in implementation documents

# FLUX project

## A single language for data exchanges

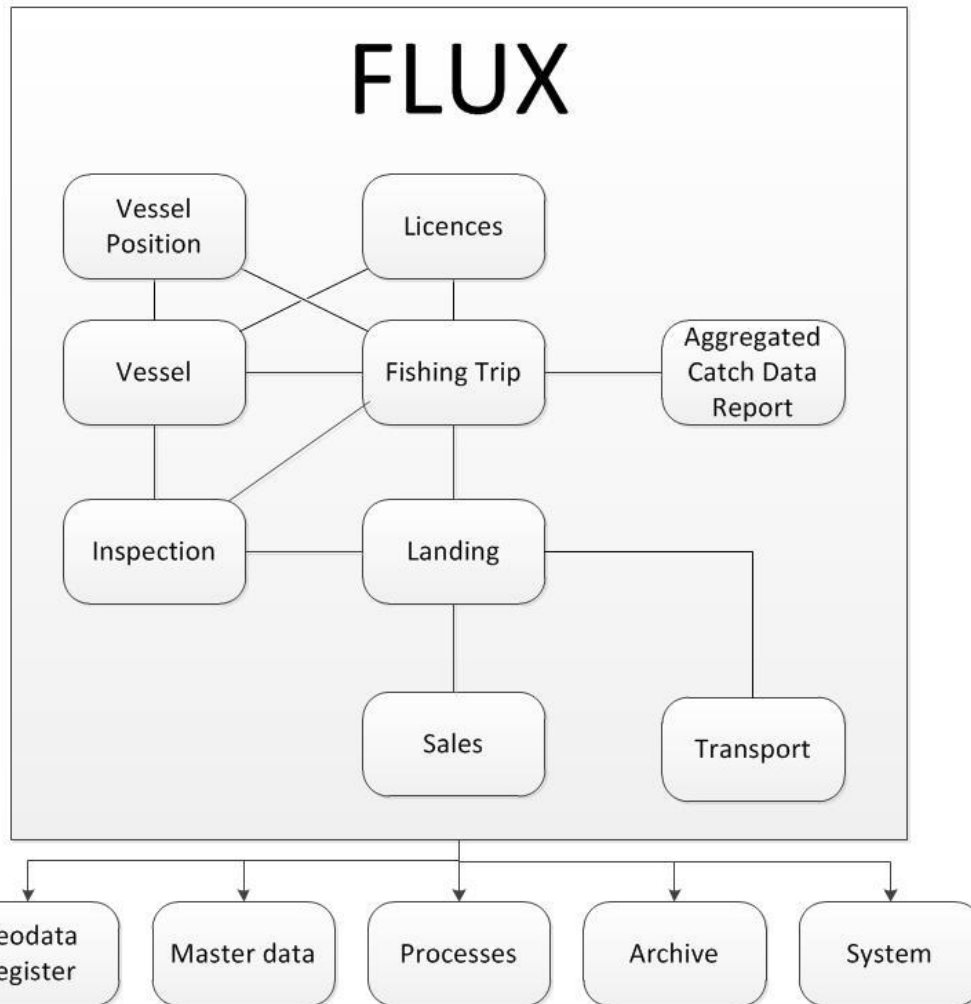


# Implementation documents

- **Detailed specifications for regional rules**
  - Procedures, workflow e.g.
    - *Push or pull?*
    - *Correction message or delete and replace?*
    - *Transmission of updates or entire logbook?*
  - Data model (XSD) implementation
    - *Date – time format – UTC or local?*
    - *Mandatory if... rules*
    - *Field description*
    - *Code lists per field*
  - Business rules – error messages
  - Business continuity procedures

# April 2012

## FLUX P-1000 Project



- P1000 - 1; General principles
- P1000 - 2; Vessel domain
- P1000 - 3; Fishing Trip domain
- P1000 - 4; Landing domain
- P1000 - 5; Sale domain
- P1000 - 6; Transport domain
- P1000 - 7; Vessel Position domain
- P1000 - 8; Inspection domain
- P1000 - 9; Licences domain
- P1000 - 10; Master Data domain
- P1000 - 11; System domain
- P1000 - 12; Aggregated Catch Data Report domain

# UN/CEFACT STANDARDS

April 2016



# UN/CEFACT FLUX P1000 standard for fisheries data exchange

- Adoption this week
- World standard for fisheries
- Incorporated in EU law
  - *Control Implementing Regulation 2015/1962 of 28 October 2015*
- More interoperability
  - *In EU with reporting for taxes, food safety, transport*
  - *With FAO global fleet register*
  - *Discussions with Norway to end double Norway – EU systems*
  - *Discussions in NEAFC for introduction in North East Atlantic*
  - *Negotiations in SFPFA (mostly Africa) to introduce electronic reporting in UN/CEFACT format*

# EU UN/CEFACT implementation

## Plan:

1-11-2016: P1000-7	VMS vessel positions exchanges
15-2-2017: P1000-12	ACDR monthly catch reporting
1-11-2017: P1000-3	Fishing activity ERS
1-11-2017: P1000-5	Sales domain ERS

## Further implementation under discussion:

2017/2018: P1000-2	Vessel domain
2017/2018: P1000-9	Licence domain

International roll-out UN/CEFACT ERS

- *SFPA from end 2017*
- *NEAFC area Q1 2018*

