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Report of the Steering Committee for Regional Databases (RDB -SC)

20 – 21 March 2012

ICES Headquarters, Copenhagen



ICES

International Council for
the Exploration of the Sea

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Summary

The Steering Committee (SC) for Regional Databases (RDB) held its second meeting in Copenhagen 20–21 March 2012. The SC consists of representatives from three regional coordination meetings RCM Baltic, RCM NS&EA and RCM NA, ICES and the Commission. The meetings are open for observers from Member States and non-EU countries that are interested in the RDB. The main objective for the SC is to govern technical aspects of the RDB while the RCMs are responsible for the content governance.

During the second meeting the SC finalised a proposal for a data policy document dealing with confidentiality issues and access rights for data uploaded in the RDB. The proposal is found in an Annex of the report.

The RDB have a considerable potential to i) enable implementation of a regional approach to sampling programs and regional management of data, ii) decrease problems with data deficiencies through more centralised transmission processes and iii) increase transparency on how data sets (e.g for stock assessment) are compiled enabling assessment of quality. However, to exploit this potential, further development is needed. During the second meeting the SC gathered known development needs and compiled what needs to be done at short, medium and long term. First priority for the RDB is to facilitate coordination and evaluation of sampling through the RCMs. To achieve this short term focus need to be on enabling data uploads and a revision of the exchange format. Tools to assess quality of the regional data (e.g COST) also need to be implemented in the RDB. Once the RDB serves the needs for the Data Collection programmes, the second main goal should be developed further. This goal aims at facilitating data preparations and deliveries for assessment purposes. The SC was informed that there presently was no possibility to include a budget for development of the RDB in the MoU between the Commission and ICES. The regional database is included in the proposal for a new European Maritime and Fisheries Fund (EMFF) implying that development funds may be available 2014–2020 if the proposal is adopted. Presently there may be a possibility to fund urgent development through a study if a study proposal is put forward by the RCMs and is endorsed by the LM. The SC thereby decided to convene an extra meeting in June 2012 to produce such a proposal.

The SC further concluded on the first RDB workshop and finalised ToRs for the second RDB workshop.

Reports from the first SC meeting (December 2011) and the meeting of the interim steering group preceding the SC is included in the report as Annexes.

1 Introduction

The second meeting of the Steering Committee (SC) for Regional Databases (RDB) was held in Copenhagen, 20–21 March 2012.

The Steering Committee for the Regional database (SC) consists of representatives from the regional coordination meetings RCM Baltic, RCM NS & EA and RCM NA, ICES and the Commission. The meetings are open for observers from Member States and non-EU countries that are interested in the regional database (RDB). The main objective for the SC is to govern technical aspects of the RDB while the RCMs are responsible for the content governance.

The existing database Fish Frame has been chosen as the technical platform for the RDB. Fish Frame has historically been hosted by the Danish Technical University (DTU–Aqua) but ICES will take over as host during spring 2012.

A participants list and the agenda for the meeting are found in Annexes 1 and 2.

2 Background

The scientific data foundation of the Common Fisheries Policy has moved from national data collection schemes, for nationally exploited stocks towards more regional coordinated data collection schemes, not only stratified on species but also to provide estimates of catch composition for centrally defined fisheries (metiers) (Council Regulation N° 199/2008). The present DCF further encourages a wide use of data collected. EU Member States (MS) are in accordance with 199/2008 obliged to submit detailed and aggregated data to not only to organisations supporting the fisheries management but also to the scientific community upon request. The new elements in the DCF, relating to regional coordination of sampling schemes, metier based sampling and encouragement to widen the use of data constitutes a powerful possibility to increase the overall knowledge of fisheries and fish stocks. At the same time they constitute a challenge for MS and national institutes since the demands on management of the data collection programs and the collected data increase considerably.

The regional coordination is primary handled by the five Regional Coordination Meetings (RCMs), which meet yearly to review past sampling and to lay down the rules for sampling coordination for the next year in the region. The aim of the meeting is to achieve adequate international sampling coverage, task sharing and cost efficiency. The work of the RCMs is not easy, partly because of the complexity of data collection, but also because no central source of data has been available to perform the analysis necessary for optimization of the sampling schemes and quality of the data achieved, at a regional level. In every case it has been necessary to request data from each country in the region in order to carry out basic analyses, which are necessary for coordination. This process is error prone and also time consuming both for the national institutes and the actual meetings of the RCM which also is reflected in several of the recommendations in the reports of their meetings. This situation has led several RCMs to express a strong need for a Regional Database (RDB) as a data source and tool for their work.

A RDB would also facilitate transmission of data to end-users from an institute perspective where work power can be saved as well as from an end-user perspective where more transparency on the compilation and quality of the data could be achieved. Potential end-users that will benefit from a RDB are thereby all groups which want to make use of tabulations, analyses and graphic presentation of fishery information across countries within a region.

Following a recommendation from the Liaison meeting in 2009 the Commission organised the workshop "Regional scenarios and Roadmap on Regional Database" in 2010 (Anon., 2010). A strong need for a regional database (containing biological and transversal data but also VMS data to support eco system indicators) was expressed by participants from the Baltic (where a RDB is already operational) and North Sea regions. For the North Atlantic region the opinions were divided. Participants from some MS saw the possibility to improve the quality of data and data management through a RDB while other considered the present situation with national databases satisfactory and saw a risk with increased workload. In the Mediterranean the most common situation is that the stock distributions are limited to a given country and the participants at the time thereby saw no need for establishing a RDB. Data on large pelagics are already managed by ICCAT.

The Workshop recommended the development of a roadmap on a regional level to be addressed by the different RCMs giving each region the ability to act on different

scenario options. The RCMs (Baltic, North Atlantic and North Sea and Eastern Arctic) responded in their meetings during 2010.

All the three RCMs considered that a database with “disaggregated” (sampling data in detailed form and transversal data in a low aggregated form) data would fulfil most of the needs of the RCM. Such database would facilitate analyses on a regional scale and it will give MS a tool to coordinate their programmes. Also, in order to be to reply to data requests and transfer data routinely to end-users, it would be more cost efficient to use a RDB and it would provide better quality standards compared to the present situation. RCM NA recognised that not all MS agree to share their data in such a RDB, but expressed that this should not hamper the establishment of a RDB for the North Atlantic region. In the Baltic region MS have already used a regional “disaggregated” database for several years. This database, FishFrame, was developed for this purpose. The experiences with FishFrame were positive and the RCM Baltic decided in 2009 to continue to use FishFrame in the future. In the 2010 meeting of the RCM NS&EA FishFrame was adopted as platform also in this region.

In 2010, the RCM Baltic and the RCM NS&EA recommended an interim steering group to be set up with clear terms of references and mandates in order to start the implementation of a RDB including a Steering Committee (SC). The RCM NA proposed items to be discussed in such a SC. The 7th Liaison meeting endorsed this recommendation. As a consequence an interim steering group consisting of representatives from the three RCMs, ICES and the Commission was put together. This steering group had a meeting in February 2011 in order to elaborate on a governance model for the RDB but also to suggest road maps on how to proceed towards implementation of a RDB from a content point of view as well as from a technical point of view. The report from the interim steering group is found in Annex 8. The outcome of the interim steering group was adopted by the RCMs which also appointed participants to the RDB steering committee (RDB-SC). The first RDB-SC meeting was held in Brussels on 2 December 2011. The report from the first RDB-SC is found in Annex 7.

3 ToR 1) Respond on recommendations put forward to the SC by the Liaison meeting in order to report back to the regional coordination meetings (RCMs) in 2012

3.1 a) Discuss and conclude on the proposal for a data policy document dealing with data confidentiality and data ownership issues.

The 8th Liaison Meeting recommended the SC to discuss and propose a RDB data confidentiality and data ownership policy that all MS uploading their data must follow. In their first meeting the SC discussed what to be included in such a policy. A sub group led by Jørgen Dalskov was established in order to prepare a draft of a data policy document prior to the second RDB-SC meeting. The second SC meeting continued to work on the document and finalised the text. The goal of the policy document is to define how the data uploaded into FishFrame are stored and used in accordance with agreement made between the data submitters, data users and host. The document states the conditions for data submission as well as access and usage rights. The policy document is found in Annex 3.3.2 b) Prepare and establish a list of development needs for the RDB, including time for such developments, enabling prioritization at the RCM/LM level.

The RDB have a considerable potential to i) enable implementation of a regional approach to sampling programs and regional management of data, ii) decrease problems with data deficiencies through more centralised transmission processes and iii) increase transparency on how data sets (e.g. for stock assessment) are compiled enabling assessment of quality. However, to exploit this potential, further development is needed. Fish Frame has been used in the Baltic region for several years but when the scope is enlarged to other areas issues will rise. This also became evident after the 2011 data call where RCM NS&EA and RCM NA made several comments on needs on improved look-up tables and definition of certain variables (see Annex 7).

Furthermore, a constant work to improve the quality of the data collection is carried out within the ICES Planning Group on Commercial Catches, Discards and Biological Sampling (PGCCDBS) and associated workshops. Outcomes of this work need to be reflected in the RDB. Several workshops (WKMERGE, WKACCU, WK PRECISE, WKPICS) have in recent years dealt with sampling quality assurance, e.g. how sampling frames are constructed and how data is processed in accordance with the frames. This needs to be considered in the RDB. There is also a recommendation from RCMs to include the COST tools, which allow estimation of precision, in the RDB.

Given the long list of development needs it is evident that priorities need to be made.

First priority for the RDB is to facilitate coordination and evaluation of sampling through the RCMs. To do this, the RDB needs tools to live up to its task and currently these tools are partly missing. E.g. tools (like COST) to produce quantitative quality indicators are currently not implemented in the RDB. This is partly due to the lack of coherent approach on these indicators (sampling based on métiers or sampling frames) and agreement on which indicator to use. As quality indicators are currently subject to debate in various specialized groups, SC will not propose an implementation plan for COST at this stage and puts recommendations on this item temporarily on hold. To level the ground for inclusion of such indicators it is important that the exchange format is updated and include all variables needed to process data in accordance with the sampling frames in the different countries. Inclusion of COST tools in the RDB is a short/medium term priority.

The short term focus should be on enabling uploading data by each MS. The first RDB Workshop in 2012 produced a list describing the most urgent issues blocking uploads into the RDB. This list is found in Annex 4. In many cases problems are related to the current exchange format like missing variables. These problems can't be solved on an ad hoc basis as this will result in continuous format updates. During the 2012 workshops, all comments regarding the exchange format will be collected and eventually the SC prepares a proposal for a format change.

From a technical point of view, in order to realize the short term goal for the RDB to serve the needs for the upcoming RCMs, basic reference tables have to be updated to cover all species, all métiers and all fishing grounds for the northern RCMs. This should be done by the host prior to the 2012 RCM data call.

RCMs will try to analyse sampling performance on regional and fleet level. This requires MS to upload data including fleet information. This information can principally be registered under "national métiers", currently available in the RDB or may be included in the revision of the exchange format. The RCMs need to make reference lists of fleet information.

Given the proposed changes in DCF reporting requirements starting in 2014, SC considers the further development of tools to report following the current Annual Report Standards not appropriate at the time being. Also, if the RDB is used as a reporting and evaluation tool for the Annual Report, the proposed sampling as reported in the National Programme should be uploaded into the RDB as well. A module in the RDB containing meta data on planned and achieved sampling intensities will be a priority in the medium term.

One of the main benefits of the RDB is to enable systematic and easy data deliveries to data calls. The development of the reports for answering the data calls would be beneficial for MS uploading data to the RDB and should be considered a short/medium term priority. It is though important to stress that the transversal variables in FishFrame are aggregated at a low level and that data calls need to match this level.

Once the RDB serves the needs for the Data Collection programmes, the second main goal should be developed further. This goal aims at facilitating data preparations and deliveries for assessment purposes. The RDB should provide tools for stock coordinators to judge the status and quality of data. This includes, besides the checks already available in the RDB, tools to produce overviews on the completeness and quality of data and control tools to provide insight in data changes (by who/when/what).

It may also be important that we examine what we want in the context of confidentiality assurance and investigate how to achieve that.

Table 1: Identified development needs

Priority	Type of action needed	Timescale for action (short/medium/long term)	Process needed to initiate work	When?	Who?	Cost
Possibility for all countries to upload and process data in FishFrame	Update reference tables on métiers, areas and species	Short/urgent!	Collate reference tables from RCMs Decide on origin of species list	Before RCM data call	Host	
	Update exchange format in order to meet requirements that origin from countries sampling plans but also to meet new foreseen tasks of the RDB	Short	Collate information on the experience in data uploads from the first 2 RDB WK as well as from the RCMs.	RDB-SC meeting in June, feed back from RCMs Study proposal?	RDB-SC	
Enable and facilitate RCM work	Implementation of tools to assess data quality in FF (e.g COST)	Short/Medium	Explore which COST tools that could be "directly" incorporated in FF. Compare with outcome of ICES quality Wks. What needs to be developed?	Study proposal?		
	New reports to facilitate RCM work	Short/Medium	RCMs to express what report they need	RCM	RCM	
	Outputs from FF to comply with international data calls	Short/Medium	Investigate to what extent the existing exchange format and features in FF enables replies to the present common international data calls	Study proposal?		
	New module on meta data for planned and achieved sampling	Medium				
Facilitating data preparations and deliveries for stock assessment purposes.		Medium/Long				

The SC was informed that there presently was no possibility to include a budget for development of the RDB in the MoU between the Commission and ICES. The regional database is included in the proposal for a new European Maritime and Fisheries Fund (EMFF) implying that development funds may be available 2014–2020 if the proposal is adopted. Sufficient funding for development is essential if the RDB should have a chance to reach its possible potential and constitute the backbone in regional data collection it is intended to be.

The SC was informed that there may be a possibility to fund urgent development through a study if a study proposal is put forward by the RCMs and is endorsed by the LM. The proposal needs to be ready this year to enable the implementation to start in 2013. This means that a proposal needs to be ready prior to the 2012 RCMs. The SC thereby decided to convene an extra meeting in June 2012 to produce such a proposal.

4 ToR 2) Support and respond to actions agreed in the road-map for 2012

4.1 c) Summarise and respond to outcomes from the first (RDB-1) FishFrame workshop. The RDB-1 was the first FishFrame workshop, and its purpose was to work and get experience with the Data Processing modules. The WK was supposed to be used as a support for the data compilation for the Baltic Fish Assessment Working Group (WGBFAS). The workshop was open for participants from all regions but the data to be worked on were restricted to the Baltic region. Some countries had uploaded data to FishFrame while other worked with test data.

The complete work flow of Data Processing was demonstrated by 2 presentations (Part 1 data processing, Part 2 data processing). Particularly, the different raising options and Extrapolating (data borrowing) modules were discussed and the conditions for “good practice” in Extrapolating were emphasized and the difference between Part 1 and Part 2 was stressed. Furthermore, the role of the Positive Lists for Auto-Extrapolating was explained. All countries managed to complete the total data processing procedure. This includes raising, manual extrapolation/auto-extrapolation and approval for both Part 1 and 2.

Future needs for data processing development were explored. FishFrame is today capable of handling most sampling and processing schemes. Size-sortings-stratified sampling and processing is presently not fully integrated into the user interface. User friendliness can be improved and the process can be more rational. It was difficult to discuss all details in the data processing during the meeting since participants from most countries were fully not aware of the procedure used nationally. More detailed discussions based on more experience with data processing in FishFrame will undoubtedly in the future reveal more deviations in national processing from what at present is offered by FishFrame. The need for Catch Category and Métier Level specific Positive Lists were requested. This would mean that a different extrapolation scheme could be used for landings and discard and that Positive Lists could be used for Métier Level 5 and National defined métiers as well and not just on Métier Level 6 as it is now.

The workshop also produced a list of possible improvements of FishFrame. This list is presented in Annex 4.

d) Make preparations for the second and third FishFrame workshop

The chairs of the second and third FishFrame WK (RDB-2 and RDB-3) had produced drafts for ToRs. The SC went through the draft ToR for RDB-2 in detail. The final ToR is found in Annex 5. Due to time restrictions it was not possible to update and finalise the ToRs for the third WK so this have to be done intersessionally by the SC.

e) Support and feed back to RCM data call 2012 The 2012 RCM data call have been formulated by the chairs of three northern RCMs. A draft was presented to the SC.

5 ToR 3) Discuss the role of the RDB in the new DCF – views and long term development needs

The RDBs have so far been promoted by the RCMs primarily as a tool to enable regional overviews of fishing activities and sampling in order to facilitate task sharing at the regional level. This means that the RDB constitute a depository for sampling and transversal data allowing for regional analysis of available data as well as sampling coverage on a temporal and spatial scale. As such the RDBs will be a prerequisite for effective work in the RCMs and thereby an essential part of a new DCF if the role of the RCM is strengthened. The RDBs could also provide different types of end users with meta information of available data implying that the RDBs could play an important role to increase the transparency on data collected within the DCF to the outside world. This may in turn also increase the usage of data. The RDBs further constitute a platform from which standard reports can be produced. These reports could supply data to international data calls and thereby simplify data management within the MS and for end-users.

The RDBs have however considerable potential to meet even more needs if/when the RDBs are further developed. The RDBs have potential to allow for quality estimation on a regional (and national) level. This allows for optimization of regional and national sampling programmes and cost efficient data collection. In the Baltic region, the RDB is also used to raise and process some of data for stock assessment allowing for transparency in how the data sets are compiled. If modules to assess quality of data are included in the RDBs this may increase transparency in the advisory process.

The ICES PGCCDBS considers that a revised Data Collection Framework must adopt a results-based approach to deliver international data sets and parameters at the scale of regions and stocks for input to assessments and advice, and at finer scales where needed. It should require fully collaborative and coordinated regional programmes of data collection based on fully documented statistically-sound sampling design, to deliver international data and estimates for fisheries and stocks meeting required quality standards. For collection of data from fisheries, national fleets could be considered as strata within an overall regional sampling scheme, and national work plans and sampling intensities developed to best achieve the regional goals whilst optimising the use of DCF resources. The overall aim of the catch sampling in the DCF should be that data is collected in accordance with a design based strategy that assure that quality (bias and precision) can be reliably assessed at a national and regional level. Sampling intensity then needs to be allocated in a way that maximizes precision where it matters most in the context of assessment of stocks and fisheries. This will most likely require that more quality indicators than precision are developed.

The RDB will be a vital tool for development and management of regional data collection programmes. The challenge is to make it possible for the RDB to evolve with an acceptable speed to meet new requirements of the RCMs but also Wks initiated by the PGCCDBS to support the Quality Assurance Framework. This requires long term planning, clear priorities and resources.

The SC was also informed by the Commission on foreseen changes in the Common Fisheries Policy that may be reflected in the Data Collection Regulation as other types of data will be needed. One such change is the movement towards an ecosystem approach.

6 ToR 4) Any other business

Information on the iMarine project

The SC was informed about ICES engagement in the iMarine project. ICES has been engaged in the forerunner to the iMarine project, known as D4Science, through its cooperation with FAO. iMarine is an attempt to move from technology driven infrastructure to one that engages with specific audiences that work in a common field, termed 'Communities of practice'. The interest for ICES lies in building on its existing cooperation with EuroStat and FAO, and using the iMarine project to explore a number of areas that all players have a common interest in. These would centre around controlled vocabularies (code lists) and their deployment on an international scale, formats and protocols for exchanging different types of information, including SMDX, VMS and eLogbooks. Finally, to ensure that the RDB (FishFrame) are aligned with these developments and also to explore where iMarine could contribute to the ongoing specification and elaboration of this system.

References

- Anon. 2010. Regional scenarios and roadmap on Regional Database, Brussels, Belgium, 22–23 Feb 2010
- Anon. 2011a. Report of the 8th Liaison Meeting between the Chairs of the RCMs, the chair of ICES PGCCDBS, the chair of PGMED, the ICES representative, the Chair of SGRN and the European Commission, Brussels, Belgium, 4–5 Oct 2011
- Anon. 2011b. Report of the Regional Co-ordination Meeting for Baltic Sea (RCM Baltic) 2011, Charlottenlund, Denmark, 29 Aug–2 Sep 2011
- Anon. 2011c. Report of the Regional Co-ordination Meeting for the North Sea and East Arctic (RCM NS&EA) 2011, Hamburg, Germany, 26–30 Sep 2011
- Anon. 2011d. Report of the Regional Co-ordination Meeting for North Atlantic (RCM NA) 2011, La Rochelle, France, 12–15 Sep 2011
- Anon. 2012. Report of ICES Planning Group on Commercial Catches, Discards and Biological Sampling 2012.
- EC. 2008a. Council Regulation (EC) 199/2008 concerning the establishment of a Community Framework for the collection, management and use of data in fisheries sector for scientific advice regarding the Common Fisheries Policy
- EC. 2008b. Commission Regulation (EC) No 665/2008 laying down detailed rules for the application of Council Regulation (EC) No 199/2008 concerning the establishment of a Community framework for the collection, management and use of data in the fisheries sector and support for scientific advice regarding the Common Fisheries Policy
- EC. 2010. Commission Decision (EC) No 2010/93/EC adopting a multi annual Community programme pursuant to Council Regulation (EC) No 199/2008 establishing a Community framework for the collection, management and use of data in the fisheries sector and support for scientific advice regarding the Common Fisheries Policy.

Annex 1 Agenda

STEERING COMMITTEE FOR THE REGIONAL DATABASE

COPENHAGEN 20–21 MARCH 2012

Tuesday 20 March

10:00 Opening of the meeting, adoption of the agenda, appointment of rapporteurs

10:15 Presentation of the RDB – What type of data is in the database and what can be done with the data in the database (Henrik Degel)

11:00 ToR 2) Support and respond to actions agreed in the road-map for 2012

c) Summarise and respond to outcomes from the first (RDB-Baltic) FishFrame workshop (Presentation on outcomes by Henrik Degel followed by discussion)

Coffee break

d) Make preparations for the second and third FishFrame workshop (discussion on ToR for the 2nd and 3rd WK)

e) Support and feed back to RCM data call 2012 (Information from the RCM chairs on the data call, need for support etc)

12:30 Lunch break

13:30 ToR 1) Respond on recommendations put forward to the SC by the Liaison meeting in order to report back to the regional coordination meetings (RCMs) in 2012

Prepare and establish a list of development needs for the RDB, including time for such developments, enabling prioritization at the RCM/LM level (recommendation from LM on implementation of COST tools in FF, discussion on implementation on outcomes relating to best practice in sampling design from WKMERGE, WKPICS, WKPRECISE into FF, discussion on other identified development needs).

15:00 Coffee break

15:15 a) Discuss and conclude on the proposal for a data policy document dealing with data confidentiality and data ownership issues (Presentation on draft document followed by discussion on how to proceed)

17:30 End of the day

Wednesday 21 March

9:00 ToR 3) Discuss the role of the RDB in the new DCF – views and long term development needs

10:30 Coffee break

11:00 ToR 4) AOB

12:00 End of meeting

Annex 2 List of Participants

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Annex 3. Data policy for the Regional Fisheries Database (FISHFRAME) hosted by ICES

Goal

The goal of this policy is to define how the data uploaded into the RDB–FishFrame are stored and used in accordance with agreement made between the data submitters, data users and host. For the European Union Member States, the basis for data policy rules is the provisions of the Council Regulation (EC) No. 199/2008 of 25 February 2008. For non–EU countries, the basis for data policy rules is in accordance with the limitations on data use specified by each country. Furthermore, to ensure that data can be made available for the coordination of establishing regional fisheries data sampling plans to serve and facilitate the production of advice and status reports by stating the conditions for data submission, access and usage rights.

Scope

This policy applies to all providers and users of data uploaded into RDB–FishFrame managed by ICES, and to ICES activities for providing access to data.

Management of the RDB–FishFrame

The Regional database is hosted by ICES and is managed by a steering committee (RDB–SC). The steering committee is responsible for the technical governance, strategic planning, operational issues and estimates of costs. The steering committee is composed of the host, the European Commission and members appointed by the Regional coordination Meetings (RCM). The SC is also open for observers from countries, including non EU countries, that are presently not participating in the RDB but that want to gain knowledge. The RCMs are responsible for the content governance of the RDB. This means that they decide on type of data to be included in the RDB, prioritize and develop road maps for data uploads as well as identify areas for development. The hosting and maintenance of the RDB is funded through the MoU between the Commission and ICES.

Legal basis for EU Member States

According to Articles 18 and 20 of Council Regulation (EC) No. 199/2008, Member States (MS) shall make detailed and aggregated data available to end users¹ to support scientific analysis in three different cases:

As a basis for advice to fisheries management, including to Regional Advisory Councils (RACs), in the interest of public debate and stakeholder participation in policy development and for scientific publication.

¹ According to Council Regulation (EC) No. 199/2008, end users are defined as bodies with a research or management interest in the scientific analysis of data in the fisheries sector.

In the case b and c) MS shall ensure that the data is provided to end-users within two months from the receipt of the request for these data. Furthermore, in case of c) MS have the right, under specific circumstances, to withhold data transmission to end users for a period of three years following the date of collection of the data.

By submitting data to the regional database, countries grant permission for that data to be used by ICES, ONLY to provide scientific advice to the European Commission and its partners as per Article 18.1a of Council regulation (EC) No. 199/2008. Any requests for data under items b) and c) or for other uses within ICES will be referred back to the MS. Data submitters may choose not to upload certain data to the RDB and will need to meet ICES and commission data requests through their own internal mechanisms.

Data

The RDB-FishFrame can hold the following data types:

Landing statistics – aggregated data

Effort statistics – aggregated data

Biological data deriving from sampling of commercial fisheries, collected through market, harbour or self- or sea sampling – detailed data

VMS (Vessel Monitoring System) data – aggregated data

According to Council Regulation (EC) No. 199/2008, detailed data are defined as data based on primary data in a form does not allow natural persons or legal entities to be identified directly or indirectly. Aggregated data are defined as the output resulting from summarising the primary or detailed data for specific analytical purposes.

Data ownership

The national data in RDB-FishFrame is owned by the individual countries. RDB-FishFrame contains copies / derived outputs from the national databases.

Access to viewing and analyzing other countries data in RDB-FishFrame does not entail permission to download, copy or publish detailed data, as defined in 199/2008, outside RDB-FishFrame. Such permissions can only be granted by each country. The focal point in each EU MS is the National Correspondent. For non EU countries the ICES delegate is considered the focal point.

Access rights

Access to RDB-FishFrame is restricted to persons who have a user name and a password, a user name is for the sole use of that individual. When the user is logged in, the access to FishFrame data and functionality is role based. Each role defines the user's access to functionality, data groups and the minimum aggregation level for those data. The host should be provided, by the national focal persons, with lists on scientists in the specific country and the role(s) assigned to the different scientists profiles. The list should be updated at least annually. The presently existing roles and their tasks/access rights are shown in the table below. A user can have several roles assigned to his/her profile. New specific roles can be defined by the RDB SC if and when such roles are needed.

A given user has only access to detailed data from her/his country (unless access to detailed data from additional countries is specifically stated in the user profile). All identified users have access to aggregated data from all countries in the resolution defined by the RCM.

Role/Task relationship matrix

	Code Admin	Code TempEdit	Data Allocator (CF)	Data Approve (input data)	Data Approve (output data)	Download Data	QA	Raise (AS)	Raise (CF)	Raise (TS)	Stock Splitter (CF)	Upload/Delete data	User Manipulation	View Basics	View Reports
Code Admin	X														
Data Processor (AS)								X							
Data Processor (CF)			X						X		X				
Data Processor (TS)										X					
Data Reader						X								X	X
National Releaser (Input data)				X											
National Releaser (Output data)					X										
Report Editor															
Security Admin													X		
Uploader		X					X					X			

Figure showing all present user roles in FishFrame. Only the Data Reader and the Data Processor roles define access to data. The remaining roles define access to functionality concerning data processing and database administration (AS, CF and TS refers to different types of data e.g CF commercial fisheries).

Policy for Data Providers

Although the ICES Data Centre may perform some data quality/integrity control, the data providers always retain complete responsibility for data quality.

When changes (new data and revisions) are made in the data source (the national database containing the primary data) countries are responsible to in a timely manner update and process their own data in the RDB.

It is the responsibility of the data provider to make sure that data that cannot be identified to any individual vessel or legal entity or at a resolution violating confidentiality rules.

Policy for Use of Data

ICES will make data available for scientific advice, including to RACs in a timely way. This data provision will be made according to the access restrictions deriving from 199/2008 and for non EU countries in accordance with the limitations given by the owners of the data.

Correct and appropriate data interpretation is solely the responsibility of data users.

Data sources (individual data providers) must be duly acknowledged.

Data Users must respect any and all restrictions on the use or reproduction of data such as restrictions on use for commercial purposes.

Data Users are obliged to inform ICES of any suspected problems in the data.

Data Quality

On the basis of the recommendations made by the RDB-SC ICES develops and applies quality assurance procedures as appropriate and feasible, and in cooperation with data providers and other organizations (e.g. Eurostat). ICES may also receive reports on potentially erroneous data. ICES will inform data providers of relevant quality issues.

Annex 4. Feedback from Regional database workshop 1 ; Suggestions on how FishFrame could be improved

1. Exchange data format/input:

Record type: CA

Field: Catch_category > present state > DIS | LAN

desired state > DIS | LAN | CAT

Rationale: If catch is sampled, otoliths are taken for catch and not for discard and landing separately

Explanation: If age reading is not done for discard and landing separately, the fish pertaining to both length distributions have to be entered twice into CA.

Field: Age > present state > exchange format empty field read as 0

desired state > exchange format empty field read as NULL

Rationale: Many otoliths do not show a clear age of the fish

Explanation: If empty fields are read as zero, the age-at-length distribution is changed. Therefore, records for fish not aged have to be deleted. If the fish not to age are deleted from CA, a lot of sex-maturity-length-mass data are lost.

Field: Maturity_scale > present state > entry containing space e.g. cod (1-5)

desired state > all entries without spaces

(remove where possible or substitute with underscore)

Rationale: The records have to be cleaned from unwanted spaces.

Explanation: When cleaning records from unwanted spaces, necessary spaces are also removed

2. Exchange format data upload/input:

Record type: CL and CE records

Field: proposed Project > present state: no field (no key) for input

desired state: field and primary key for input

Rationale: different institutions from one country should be able to upload and use data independently

Explanation: There are cases where data with the same keys (e.g. but not exclusively in species, metier, space and time) needed to be uploaded for different projects (e.g. Data Call from EC) from different institutes and hence different processing algorithms e.g. for the metier definition. With the present state, one data set from a country overwrites existent data with the same keys.

Discrepancy between Exchange Format Validator and check during upload of CS data:

Validator accepted this kind of data structure (an example):

```
TR;M;FIN;FIN;2009;FIN-TIKE;2001;18;340;59;1;;1;;FIN;Observer
HH;M;FIN;FIN;2009;FIN-TIKE;2001;999;V;H;All;Par;2009-07-
01;13:30;540;59;55;25;1;;32;48H5;;70;55;;PTM_SPF;;PTM;22;0;
SL;M;FIN;FIN;2009;FIN-TIKE;2001;999;Clupea harengus;LAN;IND;;;;4567;4567;scm
SL;M;FIN;FIN;2009;FIN-TIKE;2001;999;Sprattus sprattus;LAN;IND;;;;2383;2383;scm
SL;M;FIN;FIN;2009;FIN-TIKE;2001;999;Osmerus eperlanus;LAN;IND;;;;59;59;
HL;M;FIN;FIN;2009;FIN-TIKE;2001;999;Clupea harengus;LAN;IND;;;;90;7
HL;M;FIN;FIN;2009;FIN-TIKE;2001;999;Clupea harengus;LAN;IND;;;;95;4
HL;M;FIN;FIN;2009;FIN-TIKE;2001;999;Clupea harengus;LAN;IND;;;;100;3
HL;M;FIN;FIN;2009;FIN-TIKE;2001;999;Sprattus sprattus;LAN;IND;;;;70;1
HL;M;FIN;FIN;2009;FIN-TIKE;2001;999;Sprattus sprattus;LAN;IND;;;;75;4
HL;M;FIN;FIN;2009;FIN-TIKE;2001;999;Sprattus sprattus;LAN;IND;;;;80;22
CA;M;FIN;FIN;2009;FIN-TIKE;2001;999;1;1;Clupea harengus;M;LAN;IND;;her-
2529+32(-GOR);32;48H5;;155;7;1;scm;OWR;-;;23;Visual;1-8;2
CA;M;FIN;FIN;2009;FIN-TIKE;2001;999;1;1;Clupea harengus;F;LAN;IND;;her-
2529+32(-GOR);32;48H5;;165;7;2;scm;OWR;-;;26;Visual;1-8;2
CA;M;FIN;FIN;2009;FIN-TIKE;2001;999;1;1;Clupea harengus;F;LAN;IND;;her-
2529+32(-GOR);32;48H5;;140;4;3;scm;OWR;-;;17;Visual;1-8;2
CA;M;FIN;FIN;2009;FIN-TIKE;2001;999;1;1;Sprattus
sprattus;F;LAN;IND;;;;32;48H5;;125;2;38;scm;OWR;-;;11;Visual;1-8;2
CA;M;FIN;FIN;2009;FIN-TIKE;2001;999;1;1;Sprattus
sprattus;F;LAN;IND;;;;32;48H5;;120;2;39;scm;OWR;-;;11;Visual;1-8;2
CA;M;FIN;FIN;2009;FIN-TIKE;2001;999;1;1;Sprattus
sprattus;M;LAN;IND;;;;32;48H5;;110;2;40;scm;OWR;-;;8;Visual;1-8;2
```

The above structure is not accepted during upload where the structure below is required:

TR;M;FIN;FIN;2009;FIN-TIKE;2001;18;340;59;1;;1;;FIN;Observer

HH;M;FIN;FIN;2009;FIN-TIKE;2001;999;V;H;All;Par;2009-07-01;13;30;540;59;55;25;1;;32;48H5;;70;55;;PTM_SPF;;PTM;22;0;

SL;M;FIN;FIN;2009;FIN-TIKE;2001;999;Clupea harengus;LAN;IND;4567;4567;scm

HL;M;FIN;FIN;2009;FIN-TIKE;2001;999;Clupea harengus;LAN;IND;90;7

HL;M;FIN;FIN;2009;FIN-TIKE;2001;999;Clupea harengus;LAN;IND;95;4

HL;M;FIN;FIN;2009;FIN-TIKE;2001;999;Clupea harengus;LAN;IND;100;3

CA;M;FIN;FIN;2009;FIN-TIKE;2001;999;1;1;Clupea harengus;M;LAN;IND;her-2529+32(-GOR);32;48H5;;155;7;1;scm;OWR;-;;23;Visual;1-8;2

CA;M;FIN;FIN;2009;FIN-TIKE;2001;999;1;1;Clupea harengus;F;LAN;IND;her-2529+32(-GOR);32;48H5;;165;7;2;scm;OWR;-;;26;Visual;1-8;2

CA;M;FIN;FIN;2009;FIN-TIKE;2001;999;1;1;Clupea harengus;F;LAN;IND;her-2529+32(-GOR);32;48H5;;140;4;3;scm;OWR;-;;17;Visual;1-8;2

SL;M;FIN;FIN;2009;FIN-TIKE;2001;999;Sprattus sprattus;LAN;IND;2383;2383;scm

HL;M;FIN;FIN;2009;FIN-TIKE;2001;999;Sprattus sprattus;LAN;IND;70;1

HL;M;FIN;FIN;2009;FIN-TIKE;2001;999;Sprattus sprattus;LAN;IND;75;4

HL;M;FIN;FIN;2009;FIN-TIKE;2001;999;Sprattus sprattus;LAN;IND;80;22

CA;M;FIN;FIN;2009;FIN-TIKE;2001;999;1;1;Sprattus sprattus;F;LAN;IND;32;48H5;;125;2;38;scm;OWR;-;;11;Visual;1-8;2

CA;M;FIN;FIN;2009;FIN-TIKE;2001;999;1;1;Sprattus sprattus;F;LAN;IND;32;48H5;;120;2;39;scm;OWR;-;;11;Visual;1-8;2

CA;M;FIN;FIN;2009;FIN-TIKE;2001;999;1;1;Sprattus sprattus;M;LAN;IND;32;48H5;;110;2;40;scm;OWR;-;;8;Visual;1-8;2

SL;M;FIN;FIN;2009;FIN-TIKE;2001;999;Osmerus eperlanus;LAN;IND;59;59;

The structure that the validator accepted would be so much easier to compile, especially if one has to do that manually.

Update of Exchange format

Stock should be included in all tables.

Raising

Possibility to choose only length distribution **and** mean weight.

Option for alternative regression methods.

Number of samples should be added to the source list when manually adding Targets

in order to decide which métiers should be added.

Data Processing Part 2, Extrapolating

Problem:

Four types of “holes” are defined depending of the type of information missing in the Targets:

“Sampling”

This is a complete lack of sampling (No CS). Total weight exists but no total number, age or length distribution could be calculated in the raising.

“SALK”

Overall mean weight and length distribution has been sampled (CS.SL+CS.HL). Total weight, total number and length distribution exist but no age distribution could be calculated in the raising (No CS.CA). Or if it exists then sex-stratified output has been requested and the sex was not given for the individual fish in CS.CA.

“LDMW”. Length Distribution and Mean Weight missing Overall mean weight, length distribution by length has been sampled (CS.SL+CS.HL+CS.CA). Total weight, total number, length exist but no mean weight at length could be calculated in the raising (No CS.CA.Weight).

“ADMW”. Age Distribution and Mean Weight missing

Overall mean weight, age distribution by age has been sampled (CS.SL+CS.HL+CS.CA). Total weight, total number, age exist but no mean weight at age could be calculated in the raising (No CS.CA.Weight).

At present Type 2, Type 3 and Type 4 are all shown in the UI as a “SALK” hole because the sources information in all 3 cases comes from CA-records. This structure has turned out to be inexpedient because it conflicts with the procedures for sampling the data and the structures which are the background for the missing information. One suboptimal feature is that existing length distributions in case of Type 4 targets are overwritten if age structures are extrapolated.

Suggested solution:

To keep all four types completely separated in the processing and in the UI.

Auto-extrapolation

Part 1 and 2:

Adding the possibility to delete Positive Lists.

Part 2:

Adding Year, Catch Category, Hole Type and métier level specific Positive lists.

New overall functionality

Implementation of Sub-polygon functionality.

This will allow handling of areas outside the Area hierarchy (Limfjorden, Gulf of Riga, and other traditional more local spatial strata).

Implementation of métier hierarchy as implemented for area.

This will provide a more smooth aggregating functionality for reporting.

Implementation of sex-specific processing

Could be relevant for most flatfish stocks.

Export possibility of Look-up-tables

Why:

Could be useful for convenient overview.

Suggested solution:

Button added to UI.

New output formats

A number of reports which each serves as standard reports for specific issues. Each report includes a suite of all relevant output. Examples of such reports could be:

“Data quality report”: could include analysis of sampling coverage (temporal and spatial), analysis of consistency across countries (age-length relations, mean weight by age etc.), outlier analysis, variance estimates, internal consistency for age analysis, historical trends etc. The report could be stock specific and be an appendix for the assessment WG report.

“Positive list justification report”: analysis which defines which Sources can be justified for a given Target. At a later stage this could be an integrated part of the auto-extrapolation and the list of potential Sources.

New reports

Data-status-overview-report.

Useful tool for stock coordinators.

SOP check

To be included in CANUM report.

Report built on approved CS-data, not raised.

At the moment you are able to get a lot of illustrations of raised and approved data e.g. length distribution. To be able to get an impression of data before you start working with it – it would be a great help if you could see some illustration of primary data.

Map showing sampling positions

Should be possibly to overlaid with other maps (e.g. landings map).

Report giving the ALKs should be available

Are quite often requested.

New report calculating national and regional 90 % ranking on effort, landing and value.

This will assure correct ranking for the RCMs

New reports showing maturity information

Improvement of existing reports

Commercial Catches:

Landing Category and Stat. Rectangle should be included in the variable list

Sampling effort and geographical coverage:

Size sorting must be included in the field list for the report

Commercial catches:

Landing category should be included to the field list

Output in general

Headings

When outputting tables, graphic or maps it would be very nice if it was possible to include the filters a heading.

Booklets

Is it possible to make a report where you have a lot of predefined graphics or maps?

Something like a booklet with a lot of high quality images you can copy/paste to other documents. At the moment it takes quite some times when you are going to illustrate a lot of fisheries at the same time.

Annex 5. Second workshop on Regional Database; Terms of Reference

A Workshop on introduction to use the Regional database FishFrame (WKRDB-2) (Co-chairs: Kirsten Birch Håkansson and Henrik Degel), will be established and will take place in ICES headquarter, Copenhagen, Denmark, during 29 May – 1 June 2012 to:

Clarify the structure and the individual variables in the FishFrame Exchange Format.

Discuss the experience gained by the participants during pre-workshop data upload. This will include:

Assure consistent interpreting of variables

Discuss the national ability to comply to the existing Exchange Format and identify shortfalls with that format

Identify experienced technical obstructions causing failure in the upload of data

Identify needs for improvement in the documentation to support uploads of data into FishFrame

Survey of methodologies used to produce the FishFrame exchange format from national databases, including potential future plans

Comments:

The workshop will be used as support for the Member States to upload data from the RCM 2012 data call. Participants need to convert data (sampling, effort and landings) into FishFrame format prior to the meeting. There will be time during the workshop to work with uploads of national data. Participants are however advised, in order to get the most out from the meeting, have tried to upload data into FishFrame prior to the workshop.

Priority	<p>Therefore this activity is considered to have a very high priority.</p> <p>The workshop will be use as support for the Members States to process data from the data call to be launched by the RCMs chairs in 2012.</p>
Scientific justification	<p>ToR a) An understanding of the structure of the exchange is necessary to upload data.</p> <p>ToR b) It is important that all countries are able to upload data into a regional database, that variables are interpreted in a consistent way and that national data within the RDB could be processed in accordance with the different national sampling plans. It is thereby essential to identify what is needed to achieve this in terms of documentation, technical support and possible changes in the exchange format.</p> <p>ToR c) The structure of the exchange format is quite complicated and problems in uploading may origin in the way (e.g. automatic reports from national databases or compiled in excel) data is put together at the national institutes. Methodologies to compile data into the exchange format need to be surveyed in order to see if there are links related with problems in data uploads.</p> <p>Lessons learned with this workshop will give guidance on the developments needed in the Regional database and on data processing in other regions</p>
Resource requirements	It is desirable that data of the Data Call from RCMs chairs is upload in advance to the Regional Database.
Participants	Data processors and “first time users” of FishFrame in North Sea and Atlantic regions. The WK open for participants from other regions and non EU countries as well.
Secretariat facilities	None.
Financial	No financial implications.
Linkages to advisory committees	There are no obvious direct linkages with the advisory committees.
Linkages to other committees or groups	There is a very close working relationship with HAWG, WGNEW, WGBFAS, WGNSSK, WGCS, WGHMM, WGWIDE, WGDEEP, WGEF, WGHANSA and PGCCDBS.
Linkages to other organizations	The work of this group is closely aligned with the Steering Committee of the Regional Database, and the RCM- NS&EA and RCM-NA.

Annex 6. Report from the first meeting of the Steering Committee for Regional Databases

1. Introduction

1.1 Terms of Reference

The steering committee (SC) for the regional database (RDB) met the 2nd of December in Brussels in order to

- 1) Establish and agree on procedures for the future work of the steering committee

Establish and agree on a governance model for the RDB

Establish and agree on generic ToRs for future SC meetings

Establish list of Members in the SC, including alternates

Agree on meeting frequency including potential need of inter-sessional web based meetings

- 2) Respond on recommendations put forward to the SC by the Liaison meeting in order to report back to the regional coordination meetings (RCMs) in 2012

Discuss, plan and initiate the preparation of a proposal of a data policy document dealing with data confidentiality and data ownership issues.

Prepare and establish a list of development needs for the RDB, including time for such developments, enabling prioritization at the RCM/LM level.

Conclude on the experiences of the data calls 2011.

- 3) Summarise progress in the development of the RDB in 2011.

Status on the budget and the MoU negotiations between ICES and COM.

Status on documentation and bug-fixing.

Status on workshops and planning

- 4) Agree on a road-map for 2012, including

Date for commencement of physical migration from DTU Aqua to ICES preparation of 2012 FishFrame workshops

- 5) Any other business

1.2 Participant list

Name	Organisation	
Alastair Pout	RCM NA	a.pout@marlab.ac.uk
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2. Establish and agree on procedures for the future work of the steering committee

2.1 Establish and agree on a governance model for the RDB

The Regional databases for the Baltic, North Sea and Atlantic regions will be hosted by ICES. From a technical point of view there will be one database. However the different RCMs may prioritize differently on how to populate the database implying that the RDB could be considered as three different databases from a content point of view. The RDB will be funded through the Memorandum of Understanding (MoU) between ICES and the Commission.

The steering committee agreed to maintain the governance model suggested by the interim steering group. In accordance with this model a steering committee (RDB-SC) is appointed by the RCMs. The following table presents the main responsibilities of the RDB-SC, the RCMs and the Liaison meeting (LM) (in which RCM chairs liaise with main end users and the Commission):

Task	Body responsible
Technical governance	SC
Strategic planning	SC
Operational issues	SC
Estimation of costs	SC
Content governance	RCM
Prioritize and develop road maps for data uploads	RCM
Monitor general problems with data uploads/ data processing and report that to SC for action	RCM
Suggest areas for development	RCM
Appoint members to the SC	RCM
Prioritizing between the suggestions for development from the RCMs	LM
Where needed formulate some of the ToRs on the SC agenda	LM

The meeting also discussed a process for how the SC should deal with development needs in order to make the process transparent for all participating partners. This process is described in ToR 2e.

2.2 Establish and agree on generic ToRs for future SC meetings

It was agreed that it is the SC that decides on meeting dates. ToRs should be agreed by the RCMs and SC intersessionally.

The SC also decided that development needs, e.g how to implement COST into FishFrame and how to reflect sampling design in FishFrame, should be the focus of next SC meeting. The next meeting should be held in March 2012 at ICES headquarters, Copenhagen.

RCMs should suggest ToRs for the winter meeting.

2.3 Establish list of Members in the SC, including alternates

The RCMs are responsible for appointing members in the SC. The SC further consider it to be the responsibility of the RCM chairs to appoint alternates (with appropriate user profile) to attend the RDBSC if the first representative from the RCM is not available.

The SC discussed the possibility to invite experts to the meetings since this is potentially not covered by the MoU between ICES and COM. Technical experts should ideally be covered through the development costs in the MoU. Thematic experts need probably to come through the RCMs. In such cases RCMs may need to swap between appointed representatives and experts. It is however important to assure a level of consistency in SC members, otherwise it will be difficult for the SC to work effectively.

2.4 Agree on meeting frequency including potential need of inter-sessional web based meetings

The SC agreed to have 2 physical meetings (spring and winter) each year. Inter-sessional web meetings will be scheduled for specific tasks (data call, data policy) through WebEx

3. Respond on recommendations put forward to the SC by the Liaison meeting in order to report back to the regional coordination meetings (RCMs) in 2012

3.1 Discuss, plan and initiate the preparation of a proposal of a data policy document dealing with data confidentiality and data ownership issues.

The 8th Liaison Meeting recommended that the RDB-SC, on its first official meeting to discuss and propose a RDB data confidentiality and data ownership policy that all MS uploading their data must follow.

The SC discussed what should be included in such a policy as well as a timetable for its completion. It was agreed that a document need to be ready before the RCM data calls during the spring 2012. A sub group was put together in order to inter-sessionally produce a draft that could be discussed at the SC March meeting. The subgroup is led by Jørgen Dalskov and consists of Liam Caffrey, Neil Holdsworth and Joel Vigneau.

Access to data in FishFrame is already restricted. Users need to have an individual username and a password and each user is given a predefined role that restricts access to the detailed data and functionalities. Any given user has by default only access to detailed data from her/his country. All users have presently access to aggregated data from all countries. What needs to be agreed is how data should be accessed across countries and regions. The data policy document thereby clearly needs to outline access rights. The Commission have a document on access rights and this could be used and revised for the purpose of the RDB. The MoU between ICES and the Commission has also rules on data stewardship that can be reiterated. The data policy document also needs to include a clause on participation of non-EU countries.

It was agreed that the DCF should be the legal framework for the data policy.

Statistical Disclosure Control is a possibility to assure confidentiality but it is a complex issue. Statistical Disclosure Control may be something to look into in the future.

3.2 Prepare and establish a list of development needs for the RDB, including time for such developments, enabling prioritization at the RCM/LM level.

The RCMs are the bodies primarily responsible for suggesting areas of development whilst the Liaison meeting (LM) is responsible for prioritizing between the suggestions. For assessment WG's and users not covered by RCMs (non-EU countries), ICES will gather proposals and forward to the LM. The SC will in turn provide estimates of costs for the different suggestions. Development needs need to be split into type of user (data provider, output for assessment groups, RCMs etc) It is of considerable importance that the priorities are done in a transparent way to make sure that all stakeholders have full understanding in what is being prioritized and why.

The SC discussed how this could be achieved and are suggesting the following process.

SC will gather all development needs and requests (e.g forwarded from the RCMs)

SC will add costs and time estimates and make a first draft of priorities according to their knowledge

SC will make a timetable for 2–3 years into the future

RCMs then discuss this 1st draft and potentially change prioritization

LM's make final call on prioritization (2nd draft)

The RDB is considered the 'best available' solution on the horizon but it has limitations. One limitation is for example that data on landings and effort is aggregated at a certain level. The SC discussed that it needs to be clear what the limitations are since they will define the scope of what is possible in terms of development. Present and future limitations also need to be clear to end-users. It is also important to realize that there is a need for a long term planning how the RDB should develop. This long term planning needs input from the RCMs since they presently are considered one of the main end-users.

The 2011 Liaison Meeting recommended that a proposal to include the COST tools (FISH\2006\15-lot 2) into the RDB should be considered by the RDB SC. The SC considered it too early to propose actions on specific development need since i) several possible development needs were expressed by different participants, ii) different countries and regions have different experience with FishFrame, urgent needs may arise when these countries start to upload data and iii) the MoU between ICES and the Commission is not signed yet implying that the budget for development is not finally decided.

3.3 Conclude on the experiences of the data calls 2011.

In 2011 the RCM chairs asked MS to upload data on landings and effort to FishFrame prior to the RCM meetings. The outcome of the exercise is shortly presented here.

All the Baltic MS uploaded data to FishFrame prior to the 2011 RCM Baltic and the meeting could thereby work on the basis of FishFrame which resulted in time being spent more effectively. This meant that the updated ranking of métiers to sample could be done through FishFrame but also that there were data on the table for landings in foreign countries from all MS implying that this issue could be discussed in much more detail (RCM Baltic 2011). The RCM Baltic also performed an exercise in which the ranking of métiers from FishFrame was compared with the ranking in the different National Programmes 2011–2013. As expected the outcome from the two ranking methods slightly since it was the 2010 data uploaded to FishFrame while the data in the NP originate from different years. Some general concerns were however identified. Lack of data from some countries at level 6 influenced the selection of métiers. There was also a problem that the ranking could not be done by value, since some métiers are selected solely because of this variable. A solution could be to make the official landing value in the Commercial fisheries landings statistics record (CL) mandatory. Some countries did upload effort data, but did not fill in days at sea – only number of trip is mandatory when uploading Commercial fisheries effort statistics record (CE) to FishFrame. This could also be solved by making days at sea mandatory in CE. The steering committee of FishFrame need to consider if these variables should be mandatory.

In the RCM NS&EA most MS uploaded data in response to the data request from the chair. However data from some countries were missing which had severe consequences for the ability for the RCM to identify gaps and discrepancies in the sampling programmes in relation to the present fisheries. The main reason for the missing data is that MS want certain points regarding e.g confidentiality issues to be clarified before they will upload their data to FishFrame. The meeting also compiled a full overview of the experience gained from the MS that did upload data into Fish-

Frame and put the following points forward to the SC. For details see the RCM NS&EA 2011 report

Days at Sea (CE file) and Value (CL records) need to be mandatory in the exchange format, to make it possible for the RCM to do the ranking

There needs to be a look up table on allowed combinations of areas and metiers to assure consistency in how metiers are named. The look up table is produced by the RCMs but needs to be integrated in the database.

There needs to be a clear naming convention for metiers with none regulated mesh-sizes or gears without mesh-size

There are some mismatches between the specifications in the exchange format and the reality. These include areas (e.g 4c is used instead of 27.IVc, also make sure consistency with VMS data), effort (range of allowed entities is too narrow), species (FAO reference or ICES Species Query Tool?). Decisions need to be made and the Exchange format updated.

Common coding of harbour is needed (EU Master Data Register?), at present it is up to each country to make own codes

Data overwriting rules are problematic for countries where different institutes handle different fishing ground

Stock/area relations for areas outside ICES are missing. Update needed? There are several issues related to effort estimates in the CE table. The exchange format needs to be clearer in how to deal with trips that cross borders in time and space. We need to ensure that we interpret and estimate days at sea in the same way (MS need to document how they calculate effort)

It will facilitate the work of the RCMs if a dedicated report on ranking of metiers for sampling is developed

It should be possible to export the look-up tables in Fishframe to national institutes in order to facilitate uploading of national data

The RCM NS&EA also consider it advisable and useful to implement a module in the RDB containing meta data on planned and achieved sampling intensities.

In the RCM NA most countries uploaded data in response to the data call but for some countries the data were missing. Analysis of the experience of the data call reveals the same points as for RCM NS&EA but the RCM NA also points out that

Definition of high and low resolution need to be clearly defined on the RDB website. Best practice should be to upload data with high resolution

There is a need to agree on the code for unknown/unidentified metiers. Presently a lot of different codes exist for the same issue. RCM NA recommends MIS_MIS_0_0_0.

RCM NA also points out that the tentative ranking revealed that some countries could not allocate metiers to vessels below 10 meters because of lack of logbook information and stresses that it is not acceptable to update data with a metier called No_logbook.

RCM NA further points out that this first exercise on uploading landings and effort data have identified a lot of hitches that need to be solved at a relatively short notice. A next step in a road map will be to upload biological data for estimation of stock parameters and their precision. Technical problems are foreseen and it is suggested to

limit the data call to a few stocks in order to sort out the problems before a call for all stocks.

4. Summarize progress in the development of the RDB in 2011

4.1 Status on the budget and the MoU negotiations between ICES and COM.

The SC was informed that there is a proposed budget of 150–170K Euros for 2012 in the MoU between ICES and the Commission. This amount, however, has not yet been finalized. The foreseen budget should cover migration, hosting and may cover some development. The MoU, which is renegotiated annually, should be finalized end of December.

4.2 Status on documentation and bug-fixing

DTU-Aqua, the present host of FishFrame has a budget of 200 hours for bug fixing, development of report facilities relevant for RCMs and documentation. This should be completed before FishFrame is handed over to ICES in January 2012. The SC was informed of the status of this work. A manual for raising procedures is almost finalized (estimated time to finish is one week) and so is the technical documentation. It is foreseen that all work will be finalized by the end of January.

4.3 Status on workshops and planning

In 2011, Member States were asked to upload data on landings and effort into FishFrame to support RCM work. For 2012 a more formal RCM data call is planned. For the Baltic and North Sea regions, the data call will cover landings, effort and sampling data. For the RCM North Atlantic the content of the call is not decided yet. The data call will be formulated by the three RCM chairs. The RCM chairs will also, in February, send out a letter to the Member States to make them aware about the call and describe what will be required.

To support Member States to get experience with FishFrame three workshops will be held in 2012. The workshops have already been sanctioned by the LM and will be labeled as ICES workshops. This means that all ICES countries will be informed by the ICES secretariat. COM will also inform all National Correspondents during their upcoming meeting. Since the experience with FishFrame is different in different regions the workshops will to some extent have a regional approach. The timing of the workshops is planned in accordance with expected needs for the different regions and countries (e.g in the Baltic FishFrame supplies input data for stock assessment so this workshop is prior to the assessment working group).

All planned workshops will be held at ICES headquarter, Copenhagen. The workshops are

RDB-1 will be held 27 Feb – 2 March. The main aim of the workshop is for countries to gain experience in how sampling data could be processed in FishFrame for stock assessment and how this processing is documented. Expected participants are people involved in stock assessment and data providers. A prerequisite is that data is uploaded into FishFrame before the meeting. The WK will primarily work with data from the Baltic Sea but participants from other regions are welcomed as well. Expected number of participants is around 15.

RDB-2 will be held 29 May –1 June. The aim of the workshop is for countries to get experience in how data is uploaded into FishFrame but also to identify general prob-

lems with data uploads. Member States can use the workshop to get support when uploading data in accordance with the planned RCM data call. Expected participants are data providers. The WK is primarily directed towards the North Sea and Atlantic regions but participants from other regions are welcomed as well. Expected number of participants is around 30.

RDB-3 will be held 20 – 23 November. The aim of the workshop is for countries to get experience with the outputs from FishFrame. The WK is primarily directed towards the North Sea and Atlantic regions but participants from other regions and observers are welcomed as well. Expected number of participants is around 30.

The ToRs for the workshops will be drafted by the chairs (Henrik Degel and Kirsten Birch Håkansson) within two weeks of the present SC meeting and should then be circulated to the SC for additions and changes.

5. Agree on a road-map for 2012

A road map of planned events related to the regional database is summarised in table 1.

The date for the physical migration of FishFrame from DTU-Aqua to ICES will be scheduled in late January after completion of the bug fixing/ development / documentation tasks DTU-Aqua have agreed to do.

Table 1 showing planned activities related to the RDB in 2012

Action	Responsible for following up	Time / Deadline
Completion of documentation, development and bug-fixing that should be finalized before FishFrame can be moved to ICES	DTU-Aqua	January 2012
Preparation of ToRs for workshops	Henrik Degel and Kirsten Birch Håkansson to prepare draft for RDB-SC to comment upon	January 2012
Preparation of a data policy document	Jörgen Dalskov, Liam Caffrey, Neil Holdsworth, Joel Vigneau	Draft to be finalized end of February 2012
Letter from RCM chair to National Correspondents to make them aware of planned 2012 RCM data call	RCM chairs (Jörgen Dalskov, Sieto Vierwer, Els Toreele)	End of February 2012
1 st RDB Workshop	Henrik Degel and Kirsten Birch Håkansson	27 Feb – 1 March
SC Meeting (data policy document, completion of ToRs for RDB-2 and RDB-3, development needs)	Katja Ringdahl	March 2012
Physical Migration of FishFrame to ICES	Neil Holdsworth, Jörgen Dalskov	Spring 2012
2 nd RDB Workshop	Henrik Degel and Kirsten Birch Håkansson	29 May – 1 June
RCM data call	RCM chairs (Jörgen Dalskov, Sieto Vierwer, Els Toreele)	1 June 2012
RCMs to give feedback to the SC (in accordance with the governance model but also in relation to the data call) during their meetings	RCM chairs (Jörgen Dalskov, Sieto Vierwer, Els Toreele)	September 2012
3 rd RDB Workshop	Henrik Degel and Kirsten Birch Håkansson	20–23 Nov
SC Meeting	Katja Ringdahl	December 2012

6.Any other business

Helpdesk for data issues

The SC discussed how to deal with questions on data issues that will rise following the 2012 RCM data call and realized that there is a need for a helpdesk. This helpdesk should consist of phone contact, an email inbox as well as a list of Frequently Asked Questions (FAQ). The helpdesk should be organized by DTU-Aqua and ICES.

Feed-back from RCMs

The SC highlighted the need for feedback from the RCMs on the 2012 data call and recommend that a section in the 2012 RCM reports should be dedicated to this. An overview of the experience should be available for the Liaison meeting, and later at the RDB-SC meeting in November 2012.

Chairmanship

It was agreed that the chairmanship of the RDB-SC should be on a 3 year basis. It was also agreed that Katja Ringdahl, RCM Baltic should chair the SC until end of 2013.

Annex 7 Report from interim Steering Group for Regional Databases Copenhagen, 1 – 2 February 2011

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1. Introduction

The interim steering group for a regional database (RDB) for data collected in the Data Collection Framework (DCF) met in response of a recommendation by the 7th Liaison meeting (Anon 2010a). The group was expected to generate a proposal and a road map on how the framework around a RDB can be organised and how the database itself can be implemented, managed, developed and used. These proposals are presented here. The interim steering group has presently no formal mandate. This implies that the proposal needs to be considered and agreed by the National Correspondents (NC). This could preferably be done during a meeting of the NC's in the spring 2011.

The need for a RDB has been discussed throughout the years in the different Regional Coordination Meetings (RCMs) held under the DCF and during the "Regional scenarios and roadmap on Regional Database" meeting in 2010. During the latter meeting it was identified that the main need for a RDB is for biological and transversal variables including aggregated catch, effort and VMS data. Aggregated economic, aquaculture and other variables are not required to be put into an RDB at this point but may be a development in the future. Surveys are also excluded from this solution for the moment as the data are currently held in other international databases.

The proposal presented in this report covers regions (RCM Baltic, RCM NS&EA and RCM NA) and Member States (Anon., 2010c, Anon., 2010d and Anon., 2010e) that have expressed a need and support for a RDB. It does however by no means exclude other Member States, non EU countries or regions that perceive a RDB beneficial.

The list of participants is given in Annex 1.

2. Background

The scientific data foundation of the Common Fisheries Policy has recently moved from national data collection schemes, for nationally exploited stocks towards more regional coordinated data collection schemes, not only stratified on species but also stratified on centrally defined fisheries (metiers) (Council Regulation N° 199/2008). This new approach adds significant complexity to national data collection schemes. Not only does it introduce many more sampling strata, but it also adds a much stronger element of dynamic and continuous adjustment to the sampling schemes because the overall international sampling level of a given stock must also be considered. The new DCF further encourages a much wider use of data collected. MS are in accordance with 199/2008 obliged to submit detailed and aggregated data to not only to organisations supporting the fisheries management (including the RAC's) but also to the scientific community upon request.

The elements in the DCF, of regional coordination of sampling schemes, metier based sampling and encouragement to widen the use of data constitutes a powerful possibility to increase the overall knowledge of fisheries and fish stocks but constitutes at the same time a challenge (and a risk of increasing costs) for MS and national institutes since the demands on management of the data collection programs and the collected data increase.

The regional coordination is primary handled by the five RCMs, which meet yearly to review past sampling and to lay down the rules for sampling coordination for the next year in the region. The aim of the meeting is to achieve adequate international

sampling coverage, task sharing and cost efficiency. The work of the RCMs is not easy, partly because of the complexity of data collection, but also because no central source of data has been available to perform the analysis necessary for optimization of the sampling schemes and the quality of the data at a regional level. In every case it has been necessary to request data from each country in the region in order to carry out basic analyses, which are necessary for coordination. This process is error prone and also time consuming both for the national institutes and the actual meetings of the RCM which also is reflected in several of the recommendations in the reports of their meetings. This situation has led several RCMs to express a strong need for a RDB as a data source and tool for their work. Two RCMs (Baltic and NS&EA) have even claimed that a RDB is a prerequisite for successful coordination of national sampling schemes in the future. Also the future progressive implementation of an ecosystem-based approach to fisheries management may require even bigger demands of sampling coordination.

A RDB would also facilitate transmission of data to end-users both from an institute perspective where work power (and costs) can be saved and as well as from an end-user perspective where more transparency on the compilation and quality of the data could be achieved. Potential end-users that will benefit from a RDB are thereby all groups which want to make use of tabulations, analyses and graphic presentation of fishery information across countries within a region. These user groups could be:

- National research institutes
- Regional Coordination Meetings (RCMs)
- STECF and Sub-groups
- ICES Working Groups, Planning Groups and Study Groups
- Workshops (ICES and STECF)
- The European Commission
- The ICES secretariat
- The Regional Advisory Committees (RACs)
- National fisheries associations
- Individual fishermen
- Other NGOs

Following a recommendation from the Liaison meeting in 2009 the Commission organised the workshop "Regional scenarios and Roadmap on Regional Database" in 2010 (Anon 2010b). The aim of the workshop was to design a roadmap for each region following one of the three possible scenarios: 1) no regional database, 2) regional database with aggregated data and 3) regional database with disaggregated (detailed) data. The participants in the workshop considered that one of the most important aspects of the workshop was to evaluate and address the needs and perceived benefits of a regional database for different regions and for the different modules in the DCF.

A strong need for a regional database (containing biological and transversal data but also VMS data to support eco system indicators) was expressed by participants from the Baltic (where a RDB is already operational) and North Sea regions. For the North Atlantic region the opinions were divided. Participants from some MS saw the possibility to improve the quality of data and data management through a regional data-

base while other considered the present situation with national databases satisfactory and saw a risk with increased workload. In the Mediterranean the most common situation is that the stock distributions are limited to a given country and the participants thereby saw no need for establishing a RDB. Data on large pelagics are further already managed by ICCAT.

The economists saw no need for a RDB for economic variables since these variables are collected on a supra regional level. Data collection on the economic situation of the aquaculture and processing industries are new and the participants did not have a clear view if a RDB was needed to store these data (Anon., 2010).

The workshop recommended the development of a roadmap on a regional level to be addressed by the different RCMs as each region has the ability to act on different scenario options. The RCMs (Baltic, North Atlantic and North Sea and Eastern Arctic) responded in their meetings during 2010.

All the three RCMs considered that a database with disaggregated (sampling data in detailed form and transversal data in a low aggregated form) data would fulfil most of the needs of the RCM and MS to coordinate their programmes and would facilitate analyses on a regional scale. Also, in order to be able to reply to data requests and transfer data routinely to end-users, this would be more cost efficient departing from a RDB and provide better quality standards compared to the present situation. RCM NA recognised that not all MS agree to share their data in such a RDB, but expressed that this should not hamper the establishment of a RDB for the North Atlantic region. In the Baltic region MS have already used a regional disaggregated database for several years. This database, called FishFrame, was developed for this purpose. The experiences with this database were positive and the RCM Baltic decided in 2009 to continue to use FishFrame in the future. In the 2010 meeting of the RCM NS&EA also FishFrame was adopted as platform for the RDB.

A RDB with disaggregated data would contain all biological DCF variables. Landing (by species), effort and VMS statistics would be available in an aggregated form by month, statistical rectangle and métier. The detailed data would allow for harmonization of data sampling between the MS as well as analyses of the quality of the data. Attention though needs to be given to the consistency in aggregation of transversal variables between MS. The RDB would also be able to respond to data requests, provided the necessary data is present.

Scenarios of a RDB containing aggregated data (sampling data and transversal variables in an aggregated form) were not considered cost efficient by any of the three RCMs. The advantage compared to the present situation was estimated to be limited. It would allow some use for management of task sharing and as a planning tool. However, it would not provide transparency, cross MS analysis and the use to a common response to data calls would be restricted to the way the data are aggregated.

The MS further stressed in the RCMs that it would be undesirable to implement different RDB systems in the different regions since this would not be cost efficient and cause extra work for MS which have fisheries in more than one region.

The RCM Baltic and the RCM NS&EA recommended an interim steering group to be set up with clear terms of references and mandates in order to start the implementation of a RDB including a Steering Committee (SC). The RCM NA proposed items to be discussed in such a SC (Figure 1). The 7th Liaison meeting endorsed this recommendation.

Regional database: North Atlantic area	
RCM NA 2010 Recommendation	<p>A steering committee on RDB should be set up with the following :</p> <p>Pre-requisite</p> <p>Organisation of the steering comity: participants (all member states interested for RDB in NA, EC ?), relation with other regions (a supra-steering comity or a unique steering group with all regions ?)</p> <p>Responsibility and decision level of the steering group</p> <p>Discussion and validation of requirements according to</p> <p>Specifications : functionalities (database, use of an existing solution , management of data calls, publication of references data or aggregated data, harmonized data exchange format, frequency of deposit of data, synchronisation with NDB, quality of datasets, coverage of datasets, hosting of database, etc.)</p> <p>And level of security required : responsibilities, what types of users (MS, EC, general public for several data access ?) for what use of data, availability/integrity/confidentiality</p> <p>Evaluation of needs/requirements/protocols for content and technical governance, users support, ect.</p> <p>First evaluation of the costs</p> <p>Go/No Go for the better scenario</p> <p>Further, the following items should be addressed before starting the implementation.</p> <p>Steering of progress, allocation of budget and appropriateness of resources, plan project management.</p>
Follow-up actions needed	SGRN to discuss the issue in one of the 2010 meeting
Responsible persons for follow-up actions	SGRN, DG-MARE
Time frame (Deadline)	July 2010

Figure 1. Recommendation on Steering Committee from the RCM NA endorsed by the LM 2010.

3. Proposal for the organisational framework around a regional database.

3.1 One regional database or different databases for the different regions?

Three RCMs have expressed a need for a RDB. Regional databases can be organised in two ways, either as separate databases potentially hosted and developed in different institutes or as a single supra regional database. The interim steering group considers that the most appropriate way forward is one single supra regional database hosted at a single site and propose the implementation of such a database.

The main reasons for this are;

The needs of the RCMs are broadly similar across all the regions as is the data required to fulfil those needs.

Some MS are fishing in multiple regions and do not wish to have to provide different uploads and support different databases.

A supra RDB has economic benefits as MS will only have to pay to support a single RDB, provide single export routines and spend less time training staff.

Multiple distributed databases also have problems as they develop at different rates and can become very different over time.

3.2 Selection of technical solution for a Regional Database

Different potential technical solutions for an RDB were discussed. The RCM Baltic and RCM NS&EA have however already decided to adopt FishFrame as a platform for the RDB. The interim steering group agreed to propose FishFrame as the platform for the RDB. Development of a new system from nothing is not a feasible solution given the current financial and temporal constraints. Presentations were given on the current status of FishFrame as a candidate for selection and the French national solution as example of a national solution.

3.2.1 FishFrame

The selected platform for the RDB is FishFrame as it provides a large majority of the functionality required of a RDB including:

FishFrame is a mature proven platform that has been in use for many years.

Development team is planning to include COST tools.

Web based

Able to interface with R or SAS

Platform independent

Browser independent

Open source

Data is version controlled; users can roll back data updates if errors are spotted

Scalable across multiple servers

Extensive data checking;

Centralised processing (tested and quality assured algorithms)

Provides routine analysis

Provides tools to enable sampling planning and real-time monitoring

Role based access – Provides a high level of data security

Can be a data portal for scientific community, managers, stakeholders and other NGOs

Standard export formats

3.2.2 Feedback on a DCF national information system

France gave a presentation of its national DCF information system to the interim steering group. Projects are split into 3 principal goals.

First, a website for data calls management has been developed to guaranty traceability of data calls and responses, saving the data files transmitted, and system security (availability, integrity, and privacy of data). A further version will provide a Content Management System for the publication of data dictionaries or general information on the DCF regulation.

French partners are currently establishing data dictionaries to describe precisely the data concerned by the DCF regulation (2010/93) with a list of metadata (in a format consistent with INSPIRE directive and COST), like date of collection, definition, update frequency, rules for raising, calculation and aggregation, assessment method, quality controls, database source, data owner, level of diffusion, etc. Those data dictionaries will improve knowledge and scope of data for end-users and will help them to describe data wanted in data calls. (Note: during this work, a list of inconsistencies between COST and DCF data has been identified. For example, some references are not exhaustive.)

Finally, a data warehouse with tools of business intelligence is in study to collect and centralize all data and to organize it in a model adapted for requests, with tools like BO/Mondrian that can make reports “on demand” or “preset”.

The prerequisites for this work are to have common data dictionaries with shared metadata, and a common exchange structured format (XML) to feed the datacentre from different sources, and to export data to a supra-regional database or, why not, to data calls. For example, the ERS format covers different kind of exchanges for e-logbooks or e-sales.

3.3 Organisation of and tasks for the future Steering Committee

Organisation and tasks for the future SC as well as the role of the RCMs in the context of a RDB were discussed. The intention was to make the best use of the existing structure of meetings as well as defining the responsibility of different groups. The RCMs are considered to play a key-role in the implementation and overall steering of the RDB. The main reasons for this are that the RCMs will be the prime end-users of the data base. Also decisions on the development of the RDB which have impact on national budgets or are sensitive have to be endorsed by the NC's which are present in the RCM. However, the RCMs were not considered to be a realistic candidate for the technical governance of a RDB because they are already overloaded with other, mostly regional, tasks. Also the participants of the RCM may not have the required expertise.

The interim steering group proposes to set up of a formal Steering Committee (SC). This SC should for practical reasons be relatively small and consist of three members by region nominated by the RCM, preferably with different expertise (e.g. strategy, user, data expert, database expert, developer). At least one of their nominees should attend the regular RCM meeting. The SC should also include a representative of the host of the RDB. If non-EU countries express interest to participate in a RDB this would be very welcome and participation of these countries in the SC should be allowed.

The SC should be responsible for strategic planning, operational and technical issues and should also provide feed-back to the RCMs. The participation in the SC meetings should reflect the issues to be discussed e.g. strategic discussions or specific technical issues and could thereby, if necessary, vary.

A lot of the work of the SC will have to be completed by correspondence, with possible annual meetings. The SC should be able convene small sub groups to deal with particular issues, e.g. data calls. The SC is not the group that actually does the work but is essential that communication between the group and the developers is good.

All participating MS would have the possibility to contribute to the development of the RDB in an open source environment following priorities defined by the SC.

The RCMs will be responsible for the content governance of the RDB and indicate priority areas for development, reports and data requirement. The indications from the different RCMs should be harmonised (and if necessary prioritised) by the Liaison meeting and should be included in the agenda for the SC. Tasks and responsibilities for the proposed Steering Committee, the RCM's and the Liaison Meeting are shown in Figure 2.

MS delivering data to the RDB should be responsible for the quality of the detailed national data and that transversal data is aggregated in accordance with guidelines.

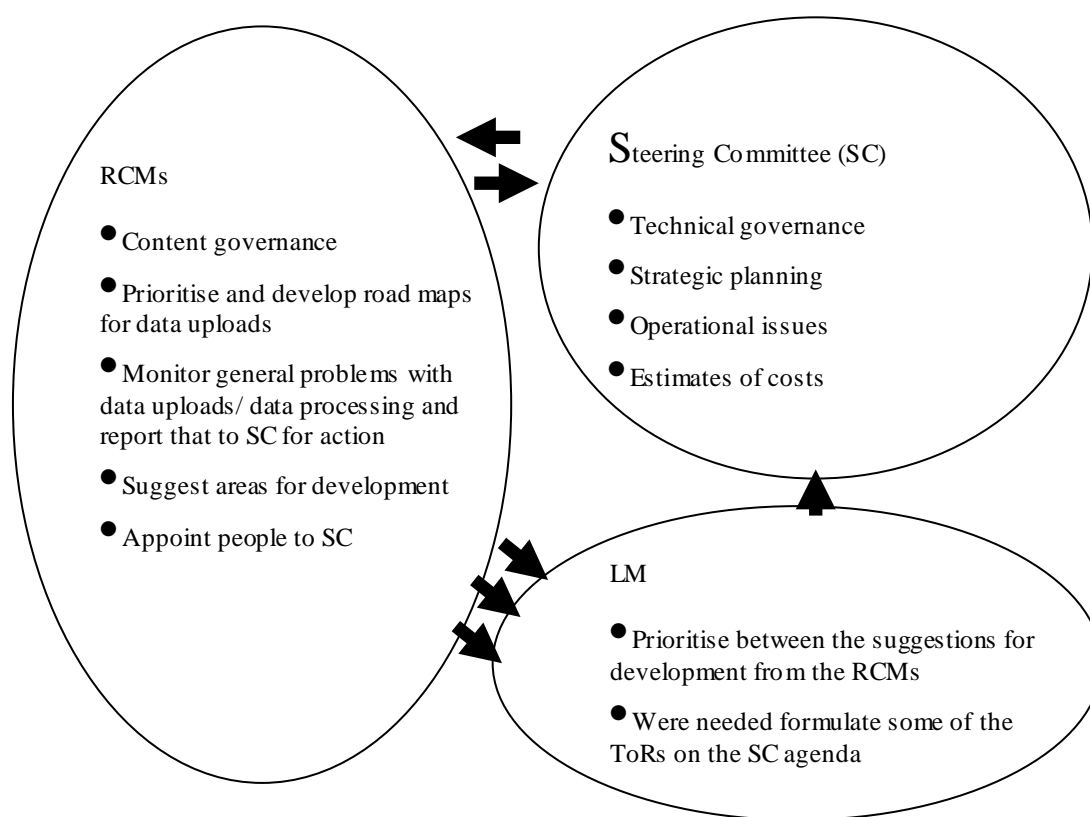


Figure. 2 showing tasks and responsibilities for the proposed Steering Committee, the RCMs and the Liaison Meeting in the management of the RDB.

3.4 Hosting the RDB

In principle, the RDB could be hosted by one of the MS. However, at several occasions, it was stated that hosting the RDB by an international organisation such as ICES should be preferred. The main reasons for this is that ICES has wide experience in maintaining international data bases. Also, ICES must have interest in the data, as these will be quite detailed and could be used by ICES working groups. ICES were approached prior to the meeting and were asked whether they would be willing to host the RDB. ICES had discussed the issue internally and were positive to do so as long as costs and practical issues could be resolved.

3.5 Funding and costs

There are several types of costs related to maintenance, management and development of a RDB. These types of costs include maintenance (hardware, upgrades etc), support to users, management and further development of the database. Initially there will also be a cost related to the transfer of the database from the present host (DTU-Aqua) to ICES. The DCF presently only covers costs (50%) related to development of databases. These costs can be included in National Programmes. It was suggested that ideally the supra RDB could be centrally funded through the Memorandum of Understanding (MoU) between ICES and EU. However, within the current contract this may not be an option.

The intended speed of future implementation and development will of course have an impact on the overall costs for a RDB. This speed needs to be decided by the participating MS. A rough estimate of the overall costs implementing FishFrame is around 150 k€ yearly (based on ongoing maintenance costs and estimated work for initial implementation). These costs do not include national activities for preparation of data transfer to the RDB and development of applications. These costs may need to be shared between the 12 participating countries if the RDB cannot be centrally funded. There is thereby a need to develop a cost sharing model that is fair to all participants (the volume of DCF derived data can vary a lot between MS). The interim steering group considered several models based on a 'share' system using various methods to define each share.

The number of regions each participating country is active in (identified by the number of RCMs attended and contributing data to RDB)

Based on participating MS overall DCF budget with an agreed proportion to non-EU participating countries

Simple split between participating MS.

The present and future hosts need to elaborate the cost estimate in more detail and the NC's need to decide on a cost sharing model. The future SC should then work out cost estimates for the different participating MS.

It is, however, the opinion of the interim steering group that funding routes in the long run need to be centrally established; either within the MoU between ICES and EU or in the next reform of the DCF which will occur 2013.

3.6 Legal issues

If a data extraction from the RDB shows non-compliance with the DCF and penalties are potentially to be applied (under article 6 of Commission Regulation (EC) No 665/2008), the Commission must refer to the national database, as stated at the top of this document, the national database is considered the 'database of record'.

3.7 Non EU Countries

Non EU countries are very important contributors to the fisheries and their data is a vital component of the assessments. However, their data is not required for coordination of DCF sampling. The interim steering group welcomes contributions and participation from those countries. Chairs of RCMs could be asked to formally approach those countries and invite their participation.

3.8 Data access and data protection

It is very important that security and access to the data are clearly defined and managed.

Confidentiality of data needs to be assured. Principles for data access (following the DCF) and data protection should be proposed by the future SC and agreed by the RCMs.

4. Road map for implementation of a RDB

The interim steering group discussed a possible road map for the implementation of a regional database, both from an administrative perspective and from a content perspective.

4.1 Road map – administrative system

The aim is to have an administrative system for the RDB in place at the end of the year. To achieve this, the first task is to get a more precise estimation of the costs related to running the RDB as well as moving it to ICES. When the cost estimates are available, the NC's should be able to make the formal decision on the implementation of the RDB and how the costs should be shared. When the decision is taken the RCMs could formulate priorities for the RDB and to appoint members to the SC during their meetings in September. The Liaison meeting following the RCMs should then condense the initiatives taken in the RCMs and prepare terms of reference for the first meeting of the SC. The first task of the SC will be to prepare a work plan and a budget. MS could amend their NP's and include eligible costs related to the RDB prior to the 31st of October 2011.

4.1.1 Actions needed to implement a RDB in 2011.

No.	Action needed	Responsible persons for following up	Deadline
1	Develop more detailed cost estimates and overall financial plan for maintenance, management and transfer of the RDB	DTU-Aqua (Jörgen Dalskov, Henrik Degel), ICES (Neil Holdsworth)	End March 2011
2	National Correspondents to agree on the organisation of the RDB and a cost sharing model (based on this report and the cost estimates) during the NC meeting arranged by the Commission.	NCs	Prior to the RCMs
3.	Plan for the transfer of the RDB from the present host to ICES,	DTU-Aqua (Jörgen Dalskov, Henrik Degel), ICES (Neil Holdsworth)	
4	Formulate priorities for the RDB Appoint people to the Steering Committee.	Chairs of the RCMs	During the RCMs
5.	Condense the input from the different RCMs and formulate some of the ToRs for the first meeting of the Steering Committee.	Chair of the Liaison Meeting	During the LM. First week October
6	First meeting of the Steering Committee. Develop a workplan including budget.	Chair of the RDB Steering Committee	Second week of October,
7	MS to amend their National Programmes in order to include eligible costs related to the RDB,	MS	31 st of October

4.2 Road map – data uploads

The effectiveness of a RDB as a source of data for end-users and as planning tool for regional sampling coordination depend on the number of participating Member States uploading data into the database. It is thereby of importance to facilitate this process as much as possible. The interim steering group thereby realised that the uploading process need to start with limited datasets and that help systems need to be put in place to enable for the data providers.

As a trial it was agreed to start with landings and effort statistics for 2010. The Baltic Member States, which have worked with FishFrame for multiple years, have however in RCM Baltic agreed on a more ambitious uploading plan and the interim steering group sees no reason hamper this plan in the Baltic region. The upload should be done prior to the RCMs and potential problems could be discussed during the RCM meetings. The host should, if necessary, organise a workshop in late fall focusing on uploads of landings and effort statistics. During this workshop problems could be identified and solutions put forward. It was also agreed that participating MS should start to look at the exchange format for sampling data (cs-file) in order to foresee potential problems.

The interim steering group also agreed on a medium term (2012–2013) goal. This goal is that all participating MS are uploading data sets prioritised (by RCMs) to the RDB in order to enable better regional planning of sampling and provide to input to the DCF reform process.

4.2.1 Actions needed to start and enable data uploads into a RDB in 2011.

No.	Action needed	Responsible persons for following up	Deadline
1	Relevant specifications on FishFrame delivered to all participating Member States	DTU-Aqua (Henrik Degel)	As soon as possible
2	Establishment of a user forum. This forum could be in the form of a SharePoint and include FAQ, bug reports, instruction videos etc.	DTU-Aqua (Jørgen Dalskov, Henrik Degel), ICES (Neil Holdsworth)	Late spring 2011
3.	Data call to inform participating MS that effort and landings data for 2010 should be uploaded into FishFrame,	Chairs of the RCMs	1 st of June 2011
4	Participating Member States to upload effort and landings data 2010.	participating Member States	1 st of August 2011
5.	RCMs to discuss on the experiences of the upload trial and report findings/problems to the Steering Committee	Chairs of the RCMs	During the RCM September
6	RCMs to discuss future (2012) data sets to upload.	Chairs of the RCMs	During the RCM September
7	Workshop on upload of DCF transversal variables (landings and effort).	host	November

5. References

- Anon. 2010a. Report of the 7th Liaison Meeting between the Chairs of the RCMs, the chair of ICES PGCCDBS, the chair of PGMED, the ICES representative, the Chair of SGRN and the European Commission, Ostend, Belgium, 2–3 Jun 2010
- Anon. 2010b. Regional scenarios and roadmap on Regional Database, Brussels, Belgium, 22–23 Feb 2010
- Anon. 2010c. Report of the Regional Co-ordination Meeting for Baltic Sea (RCM Baltic) 2010, Vilnius, Lithuania, 10–14 May 2010
- Anon. 2010d. Report of the Regional Co-ordination Meeting for the North Sea and East Arctic (RCM NS&EA) 2010, Charlottenlund, Denmark, 17–21 May 2010
- Anon. 2010e. Report of the Regional Co-ordination Meeting for North Atlantic (RCM NA) 2010, Ostend, Belgium, 19–21 Apr and 31 May–2 Jun 2010
- EC 2008a. Council Regulation (EC) 199/2008 concerning the establishment of a Community Framework for the collection, management and use of data in fisheries sector for scientific advice regarding the Common Fisheries Policy
- EC 2008b. Commission Regulation (EC) No 665/2008 laying down detailed rules for the application of Council Regulation (EC) No 199/2008 concerning the establishment of a Community framework for the collection, management and use of data in the fisheries sector and support for scientific advice regarding the Common Fisheries Policy
- EC 2010. Commission Decision (EC) No 2010/93/EC adopting a multi annual Community programme pursuant to Council Regulation (EC) No 199/2008 establishing a Community framework for the collection, management and use of data in the fisheries sector and support for scientific advice regarding the Common Fisheries Policy.

Annex 1. List of participants

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