

## Data and Information Services – Report for Council 2015

### Implementing the strategic plan

At the February Bureau, Data and Information services previewed its approach to the implementation, review and performance tracking of the strategic plan. Figure 1 shows how the implementation is followed through the ICES system. The bottom boxes in grey depict the entities that review and feedback on progress – starting from the left the Data and Information operational group (DIG) make the most detailed review (twice a year) – the table in Annex 1: Strategic implementation for Data: review by DIG illustrates how they track progress against the strategic milestones laid out in Annex 4 of the implementation plan. Bureau and Council should receive a more condensed summary view that highlights specific issues and identifies where action or intervention from the Bureau or Council would be necessary to progress the implementation.

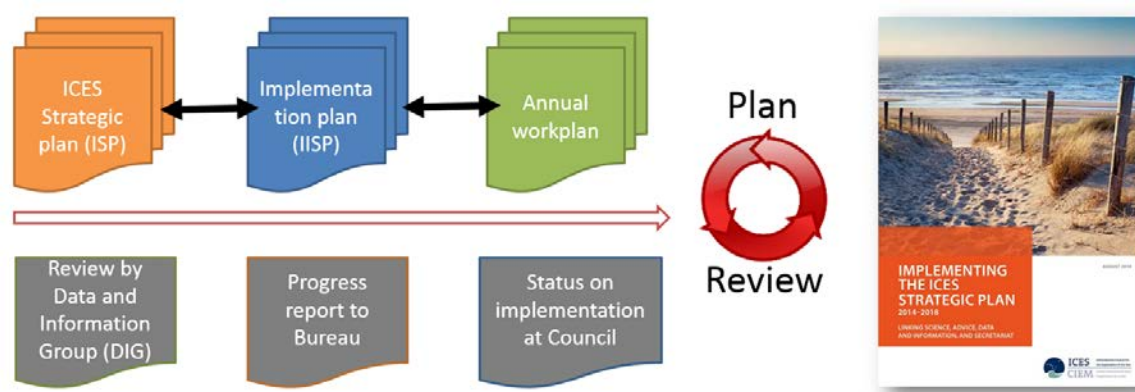


Figure 1 data strategy planning and review

In late 2014/2015 with some effort, the implementation plan for data see Figure 2 was mapped against the annual work programme for the ICES Data and Information Services see Figure 3.

What and How		How measured	When	Who/Risks		
REGIONAL FACILITATION				RESOURCE IMPLICATION		
HEADLINE ACTION	DETAIL	PERFORMANCE MEASURE	TIME FRAME	DATA CENTRE	DIG	OTHER
Regional operational products for Marine Strategy Framework Directive (MSFD) and Data Collection Framework (DCF)	(a) MSFD workflow: Collaboration between ICES Data Centre and Regional Sea Conventions/ other organizations with respect to MSFD (WISE-Marine production process). This assumes a good flow of data/data harvesting into the data centre, and this can imply more resources in certain data types where data are not readily provided.	(a) Workflow(s) operational and ready for uptake into WISE-Marine.	(a) OSPAR Hazardous substances: milestone 2014	This assumes a good flow of data/data harvesting into the data centre, and this can imply more resources in certain data types where data are not readily provided.		
	(b) Leading to a joint MSFD data flow vision paper. Also depends on WISE-Marine. Link to Secretariat Plan.	(b) Joint paper strategy accepted by stakeholders at EU level.	(b) HELCOM Eutrophication: milestone 2014 (c) OSPAR Eutrophication (2015) (d) MSFD Data vision paper: 2014			
	New processes/products from existing data within Advisory and Science groups with respect to MSFD: calculations for indicators. Needed: data selections, algorithms, calculation	(a) Uptake of ICES dataset products in EGs responsible for MSFD indicators.	Fish and litter time frame: 2014–2015 for development, and fine-tuning			

Figure 2 Extract from Annex 4 of implementation plan

Reference to IISP	Work Package	Billing	Timing	Detailed task	Resources								
IP: Key	IP: Preference	IP: Pillar	WP: ID	WP: Activity	Cost category	WP: Timing	WP: Activity	WP: Resource Count	WP: Task	WP: Status	DC Resources	Other Departmental Resources	Other Resources
Improved data collection and Annex 2	ADVICE	10 INTERCATCH (Fisheries)	Core	January	3.5 - New functionalities: Implement new needed functionalities to support the	Started	HenrikKN, Kadi						
Improved data collection and Annex 2	ADVICE	10 INTERCATCH (Fisheries)	Core	January	3.6 - Administrative codes and users: Add, update codes used by InterCatch (Jan-Dec)	Started	Anna, HenrikKN, Kadi						
Improved data collection and Annex 2	ADVICE	10 INTERCATCH (Fisheries)	Core	January	3.7 - EC and WGM/OTSH data report: Data delivery overview to EC. Export specific	Started	HenrikKN						
Improved data collection and Annex 2	ADVICE	10 INTERCATCH (Fisheries)	Core	January	3.8 - Planning: Planning of tasks and resources and strategic planning (Jan-Dec)	Started	HenrikKN						
Improved data collection and Annex 2	ADVICE	11 participants	Core	March	1 Workshop on InterCatch, organise and teach	Started	HenrikKN						
Improved data collection and Annex 2	ADVICE	12 VMS Data	Mou/Contract/Request	June	6 Give support to WIDECC with VMS Data		Carlos, Neil, Anna, Nas, MarkDC, Sebastian, Cristina						
Improved data collection and Annex 2	ADVICE	12 VMS Data	Mou/Contract/Request	January	8 Accommodate the Data from NEAC		Carlos, Neil, Anna, Nas, MarkDC, Sebastian, Cristina						
Improved data collection and Annex 2	ADVICE	12 VMS Data	Mou/Contract/Request	June	9 Handle the HELCOM request and answer HELCOM questions		Carlos, Nas, MarkDC, Sebastian, Cristina						
Improved data collection and Annex 2	ADVICE	12 VMS Data	Mou/Contract/Request	June	4 Make and handle the OSPAR request and handle the VMS Data		Carlos, Nas, MarkDC, Sebastian, Cristina						
Data archeology: identifying as	DATA	13 EMODnet Biology (B)	Project	February	3.4 - Pilot project on digitization of historical community data from the Limfjord		Jorgen, Carlos, Merdi						
Data archeology: identifying as	DATA	14 OCEANI (Hydrography)	Core	February	5 Develop a conversion program in order to process the Canadian Arctic oceanographic datasets	Started	Hjalte, Else						
Encouraging the broader use of Annex 4	DATA	15 DOME (Environment)	Core	March	1 - Create CD's and datasets (ODV) files for DOME plankton (ZF, PP) and other		Mari Lynn, Periklis						
Encouraging the broader use of Annex 4	DATA	16 MicroB5	Project	January	3 community data (ZB, PB) from DOME into the SDN infrastructure using the SDN biological format		Neil, Hans, Carlos						
Encouraging the broader use of Annex 4	DATA	17 Quality Check Database: to categorise and uniformly describe all checks made on all data collections managed by the ICES Data Centre (with DGI) (March, progress to report at DGI 17 May)	Core	February	5 Populate QC database/focus on DATRAS, DOME		Periklis, Neil, Else, Anna, Mari Lynn						
Encouraging the broader use of Annex 4	DATA	17 Quality Check Database: to categorise and uniformly describe all checks made on all data collections managed by the ICES Data Centre (with DGI) (March, progress to report at DGI 17 May)	Core	September	0 Develop a web based output tool for the QC Database	Not started	Periklis, Carlos, Mari Lynn						
End-to-end workflow for Annex 4	DATA	18 Quality Check Database: to categorise and uniformly describe all checks made on all data collections managed by the ICES Data Centre (with DGI) (March, progress to report at DGI 17 May)	Core	April	3 Tool to synchronize DATSU check updates with QC database check description	Not started	Mike, Carlos, Anna, Anne, Michala, Inigo, Ruth						
End-to-end workflow for Annex 4	DATA	19 Stock assessment graphs	Core	January	7 Expand the Stock Database for use with the majority of fish stocks		Mike, Carlos						
End-to-end workflow for Annex 4	DATA	19 Stock assessment graphs	Core	November	7 Develop web services for further integration with GSA		Carlos, Anna, Mike, Anne, Michala, Inigo, Ruth						
End-to-end workflow for Annex 4	DATA	19 Stock assessment graphs	Core	February	7 Expansion of database to include stock status, and subsequent web service		Carlos, Anna, Mike, Anne, Michala, Inigo, Ruth						
Ensuring INSPIRE readiness for Annex 4	DATA	19 EMODnet Biology (B)	Project	February	1 - Update the OBIS webservice to include SDN output flag		Neil, Hans, Hjalte, Merdi						
Ensuring INSPIRE readiness for Annex 4	DATA	20 EMODnet Chemistry (B)	Project	January	4 Follow and ensure appropriate alignment between standards and vocabs used by EMODnet chemistry, SDN and the ICES Data Centre		Periklis, Hans						
Ensuring INSPIRE readiness for Annex 4	DATA	21 ICES SPATIAL FACILITIES (B)	Core	February	2 - Increase the number of spatial services provided by the ArcGIS server (Feb-27)		Periklis, Hans						
Ensuring INSPIRE readiness for Annex 4	DATA	21 ICES SPATIAL FACILITIES (B)	Core	May	2 Update maps for Ecosystem Overviews	Started	Periklis, Hans	MarkDC					
Ensuring INSPIRE readiness for Annex 4	DATA	21 ICES SPATIAL FACILITIES (B)	Core	June	2.4 - Consistently produce metadata for our GIS services/products, i.e. WGMIST	Started	Periklis, Hans						
Ensuring INSPIRE readiness for Annex 4	DATA	21 ICES SPATIAL FACILITIES (B)	Core	March	2.5 - Launch the first version of the new Spatial Facility	Started	Periklis, Hans						

Figure 3 Extract from 2015 workplan for Data and Information Services

This mapping allows a better understanding of how the individual and team work activities contribute to the overall strategic aims, and enable us to see how resources are associated to the support of the strategic plan and perhaps foresee where there are disconnects between the ambition of the strategy and the reality of resource allocation and timings at the planning stage.

Figure 4 is based on an analysis of the 2015 workplan for the Data and Information services in terms of the work packages that are planned to be carried out and how they relate to the 4 strategic pillars of ICES. These figures are not based on actual effort (person hours) so they should be treated as indicative rather than absolute, however the aim is to be able to provide these figures based on effort once we have a full years workplan completed in this way. The figure does however reveal that the Data and Information Services are very much a cross-cutting support to the ICES pillars.

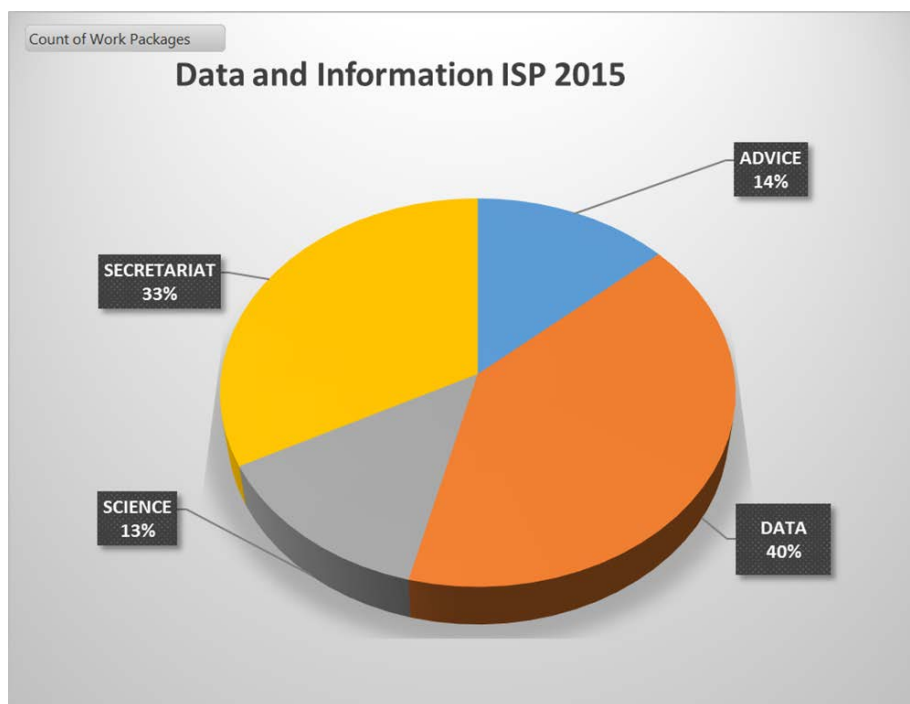


Figure 4 Allocation of Data and Information work packages to the 4 ICES pillars

Drilling into the detail of the work packages that contribute to the overall strategic implementation shows how Data and Information services underpin these, see Figure 5.

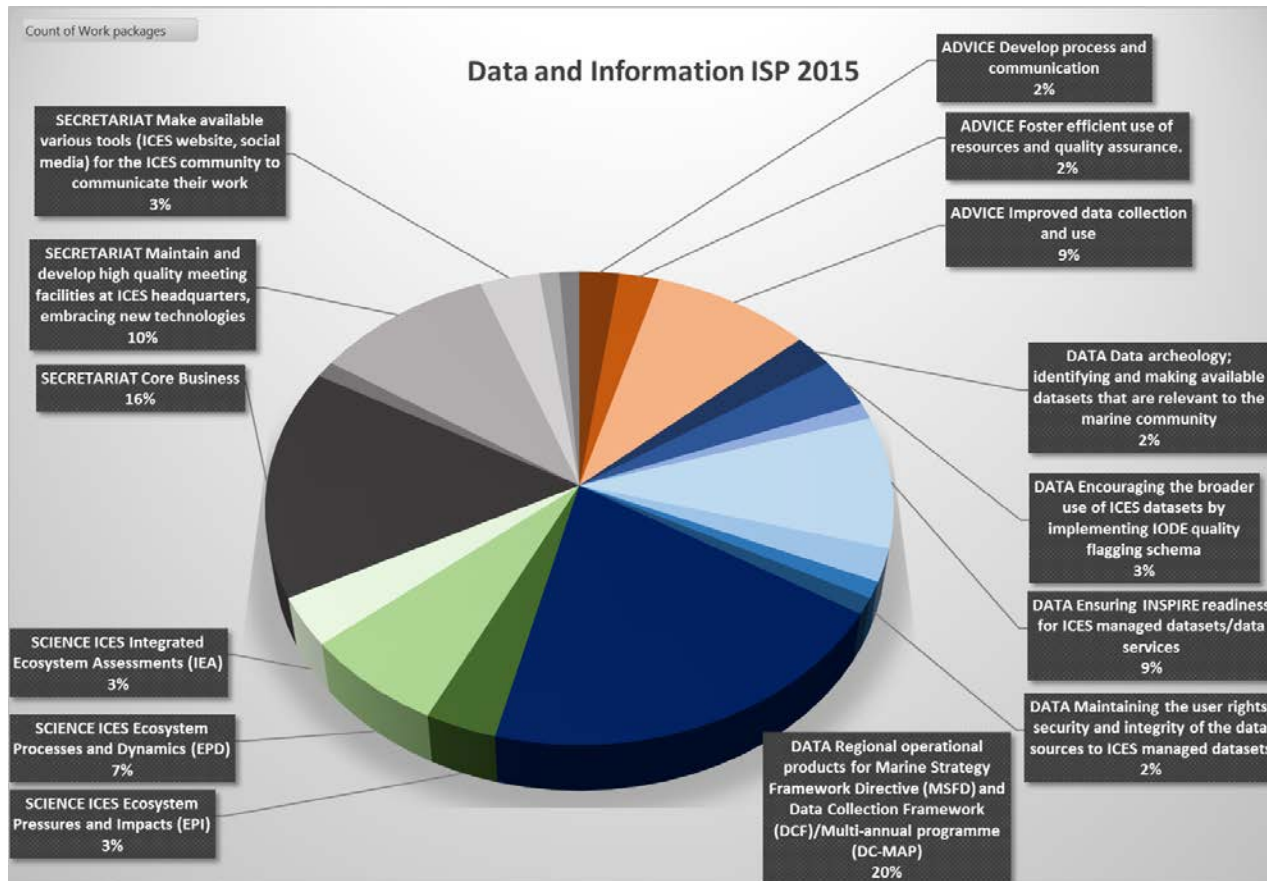


Figure 5 Division of Data and Information 2015 workplan work packages to ICES strategic objectives

### Brief analysis of the half-year mark

We have now had an opportunity to look at the reality of how the mapping of the implementation to the annual work plan by looking into the time recording of resources in the Data and Information services. It should be noted that IT services (which are part of Data and Information) were excluded from the following analysis so the Secretariat goals related to IT infrastructure are not represented in the half-year analysis.

While Annex 1: Strategic implementation for Data: review by DIG demonstrates that we are making good progress against the majority of strategic goals, the recorded hours highlight a gap in relating the workplan to the implementation plan, see .

What this shows is that 48% of the effort used in 2015 between January and July is against a number of rolled-up tasks such as data infrastructure maintenance, support to working groups, support and helpdesk services, data and meta-data handling which are not specifically addressed in the implementation plan. In other words, the implementation plan focuses on specific forward looking improvements and investments, and does not adequately address the efforts to maintain and support the underlying business processes. This may well be acceptable if the principle of the strategy is to move ICES forward on a number of strategically important issues, however it should be acknowledged that there are considerable resources needed to maintain the status quo and that these should be factored in when looking at the performance measures of ICES against its strategic plan. This analysis will also be useful in redefining the time recording codes in the Data and Information services to better match the needed management outputs.

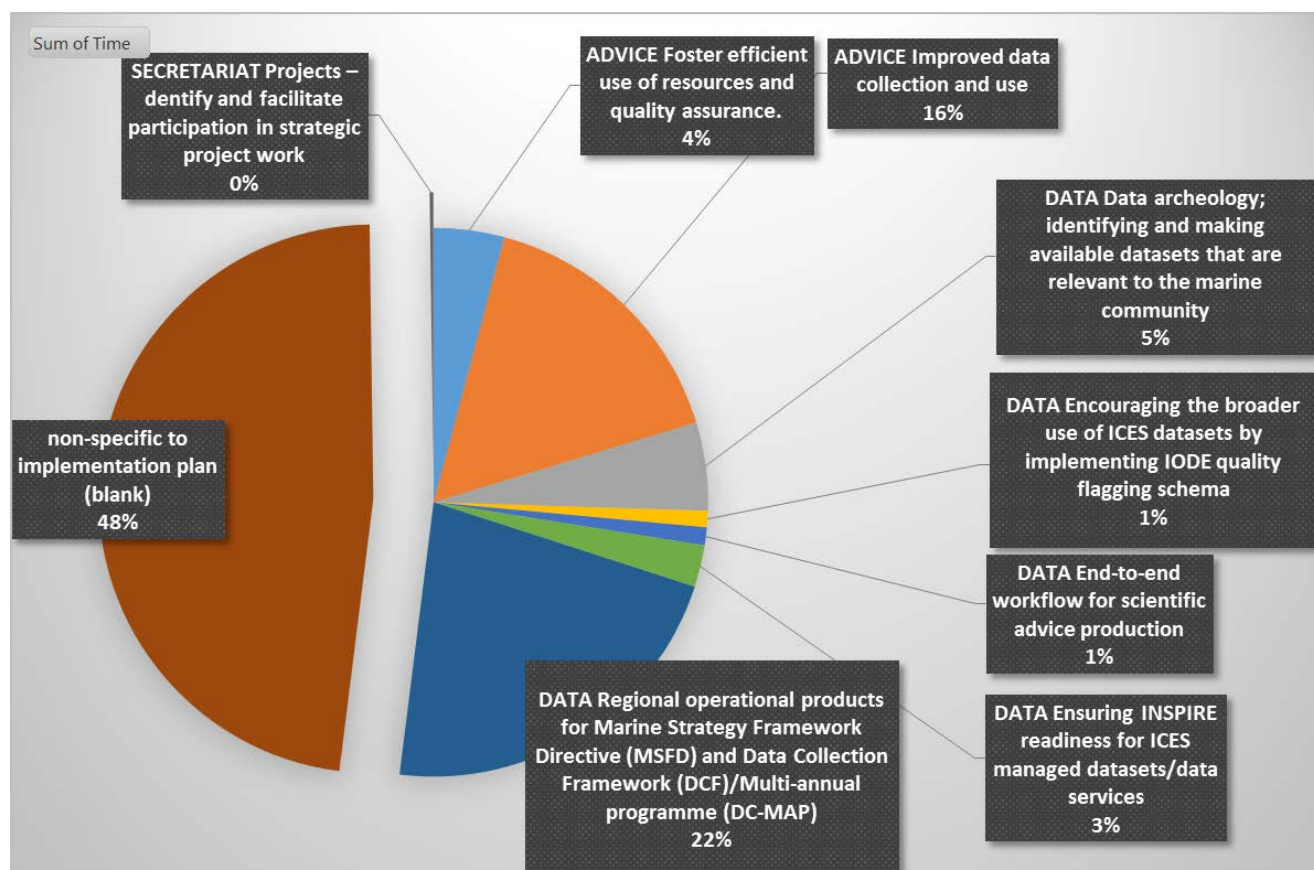




Figure 6 Data and Information time spent mapped against the implementation plan (Jan-Jul 2015 figures, excluding IT services)

### Products for the integrated ecosystem approach

Building on the efforts of the ICES Ecosystem Approach Coordinator, Mark Dickey-Collas and working in close cooperation with the ICES Data Centre, a summary of the emerging ecoregion spatial products has been elaborated in Annex 2: Data products to support integrated ecosystem approach. This underpins the strategic plan in the science area in having products that help to better understand state and pressures in space and time, as well as the data strategy in the operationalisation of products for the ecosystem approach.

Figure 7 depicts how the products presented in Annex 2: Data products to support integrated ecosystem approach fit into the understanding of ecosystem processes that ICES is putting at the core of its strategic plan.

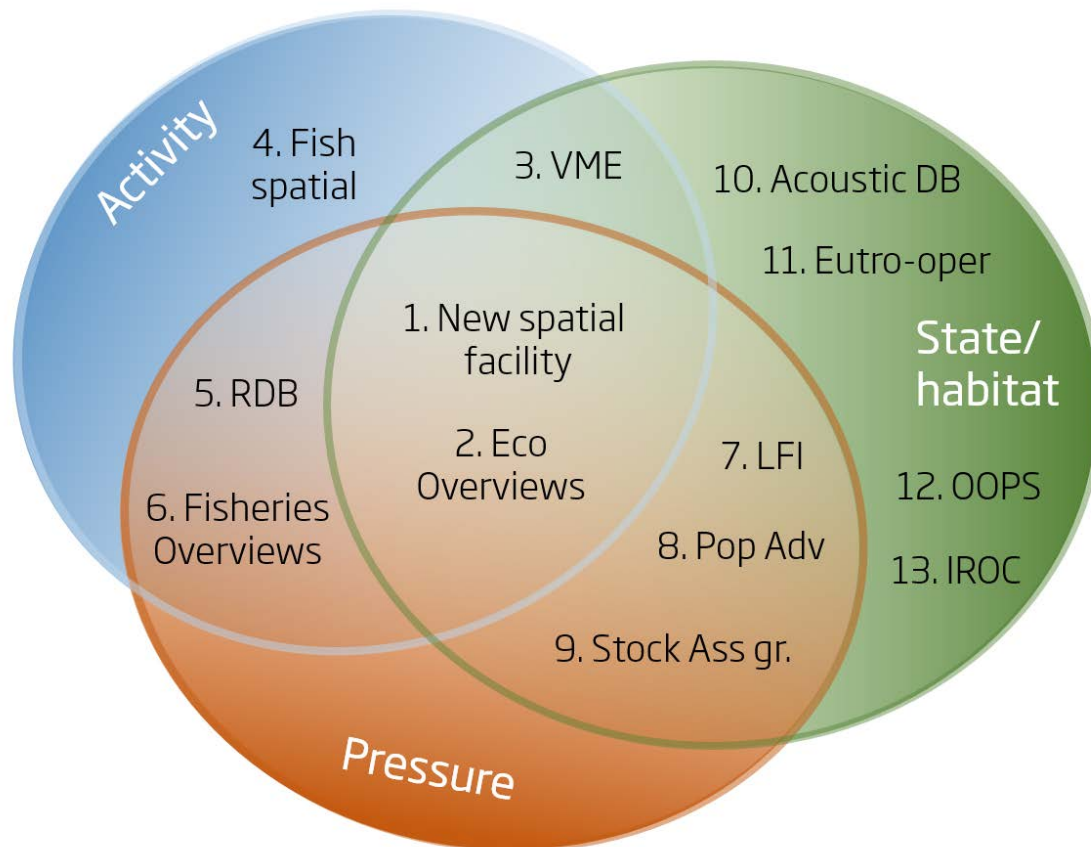


Figure 7 Synthesis of the current and upcoming data products for the ecosystem approach, available through the ICES data centre.

# Annex 1: Strategic implementation for Data: review by DIG

Regional Facilitation				Status DIG 2015	Status DIG 2014	Resource implication		
Headline action	Detail	Performance measure	Timing			Data Centre	DIG	Other
Regional operational products for Marine Strategy Framework Directive (MSFD) and Data Collection Framework (DCF)/Multi-annual programme (DC-MAP)	(a) MSFD workflow: Collaboration between ICES Data Centre and Regional Sea Conventions/other organisations with respect to MSFD (WISE-Marine production process). This assumes a good flow of data/data harvesting into the data centre, and this can imply more resources in certain data types where data are not readily provided. (b) Leading to a joint MSFD data flow vision paper. Also depends on WISE-Marine. Link to secretariat plan.	(a) Workflow(s) operational and ready for uptake into WISE-Marine  (b) Joint paper strategy accepted by stakeholders at EU level	- (a) OSPAR Hazardous substances: milestone 2014 - (a) HELCOM Eutrophication: milestone 2014 - (a) OSPAR Eutrophication (2015) - (b) MSFD Data vision paper: 2014.	05/2015: a. Progress on all workflows i.e. EUTRO-OPER, (see also chapter 4 of this report). b. complete  09/2015: a. EUTRO-OPER link: <a href="http://ocean.ices.dk/eutro-oper/">http://ocean.ices.dk/eutro-oper/</a>  Baltic boost funded – ICES DC to build up data flow and indicators (cf EUTRO-OPER) for contaminants  Impulsive underwater noise project funded under OSPAR, building up noise register before spring 2016	05/2014: a. Progress on all workflows i.e. EUTRO-OPER, (see also chapter 4 of this report). Online tools are developed. Documentation on methodology is still not there.  b. Started, drafted template and vision paper under development. Vision paper accepted by WGDike.	This assumes a good flow of data/data harvesting into the data centre, and this can imply more resources in certain data types where data are not readily provided.		
	New processes/products from <b>existing data</b> Advisory and Science with respect to MSFD: calculations for indicators. Needed: data selections, algorithms, calculation	a) Uptake of ICES dataset products in EG's responsible for MSFD indicators b) Operational provision of datasets, including discovery and download services	Fish and litter Timeframe: 2014-2015 for development, and from 2016 onwards fine-tuning	05/2015: (offshore) litter: see section 4.6 of this report 09/2015: OSPAR data call on litter from trawl surveys	05/2014: (Offshore) litter: In progress. Drafted extension to trawl survey format for marine litter,			

	examples. Challenge: who is going to decide on the final calculations and data selections? Workshop on MSFD related DC-MAP indicators. Refer to table (MSFD table of ICES data/WG's and their operational product linkage)				needs further iteration. ICES will try to establish a WG on Marine litter as a complement to existing groups/RSC processes			
	<b>New datasets</b> and products Advisory and Science: MSFD - master data holdings; data storage, calculations for indicators. Noise, microplastics, acoustic fish data (WGFAST). Needed: data collection guidelines, data, responsible WGs for data, algorithms, calculation.	Products and/or regional data management established (where mandate is given)	2015 for setup, implementation from 2016 onwards.	05/2015: Microplastics & acoustic data: see section 4.6 of this report. Indicator calculation: see section 4.2 of this report 09/2015: WKEVAL (acoustics, Aug 2015) created formats and draft data flow WKIACDB (acoustics, Oct 2015) final plan for acoustics database, trawl data and oceanographic data		Depending on the level of ambition regarding establishing new international datasets and systems, additional resources may be required		
	- Data requirements with regard to multi-species assessments (input for assessments). Currently, multi-species assessments are applied in e.g. Baltic, but insufficient spatial data products are available. Baltic, other	(a) Successful data call(s) (b) Provision of spatial data products	Baltic: 2014-2015	05/2015: no action 09/2015: WGINOSE requests for data to feed the model (2014, 2015). No other requests received.	05/2014: no action			

	areas. (action plan to be created). Needed: clear data request (unless no data are available)							
	- Data requirements for e.g. one species from all fish surveys (WGEF, WGNEW) ; search facility over all data, not only for raw data but also for products. (joint WGEF, WGNEW, DIG proposal -action DIG chair)		workshop in 2014 to list product requirements	05/2015: WKIDP took place and was successful. Report available via ICES website 09/2015: Ingeborg check with Vaishav on WKIDP action status	05/2014: workshop is planned in October and will be chaired by Clara Ulrich	Workshop participation and follow-up		
<b>End-to-end workflow for scientific advice production</b>	- RA-CMS linking to data outputs from Expert groups (connecting the scientific reports to advice production).	Successful implementation of interfaces to a) scientific output from EG reports b) scientific output from assessment models	Starting 2014 (depends on timing RA-CMS development).	05/2015: Standard graphs: see section 4.6 of this report 09/2015: SLD (stock list database) – containing definition of the stock (reference database). Advice is starting to use it.	05/2014: Process delayed. Currently concentrating on stock input and expanding standard graphs to other stocks. System renamed CARA.	Volume of activity on RA-CMS would require additional technical resource		
	- RA-CMS linking to data outputs from RDB-Fishframe	See (b) above	2015	05/2015: no action 09/2015: no action as RDB Fishframe is related to RCMs. This is next phase.		Dependent on progress in development (and funding) of RDB-FishFrame		Dependent on progress in development (and funding) of RDB-FishFrame



<b>Mobilising aquaculture specific data</b>	- Aquaculture databases: exact description to be decided. Related to WGAQUA.	Products and/or regional data management established (where mandate is given)	starting from 2014.	05/2015: no action needed (agreed upon by WGAQUA as the group does not see the need for an aquaculture database)	05/2014: no action	Depending on the level of ambition regarding new datasets and systems, additional resources may be required	Depending on the level of ambition regarding new datasets and systems, additional resources may be required	
<b>Mobilising Arctic specific data</b>	- In cooperation with AMAP, getting data from small arctic research institutes. Implementing data formatting tool.	Milestone: implementing the tool, first half 2014. Performance measure: receiving data	starting 2014	05/2015: Slow progress, some testfiles exchanged. The structure of the data committees is not clear. Meeting in October relate to the polar data forum; Helge Sagen and Taco de Bruin will attend 09/2015: Helge to report on it in May 2016	05/2014: In progress. Some testing and need further documentation of SIMON system Helge Sagen (DIG) nominated to Committee on Information and Data Service (CDIS) of SAON	A higher level of technical support/guidance could be anticipated		

International Standards and interoperability				Status DIG 2015	Status DIG 2014	Resource implication		
Headline action	Detail	Performance measure	Timing			Data Centre	DI G	Other
Ensuring INSPIRE readiness for ICES managed datasets/data services	- describe and make available all ICES/ICES expert group managed datasets, data products or services through ISO/INSPIRE standards to allow their discovery and reuse by other expert groups, processes and member country activities	- All ICES datasets, including those that exist only within an expert group , are adequately described and the 'discovery' information are available through the ICES online portals	- Request to EG's to be filled 2015	05/2015: Technical complete; Jens Rasmussen helped validating the Data Centre's work. Not published yet. Content: no information from EGs 09/2015: see above	05/2014: ICES Data Services have an online system (INSPIRE compatible).	Some additional guidance and tools will be needed		ICES expert groups will need to incorporate into their work
Encouraging the broader use of ICES datasets by implementing IODE quality flagging schema	building on the quality control database that is in the process of being populated and then exposing this to online users in a digestible way to make the linkage between type of data, type(s) of QC performed and the QC flags applied to the data	- QC database online - QC flags included in data downloads	2014-2018	05/2015: is in work plan – work planned after DIG 2015 meeting. 09/2015: see action list for follow up	05/2014: no progress			

Knowledge transfer and professional development				Status DIG 2015	Status DIG 2014	Resource implication		
Headline action	Detail	Performance measure	Timing			Data Centre	DIG	Other
Input to key data symposia and science meetings	- Data theme sessions (ASC, IMDIS etc): annual theme session proposal ASC by DIG	(a) presentation and promotion of ICES work at key events (b) requests for new services/projects resulting from those activities	-IMDIS runs in 2015, 2017 - ASC annual cycle	05/2015: Proposal 2015 ASC was not accepted by SCICOM. There is a need for 'Data' as a topic at ASC, but may be in a different format than a theme session.	05/2014: IMDIS will not take place in 2015 so a proposal for ICES ASC 2015 was prepared by DIG 2014			
Training and reference guides for scientists and data managers	- ICES training courses: 'Making the most of ICES Data', modular, webinars?. - Online materials and guidance: WKIDG in 2014	(a) metrics on usage of reference materials (b) requests for new services/projects resulting from reference materials/training (c) Increased awareness of data management/ICES services in new sectors	- Training: end 2017 - Workshop to produce reference guide in 2014 (WKIDG, proposed)	05/2015: DIG worked on a proposal for training development  09/2015: see action list for follow-up	05/2014: In progress.		Leading workshop	

Data stewardship and data management				Status DIG 2015	Status DIG 2014	Resource implication		
Headline action	Detail	Performance measure	Timing			Data Centre	DIG	Other
<b>Data archaeology; identifying and making available datasets that are relevant to the marine community</b>	<ul style="list-style-type: none"> <li>- (a) benthic historic data recovery. Plan ready, no timeframe. Connected to BEWG, DGMARE (DC-MAP related), perhaps EMODnet biology?</li> <li>- (b) Legacy data: data that are in other systems, but not available to the wider world. Linking to other data archives i.e. through metadata</li> <li>-(c) other historic data</li> </ul>	<ul style="list-style-type: none"> <li>(a) inclusion of pilot project in EMODnet biology</li> <li>(b) Providing discovery services for archived information (through EG's)</li> <li>(c) Where resource, to run data recovery projects</li> </ul>	<ul style="list-style-type: none"> <li>(a) Start 2014.</li> <li>(b) follow-on from 'INSPIRE readiness' activity under heading 3</li> </ul>	<p>05/2015:</p> <ul style="list-style-type: none"> <li>a. see section 4.5 of this report</li> <li>b. see section b. see section 4.5 and 7.2.3 of this report</li> <li>c. no action</li> </ul> <p>09/2015:</p> <ul style="list-style-type: none"> <li>b. WGHIST &amp; metadata from EGs</li> <li>c. WGHIST metadata</li> </ul>	<p>05/2014:</p> <ul style="list-style-type: none"> <li>a. benthic historic data recovery proposal was ready. After discussion not put there due to wrong focus. Work package is on hold.</li> <li>b. See chapter DIG report 2014 chapter 5</li> </ul>	Historic data recovery will require additional resources/funding and this may be possible in part through EMODnet biology		
<b>Ensuring ICES data are citeable in the digital age, and therefore making the datasets easier to discover</b>	Digital data citation and publication: ensuring ICES data are citeable in the digital age, and ensuring contributing data sources are duly credited, as well as guiding the ICES member countries on how to approach digital citation	Creating a strategy for digital citation of data resources, in agreement with PubCom	2014-2015	<p>05/2015:</p> <p>See section 5 of this report</p> <p>09/2015:</p> <p>Minting DOIs possible in autumn 2015</p> <p>DIG 2016: practical implications of DOIs (IODE cookbook)</p>	<p>05/2014: in progress. See chapter DIG report 2014 chapter 5</p>			

Data stewardship and data management				Status DIG 2015	Status DIG 2014	Resource implication		
Headline action	Detail	Performance measure	Timing			Data Centre	DIG	Other
Maintaining the user rights, security and integrity of the data sources to ICES managed datasets	<ul style="list-style-type: none"> <li>- Data policy, facilitation of rights issues</li> <li>- Data security, and implications if data portfolio changes in nature (i.e. VMS, VME etc.)</li> </ul>		Annual basis, 2014-2018	05/2015: No action needed, data policy update scheduled for 2016. See also section 5.2.2 of this report <b>2016: relate to new DCF!</b>	05/2014: RDB-FishFrame data policy drafted but not agreed by all participating countries yet			

## Annex 2: Data products to support integrated ecosystem approach

Name of product	Operational status (or planned launch date)	Web link if available	Description of product/application	Linkage to policy/partners/ ICES strategy	Contact
1. New Spatial Facility	Online (Launched In August 2015 and it is currently in testing/beta status)	<a href="http://www.gis.ices.dk/sf">http://www.gis.ices.dk/sf</a>	The new Spatial Facility offers a modern layout for our reference and working group maps. It also provides new tools and widgets to search our spatial datasets (eg datras survey areas, ICES rectangles)		Periklis Panagiotidis periklis@ices.dk Hans Mose Jensen hans.jensen@ices.dk
2. Interactive ecosystem overviews	Launching Jan 2016		Interactive diagrams of the activity/pressure/state relationships (based on expert judgement) for each ecoregion. This can link through to specific additional products	IEA	Inigo Martinez inigo@ices.dk Mark Dickey-Collas Mark.dickey-collas@ices.dk
3. Vulnerable Marine Ecosystems portal (VME)	In development BETA test with WGDEC	<a href="http://vme.ices.dk">http://vme.ices.dk</a>	Online database and map viewer of vulnerable marine ecosystems combining habitat and species level information. The data have some restrictions at the detail level, however all data are available to view and download at an agreed spatial aggregation. There is a connection to the OSPAR habitats dataset held at JNCC.	OSPAR, MSFD, CFP and NEAFC	Carlos Pinto Carlos@ices.dk Neil Golding neil.golding@jncc.gov.uk
4. Fisheries spatial data products (VMS data call)	Online	<a href="http://ices.dk/sites/pub/Publication%20Reports/Data%20outputs/HELCOM_mapping_fishing_intensity_and_effort_data_outputs_2015.zip">http://ices.dk/sites/pub/Publication%20Reports/Data%20outputs/HELCOM_mapping_fishing_intensity_and_effort_data_outputs_2015.zip</a> <a href="http://ices.dk/sites/pub/Publication%20Reports/Data%20outputs/OSPAR_mapping_bottom_fishing_intensity_data_outputs_2015.zip">http://ices.dk/sites/pub/Publication%20Reports/Data%20outputs/OSPAR_mapping_bottom_fishing_intensity_data_outputs_2015.zip</a>	Data layers and shape files of fishing activity in the ICES area, based on VMS and logbook data	OSPAR/HELCOM/NEAFC	Carlos Pinto Carlos@ices.dk Josefine Egekvist jsv@aqua.dtu.dk
5. RDB->RCM reports Intercatch	Online	<a href="http://www.ices.dk/marine-data/data-portals/Pages/RDB-FishFrame.aspx">http://www.ices.dk/marine-data/data-portals/Pages/RDB-FishFrame.aspx</a> <a href="https://intercatch.ices.dk/Login.aspx">https://intercatch.ices.dk/Login.aspx</a>	Ranking of metiers according to: landing weight, value and effort (3 reports) Age-length relationship and age-weight relationship with charts (2 reports) Overview of number of sample measurements of length, weight, age, sex and maturity (1 report) Total removals by area.(in development)	DCF, ICES fisheries advice, EEA	Henrik Kjems-Nielsen henrikkn@ices.dk Jørgen Dalskov jd@aqua.dtu.dk
6. Fisheries Overviews	In development		VMS, log book and STECF data.	Fisheries advice, CFP	Cristina Morgado (Cristina@ices.dk)



Name of product	Operational status (or planned launch date)	Web link if available	Description of product/application	Linkage to policy/partners/ ICES strategy	Contact
7. Large Fish Indicator(s) including datras data clean up	2015- 2017 *Swept Area base calculation (Completed) *Define DATRAS DATA CLEAN-UP procedures (Completed) *Implementation of LFI algorithm and Data clean up in DATRAS	Future link will be part of DATRAS download page <a href="https://datras.ices.dk/Data_products">https://datras.ices.dk/Data_products</a>	The LFI is defined as the proportion by weight of large fish in the sample of a specified survey, where large fish are defined as those longer than a threshold length, a survey-specific threshold value. The LFI takes no account of species identity but rather of individual sizes. However, it was shown to reflect mostly the proportion (by weight) of large-bodied species in communities.	OSPAR HELCOM DGENV EEA	Vaishav Soni <a href="mailto:Vaishav.soni@ices.dk">Vaishav.soni@ices.dk</a> Scott Large <a href="mailto:Scott.large@ices.dk">Scott.large@ices.dk</a>
8. Popular Advice Map	Online (Launched June 2014)	<a href="http://www.gis.ices.dk/popadvice">http://www.gis.ices.dk/popadvice</a>	Our interactive map displays popular advice for each fish stock within the various ICES ecoregions, and enables users to gain access to more in-depth information on each stock.		Anne Cooper <a href="mailto:anne.cooper@ices.dk">anne.cooper@ices.dk</a> Periklis Panagiotidis <a href="mailto:periklis@ices.dk">periklis@ices.dk</a>
9. Stock Assessment Graphs including stock list	Online	<a href="http://standardgraphs.ices.dk/stockList.aspx">http://standardgraphs.ices.dk/stockList.aspx</a> <a href="http://stock-assessment-graphs.ices.dk">http://stock-assessment-graphs.ices.dk</a>	Online database and graphs of stock assessment products for the category 1-2 stocks. In the next phase more stocks will be added and the database expanded to include more variables covering most of the quantitative information presented in stock advice (category 3-5).	CFP, MSFD, OSPAR, HELCOM, EEA, NEAFC	Inigo Martinez <a href="mailto:inigo@ices.dk">inigo@ices.dk</a> Carlos Pinto <a href="mailto:Carlos@ices.dk">Carlos@ices.dk</a>
10. Acoustic Database via ATLANTOS	Launching in 2016		Database connected to national detailed data related to acoustic interpreted data and feeding the various analysis packages i.e. STOXX. In addition, biological data will be incorporated to an extension of the DATRAS trawl portal	SSGIEOM, all Acoustic groups, CFP, MSFD, H2020	Nils Olav Handegaard <a href="mailto:nilsolav@imr.no">nilsolav@imr.no</a> Neil Holdsworth <a href="mailto:neilh@ices.dk">neilh@ices.dk</a>

Name of product	Operational status (or planned launch date)	Web link if available	Description of product/application	Linkage to policy/partners/ ICES strategy	Contact
11. EUTRO-OPER	Online (Test Assessment planned by end October 2015)	Available through HELCOM EUTRO-OPER data reporting workspace only accessible by contracting parties. Final assessment will be available through HELCOM Data and Map Service <a href="http://maps.helcom.fi">http://maps.helcom.fi</a>	Making the HELCOM Eutrophication Assessment Tool (HEAT 3.0) operational <a href="http://www.helcom.fi/helcom-at-work/projects/eutro-oper">http://www.helcom.fi/helcom-at-work/projects/eutro-oper</a>	HELCOM	Hjalte Parner <a href="mailto:hjalte.parnar@ices.dk">hjalte.parnar@ices.dk</a> Vivi Flemming-Lehtinen <a href="mailto:vivi.flemming-lehtinen@helcom.fi">vivi.flemming-lehtinen@helcom.fi</a>

12. Operational Oceanographic Products and Services (OOPS)	Launching Dec 2015		Via the new spatial facility, maps and time series of copepod abundance (SAFHOS) and integrated oceanographic products (MYOCEAN),	IEA, MSFD	Mark Dickey-Collas Mark.dickey-collas@ices.dk
13. Ocean Climate report portal (IROC)	Online	<a href="http://ocean.ices.dk/iroc">http://ocean.ices.dk/iroc</a>	The online ICES Report on Ocean Climate (IROC) provides summary information on climatic conditions in the North Atlantic.	WGOH	Hjalte Parner hjalte.parner@ices.dk Sarah Hughes s.hughes@marlab.ac.uk