



Assessment for All (a4a)

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Setting the scene

- DCF 2009 introduced the concept of “**concurrent sampling**” for metier related variables: **sampling all** or a predefined assemblage of **species**, **simultaneously** in a vessel's catches or landings (2008/949/EC, Annex, Chapter I, 1.b)
- Sampling must be performed in order to evaluate the quarterly **length** distribution of species in the **catches**, and the quarterly **volume of discards** (B1.1.1).



Setting the scene in numbers

- In 2010 DCF costs were **57m €**
- Biological parameters (growth & reproduction) are being collected for **250+** stocks in waters where European fleets operate.
- The DCF reports make it difficult to evaluate the number of species each MS is sampling.

Setting the scene worldwide

- US law requires **all federal fisheries** to come up with **annual catch limits**, including appropriate **buffers** to account for scientific and management **uncertainties**.
- Beddington et.al (2007) show that intermediate data stocks that are not being assessed make up for **30%** in the USA, **78%** in New Zealand, **48%** in Australia, **61%** in the North-East Atlantic.
- Roa (pers.comm.) states in Chile **65%** of stocks are not assessed.



So what ? (Miles *dixit*)

EU fisheries scientists will face the challenge of assessing **250+** stocks !



Problem

Dealing with the assessment of these stocks will require a **change in mindset** !!

Opportunities

- Stock assessment as a **data generating** engine
- **Massive data** analysis
- **Multi*** analysis
- Advise for more species
- **Common** stock assessment methodology
- **Comparative advise** analysis
- Direct input to policies like MSFD, MSP, IMP, CFP, etc
- Contribute to Ecosystem Based Management
- ...

a4a initiative

The initiative aims to:

- (a) **develop an assessment method** targeting stocks that have a reduced knowledge base on biology and moderate time series on exploitation and abundance;
- (b) **trigger the discussion** about the problem of massive stock assessment.

Side objective:

- (c) **capacity building**



a4a initiative

Coordination by JRC, Ernesto Jardim:

- A network of scientists coming from distinct regions: **South Africa, USA, Canada, Australia, New Zealand and Europe.**
- A number of International Organizations showed interest like **ICES, ICCAT, FAO.**
- A strong JRC presence.



a4a kick-off meeting (29/02-02/03 @ JRC)

**Brainstorm
Consolidate ideas
Design experiment**



a4a kick-off meeting

Leire Ibaibarriaga (AZTI, Spain)

Jose de Oliveira (CEFAS, UK)

Finlay Scott (CEFAS, UK)

Andrew Cooper (SMU, Canada)

Ruben Roa (SAU, South
Arabia)

Einer Nielsen (DTU, Denmark)

Gary Carvalho (Bangor, UK)

Manuela Azevedo (IPIMAR,
Portugal)

Chato Osio (**JRC**, EC)

Iago Mosqueira (**JRC**, EC)

Ernesto Jardim (**JRC**, EC)

Jann Martinsohn (**JRC**, EC)

a4a kick-off meeting results

- *Defined moderate data stock*
- *Discussed genetics and fisheries management*
- *Describe basic characteristics of the stock assessment model*
- *Describe the advise methodology*
- *Defined the simulation experiment*
- *Discussed how can a4a be operationalized*



***Thank you for your
attention !***

a4a kick-off meeting results

What is a “moderate data stock”

(a) **Exploitation**

- Nominal effort
- Volume (L, D)
- Length frequencies

(b) **Biology**

- Information based knife edge mat ogive
- Indications for growth model
- Length – weight relationship

(c) **Index of abundance**

a4a kick-off meeting results

Which stock assessment model are we looking for ?

- Model to be applied rapidly to a wide range of situations
- Results must be used for advise on a quantitative basis