Project number: 022774

Project acronym: ISTAM

Project title: Improve Scientific and Technical Advices for fisheries Management

Instrument: Coordination action

Thematic Priority: POLICIES-1.3 - The modernisation and sustainability of fisheries policies

Deliverable D2.2 Supply of a catalogue of data and of the project's regional database including a library of geographical referenced layers (documented, standardised), compatible with the regional database

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Organisation name of lead contractor for this deliverable: Agrocampus-Rennes

Revision [draft]

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Dissemination Level		
PU	Public	
PP	Restricted to other programme participants (including the Commission Services)	X
RE	Restricted to a group specified by the consortium (including the Commission Services)	
CO	Confidential, only for members of the consortium (including the Commission Services)	

Introduction

In the Istam prototype there are several ways to supply a catalogue of data. First we have a catalogue of the data in each sub part of the tool. Then we have included the Geonetwork tool of the FAO which allows us to share meta-data from each type of data. We therefore have to describe each sub part of the information system before considering the generic metadata software.

> Monitoring systems
> Data:
>> Fisheries statistics
>> Scientific Surveys
> Stock assessment
> Fisheries regulation
> Other: Database of geographic layers

All these sub systems participate in the improvement of the scientific advice; it is a whole from the monitoring systems to the regulations thanks to an advice on the state of the fisheries or the state of the stock.
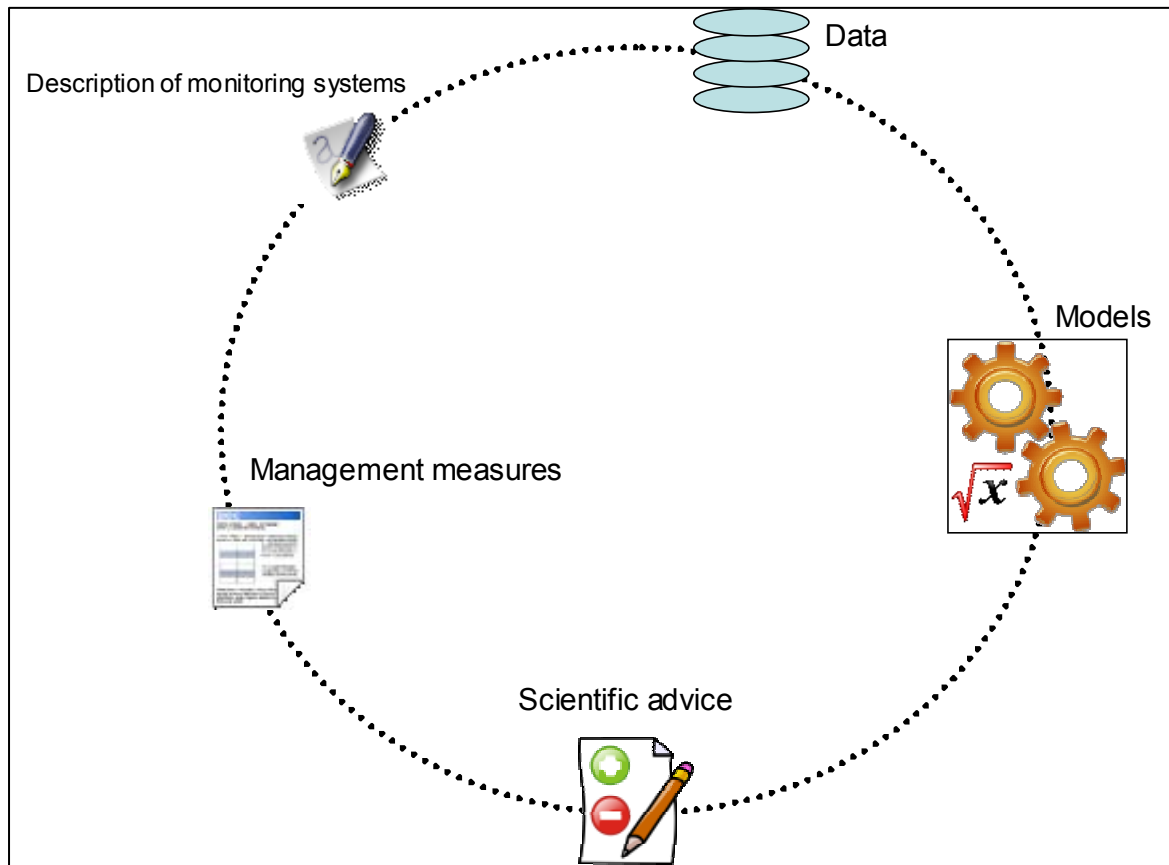

Fig 1: Sub systems of the prototype

I. Monitoring systems

In the prototype we have included the D1.1.1 deliverable of ISTAM which provides a description of the fisheries monitoring systems. This is a catalogue of the data provider that will produce the data that will be the input of the models used to improve the scientific advice.

The data are stored in an XML format issued from the Access ™ database used for the deliverable. This XML file is transformed through an XSL style sheet to share it on the web. The link is stated below:

http://www.istam-project.org/suivi.php

II. Data

We usually use two sources of data for the stock assessment and other scientific advice: fisheries statistics and scientific survey data. We should have taken into account environmental data but due to the lack of time for these very specific data and due to the real availability of data on such ad hoc website (NOAA, JRC ...) we did not take it into account.

Scientific survey

For the Guinean and Mauritanian surveys, the source of information was the Trawlbase database developed during the FIAS (Fisheries Information and Analysis System) project and used in those countries to store the results of each scientific survey. In the ISTAM prototype we have developed a new structure for these data called "Trawlbase-ISTAM" which is an evolution of the "Trawlbase-SIAP". In this new structure we store the data through the open-source database Postgres with the spatial library PostGIS.
We have developed several ways to access these data. Two of these could be considered as a catalogue. The first one is an inventory of the data which presents each survey with a list of metadata. The second one is an on-line atlas which gives some characteristics of each survey.

Inventory :
http://www.istam-project.org/centre_campagnes.php?menuinter=1&sous_menu=1

On line atlas :
http://www.istam-project.org/centre_sirs_trawlbase.php?menuinter=1&type_code=CA

Fisheries statistics

Here we have included the Statbase prototype inside the ISTAM prototype. Statbase can provide an easy to use interface to access some statistical series recovered during the FIAS project. We also have a project of online harmonized on line atlas of each national database. But it is not finalized yet.

Statbase: http://www.istam-project.org/statbase.php

III. Scientific advice

We have to store the scientific advice for several reasons:
- To let the method be re-used
- To make them more accessible for stakeholders.

We have used the FIRMS (FAO) model to store the advice in XML format. We have tested with only two stock assessments provided during the FIAS project. We have also added some functionalities as a transversal search on each part of the advice.

Advices: http://www.istam-project.org/centre_avis.php

IV. Fishing regulations

Once the advice has been provided, sometimes the stakeholders have to take some regulations measures. These measures are often spatial regulations. This regulation will normally change the fisheries and should be taken into account in the future by the monitoring systems, and also by the next assessment. In the prototype we propose a way to store and disseminate the fisheries regulations.

Management:

http://www.istam-project.org/centre_reglementations.php?pays=GN&menuinter=1&type_code=MAP&list_eng=0

V. Geographic layer library

In this part of the prototype we use layers to make some maps. We have decided to store it in a centralized database linked with the Geonetwork metadata tool. There is also an independent interface for this part of the project that allows the users to get the layers user friendly.

Geographic layers:
http://www.istam-project.org/centre_mapserver.php

VI. Sharing metadata

Over all we have set up a transversal tool enabling to direct the user trough the multiplicity of information. This tool is based on the metadata and on a search engine on it. It is called Geonetwork and developed and used by the FAO. We have tried to include the metadata on fisheries statistics, on scientific surveys and at least on the geographic layers. The principle is to ask Geonetwork to list all what is needed to make a scientific advice (the data, the geographic layers to show the data, the last advice, and maybe bibliography …).

Metadata :
http://geonetwork.osiris.ird.sn/istam/geonetwork.php