

# Fisheries business in SDMX

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2001

# Statistical Data and Metadata Exchange

SDMX is an initiative to foster standards for the exchange of statistical information

SDMX



# CL = Codelist

(classification, controlled vocabulary, list of codes with description)

# DSD = Data Structure Definition

The most valuable SDMX  
artefacts are CL and DSD

# CL & DSD



The DSD defines the dimensions and the related codelists

DSD's and CL's have their own independent life, maintenance and lifecycle

Both DSD and CL have a specified version and maintenance agency

# CL & DSD



| Year | Aquatic Species     | Production Area          | Country                  | Quantity [t] | Quantity Unit |
|------|---------------------|--------------------------|--------------------------|--------------|---------------|
| 2012 | Yellowtail flounder | Atlantic, Northwest      | Ukraine                  | 0            | t             |
| 2012 | Yellowtail flounder | Atlantic, Northwest      | Republic of Korea        | 0            | t             |
| 2012 | Yellowtail flounder | Atlantic, Northwest      | Russian Federation       | 84           | t             |
| 2012 | Yellowtail rockfish | Pacific, Eastern Central | United States of America | 2            | t             |
| 2012 | Yellowtail rockfish | Pacific, Eastern Central | Poland                   | 0            | t             |

Catch DSD defines

Attribute(s)  
UNIT\_VALUE

3 dimensions

Primary Measure  
OBS\_VALUE

Time dimension  
TIME\_PERIOD

**Country**  
(ISO3 country  
codelist)

**Area**  
(FAO Major  
Area  
codelist)

**Species**  
ASFIS  
α 3 species  
codelist

# SDMX Catch DSD

SDMX artefacts are published in a  
SDMX Registry (web based)

Organisations, countries, regions can  
decide to set up their own SDMX  
Registry

# SDMX Registry



Internationally recognized SDMX artefacts  
can be promoted to global level

They will be published in the SDMX Global  
Registry

SDMX Global Registry hosts currently 63  
CL and 9 DSD

SDMX Global  
Registry



Eurostat has 2 DSDs on Fisheries landing  
and 3 DSDs on aquaculture

The FAO ASFIS species list and the FAO  
Major Area list are published in both the  
FAO and Eurostat SDMX Registries

# SDMX in Fisheries

SEIF =

SDMX for Eurostat, ICES and FAO

SEIF has developed the Catch DSD

New version of the Catch DSD is  
published every year in the Eurostat  
SDMX Registry

SEIF



IMF, OECD and BIS are active on developing DSD collaboratively

Eurostat has a SDMX Registry with 748 CLs and 246 DSDs

African Development Bank and StatCom Africa are implementing SDMX in African countries

SDMX Global Registry has taken off

SDMX has a 2 very active working groups, 1 technical and 1 statistical with each about 20 members

SDMX has never been hyped but always kept on growing steadily, with increased international support

# SDMX out there

IRD challenges the SEIF Catch DSD as not able to respond to their need

Should they produce yet another DSD?

How such developments of alternative DSDs for each new case would hamper harmonization and interoperability aspects? What is the response there? What could be the role of CWP?

# SDMX practical challenges

model

- Do understand the importance of data modeling
- Model your data
- Publish your local CLs and DSDs in your SDMX Registry

harmonize

- Relate to partners, discuss your models, CLs and DSDs

standardize

- Develop, design, agree upon a limited amount of CL's and DSD's
- Publish them in the Global SDMX Registry

CWP

# SDMX practical suggestions

verbose – complex - not user friendly

not enough tooling

difficult/expensive to build up SDMX  
capacity for small countries/organizations

open/closed community

Main identified issues



data harmonization

data collection/dissemination

good international adoption (WorldBank, IMF, FAO, Eurostat, etc)

not domain specific

enables organic growth (3 layer model)

delegated maintenance model

# Tangible benefits



| Tool  | Developed by      | Description  | Status % |
|---|-------------------|--|----------|
| Cotrix  | iMarine/FAO       | Codelist management<br>(export to the SDMX Registry)   | 90       |
| Grade/FLOD  | FAO               | Linked Open Data management<br>/Fisheries Linked Open Data   | 30       |
| RefPub/RefPlus/<br>RefVis   | FAO               | Reference Data<br>Publication/Repository/Visualization   | 40       |
| SDMX Connectors   | Bank of Italy     | using SDMX data in statistical<br>packages and tools (EXCEL, R,<br>Matlab, SAS)  | 100      |
| SDMX Registry<br>Data Structure Wiz<br>SDMX Converter<br>SDMX Visualisation | Eurostat          | Tools for working with SDMX<br>standards and guidelines  | 100      |
| Others  | SDMX<br>community | <a href="http://www.sdmxtools.org">www.sdmxtools.org</a><br><a href="http://www.sdmxsource.org">www.sdmxsource.org</a> | ongoing  |

# Tooling

SDMX enables organic growth, provided some domain specific standard setting bodies (such as CWP) play their part at the artefact level

(I) CWP consideration and discussion

- ⌘ Instantiate a project for defining SDMX fishery specific artefacts, including resource allocation & funding
- ⌘ Make sure the presented datamodeling-harmonization-standardization is backup with tooling in iMarine
- ⌘ Make sure all the SDMX codelists and datastructures are coherent with the FLUX equivalents
- ⌘ CWP recommends the participation of RFB agencies in projects like FLUX, SDMX and SEIF

## (II) CWP consideration and discussion

thank you

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