



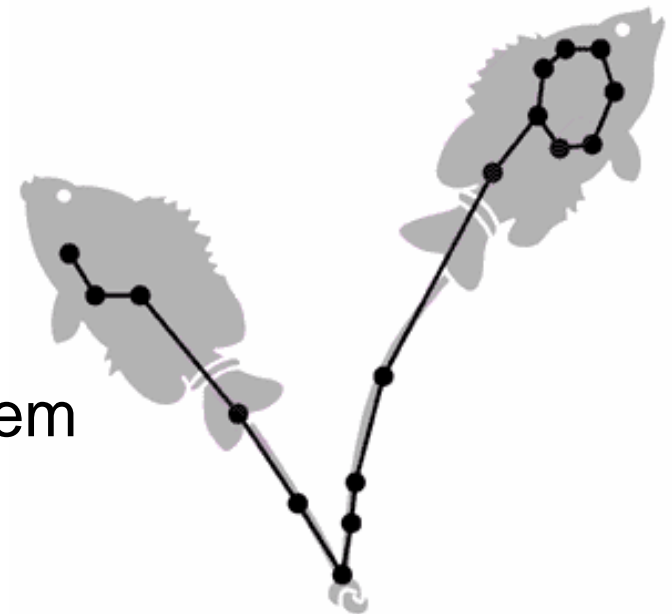
OBIS SC meeting  
Rome - 29<sup>th</sup> April 2008

*Integrated capture information system  
An opportunity for strengthening Partnerships  
between Fisheries & Biodiversity communities*

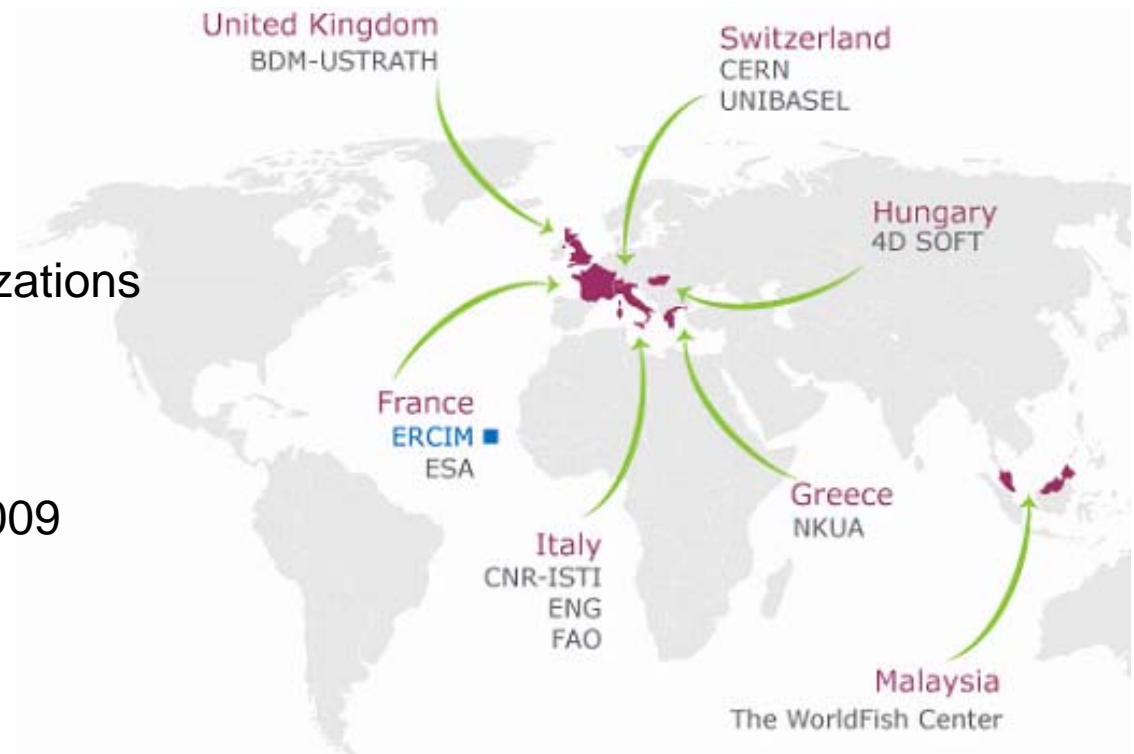
Marc Taconet (FAO) [marc.taconet@fao.org](mailto:marc.taconet@fao.org)



- D4Science
  - project background
  - grid technology
  - Virtual research environments
  
- Integrated Capture Information System
  - objectives
  - conceptual design
  - project timeline.
  
- Conclusion

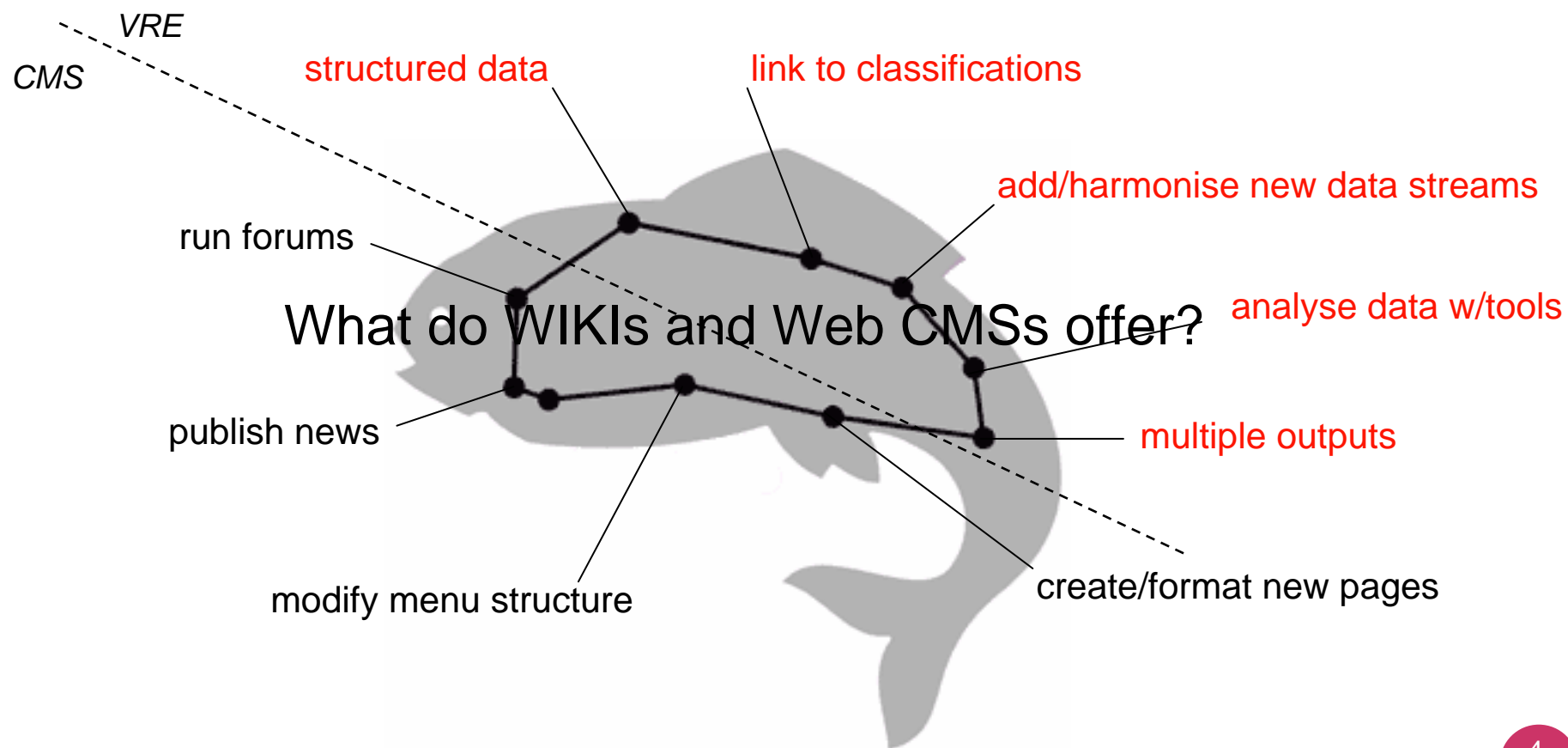


- Funding
  - European Commission
    - 7th Framework Programme for Research and Technological Development
- Partners
  - Universities
  - National institutes
  - International organizations
  - Private companies
- Timeframe
  - Jan. 2008 – Dec. 2009
- History
  - EGEE
  - Diligent



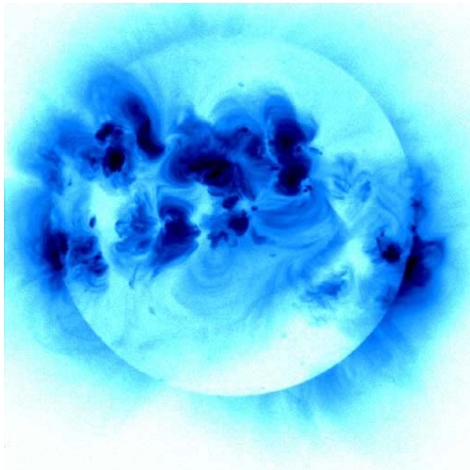
*D4Science objective:*

“Bring grid technology to the service of scientific communities”

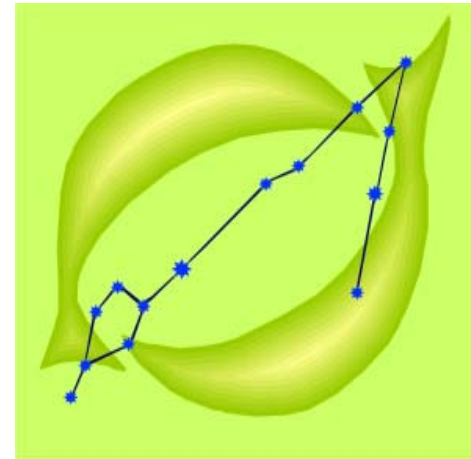


- Two possible approaches to greater computing power:

**build one huge supercomputer**



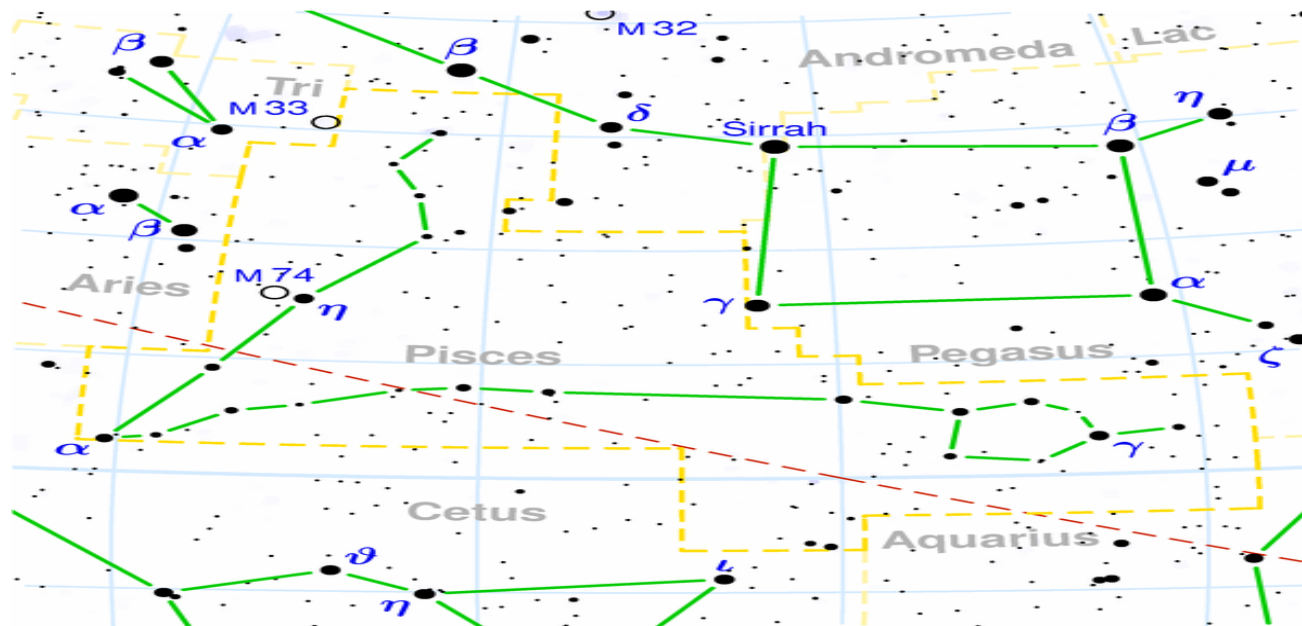
OR



**connect multiple computers**

- Grid computing shares computers via networks to create a single virtual computer

- Traditional uses
  - Initial uses were to perform computationally intensive tasks



- A fairly well-known public initiative is SETI

## Features

## Functions

Built-in networked **community**

**Access control** - define user groups and rights

Following their initial successes, grid researchers realized the technology had a number of advantages that could be brought to the service of other scenarios...

Flexible **storage** space

- **Data importer** - connect to data sources

Processing **power**

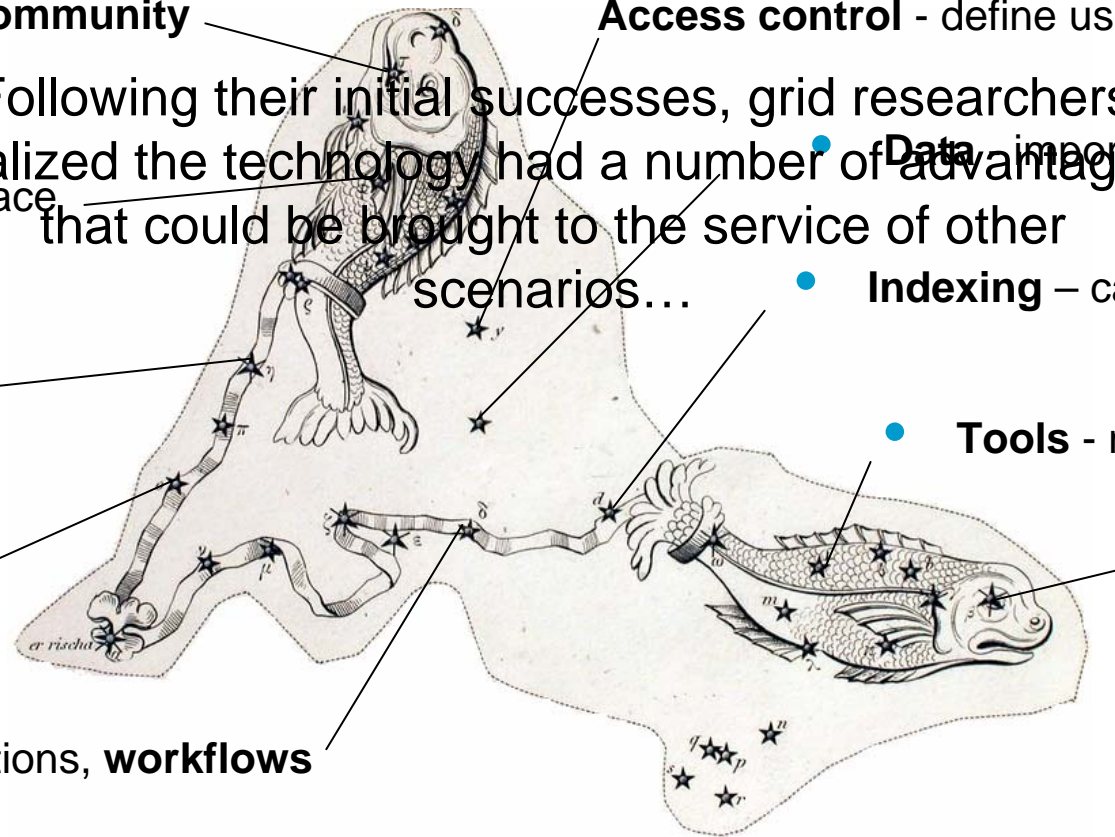
- **Indexing** - catalogue & discover data

Built-in **replication**

- **Tools** - mount or connect to tools

Store processes, actions, **workflows**

**Reporting** - define outputs



## An answer to high level governing bodies recommendations

- UN: distinguish catch statistics between highly migratory, straddling and high seas stocks
- CWP: establish a consolidated catch DB based on publicly available data

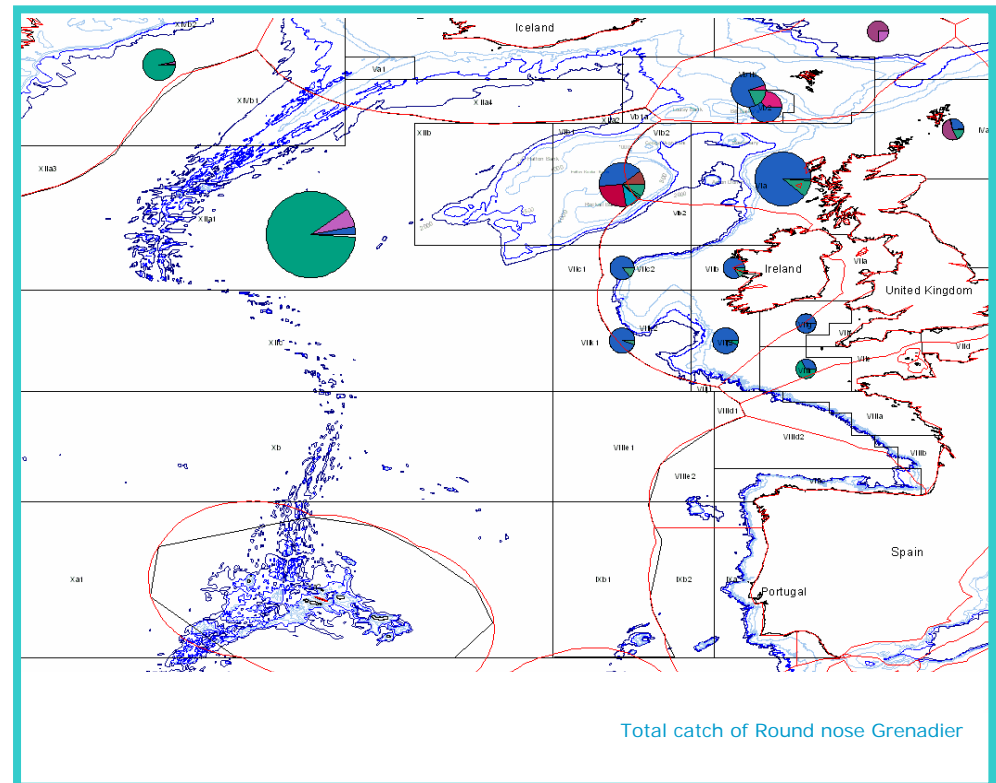
## This project will develop under two funding sources

- D4Science for the infrastructure and data integration
- JPN TF focussing on data processing and dissemination tools

# 1. Integrated capture information system

## Re-allocating catch according to species distribution

- UN recommendations  
“distinguish catch in the High Seas from catch within EEZs”
- current status:  
catch reported by statistical areas straddling across EEZ boundaries



### Disseminated product:

- map and database on best knowledge of global capture
- produced through mechanical consolidation of various publicly available catch statistics maintained by FAO and RFBs
- using reliability criteria developed by experts.

### Integration of habitat information into capture statistics

- allowing re-allocation of catch spatial distribution
- as it becomes available

### Facilities for extraction and direct comparison of:

- multiple sources of catch data, of different format and resolutions

### High level of transparency:

- linkage with source data
- identification of exact data processing procedure used in individual data extraction.

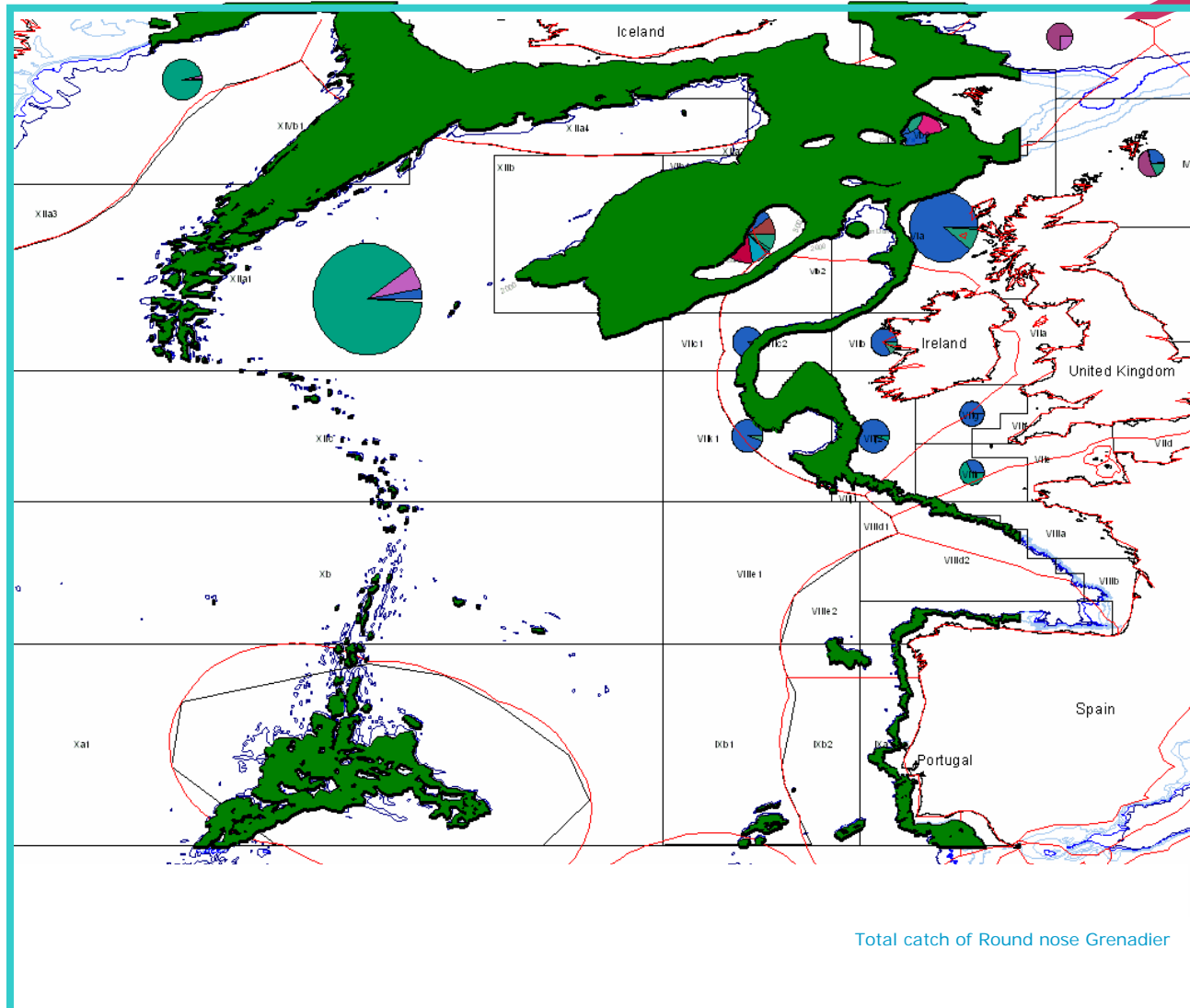
### e-Infrastructure to enable

- direct/semi-automatic linkage between original database and consolidated system
- semi-automated conversions into standard terms, formats and structures.

### Intranets of collaborative working systems for maintenance

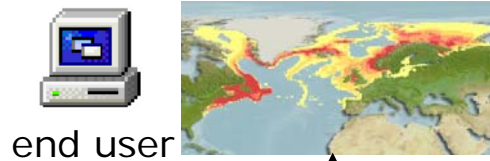
# 1. Integrated capture information system

## Re-allocation of catch according to species distribution

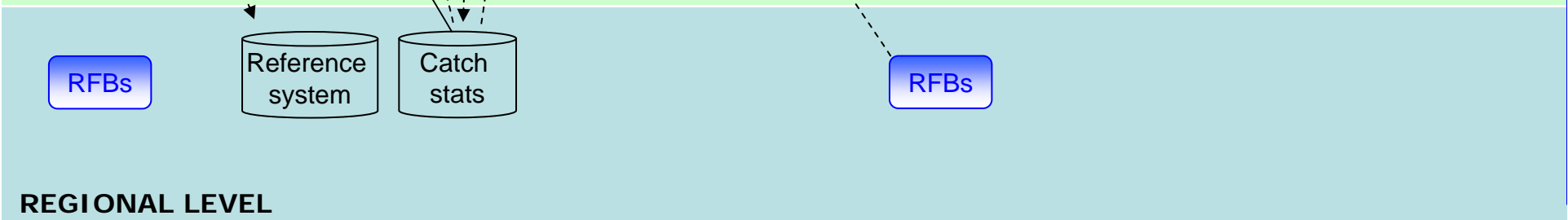
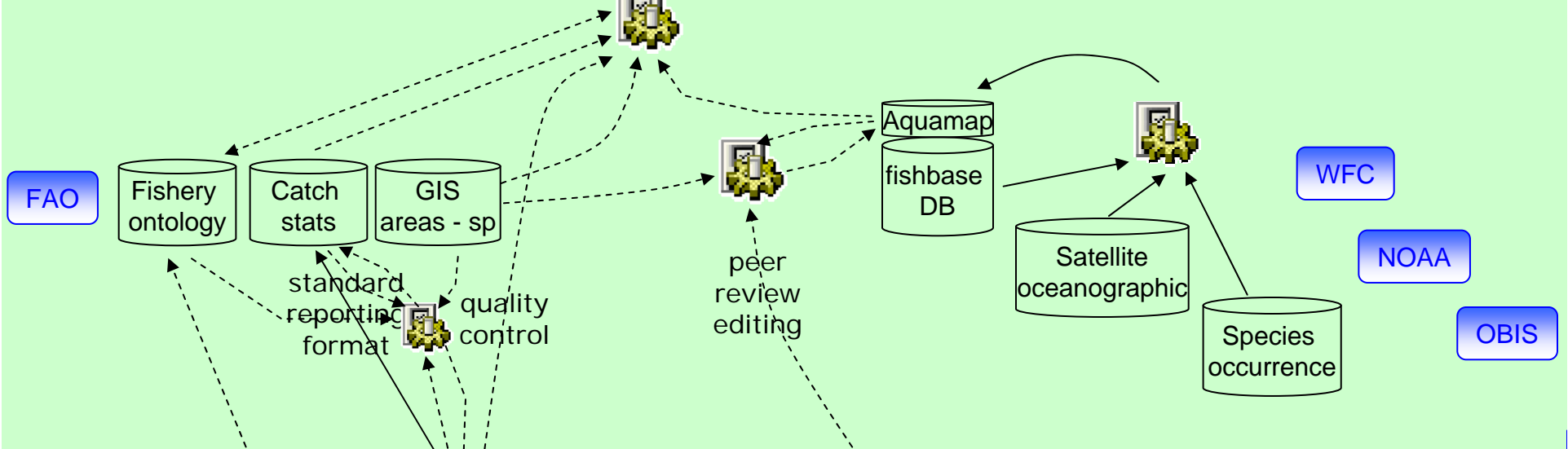


# 1. Integrated capture information system

## Conceptual design



GLOBAL LEVEL



REGIONAL LEVEL

- Internal brainstorming to strategically select scenario (February)
- Information note and invitation to RFBs distributed (March)
  - Will result in selection of 2 RFBs which are willing to actively participate
- Vision document (April)
- Requirements gathering meeting (May-June), with focus on:
  - communication mechanisms
  - data sharing infrastructure
  - distributed collaborative workflow
- Training and Evaluation meetings (year 2), with emphasis on:
  - practicality,
  - functionality,
  - speed,
  - efficiency,
  - maintenance burden

## Why VREs for our proposals?

- Integrated capture information system
  - permanent web-services to end users
    - Networked catch-GIS global and regional databases
    - Modeling of ecological processes – type Aquamap process
    - Report definition functionality
  - permanent shared services to providers
    - Quality control and peer review processes

- an opportunity for strengthened partnership
  - OBIS among main partners of WorldFish Center? → Aquamap
  - Species distribution peer review processes between FAO and OBIS