Regional Coordination Group
North Atlantic
North Sea & Eastern Arctic

Regional Coordination Group
Baltic

Regional Coordination Group North Atlantic, North Sea & Eastern Arctic Regional Coordination Group Baltic

RCG NANSEA AND RCG BALTIC REPORT

Part I

25 May, 7 – 10 June 2022

Hybrid Meeting

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Acronyms

AC	Advisory Council
ASCOBANS	Agreement on the Conservation of Small Cetaceans of the Baltic and North Seas
AR	Annual Report
CCTV	Close-circuit Television
CE	Commercial Effort
CL	Commercial Landing
COM	Commission
DCF	Data Collection Framework
DM	Decision Meeting
ECON	Economic issues
EU-MAP	EU Multi-Annual Programme
FDI	Fisheries Dependent Information
GST	Genetic Sampling Tool
HELCOM	Helsinki Commission
HTS	High Throughput Sequencing
IC	InterCatch
ICES	International Council for the Exploration of the Sea
ICES ACOM	ICES Advisory Committee
ICES EG	ICES Expert Group
ISSG	Intersessional Subgroup
JRC	Joint Research Center
LDF	Long Distance Fisheries
LM	Liaison Meeting
LP	Large Pelagics
Med & BS	Mediterranean Sea and Black Sea
MRF	Marine Recreational Fishery
MS	Member State
MSFD	Marine Strategy Framework Directive
NANSEA	North Atlantic, North Sea and Eastern Arctic
NC	National Correspondent
NWP	National Work Plan
PelAC	Pelagic Advisory Council
PETS	Protected, Endangered and Threatened Species
RCG	Regional Coordination Group
RDB	Regional Database
RDBES	Regional Database & Estimation System
REM	Remote Electronic Monitoring
RSP	Regional Sampling Plan
RWP	Regional Work Plan
SID	Stock Information Database

Acronyms

SG	Sub Group
SSCF	Small Scale Coastal Fisheries
SSF	Small Scale Fisheries
STECF	Scientific, Technical and Economic Committee for Fisheries
TAC	Total Allowable Catch
TAF	Transparent Assessment Framework
TFA	Thematic Focus Areas
TM	Technical Meeting

Executive summary

This was the first year for the new 2022-2024 multi-annual Terms of References (ToRs) for the Regional Coordination Group North Atlantic, North Sea & Eastern Arctic (RCG NANSEA) and the Regional Coordination Group Baltic (RCG Baltic).

After the Technical Meeting (TM) in 2021, it was agreed that the RCG NANSEA and RCG Baltic would meet again in a back-to-back meeting in 2022. Depending on the status and development of the Covid-19 pandemic, this meeting would either be digital or be held in Gdansk, Poland from 7-10th of June 2022. After consideration of the pandemic and political situation in the spring of 2022, the meeting took place physically in Oostende, Belgium, with the opportunity to participate online in a hybrid format by using ZOOM. An additional one-day online meeting took place two weeks before the TM to address pending issues and get feedback from some ISSGs.

The overall aim for RCG NANSEA and RCG Baltic is to review the status of current issues, achievements and developments of regional coordination and identify future needs in line with DCF regulation (EU 1004/2017) requirements and the wider European environmental monitoring and management.

Five ToRs were handled during the RCG NANSEA and RCG Baltic 2022 TM; all intersessionally carried out by designated ISSGs and SGs during the RCG. The intersessional work 2021-2022 was a setup of 16 different ISSGs, including one ICES RDBES group.

Almost all the groups conducted their tasks as planned and presented the results during the RCG NANSEA and RCG Baltic 2022 TM. The output of the ISSGs was extremely valuable for the work of the TM and formed the basis of the discussions at the meeting. Next to the ISSGs, five SGs were planned during the RCG TM.

ToR I

This year, the alignment between data collection and end-user needs (by region) was progressed through the ISSG on End Users and RCG, the feedback from the COM and ICES (as the primary end-user of the RCG work), and the Presentations on genetic methods in data collection and the FishGenome project.

The ISSG on End Users and RCG has a more generic focus than it used to. One virtual meeting occurred between the ISSG, ICES and the COM in 2022, mainly focusing on RCG's Covid-19 commercial sampling overviews, their impact on upcoming stock assessments, and, following the initial discussions that were held in 2021, both the contents and the route of the recommendations were further discussed.

The COM presented the timelines for RWPs, comparing adoption versus agreement, and raised several general points for information.

ICES gave an overview on (i) dialogue, interaction, (ii) the Stock Information Database (SID), (iii) surveys, (iv) benchmarks, (v) data calls, and (vi) recommendations.

On behalf of the Pelagic Advisory Council (PelAC) and by invitation from RCG chairs, a presentation on genetic methods in data collection was given. The perceptions that stock identification is essential for stock assessment and most have inaccurate recognition, definition and delineation of stocks were presented. It was explained that this might be resolved through whole-genome sequencing-based genetic approaches and that there are no technological limitations in identifying what populations constitute stocks. The only limits are lack of sustained funding and lack of standard sampling.

In a second session on genetic methods, the results of the FishGenome project, which is close to completion, were presented. This project is about genomics, which goes beyond stock id and looks at genetic methods as a proof of concept to improve the cost efficiency of research surveys and fish stocks assessments using next-generation genetic sequencing methods.

ToR 2

This ToR is related to quality in data collection and was progressed this year through the work of several ISSGs and RCG SGs as follows:

The ISSG on RDB catch, effort and sampling overviews improved the annual and multi-annual catch and effort overviews. The R-script for the automatic generation of the overviews was improved, and feedback from the end-users was incorporated. Three documents in Html format were produced (Baltic, NA and NSEA) and presented to the RCG TM. The shiny R application to display sampling overviews was only marginally improved due to a severe lack of participants. During the TM, the group highlighted the need for a mid-long-term objective where tasks are planned and prioritized. In order to accomplish these tasks, the group emphasized the need to recruit more people to the ISSG, specifically, experts with knowledge in R, RMarkdown and Shiny.

During the subgroup time, a debate was open about using of the overviews that this ISSG is producing and the most urgent tasks that the group has at this moment, which is the adaptation to the RDBES data format (as the RDB will stop working next year). The ISSG is concerned that their work is not used by RCG and asked all ISSG to review and give feedback on the annual overviews. After receiving feedback from RCG, the subgroup aims to start the transition towards the RDBES format and, given more applied feedback from ISSGs, to continue improving the existing scripts and shiny R.

The collaboration will also be established with ICES benchmark groups to provide standardized RDB outputs to support the data compilation and benchmark process. The Shiny app will likely not develop further in 2022/23 due to the more urgent tasks in switching to RDBES and a lack of participants. The SG on RDB Catch Effort and Sampling overviews formulated a roadmap for all three sections and replied to a recommendation by WGBFAS.

The ISSG on métier and transversal variable issues followed up on the support for implementing métier codes and scripts. The group focused on revising the new métier codes submitted to the 2021 RDBES test data call; some results were presented with an overview of the codes used. The management of métier codes will be organized with the ICES Data Centre, and new codes need the acceptance of this ISSG. A set of rules was formulated to support the decision, and ISSG contact persons for performing those checks were named.

The group met and agreed with the relevant data centres that it should be possible to upload new métier codes as proposed by this ISSG but still allow uploading the old métier codes. The same approach was taken for the ICES VMS/Logbook data call. For WGBYC, there is still ongoing work for the RDBES to take over their data call format, within a few years. The group is also improving the description of the métiers. It aims to develop a more hierarchical structure from level 4 to level 6 métiers that ideally would result in a public report for the data submitter. The reference lists and scripts are already available on GitHub (https://github.com/ices-eg/RCGs/tree/master/Metiers).

The collaborative work of the ISSG followed up on issues and problems that might occur during this year's RDBES data call, especially when assigning métiers to data-poor official data (e.g., in CE files) and improved the assignment scripts in this regard.

The ISSG will continue collaborating with the ISSG SSF on further developing gear codes and effort calculations, as well as with the RCG MED&BS to implement more regional métier codes and harmonize the assignment between MS.

The ISSG on electronic monitoring technologies (EMT) started their work in 2022 and presented the first draft of a work plan during the TM. The focus of the ISSG for the coming year is to create an overview and collect information on new ways and tools developed to improve and ease fisheries data collection. The group aims to coordinate their work with the ICES working group on Machine learning in Marine Science (WGMLEARN), e.g., when setting up inventories of REM and EMT methods and projects used in different MS. During the TM, it was agreed that every MS would assign members for this new ISSG.

Additionally, to the new EMT ISSG, three invited speakers presented their work in the session of "New data sources and technology" during the meeting:

- "Rayscan" is an automatic artificial intelligence identification application, which supports fishers with the accurate identification of skates on board fishing vessels and in fish auctions. The app was already presented in last year's TM but is now launched and used.
- "OceanBox™", an automatic data collection, storage and processing device. The device works as a "black box" onboard a fishing or research vessel and automatically collects operational data and fish school observations. The collected data is stored in a cloud-based, specially designed data storage and sharing system. These fish stock and environmental data can be generally valuable for fisheries management and might serve as an additional source of information on fishing activities and fish school sightings.
- "WKEVUT", the Workshop to Evaluate the Utility of Industry-derived data presented their work. The group assesses the quality and potential of industry-derived data to enhance scientific knowledge and provide stock assessment data. WKEVUT provided an overview of fishing industry data provision initiatives and compared such initiatives with data from National Sampling Programs to assess the added value in terms of quality, ecological understanding and utility for stock assessments.

The ISSG on Surveys worked on the renewal and finalization of the multilateral agreements on cost-sharing of the two surveys: the International Ecosystem Survey in the Nordic Seas (IESNS, also known as ASH under the EU-MAP) and the International Blue Whiting Survey. The ISSG discussed COVID-19 effects on the surveys and noted that only a few (national parts) of the surveys had to be shortened or cancelled without an immediate replacement. In some cases, other countries could cover the affected areas/tasks. However, breaks in data series might occur and should be reviewed in data groups.

The group will develop a summary for each survey and if a cost-sharing agreements need to be established, monitor the possible ongoing implication of international crises on surveys and monitor/support the regionalization process in collaboration with ICES.

Within the ToR 2, feedback was also given from the output of the WGRDBESGOV (previously the SCRDB). The updated roadmap for RDBES development was reviewed. The RDBES data call will now include all stocks, and the database is likely to be functional and sued for stock assessments (trial period) in 2023/24. Whilst the focus remains on detailed commercial fisheries data, the potential inclusion of different types of fisheries data in the RDBES and the RDBES Data Policy was discussed, and some changes were recommended. For 2022-2023, the focus will be on optimising the RDBES work and correcting bugs during the test data call. Later specifications and development of more refined exports, extended security and the possibility to view data are needed and will be developed during 2022, ranging into 2023. Several WKs are planned for autumn 2022 and

spring 2023 focusing on the estimation routines and assessment estimates, using RDBES formats. All MSs were asked to take the new timeline into account and participate in the upcoming workshops.

The feedback on the RDBES data call reviewed the success and timing of the RDBES data uploads. While all MSs uploaded their 2021 commercial fisheries data (census data and sampling), some MSs struggled with keeping the deadline (fewer in 2021, though). As many ISSGs will depend on the RDBES data, the data call in 2023 will emphasize the importance of the deadline, and MS should be supported to match it. To expand fisheries-dependent data collection and accessibility, and improve data quality and validity, more and more it is looked at new data sources such as electronic monitoring (EM), artificial intelligence (AI), genetics, etc. The RDBES data was improved and extended to fit the data needs of WGBYC and WGBAST. The call was launched in time, and MSs are encouraged to provide their work in the TAF system as well.

ToR 3

The task to determine the impact of management measures on data collection was carried out by analysing responses to a questionnaire sent to MSs before the TM. The ISSG 'End Users and RCGs' questionnaire was intended to collect information on the influence of various factors on data collection from commercial fisheries and research surveys, on a stock level, from 1st and 2nd quarter of 2022. The coronavirus pandemic is still the most frequently recorded impact factor. However, when comparing the results with the outcomes from the coronavirus questionnaire covering the years 2020 and 2021, it can be concluded that the severity of the impact has had a downward trend since 2020. Another type of identified factors is related to legislation concerning e.g., fisheries closures or landing restrictions. Last but not least, is the impact caused by the war in Ukraine, which increased fuel prices.

The outcomes from the analysis of the answers provided in the questionnaire will form the basis for identifying data gaps in the stock assessment work.

The analysis of responses to the questionnaire will continue for the remaining quarters of 2022. At the same time, following feedback from members of the RCG NANSEA Baltic, the ISSG 'End Users and RCGs' will work on a modified version of the questionnaire, which will be based on sampling schemes defined in NWP.

ToR 4

Relating the development and implementation of RWPs was progressed this year through the work of several intersessional subgroups and RCG sub-groups as follows:

Feedback from ISSG 'Optimized and Operational Regional Sampling Plans': This overarching group is in charge of developing guidance for the development of optimized and operational RSPs and addressing the 'theoretical gaps' encountered when evaluating the RSPs with present simulation tools. In 2021-2022 the three ISSGs for RSP case studies (i.e., Iberian trawlers, Freezer trawlers, and Baltic small pelagic) indicated that they were fully occupied in the process of development, and no support from the overarching group was needed. Consequently, the work of this ISSG was put on hold.

Feedback from ISSG 'Case study of fisheries for small pelagics in the Baltic': RCG Baltic agreed to use the fisheries for small pelagic species as a case study for developing a regional sampling programme in the Baltic Sea. The ISSG has worked on understanding the documentation needed to frame a RSP into table 2.5 in the WP by combining the lines from the participating countries workplans. This showed that the degree of comparison depends on the agreed level and status of ambition for the different focus areas. As a result, during the TM, it was decided that a physical workshop should be dedicated to learning how to fill Table 2.5 for RSPs.

Furthermore, the ISSG worked and will continue to work on a regional version of Annex 1.1 where the ambition levels are aligned and the quality aspects agreed within the RSP are captured.

Feedback from ISSG 'Case study freezer trawler fleet exploiting pelagic fisheries in the Northeast Atlantic': a few years ago, the RCG NANSEA identified the EU freezer trawler fleet targeting small pelagic species in the North Atlantic and the North Sea as a potential candidate for the development of a regionally coordinated sampling plan. In 2021/2022, the ISSG developed a setup for a pilot study for the North Sea herring fishery in quarter three based on the data collected within the Dutch observer programme. The next step is to conduct the developed pilot study, which will meet the requirements for assessment data collection and bycatch monitoring.

Feedback from ISSG 'Case Study of the trawl fishery in Iberian Waters': The ISSG assessed the feasibility and suitability of a RSP to be tested through a pilot study. To this end, the ISSG considered two scenarios from the FishPi2 project. An assessment showed that both scenarios could not be implemented in all the ports planned due to limitations in funding/contracting. For some ports, limitations are expected to be solved shortly, while for most ports, limitations cannot. Since it is expected to be feasible to change the conditions from 2026 onwards, the ISSG is of the opinion that implementing a pilot study should be programmed at that time.

Feedback from ISSG 'Evaluation of the data collected for the SSF at EU level': the ISSG worked together with the ISSG on métier and transversal variable issues on the improvement of the allocation of metiers in the case of SSF and the issue of harmonisation for effort estimation. The report of catch and effort overviews was also provided for the SSF for the three regions. One of the issues discussed during the TM was the usefulness of the fisheries overview reports. Although these reports have been produced for the SSF for the last few years, the subgroup's impression is that they are not being used to their full advantage, even though they provide a lot of relevant information. For this reason, one of the most important tasks for the coming year for the ISSG will be to review these reports in detail to see how they can be used to improve the data collection of the SSF fleet at a regional level.

Feedback from ISSG 'Identification of case studies for PETS bycatch monitoring': as a lot of work is being carried out on issues related to PETS bycatch by different ICES groups and through European projects where most ISSG members are involved, all tasks that were planned for the period 2021-2022 for this ISSG were considered as work in progress. In addition, a template was prepared to identify (i) differences in the information collected in logbooks on variables that are essential for bycatch estimates by different countries, and (ii) the main gaps and thus provide some recommendations on how to collect the necessary information. Another important task for this ISSG was to keep in touch with the main end-users and see their needs.

Feedback from ISSG 'Diadromous fishes': the ISSG found that the communication with the relevant ICES EGs has strengthened. The annual meeting of this ISSG was postponed until autumn, so the output of relevant workshops can be considered. It may contribute to helpful improvements in data collection for future assessment. Data collection activities on diadromous species are not coordinated at regional level. However, some potential elements in data collection may be possible to construct under a RWP in the medium term.

Feedback from ISSG 'Recreational fisheries': most of the work plan objectives of this work season could not be finished, as the group strongly relies on the data output and exchange with ICES WGRFS. At the time of the TM, the annual meeting of WGRFS was not yet possible, which consequently did not allow for coordination and feedback with the ISSG. The ISSG reviewed and updated their work progress that could be done without the WGRFS input.

Feedback from ISSG 'Regionally coordinated stomach sampling': the main objective of this ISSG is to establish a regionally coordinated stomach sampling programme in European waters, starting with the North Sea, Skagerrak and Kattegat as a case study. Using the International Bottom Trawl Survey (IBTS) as a platform to collect stomachs. The rolling 5-year stomach sampling scheme has been improved based on input by the IBTSWG in combination with species distributions of sampled species. The ISSG sees a group to regionally coordinate stomach sampling in different areas of the North Atlantic as necessary. However, until such a group is established, the RCG ISSG on Stomach sampling should serve as a provisional coordination group that will coordinate the regionally coordinated stomach sampling in the North Sea, Skagerrak and Kattegat. The expectations of many potential end-users involved in stomach sampling were collected through an online questionnaire by the Fishn'Co project and summarized by the ISSG. Furthermore, the ISSG proposed a plan for the repartition of the stomachs that have been and will be collected. This plan is based on actual numbers of fish collected during IBTS Q1 2022, expected numbers for the subsequent surveys, and the option of having three countries selected as Stomach Analysis Centers. These countries will be able to receive and analyse samples collected by all countries.

ToR 5

Regarding ways to improve the regional coordination and feedback on regional issues, the outcomes from Fishn'Co and SecWeb project and ISSG & SG 'National Correspondents' work were reviewed.

Feedback from 'Fishn´Co project': As part of the Fishn'Co project work, a large consultation was prepared and sent to all NCs. This consultation was meant to prepare the discussions in the RCG 2022 TM regarding the development of RWP, based on RCG/ISSGs ongoing work and Fishn'Co contribution to adapting all coordination initiatives in a RWP format. The specifics of this consultation were to inform NCs on the work progress of the Fishn'Co project and ask for feedback on the overall setup of RWP and NWP and the suggested decision-making process for future RWP. Almost all NCs had responded fully to the consultation. The summary of responses to the consultation and a synthesis of comments and identified ways forward were prepared for general principals of RWP and for individual parts of the content of RWP. The full detailed outputs will be available later and before the September 2022 NC meeting as a deliverable of the Fishn'Co project. Additionally, it was agreed that ISSG 'Development of Draft Regional work plan' will be resumed to continue work after the Fishn'Co project ends.

Feedback from ISSG & SG 'National Correspondents': The work on revising and merging of RoP for the Baltic with RoP for the NANSEA has been finalised. At the DM in September 2021, the NCs from the countries concerned unanimously adopted the revised RoP. In the WP2 of the Fishn'Co project, a proposal for decision-making structures for the adoption of RWP has been formulated and submitted to NCs for comments. After analysing the relevant regulations, it was concluded that RWP does not need to be officially adopted. As an alternative approach, it was suggested that RWP could be designed in the form of a 'book of agreements' between the concerned MS. The NCs at the RCG Baltic and RCG NANSEA agreed to recommend that all elements included in the RWP will be based on the agreement made by the MSs (NCs) concerned. In addition to work related to WP in the upcoming season, the ISSG will deal with the potential effects of Brexit and coordination between RCGs and third countries.

Feedback from 'SecWeb project': A status of the SecWeb project was presented at TM. SecWeb started in January 2021 and was established to develop necessary tools to support and increase the visibility of RCGs' work. The project is organised in four work packages covering the support structure for RCGs, website development, long-term implementation of activities and coordination and management. It is broadly

recognised and accepted that the Secretariat of the RCG has added value to the network, and most countries have expressed support to continue the secretariat support service. As the project formally ends at the end of 2022, the financial and administrative options for the continuation of the Secretariat Service to the RCGs were discussed at the TM. A document explaining the plan proposed will be prepared, the fees' assignments, and the type of commitments to be adopted by the MSs, as well as a synthesis of the service that will be offered through the payment of the fees by the service provider to be hired. This document will be sent to all MSs for their approval. A short extension of SecWeb will also be explored to guarantee sufficient coverage of the preparation period.

ISSGs for season 2022-2023: The setup of working intersessional has proven to be successful in achieving the goals to make regional coordination efficient on a regional scale. The TM endorsed the suggested next steps for the different ISSGs; details can be found in this report under each ISSG chapter. One active ISSG (Case Study on the trawl fishery in Iberian Waters) will be put on hold due to no activities planned for 2022-2023. The ISSG on "Data Quality" will remain on hold for 2022-2023. In total, 17 groups (including two ICES RDB groups) are expected to actively work on different tasks within different topics during 2022-2023.

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1. Administrative details

Regional Coordination	Regional Coordination Group North Atlantic, North Sea & Eastern Arctic (RCG NANSEA) Regional Coordination Group Baltic (RCG Baltic)
Year of Appointment with the current cycle	1
Reporting year within the current cycle (1,2 or 3)	1
Chair(s)	RCG NANSEA: Harriet van Overzee, Netherlands & Dália Reis, Portugal RCG Baltic: Sven Stötera, Germany & Maciej Adamowicz, Poland

Meeting venue	Meeting dates
Virtual Meeting	25 May 2022
ILVO headquarters Oostende, Belgium (Hybrid meeting)	7- 10 June 2022

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2. Terms of Reference

1. Propose ways to improve the alignment between data collection and end-user needs (by region)

- Define end user needs and assess how they are met by current and future data collection.
- Define and suggest mechanisms for communication and implementation of end user needs.
- Feedback from ICES end user groups and RCG feedback on their recommendation.
- Improve regional cooperation for small scale fisheries and assessing effects on the ecosystem.
- Formulate recommendation(s) for revision of EU-MAP to ensure that it is in line with end user needs.

2. Implement and maintain data quality in data collection

- Assess the documentation of data quality procedures.
- Update on fisheries overview and sampling overview.
- Update on development of RDB and RDBES.
- Review the outcome of regional orientated projects and other groups.
- Develop strategy for implementation of electronic data capture (REM).

3. Review impact on management measures on data collection

4. Development and implementation of Regional Work Plans

- Identify and propose potential regional workplans.
- Review and evaluate the outcome of regional orientated projects to identify template, content, actions to be incorporated in regional workplan.
- Optimizing the use of surveys: efficiency, multi-purpose & task sharing Decisions and actions to be taken.

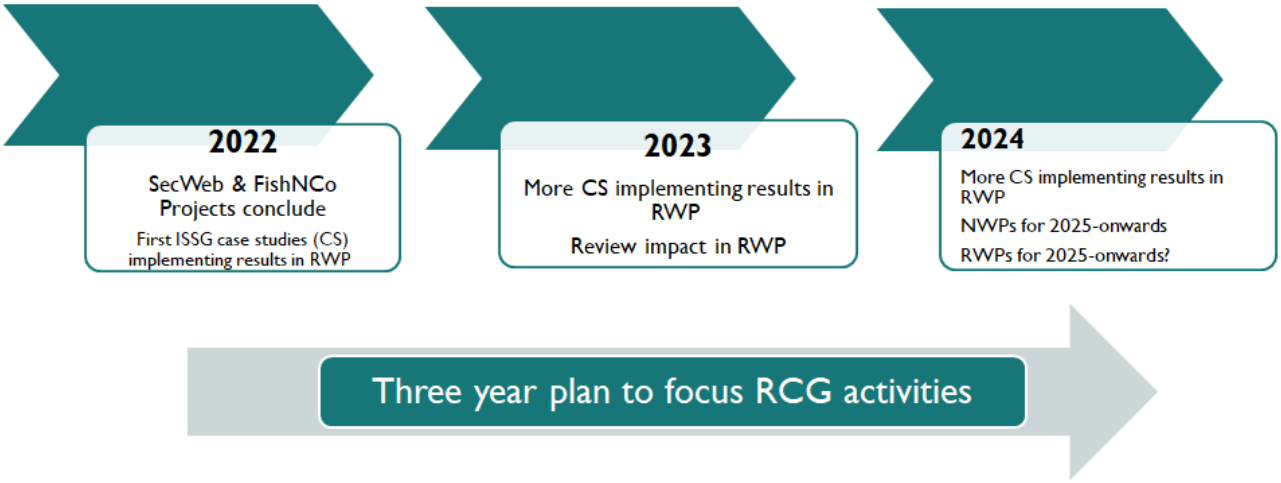
5. Propose ways to improve the regional coordination and feedback on regional issues

- Review and evaluate the outcome of regional orientated projects.
- Develop & adopt tools and working procedures for more effective regional cooperation and coordination.

6. Support of ToRs

- Promote publication on findings, likely in the form of peer-reviewed publication (e.g. CRR) that documents the development of methodologies in the field of regional coordination & data collection and the state of scientific knowledge on the topic at the end of the 3-year TOR period.
- Identify pilot studies. Decisions and actions to be taken.

3. Summary of Work plan RCGs 2022-2024



	Year 1 (2022)	Year 2 (2023)	Year 3 (2024)
End-user Needs	***Fine tune dialogue & assess additional needs***	***Fine tune dialogue & assess additional needs (cont.)***	***Fine tune dialogue & assess additional needs (cont.)***
	Review end-user feedback (Benchmark, SID, Data calls, Surveys) Agree on additional/obsolete parameters. Exchange of recommendations.	Cont. review end-user feedback (Benchmark, SID, Data calls, Surveys) Agree on additional/obsolete parameters Exchange of recommendations.	Cont. review end-user feedback (Benchmark, SID, Data calls, Surveys) Agree on additional/obsolete parameters Exchange of recommendations.
Data Quality	***Adaptation to RDBES***	***Adaptation to RDBES***	***Adaptation to RDBES, electronic data capture***
	Adapt to RDBES data format. Templates for benchmarks. Review validation methods. Overview of present EMT methodologies.	Adapt to RDBES data format. Templates for benchmarks. Review validation methods. Overview of present EMT methodologies.	Complete adaptation to RDBES. Complete strategy for implementation of EMT.

RCG NANSEA AND RCG BALTIC 2022 REPORT - Part I

Summary of Work plan RCGs 2022-2024

	Year 1 (2022)	Year 2 (2023)	Year 3 (2024)
Regional Sampling Plans	***Review & progress***	***Review & progress***	***Finalise***
	First case studies implement results in RWP.	More case studies implement results in RWP. Review implementation of CS in RWP.	More case studies implement results in RWP.
Regional Work Plan	***Consultation***	***Development and submission***	***Assessment and integration***
	Consultation on the development and adoption of RWP. Agree on RWP building blocks.	Development and submission of RWP 2025-2027.	Assessment of RWP. Integration of RWP to NWP.

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4. List of Outcomes and Achievements of RCG NANSEA and Baltic in this delivery period

During the first year of the 3-year term of RCG NANSEA and of RCG Baltic the work under each ToR has been carried out by designated inter sessional subgroups (ISSGs). During the RCG TM ISSGs presented their main outcomes and asked for feedback to the group. As a result of the discussions, decisions, recommendations, and tasks for the ISSGs were agreed.

The RCG NANSEA and RCG Baltic 2022 report is composed of three parts:

- The overview of the work done by ToR at the 2022 Technical Meeting (TM) can be found in this Part I of the report.
- In Part II the recommendations and decisions endorsed by the RCG are presented. They will be looked at during the Decision Meeting (DM) in September.
- Detailed progress, outcomes and deliverables achieved in all ISSGs are described in Part III report "Reports on intersessional subgroup (ISSGs) work 2021-2022".

5. Progress report on ToRs and workplan

5.1 Propose ways to improve the alignment between data collection and end-user needs (by region)

During this year's meeting, progress has been made under ToR 1 as follows:

- Feedback from the European Commission
- Feedback from ICES
- Presentation on genetic methods in data collection
- Feedback from the ISSG 'End-users and RCGs'

5.1.1 Feedback from the European Commission

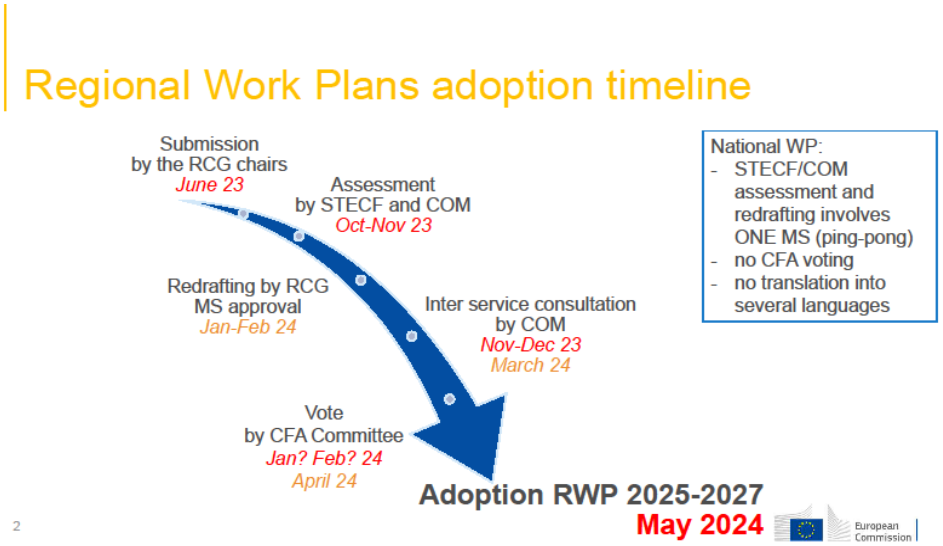
The COM gave a presentation on the timelines for RWPs, comparing adoption versus agreement as well as presenting several general points for information. The submission of NWPs includes the submission by MS October 15th, a dialogue or *ping pong* between COM and MS with request for modifications as per STECF experts' comments normally followed by the approval and adoption process through the COM. There is an inter-services consultation where services usually agree with (or without) comments. For NWPs, the adoption legal act goes to translation but not the WP itself.

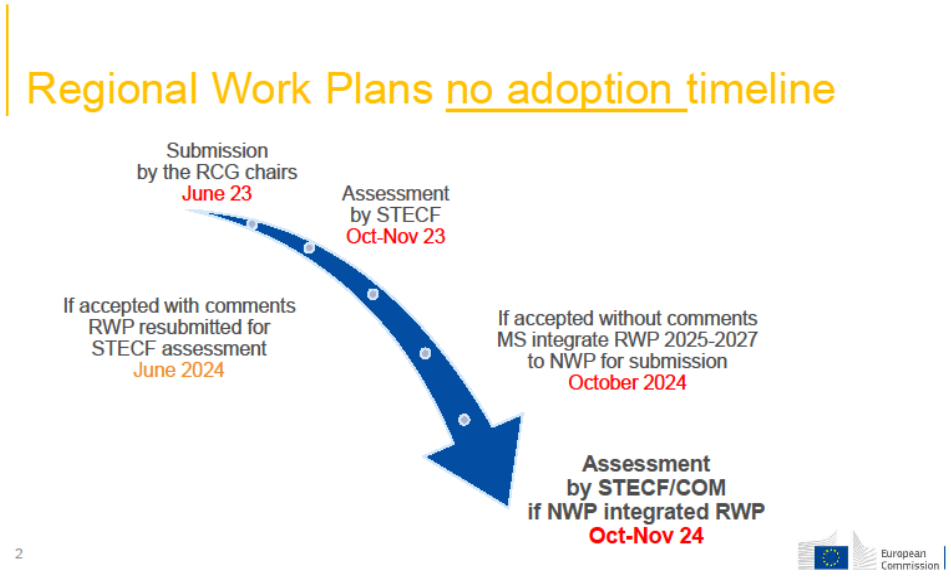
STECF EWG 21-17 commented on the timelines for RWPs (section 3.2) and stated that "*The EWG is of the opinion that NWP should contain both national information* ***and*** *the RWP information relevant to the MS (see note under point a). This could be through a summary or references to each RWP text file for regions relevant to the MS*". This implies that as most MSs will submit a new NWP in October 2024 for adoption and implementation by 2025, the RWP has to be compiled by the RCG by June 2023 and presented during the TM in June 2023 for MSs to include in the NWPs. The adoption timelines of a RWP are somewhat uncertain because this process has not occurred before, but the following aspects have to be considered: If the RWP is submitted by October 2023 and there is no need for modifications by STECF, the inter-services consultation may be more difficult than in the case of single NWP, and the COM might ask for more feedback from the RCG. There is a need for a vote in the Committee for Fisheries and Aquaculture (CFA), where all MSs are present and have to vote, including MSs not implicated by the RWP. The legal document has to be translated in all languages. Additional delays can occur if modifications are requested by STECF/COM and these need feedback and approval from the NCs.

An alternative approach can be to agree on a RWP without legal adoption. If the RWP is not adopted by COM but agreed at RCG level, there will be two documents to testify this adoption: firstly, the RCG report, which could include the agreed RWP; and secondly the STECF EWG report, which could include the RWP. Then, if there is a need for modification arising from the STECF WP, it can still be re-evaluated by the following EWG on AR (in June 2024). In both cases, there is enough time for MSs to incorporate the relevant parts of the RWP into their NWP (as STECF EWG 21-17 proposed). STECF and COM will assess the NWP, including their regional part which should mirror the RWP (already submitted and known by COM and STECF). Factors to consider when deciding on going for formal adoption or not are: the longer timelines; the less flexible nature of a RWP and the vote by the CFA. In addition, the COM may adopt implementing acts laying down rules on procedures, cost-sharing arrangements for participation in research surveys at sea, among others but currently cost sharing agreements work without going into implementing acts.

In the follow up discussions, RCG members highlighted their concerns on the tight timelines if going for a formal adoption. If going for a RWP without adoption, the question arose whether there is a danger that MSs would not follow the RWP. COM explained that it could still reject a NWP which does not include the agreed RWP. In the 2021 exercise, COM sent back comments to MSs on the inclusion of agreed RWP parts which were not included in their NWP. Participants discussed that the development and implementation of a RWP is going through a learning phase. The Fishn'Co questionnaire highlighted that 80% of the NCs are open for a non-adoption. The other 20% considered that the adoption of a RWP is the ultimate goal, but the timelines are open. The recommendation of going initially for a non-adoption was proposed for discussion with the NCs during this TM.

Diagrams for possible inclusion:





Other updates from the COM included:

- The stakeholder conference on" Taking stock of the EU Common Fisheries Policy", took place on the 10th of June, 22. Further info, presentations and the stakeholder report are available via: CFP Report Stakeholder Event 2022 - Info (b2match.io).
- The 2022 Seminar on Fisheries Science takes place on the 24 June 2022 as a hybrid event and focusses on the implementation of an Ecosystem Approach to Fisheries Management. Registration link: 2022 Seminar on Fisheries Science - New Registration (eventscloud.com)
- The Action Plan to conserve marine resources and protect marine ecosystems will be launched later this summer. It aims to build bridges between the environmental and fisheries policies as a means to provide a strong contribution to the delivery on the objectives of the Biodiversity Strategy, as well as current obligations under both fisheries and environmental legislation.
- STECF new appointments are published on the STECF website.

5.1.2 Feedback from ICES

ICES gave an overview of communication means regarding data needs and data transmissions for as well as general issues concerning data for advice. Developments in terms of setting up data calls and data transmission through the Stock Information Database (SID) facilitating a more streamlined process were presented as well as the BOG and recommendations put forward to the RCG from ICES expert groups. The presentation generated some discussions of which the main points are listed below.

Communication in general

ICES finds that there is a very good dialogue with RCGs Chairs, both formal and informal. ICES has now a dedicated Officer for the RCGs linked to the Benchmark Overview Group and data groups which should facilitate that the overall information flow is coherent across relevant groups in ICES, at least in the Secretariat. ICES Secretariat is following the development of the SecWeb project with great interest and see this as a potential good communication platform. ICES Secretariat and SecWeb met during spring 2022 to share experiences and future wishes and agreed on a continued work on improving visibility of RCGs (and RCG secretariat) through ICES community.

In terms of recommendations, a new process has been established by the RCG Chairs and the ICES Secretariat. A meeting with NANSEA/BALTIC chairs and ICES Secretariat is scheduled for late summer/early autumn to coordinate after new list of RCG recommendations to ICES is published with the TM report.

Stock Information Database (SID)

Using SID as a repository for the data needs for each of the stocks has been implemented and it has facilitated more efficient and streamlined data calls. The ability for data providers to access and download upcoming data needs immediately after the working group termination is working well, though experts still need to be encouraged/helped to get this done. A more user-friendly access to up-to-date Issue Lists for all the stocks (SiD) is being implemented and the landing page for SID will be available soon with links and instructions for all modules making it easier to navigate and a user-handbook is being developed, including among other things R-scripts for easy extraction from SiD.

In terms of data transmission failures and their reporting, the data submitter feedback module has been implemented (SiD datacall). Access to this module is granted individually (77 data submitters already have access). This pre-screening by data providers has reduced the non-transmission failures.

Data calls

Having the expert groups as early as possible to draft the data call text was encouraged and the SiD module for data calls facilitate the 'pre-warning' of upcoming data calls. The 'big' data call is kept as stable as possible between years to facilitate an easy handling and as well some sort of predictability of data needs for the data submitters.

The RCGs asked for a more structured overview of the end-user needs on survey and catch data, ICES will explore whether SiD could be useful for this in terms of getting a structured, condensed overview of these needs. ICES acknowledged that the timing of data calls is sensitive, it was encouraged that the experts in the relevant expert groups and the data providers within the institutes as well had a communication flow, enabling a wider communication of upcoming calls. ICES Secretariat has established a GitHub project board to help manage the data calls in order to have a better tracking of the process timeline and facilitate quality control check points.

So far data calls are being drafted for upcoming work and there are potential data calls for benchmarks still being drafted by experts and as well separate data calls for DLS as ACOM has decided to implement WKLIFE X Annex 3 rules during this and next year. See below table for current overview of data calls.

***Table 5.1.2**.1. ICES Data Calls*

Description of data	Approximate issue date	Aim	Additional information
Data call on eel data	June/July 2022	In support of ICES advice on eel stock and factors affecting the stock	ele.2737.nea
Data call on WKBALTPEL benchmark	Q3 (tentative) 2022	Support the benchmark	her.27.25-2932; her.27.28; spr.27.22-32
Data call on WKGREENCOD benchmark	Q3 (tentative) 2022	Support the benchmark	cod.21.1; cod.21.1a-e; cod.2127.1f14
Data call on WKNORTH benchmark	Q3 (tentative) 2022	Support the benchmark	ghl.27.1-2; ghl.27.561214; reg.27.561214; reb.27.5a14
Data call on WKSALMON benchmark	Q3 (tentative) 2022	Support the benchmark	sal.nac.all; sal.neac.all; sal.wgc.all
Data call on WKSEABASS benchmark	Q3 (tentative) 2022	Support the benchmark	bss.27.4bc7ad-h; bss.27.8ab
Data call on WKMSYSPiCT benchmark	Q3 (tentative) 2022	Support the benchmark	pol.27.67; pol.27.89a; whg.27.89a and others
Data call on WKESLASMO benchmark	Q3 (tentative) 2022	Support the benchmark	rjc.27.3a47d; rjh.27.4c7d; rjm.27.3a47d

Description of data	Approximate issue date	Aim	Additional information
Data call WKABM benchmark	Q3 (tentative) 2022	Support of the benchmark	ane.27.8; boc.27.6-8; mur.27.3a47d
Data call on WKNSCOD benchmark	Q3 (tentative) 2022	Support of the benchmark	cod.27.47d20; cod.27.6a
Landings, discards, biological sample and effort data from 2022	January 2023	Support of ICES advice on fisheries opportunities	Deadlines for data submission for each WGs to be shared in December 2021.
Indicators of species distribution for advice on VME	February 2023	Provision of ICES management advice on VME's	Similar to previous years
VMS/Log book data for fishing activities in the Northeast Atlantic and Baltic Sea	February 2023	Provision of ICES management advice on spatial distribution and impact of fisheries	Similar to previous years
Annual observed bycatch, effort and estimates of bycatch rates for relevant species (marine mammals, seabirds, turtles and large elasmobranchs), associated to specific fishing gear types.	Q2 2023 (tentative)	Support of the ICES advice on bycatch of marine mammals, bird, turtles and large elasmobranchs	

Benchmarks

A list of planned benchmarks, associated issue lists and data calls are available on the SharePoint for benchmarks (accessible by RCG chairs). The Benchmark Oversight Group (the BOG) under ACOM evaluates the suggested benchmarks from the expert groups using an agreed prioritization process in order to recommend the list of benchmarks to be conducted in year+1 and year+2 to ACOM. The expert groups suggest the benchmarks using a prioritised Issue List overview and as well an outline of the feasibility of having all necessary data and documented science available for the scheduled benchmark. The BOG makes frequent updates with the selected benchmark processes in terms of status for Working Documents, etc., facilitating that all necessary material is ready at the time of the benchmark.

Survey naming

With offset in the STECF evaluation of surveys for a couple of years ago, initiatives have been taken to align the survey naming in the ICES advice sheets to be consistent and easily identified as input to the assessment. ICES will make this change stepwise, initiated in 2021 establishing a controlled vocabulary. The controlled vocabulary will be developed into an online database, facilitating searches as well as governance from 'both ends' (data providers and data users) during 2022.

ICES will check the controlled vocabulary with the names in the Annex of the EUMAP to see if a link is needed. This could be done in the online database.

Recommendations

The current recommendation system is including RCGs, where ICES groups can put forward recommendations to RCGs and the RCGs can also put forward recommendations to the EG groups, ACOM, SCICOM and Secretariat through this system.

ICES has established a group of relevant steering group chairs and the SCICOM chair who will review and 'sense-check' the recommendations put forward to the RCGs prior to sending them on. The RCG Chairs have been participating in a couple of meetings with the new 'revision group' where the remits of the RCGs were clarified and a guidance as to what type of recommendations that could be operational for the RCGs and what information is needed to support the recommendation was clarified. The review of recommendations will be done annually (or if needed, ad hoc) in the early spring to feed the recommendations forward to the RCGs in due time for the June meeting.

Sampling – covid-19 disruption

The overviews provided by the RCGs to ICES concerning the allocation of effort and sampling under the covid-19 disruption were considered very informative during the assessment group meetings, providing good background knowledge for interpreting the data collected during 2021. ACOM has made a guide to all assessment working groups concerning reporting of data deficiencies and their handling. These are included as an annex to all reports this year. In terms of data transmission failures, ICES will report these including the reasoning for them.

5.1.3 Genetic methods

Two presentations regarding genetic methods in data collection were given:

- Genetic methods in data collection (given on behalf by the PelAC)
- FishGenome Project

Based on the discussions regarding these presentations the ISSG EMT assigned itself the task for 2022-2023 to examine a possible pilot study with PelAC on genetic stock identification (see also section 5.1.1)

Genetic methods in data collection

On behalf of the PelAC and by invitation from RCG chairs, a presentation on genetic methods in data collection was given.

The Issue: Lack of accurate fish stock identification

Fish stock identification is an essential prerequisite for fisheries stock assessment (1). The central fundamental weakness that remains in many existing stock assessments is the inaccurate recognition, definition and delineation of 'stocks' for data collection and assessment. Traditionally, exploited stocks have been defined, assessed and managed according to geographical and political features or regions. Such is the case in the northeast Atlantic (FAO Major Fishing Area 27) where the European Union (EU) defines the term 'stock' as 'a marine biological resource that occurs in a given management area' and delineates and names stocks using ICES Statistical Areas (2). It is increasingly evident that the temporal and spatial distributions of most fisheries

resources are not aligned to these artificial divisions (3) and that biological populations are more dynamic and complex (4, 5). Whilst delineation by predefined area may be convenient for management and regulation purposes, accurately assessing the status, biomass and sustainable exploitation rates of stocks without knowing their biological (population) composition is impossible. Fisheries data may be confounded, which may mask changes in the abundance of individual populations and lead to biased estimates of population abundance and unsustainable exploitation of smaller populations (6). It is critical to identify the underlying population structure of fisheries resources in order to identify the appropriate level at which to aggregate or segregate data for defining assessment and management units. It is also important to be able to assign individuals in mixed survey and commercial catches to the population or assessment unit to which they belong (6, 7) in order to ensure the validity of data for inclusion in stock specific assessments.

The Solution: Whole Genome Sequencing based stock identification

Genetic assignment methods compare genetic data from individuals to genetic profiles of reference samples from potential source populations to determine population of origin for a given individual (8). Genetic stock identification methods have promised to address the deficiencies in other methods (e.g. morphometric, otoliths, parasites etc), yet until recently few studies have yielded results that have been integrated into effective management (4, 9, 10). Many existing genetic studies have been hampered by high cost, few analysed individuals, inadequate sampling coverage, low numbers of suitable molecular markers, laborious genotyping and low power to detect genetic structure. The advent of High-Throughout Sequencing (HTS) technologies has fundamentally changed the way in which genetic sequence data are generated and it is now possible to generate large Whole Genome Sequencing (WGS) data sets for non-model species, which facilitate the identification of genetic loci with high discriminatory power for specific population differentiation questions (11, 12). This is a more comprehensive approach than other commonly used approaches which rely on sequencing a subsection of the genome in the hope of finding informative genetic markers, e.g., Restriction site-associated DNA sequencing (Rad-Seq). Such non-exhaustive approaches may fail to identify important differentiation indicative of population structure and incorrectly conclude panmixia between what are in reality different populations. This is a potentially dangerous outcome and may lead to the unknown promotion of unsustainable exploitation of smaller populations.

The WGS approach for commercial fish species has been pioneered by Professor Leif Andersson's research group in Uppsala University, Sweden on Atlantic herring (*Clupea harengus*) through the ERC funded *BATESON* (*Dissecting genotype-phenotype relationships using high-throughput genomics and carefully selected study populations*) project (ERC Advanced Grant, LS2, ERC-2011-ADG_20110310), and the subsequent Norwegian funded *GENSINC* (*GENetic adaptations underlying population Structure IN herring)* project (Research Council of Norway project 254774). These projects have shown that the WGS approach is the only approach that is capable of identifying the true extent of the genetic differentiation between different populations of marine fish such as herring. The majority of the herring genome shows no differentiation between multiple populations across the entire distribution of the species. However, through WGS hundreds of genes contributing to adaptation show that herring populations are highly structured and display a significant level of local adaptation (11). Recognition of this is key to the accurate identification of populations and consequently delineation of stocks for the purposes of stock assessment, which can lead to development of sustainable management.

The Proof of Concept: Resolving current stock identification issues & incorporation into assessments

The data gleaned in these projects has been used in an applied manner through the EU funded project '*Herring in Divisions 6.a, 7.b and 7.c: Scientific Assessment of the Identity of the Southern and Northern Stocks through Genetic and Morphometric Analysis*' (EASME Service Contract EASME/EMFF/2017/1.3.2.1/SI2.767459). The primary

objective of this study was to assess the identity of herring stocks to the northwest of Ireland and west of Scotland (ICES Divisions 6.a, 7.b-c) in order to develop genetic profiles of the northern (6.a.N autumn spawning) and southern (6.a.S, 7.b-c) stocks, which could be used to discriminate the two stocks during times of mixing (13, 14). To this end the most informative genetic markers were selected from the aforementioned WGS projects and used to analyse a large set of baseline spawning samples (n = c. 4,800) which represented the herring populations from around Ireland and Britain. An assignment model was developed for the populations found in ICES Division 6.a, 7.b-c and was used to split 8 years of Malin Shelf Herring Acoustic Survey (MSHAS) samples (2014-2021, n = 5,725). The analyses confirmed that the existing delineation of the stocks, based on geographic and statistical divisions, was inappropriate and consequently input data for the assessment were confounded. This resulted in the development of baseless catch advice and potentially unsustainable management over multiple years. Accurate splitting of the survey data into its constituent populations has enabled separate assessments to be developed for the stocks and this has recently been accepted by the Benchmark Workshop on North Sea and Celtic Sea stocks (15) and incorporated into the assessment of these stocks at HAWG (16).

Further work utilising the WGS approaches developed for herring has also been undertaken on Horse Mackerel (*Trachurus trachurus*), through an industry funded project, and a panel of genetic markers capable of identifying the different populations has been developed (17). Preliminary deployment of this tool has confirmed the distinctiveness of the North Sea stock and has shown that the current delineation of the Southern stock may not be appropriate (17). Further coordinated wide-scale sampling and analyses are required to progress this work to the stage where it can be considered by ICES in the context of improving the existing stock assessments. More recently work has begun to initiate baseline sampling of Atlantic Mackerel (*Scomber scombrus*) and Blue Whiting (*Micromesistius poutassou*), which will undergo WGS as part of the European Reference Genome Atlas (ERGA) initiative, which is funded under Horizon Europe.

In conjunction with the identification of population structure and the development of informative marker panels for the species above, significant effort has been directed at standardising the sample collection and genotyping processes. To this end the industry has been actively involved in the development of a new Genetic Sampling Tool (GST) with LVL technologies GmbH & Co. KG, Germany (www.lvl-technologies.com), which increases the efficiency and quality of genetic sample collection and ensures standardised samples are collected without disrupting existing sampling protocols. This is essential if genetic sampling is to be adopted on a large scale for analysing fisheries survey and commercial catches. Such an increase in the adoption of this technology also necessitates the development of a standardised approach to processing and genotyping samples, which may be implemented by multiple institutes to analyse samples of the same species collected in different areas, without inter-lab collaboration issues. For example, if a single 'universal' panel of genetic markers for herring were available, which contained all informative markers for all herring populations identified through WGS, then it would be possible to develop an assignment model capable of assigning any herring of unknown origin back to its population of origin with a high degree of confidence and without the need to subjectively pre-select a subset of location specific makers to screen the samples with. This would represent a significant advance in the ability to ensure that the most appropriate data is included in stock specific assessments. To this end a new pilot multi-species SNP array (DNA TraceBack® Fisheries platform) has been developed by the Uppsala research team in collaboration with a commercial genotyping service provider. Version 1 of the array contains all the known informative markers, derived from WGS, for herring, horse mackerel and sprat (*Sprattus sprattus*) and the first trials are underway. It is possible to add genetic markers for more species to the array and to ultimately have a single array with all the genetic markers required for performing stock identification on any commercial species in the northeast Atlantic region. A significant benefit is the reduction

in the individual cost per species and per sample and the simplification of the coordination of analyses between institutes.

The Future: Widescale implementation for all commercially important northeast Atlantic fish species

The approaches outlined above are universal in their application and may be implemented in any fish species of interest. There are now no technological limitations in the ability to identify what populations constitute stocks, as they are currently defined. At the very least the alignment of populations with these stocks should be investigated to confirm that the bases of current assessments are valid. If not, then the projects above have also demonstrated that large scale genetic stock identification is a tool that can be incorporated into regular data collection programmes and lead to major improvement in the input data for species-specific stock assessments.

There are two major limitations to fully implementing this across a wider range of species; lack of a long term sustained funding source and a lack of standard sampling coordinated by national fisheries institutes. The coordination of sampling efforts is the most relevant issue for the RCG NANSEA. There is a need to start to incorporate standard genetic sampling into the regular biological sampling programmes undertaken on survey and commercial catches. This sampling should include both baseline samples and potentially mixed samples. Institutes should endeavour to build up archives of samples which can contribute to answering relevant stock identification issues once informative genetic markers become available. This proactive approach would rapidly increase the availability of suitable samples and increase the efficiency of future dedicated stock identification research programmes. It may also enable the retrospective assignment of mixed survey samples as seen in the 6.a, 7.b-c herring project which will facilitate the rapid incorporation of genetic methods into the development of population-based assessments.

Summary

- Stock identification is essential for stock assessment.
- Most assessments have inaccurate recognition, definition and delineation of stocks.
- As proven, this may be resolved through whole genome sequencing based genetic approaches.
- There are no technological limitations in the ability to identify what populations constitute stocks.
- The limitations are lack of sustained funding and lack of standard sampling.

Further information

For further information please contact Dr Edward Farrell, edward@kfo.ie and Professor Leif Andersson (leif.andersson@imbim.uu.se)

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FishGenome Project

Christoph Stransky presented the results of the FishGenome project, which is close to completion. This project is about genomics, which goes beyond stock id and looks at genetic methods as a proof of concept to improve the cost efficiency of research surveys and fish stocks assessments using next-generation genetic sequencing methods.

The FishGenome project is a service contract for EASME, following a request and with the policy supervision by DG MARE. The idea is that genetic methods could complement data collection methods, especially research surveys, and be more cost-efficient. It is aimed to test the feasibility and efficiency of several High Throughput Sequencing (HTS) techniques in fisheries research surveys for stock assessments and management. CSIC is the coordinator, collaborating with the Thünen Institute, CETMAR, IEO and the University of Balearic Islands.

The project included three tasks:

1. literature review;
2. pilot studies to test the new methods in the North Sea and the Mediterranean and
3. SWOT analysis and roadmap for future application (i.e., posterior analyses of the feasibility of these methods in the short and long term).

The work started by the end of 2018, and the first activities were directed toward a thorough State-of-the-Art (SoA) revision, followed by developing several pilot studies in two surveys (North Sea IBTS and MEDITS) for stocks of two relevant commercial fish species (cod and hake) in three different sea basins. Results suggested some substructures of populations. A genetic marker was found for sex determination which has potential for future methods. An exact age determination was obtained (so precise it can be aged by month). These methods can be used for stocks that can't be aged very well, such as hake. E-DNA proved quite effective for determining species and abundance, potentially increasing cost efficiencies.

For a broader scope and planning, the project looked at how to move forward regarding financials and resource requirements vs cost efficiencies, such as reducing ship time for a survey. The insight from the SoA reviews and the pilots enabled the strategic analysis consisting of a SWOT (strengths, weaknesses, opportunities and threats) analysis, a cost-efficiency analysis and the elaboration of the ultimate output: a detailed roadmap for the progressive implementation of the techniques into fisheries surveys and the assessments. The roadmap identified the steps and phases to progressively adopt genomics in data collection programmes by integrating methods in surveys, collaboration and coordination among scientists and the fishing industry to obtain samples, capacity building, and demonstrating their benefits (such as cost-saving).

After that, the whole range of techniques was presented, including the significant pros and constraints. For example, the difficulties around the large number of samples needed for the use of Close-Kin Mark-Recapture (CKMR), the use of restriction site-associated DNA sequencing (RAD-seq) as a supplementary tool to provide some valuable parameters for the assessment such as stock structure and sex assignments, the promising outcomes about the use of epigenetics for age determination of fish and the potential of environmental DNA (eDNA) to assess abundance in addition to the species composition.

The last part of the presentation was about the key elements used for the roadmap and the findings from the interaction with external experts. Some of them also participated in the RCGs network.

In the follow-up discussion, it was highlighted that any update and identification of the changes in the number of stocks, distribution, etc., will induce changes in the management. The connectivity could be studied in terms of changes in fish populations in different areas as happened through a regime shift in the North Sea. It is expected that there will be progress indeed, but these processes take long (time series are needed), and there is a need to balance the expectations. It would take a long process to make its way into assessment, advice and management, but the potential implications should be communicated to managers. Moreover, the standardisation of using genomic techniques in surveys and the need to set targets and priorities have been discussed. One of the key issues is that the information is reliable and accurate; still, there is a need to demonstrate that further. It does not mean there is no room to start with some species, but they need a detailed manual, roadmap, cost implications, etc.

Finally, the possibility of combining efforts of different sampling activities was discussed. For example, samples for setting the stock boundaries could be used for age determination (or the other way around). A potential pilot study might use the benchmark process to identify species to target and could cover several objectives (including FishGenome applications and stock ID). There was a general discussion on the way forward in terms of collaboration with the industry on the collection of genetic samples. It is possible, but using this data for the assessment of the stocks is very different because there is a need to guarantee the same quality checks as the data obtained through research surveys. Collaboration with the industry could take place in the context of the ACs or under other structures.

5.1.4 Feedback from ISSG 'End users and RCGs'

The aim of this subgroup is to review and streamline the dialogue between data providers (RCGs) and end-users in order to identify effective processes to meet end-user needs and allow the RCGs to prioritize its activity relating to future data collection, storage and transmission functions. The subgroup was established as a pan-regional group in 2018.

Progress during 2021-2022

During the RCG NANSEA and RCG Baltic TM in 2020 it was decided that this ISSG should have a more generic focus. It was therefore decided to keep the annual information meetings between ICES and the RCG chairs to ensure the good cooperation and to be able to follow the progress over time. As a result, one meeting took place between the ISSG, ICES and the COM in 2022. The two main topics discussed were:

(i) Recommendations
Following the initial discussions that were held in 2021 between the RCG chairs, ICES secretariat and the ICES SG & SCICOM chairs, both the contents and the route of the recommendations were further discussed.

(ii) RCG commercial sampling Covid-19 overviews
The RCG Covid-19 overview of 2020 and 2021 were presented.

Following the experience gained after analysing responses from the coronavirus pandemic questionnaire and in the face of recent events, the RCG chairs decided to update and restructure the questionnaire. The aim of this questionnaire is to collect information on the impact of various factors on data collection from commercial fisheries sampling and research surveys. The questionnaire was sent to all NCs with the request to fill in the questionnaire concerning the 1st and 2nd (covering April-May) quarter of 2022 before the RCG TM in June 2022 so analysis can be conducted during the TM (for further information see section 5.3.1).

Workplan for 2022 – 2023

- Continue with the designed questionnaire on the impact of various factors on data collection from commercial fisheries and research surveys
  - Collect data for remaining quarters 2022
  - Improve guidance for filling in the questionnaire
  - Evaluate and visualise responses
  - Consider restructuring the questionnaire for 2023 linking with sampling schemes defined in the NWPs.
- Communication channel between ICES and RCG chairs
- Communication channel between COM and RCG chairs
- Communication channel between end-user and RCG chairs

Proposals for Recommendation and Decisions

No proposals for recommendations nor decisions.

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5.2 ToR 2 Implement and maintain data quality in data collection

During this year's meeting, progress has been made under ToR 2 as follows:

Data Analysis and Quality

- Feedback from the ISSG & SG 'RCG catch, effort and sampling overviews.
- Feedback from the ISSG 'Métier issues'
- Feedback from the ISSG on 'Electronic Monitoring Technologies'
- Three presentations on 'New data sources and technology'

Surveys

- Feedback from the ISSG 'Surveys'

Regional Database

- Feedback from the 'WGRDBESGOV'
- Review of RDBES Core group

5.2.1 Feedback from the ISSG & SG 'RDB catch, effort and sampling overviews'

The active period of work of intersessional subgroup was from January until June of 2022. In total 16 persons is in the lists of participants. Unfortunately, only half of them is actively involved in the working process.

The tasks were prioritized and distributed along the year to provide to the end-users expected results. Main outcome was the incorporation of the feedback from RCG, NC and the production of WGBFAS species reports. For the annual fisheries overviews the introduction text was improved. For the sampling overviews, part of the feedback was incorporated and part of the bugs were fixed. Other tasks like the preparation of the national versions of the overviews, revising the size of the overviews and simplifying the code were postponed.

For the Baltic Sea, North Atlantic and North Sea and Eastern Arctic 9 separate fisheries overviews and 4 reports for WGBFAS were produced:

- 3 Annual fisheries overviews (one per RCG);
- 3 Annual overviews specific for SSF (one per RCG);
- 3 multiannual fisheries overviews per region (one per RCG);
- 4 overviews for WGBFAS (one per stock: cod, herring, plaice and sprat).

SG Work and Discussions

During the RCG TM, the SG reflected about the main objective of this ISSG, and concluded that it is to make RDB data accessible, firstly to the RCG, and secondly to other end users (ICES, COM, etc). It was also highlighted the need to have a mid-long-term objective where tasks are planned and prioritized. In order to accomplish these tasks, the group emphasised the need to recruit more people to the ISSG, specifically experts with knowledge in R, RMarkdown and Shiny.

During the subgroup time, a debate was open about the use of the overviews that this ISSG is producing, and the most urgent tasks that the group has at this moment, which is the adaptation to the RDBES data format (as the RDB will stop working next year). Below you can find the main ideas raised in relation to these topics:

Use of the data at the RCG

- The impression is that RCG ISSG are not really using the overviews, and it is fear to question why: are the graphs/tables fit for purpose? Do they need other information? If any other ISSG have a concrete need, somebody from that ISSG can join the RDB ISSG to develop it. That will increase the capacity of the RDB ISSG and will make the outputs fit for purpose.
- A message of calm was also sent, reminding that the overviews will be used when they are needed, just as any other report
- ISSG in SSF plans to revise the overviews and identify the graphs/tables which are useful for them
- The maps and graphs that we have now can be used by the RCG to have a broader discussion about the regional coordination of fisheries. In the past we used to do this exercise with tables compiling metiers and stock information. Now we have better tools to address it.
- Idea to publish some graphs in the web. The data licence will need to be respected, but it should be possible if we use aggregated graphs (even multiannual aggregated)
- Idea to produce some tables to help MSs filling the Annual Reports (AR)

Use of the data by other end users

- We have very positive feedback from WGBFAS. They used the graphs we provided in their report and found them very useful.
- The subgroup decided to adapt WGBFAS report for multiannual data and come up with a template for the benchmarks that will be held next year and show interest in having these types of overviews. The template will contain the most relevant figures they may need and should be agreed in advance. There is also a graph about effort and sampling distribution that we think will be very useful to have an idea of the sampling coverage, but didn't have time to develop.
- At the moment, according to the RDB data license, WGs cannot access the detailed data. As a consequence, WGs cannot produce their own reports and the RCG is the only group allowed to produce these overviews.
  This constitutes a major handicap for those stocks where non-EU countries play a relevant role in the fishery, as the RCG is only allowed to access the data of EU countries. In addition, there is a risk due to the amount of work which the RCG could need to afford if the use of these overviews is generalized among WG.
  In the future the access rules for detailed data may need to be revised, e.g., allowing WG to access the data in its area of interest.

Adaptation to RDBES

- This task is of high priority for the next year, as the RDB will not be working on 2023.
- A decision has to be taken on whether we adapt the whole code to RDBES format, which in the future will allow us to produce a higher diversity of outputs (e.g figures and graphs), taking advantage of the RDBES full potential; or we convert RDBES format into RDB format, to allow the use of the actual scripts and then work on the total transition to the new RDBES format in a later stage (this solution is easier and will be enough if we don't change the content of the overviews). This decision needs to be evaluated for each type of overview.

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- Regarding sampling data, the WGRDBES-EST is working on a master format for the estimation, which may be useful for this adaptation. The plan is to have the master table or an agreed format ready by September.
- Together with the adaptation to RDBES format, it makes sense to simplify the script of the annual overviews. Regarding this issue, the subgroup raised several ideas:
    - the advantage of a word/pdf document is that it is static, it can be used for referencing and can be approved (e.g., by NC). Interactive products (e.g., Shiny) depend on the input data available and are very flexible on the selection and aggregation of variables. As a consequence, they are more difficult to approve, as their conformity with confidentiality rules need to be evaluated for all combinations. An alternative is the HTML format, which perform as a static report, but is more easy to navigate than the word/pdf document.
    - The future code production shall follow the R style guide. The *Styler* package can be helpful in the harmonization of the code
    - The functions developed for the annual overviews are functioning very well and shall be conserved. However, the way they connect to the main code must be clearer so that people not involved in its development can perform the changes needed to incorporate the feedback from the end users. Help will be needed from the code developers of the annual overviews (e.g. Nuno, Martha, Hans, etc) to simplify the code and harmonize the linking of the different functions inside the main code.

Workplan for 2022 – 2023

- Adapt to RDBES code: landings, effort and sampling (this will take more than one year)
- Simplify the annual overviews code (html)
- Develop and test the template for the benchmark
- Decide the figures to be published in the web

Proposals for Recommendation and Decisions

NANSEA BALTIC_2022_R01:** ICES give download rights of RDB/RDBES data to ISSG chairs for the ISSG work.
** RCG LDF will give the same recommendation

NANSEA BALTIC_2022_D01a: agree that ISSG starts to collaborate with benchmark groups and gather their feedback to create a "template for RDB data overviews in support of benchmark groups" (to be presented at the next TM)

NANSEA BALTIC_2022_D01b: agree to provide the CBH benchmark group with a multi-annual RDB overview based on the WGBFAS document.

- As a case study. Depends on progress made on the templates of D01a and WGBFAS and progress within the CBH benchmark group.

5.2.2 *Feedback from the ISSG on 'Métier issues'*

Progress during 2021-2022

The work performed by ISSG "Métier and transversal variable issues" was planned and developed during online meetings between October (2021) and April (2022), and involved 19 participants.

The main achievements of the group are in line with the planned tasks of this ISSG for 2021/2022.

Regarding the follow up on and support for the implementation of métier codes and script (**Task 1**), the group contributed to:

- the revision of the new métier codes submitted to the 2021 RDBES test data call: an overview of the codes used and some of the results obtained were presented;
- work together with the ICES Data Centre to discuss the management of métier codes: It was agreed that the request of new codes needs the acceptance of this ISSG and, for that, it was defined a set of rules to be checked in order to support the decision and also the ISSG contact persons for performing those checks;
- discussion on the use of the new métier codes for the FDI data call in 2022: in 2 meetings held regarding this subject, it was agreed that it should be made possible to upload new métier codes as proposed by this ISSG, but also still allow to upload the old métier codes. The same approach was taken for the ICES VMS/Logbook data call. For the WGBYC, there is still an ongoing work for the RDBES to take over their data call format, within a few years.

For the **Task 2**, related to the description of the métiers, the group considers that, because of the high number of métiers (level 6), that information could be structured as one report by RCG and by métier level 4 (similar to the examples reported in RCG 2019) and then follow a hierarchical structure until the more detailed métier (Level 6). These reports will be very useful, especially for new data submitters, and should then be in a publicly available format.

The work developed by the group included also the testing and improving of the script (**Task 3**). To try and overcome the possible occurrence of high percentage of MIS_MIS assigned, especially for the SSF (when only sales notes are available), a markdown code was developed for comparing métier codes assigned by the script with the ones obtained with a Danish data assignment procedure. The results contributed to some improvements of the script used for métier assignment.

The collaborative work with the SSF (**Task 4**) allowed to discuss the particularities of that type of data (especially regarding the CE data) reported to the RDBES test data call. The data extracted from the RDBES showed that the MIS_MIS was not a major problem for this part of the fleet. However, as a test data call, it's possible that not all data was submitted by the MS's or it may be also the case of reporting some test data (e.g., experiments on the métier codes acceptance). Anyway, the assignment script has now the steps to handle the cases where it's not possible to assign a métier using the usual data sources (e.g., logbooks, daily reports).

One other point discussed by the two ISSGs was the effort calculation for the SSF. A brief review of the work performed in several meetings regarding the effort calculation for the SSF and the data sources available by country, along with the main outcomes are presented in the report. The main topic is that the data collection for the SSF is not as standardized as for the LSF, so different data sources are used to obtain the effort information (e.g., monthly reports, sales notes, questionnaires), and they usually rely on the number of trips/days at sea/fishing days. However, it is known that the main part of the SSF uses passive gears and, for

these, the relevant effort measures are the soaking time, net length, number of hooks, etc., which are often not reported. Taking this into account, and the fact that the new RDBES data model allows the possibility to report scientific effort (not obtained directly from official sources but instead estimated using a procedure and possibly other data sources available), it may be an opportunity to give use of some of the existing tools (e.g., *fecR* package) to work in the harmonization of the SSF effort data to be reported in the RDBES by countries.

At last, the **Task 5** refers to the collaborative work with the RCG MED&BS regarding the métier codes. The ISSG work was presented to that group in 2021 and some of their outcomes were the recommendation to update the list of métier codes for harmonization and collaborate with this ISSG by applying similar methods and criteria on métier assignment and exploring procedures for better identification of métiers at MS level. A case study from Greece was presented to the ISSG, where the métier code assignment procedure is performed using onboard sampled data from the DCF.

Feedback from the presentation on 25th of May

The work developed by this ISSG was found very productive and useful.

There was a question regarding the submission of the new codes in the several data calls and it was clarified that for the FDI and VMS data calls there will be the option to choose between uploading new and old codes. However, if the request is for a period back in time, it might be difficult to use the new codes. Also, regarding the Mediterranean and Black Sea some difficulties may be expected.

In relation to the SSF effort estimation to be reported to the RDBES data calls, using the *fecR* package, participants asked if the ISSG have already contacted the JRC (entity responsible for the package development) for adapting the code for the new RDBES data format. However, the use of the *fecR* package is one of the possible ways but first the group intends to send out a questionnaire to the MSs to get an overview on the use of that package for preparing data for the RDBES. Also, a revision should be made of the different scenarios that are described in the reports of the WKs that contributed to the development of the package. It is expected that after the information compiled by the group, it will be more appropriate to contact the *fecR* code developers to discuss the way forward for the adaptation of the code to the RDBES data format.

Taking into account the workplan proposed for the 2022/2023 period and the expected high workload, the RCG asked if there is a need for more people to integrate this group. If someone is interested in contributing to the tasks listed for the ISSG, they are encouraged to join the group.

Sebastien Demaneche (IFREMER) has accepted co-chairing the ISSG "Métier issues" for next season 2022-2023.

Workplan for 2022 – 2023

- Continue following and evaluating the **implementation of the métier codes** and maintaining métier and reference lists and script.
- Make **métier descriptions from the 2022 RDBES data** call (which is not a test data call for the CE and CL data).
- **Review the fecR package** (Calculating fishing effort) in relation to the RDBES data format.
    - This should include a review of scenarios where no logbook data are available.

- Possible collaboration with ISSG SSF and RCG MED&BS on this.
- Possible questionnaire on fecR package (are MSs using it for RDBES data preparation).

- **Link with the alternative fleet segmentation** suggested by RCG Econ to enhance the link between the two approaches. Analysis of the variation in métiers within the fleet segmentation.
- **Evaluate the use of cross-validation methods in MSs** to combine data coming from different declarative sources
  - The first step could be to collect information from all countries on data availability and methods.

Proposals for Recommendation and Decisions

No proposals for recommendations nor decisions.

5.2.3 Feedback from the ISSG on 'Electronic Monitoring Technologies'

This ISSG on Electronic Monitoring Technologies was established 2020 in order to ensure that initiatives taken in the EU MS on developing new electronic technologies and methods that can be used and improve fisheries data collection are disseminated. Due to Covid-19, little progress has been made in 2021/2022. The step taken was to define the topics this group should focus on in the future and these are listed in the ISSG report (Part III).

In general, the main focus for the ISSG for the coming year is to create an overview and collect information on new ways and tools developed to improve and ease collection of fisheries data. RCG NANSEA & Baltic therefore recommend a broad participation, all MS, in this ISSG as well as finding a co-chair supporting the suggested chair.

Inventory initiative is also taken within *ICES Working group on Machine learning in Marine Science* (WGMLEARN), and there is a need to make sure that the work is not duplicated.

Workplan for 2022 – 2023

- Provide an overview of present REM systems (camera and/or sensor system) in use for monitoring for science or compliance purposes.
- Provide an overview of the Analysers (software) in use for analyzing REM data and/or video footages.
- Provide an overview of app's developed for recording monitoring or catch data
- Provide an overview of app's developed to be used for species identification purposes
- Examine a possible pilot study with pel AC on genetic stock identification

Proposals for Recommendation and Decisions

NANSEA BALTIC_2022_R02: Each MS to assign at least one expert to participate in ISSG EMT and appoint an additional chair.

5.2.4 Feedback on 'New data and technology development'

The session on "New data and Technology Development" is an open theme session and invites external guests to present interesting and promising work done in the fields of data collection, data processing, machine learning, gear technology and other related topics. The goal is to not only get a better overview on what is recently done in enhancing data collection and technology, but also find synergies, potential case studies and to improve RCG work and development.

This year, three different presentations on "New data sources and technology" were given during the meeting, namely:

- RayScan
- Automatic data collection, storage and processing.
- Industry-derived data

RayScan

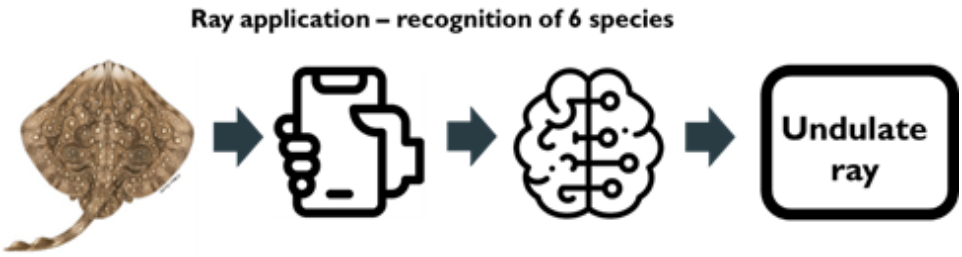
To support fishermen with the accurate identification of skates on board of fishing vessels and in fish auctions, ILVO and the federal public service health, food chain safety and environment are developing a smartphone app, called *Rayscan*. *RayScan* is an automatic artificial intelligence identification application that supports the determination of some European skate species. After a picture is taken, or uploaded of the skate, the application automatically determines the species.

The first and crucial step in this app development was the collection of enough data, i.e., images of skates, into a proper database. One of the nice things about this app is the fact that it will grow more accurate over time through use. Every time an identification is made, people have the option to share that observation. If they do, it will be added to the database allowing for increasingly accurate scans. This way *Rayscan* hopes to provide an answer to the problem of misidentification.

At the moment the application is only available in Dutch and the identification focusses on the most commercially important Belgian skate species. However, in the future ILVO is aiming at expanding this app and make it available in different languages and as well add more species of skates and eventually also sharks.

For further question, information or for becoming involved in the project

=> contact Laura Lemey (ILVO-Belgium) (laura.lemey@ilvo.vlaanderen.be).



Automatic data collection, storage and processing

OceanBox™ is a" black box" onboard a fishing vessel that automatically collects operational data and fish school observations. The collected data is immediately stored in a cloud-based specially designed data storage and sharing system which cannot be interfered with and enables users to process the collected data without manual handling. The collected data can be used to improve the fishing industry fishing operations efficiency (fish finding through advanced fish mapping and minimizing unwanted catch through pre-catch fish species identification). It can also be deployed on research vessels for automatic echosounder data collection and processing. The OceanBox™ collecting of fish stock and environmental data can be generally valuable for fisheries management as management advisory scientists and decision makers will benefit from an additional source of information on fishing activities and fish school sightings. This new source of data expands the general knowledge base on fish stocks. For schooling fish so called 'pelagic fish', the team behind OceanBox™ is currently developing a novel species identification and biomass estimation method based on school sightings from a fleet of vessels. This can be especially important in remote regions without existing fisheries research. With (rapid) changing fish distribution patterns, for example due to climate change, existing scientific data collection made by research vessels is often not fully adequate and this method can then provide important additional information.

Sustainovate AS, the company behind OceanBox™ believes that the industry's continued contribution to optimizing fisheries management is achieved by providing economic incentives for data collection. A key aspect here is a true integration of commercial and scientific data needs. The OceanBox™ data platform typically addresses commercial aspects such as data ownership retention, scalability, low effort and data security with typical scientific aspects such as ensuring high data quality, transparency of analysis methods, providing unmanipulated data and the ability to share data and results with third party analysts.

The software and algorithms have been developed and tested throughout several long-term R&D projects co-funded by the Dutch pelagic fishing industry and in close collaboration with scientific institutes from Norway and The Netherlands.

Industry derived data

The Workshop to Evaluate the Utility of Industry-derived data (WKEVUT) aimed assesses the quality and potential of industry-derived data to enhance scientific knowledge and to provide data for stock assessments. WKEVUT provided an overview of fishing industry data provision initiatives and carried out comparisons of such initiatives with data from National Sampling Programs to assess the added value in terms of quality, ecological understanding and utility for stock assessments. Industry self-sampling and co-sampling approaches

have been increasing in recent years. Especially the Covid years have led to more catch sampling and survey programs utilizing a form of self-sampling or co-sampling. Self-sampling is defined as a sampling strategy whereby the fishers are collecting and measuring the data on board, whereas co-sampling refers to the strategy whereby the fishers are collecting samples that will be processed by on-shore research Institutes. Other industry initiatives that were presented dealt with acoustic sampling and estimation of stock abundance, genetic and/or gonad sampling on board of commercial vessels and use of Remote Electronic Monitoring techniques as verification of self-reported catch compositions. The workshop addressed methods for quality control of industry-derived data. Overall, the workshop concluded that industry-derived data can add new types of information for scientific purposes.

Proposals for Recommendation and Decisions

No proposals for recommendations nor decisions.

5.2.5 Feedback from the ISSG 'Surveys'

The RCG NANSEA & Baltic 2020 specified the scope of the RCGs regarding surveys as follows*: "Given the expectation that survey designs, planning and task-sharing might change in the foreseeable future, RCGs are expected to play a more substantial role in the decision-making process when it comes to budget and/or national implications. The scope of the RCG will continue to focus on the budgetary aspects and national obligations in relation to proposed changes to a survey. It may be needed to rubberstamp and approve the current survey effort by MS to act as a baseline to measure and evaluate future modifications against. RCG mandates are described in the respective RoPs and these cover survey subjects as well."*

Following this scope, the ISSG on surveys aimed to underpin the more substantial role of the RCGs in the future.

Progress during 2021-2022

The ISSG on Surveys met online 9 December 2021 and 29 March 2022 and had a dedicated meeting on cost-sharing of surveys in Gothenburg/hybrid 17-19 May 2022.

ToR 1 (renewal and finalization of the multilateral agreements on cost-sharing of the two surveys) was completed by agreeing on and finalising the multilateral cost-sharing agreements for the ASH and WHB surveys for 2021.

The ISSG discussed COVID-19 effects on the surveys and noted that only a few (national parts) of the surveys had to be shortened or cancelled without immediate replacement (**ToR 2**). In some cases, other countries were able to cover the affected areas/tasks; in other cases, gaps in the coverage or/and time series were unavoidable and had to be considered by the end-users (ICES) in terms of input data quality. During the RCG TM, we will have an update on the COVID-19 and Ukraine war effects (especially fuel prices) on the surveys. In addition, during the Gothenburg meeting, the ISSG briefly discussed the increase in daily costs for research vessels that will also lead to higher costs to be covered by the MSs within the currently cost-shared surveys (ASH and IBWSS).

Re. updates on ICES WKREO proposals (**ToR 3**), the ICES WKPilot NS-FIRMOG will take place Oct/Nov 2022 (chair: Ingeborg de Boois, NLD).

ToR 4 (review survey aspects of the renewed EU-MAP in the light of cost-sharing and set up methods to identify candidate surveys for future cost-sharing) and **ToR 6** (main focus on identification of candidate surveys for cost-sharing: Plan dedicated meeting e.g. January once TAC shares 2022 are known. Follow the existing methodology to identify candidates) are very similar and were dealt with together, mainly in the dedicated ISSG meeting (Gothenburg/hybrid) 17-19 May 2022. There is a separate report in the Annex.

The ISSG agreed that MSs need to inform the RCGs on major changes to the design/set-up etc. of a survey (**ToR 5/ToR 7**). In terms of survey effort reduction, the ICES WKUSER2 could be relevant for future co-ordination of surveys.

Table 2.6 and Text Box 2.6 have been completed and drafted for the RWP draft to be submitted in Oct 2022 (**ToR 8**), in collaboration with the Fishn'Co project.

Roadmap/follow-up

After presenting the results of the Gothenburg meeting (May 2022) to the RCG TM (June 2022), MS should check the overall outcome ('traffic light tables') and provide feedback if errors are found (e.g. number of survey days, overall distribution between MSs for each survey). Then, MS should give feedback on considerations for not participating in surveys where the MS would be expected to participate, based on the quota share, and indicate if the MS is happy to continue conducting the survey with the same effort.

Follow-up work of the ISSG consists of:

- developing a summary for each survey if the survey is OK as is, or if cost-sharing agreements need to be established;
- separate discussions to be held between MSs that need to come up with cost-sharing agreements to be signed and reflected in the NWP as well as in the RWP;
- considering a new ToR on 'new challenges in fisheries-independent data collection' with regard to e.g. the increasing demand of other uses of marine areas (e.g. offshore wind farms, nature protection sites, etc.).

Workplan for 2022 – 2023

- Renew the multilateral agreements on cost-sharing of the International Ecosystem Survey in the Nordic Seas (IESNS=ASH) and International Blue Whiting Survey (IBWSS).
- Identify candidate surveys for future cost-sharing, based on the Gothenburg 2022 meeting.
- Monitor implications (COVID-19, Ukraine war etc.) on surveys from a DCF perspective and react when appropriate and requested.
- Monitor the regionalisation process within ICES (e.g. WKPilot NS-FIRMOG) and act as focal point for RCG contact.
- Review proposed substantial changes to the design, set-up or other aspects of the survey having an impact on MS's Work Plan, effort and/or budget allocation, or obligations. Consider requirements to facilitate future review processes.
- Work on WP/AR Table and Text Box 2.6 (surveys)
- Discuss new challenges in fishery-independent data collection due to usage and protection of marine areas

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Proposals for Recommendation and Decisions

NANSEA BALTIC_2022_D02: Renewal cost-sharing agreements for WHB survey (IBWSS) (DK, IE, NL, DE, ES, FR, (SE)).

NANSEA BALTIC_2022_D03: Renewal cost-sharing agreements for IESNS survey (ASH) (DK, IE, NL, DE, SE).

5.2.6 Feedback from the 'WGRDBESGOV'

During RCG NANSEA and RCG Baltic TM, a presentation covered the following topics:

- The move from IC to RDBES
- The RDBES Development road-map for 2022, 2023, and 2024
- The RDBES Core Group
- Confidentiality and RDBES data
- Alignment between the RDBES and FDI
- Main message to RCGS

The move from IC to RDBES

The RDBES is planned to replace both the existing ICES IC and RDB database systems and has an important part to play in increasing transparency and improving the quality of stock assessment within ICES.

The RDBES Development road-map for 2022, 2023, and 2024.

Main milestones:

- 2022: the RDBES data call request for data for all stocks and includes bycatch/PETS. Test data call for MRF
- 2023: Regular data call for MRF. Estimation in TAF for selected stocks made by national institutes
- 2024: Estimation in TAF for all stocks made by national institutes.

Support available for the transition

Several WK have been planned for 2022, such as WKINTRO, WKRAISE&TAF, WKTAF. It is important that MSs take advantage of these support tools to do the transition.

The RDBES Core Group

The RDBES Core Group it is a group of 7 national experts, doing an essential to define what information the RDBES should contain and how it shall be structured. They need support from all MS, specialty from larger ones (ES, GER, FR). They also need an expert in MRF.

Confidentiality and RDBES data

According to the EU legislation, it is the MS responsibility to ensure confidentiality. EU Members need to comply with on the DCF (EU 2017/1004), and with their national rules for data protection. The essential problem is that at the required level of disaggregation it is common to have small groups of vessels in each

segment, and it is often difficult to propose alternative means to meet the end-user needs and ensure anonymity.

At present, data providers are using different approaches to ensure confidentiality when answering the RDBES Data Call. Some countries are providing their complete data, and others are removing data where there may be a conflict in anonymity. The WGRDBESGOV created a subgroup to analyse the situation and investigate the approaches used in other data calls facing this similar problem (VMS, FDI) in order to propose solutions.

The RCG expressed its interest in the subgroup and recommended that it has input from people from different backgrounds (COM, ICES, NCs, national experts, etc).

Plenary discussions were primarily focused on this issue. It was highlighted that detailed data needs to be available for stock assessment (ie data should not be suppressed by data submitters) and that restrictions should be applied to the expert group outputs (e.g., reports). It was argued that different data can have different levels of confidentiality (e.g., effort data could be considered less confidential than dolphin bycatch), and that special permissions might need to be applied for sensitive data such as PETS/bycatch. Finally, the importance to ensure that access to the data is dependent on the user was raised (e.g. stock coordinators should only have access to the data that is relevant to their work. In general, there was a consensus that RDB/RDBES data license is the key to ensuring confidentiality rules are defined and respected.

Alignment between the RDBES and FDI

It has been a desire since the inception of the RDBES that it can be used to fulfil the FDI data call. A subgroup has been created to make progress with this issue.

During the plenary discussions, there was a question regarding how FDI data confidentiality flags are applied differently by each MS, and how this may affect the creation of FDI reports from the RDBES. The RCG stated that core aims of the RDBES should not be compromised for the sake of using the data for the FDI.

Main message to RCGs

WGRDBESGOV wants to raise awareness in NCs and national institutes on the RDBES roadmap and its implications. The transition requires preparation on Institute level from today:

- to report aggregated landing and effort data in RDBES format
- To report raw sampling data in RDBES format (all data types)
- To prepare the national estimates under TAF
- To make the data processing (done in IC) under TAF
- To take advantage of the support provided in order to be in the loop (WKRDBES - INTRO, WKRDBES - RAISE&TAF…)

Proposals for Recommendation and Decisions

NANSEA BALTIC_2022_R03: Raise awareness among NCs and national institutes on the RDBES roadmap.

5.2.7 Review of RDBES Core group

The focus the last year

The RDBES is being specified by the Core Group, and the Core Group is doing a fantastic job, they focus have been on the following:

- The commercial landing (CL) and effort (CE). Several fields have been added and a lot of discussions
- Including bycatch and salmon and sea trout data

Bycatch

- The Core Group started the dialog with WGBYC last year, where several updates to the data model was made.
- Two new fields have been added lately to support bycatch
- This year the bycatch data call has been compared with the RDBES and all needed information should be in the RDBES
- Meetings to discuss bycatch data issues - on going
- Bycatch data will be included in this year data call, so WGBYC have a chance to test, if they can have all data needed

WGBAST and recreational

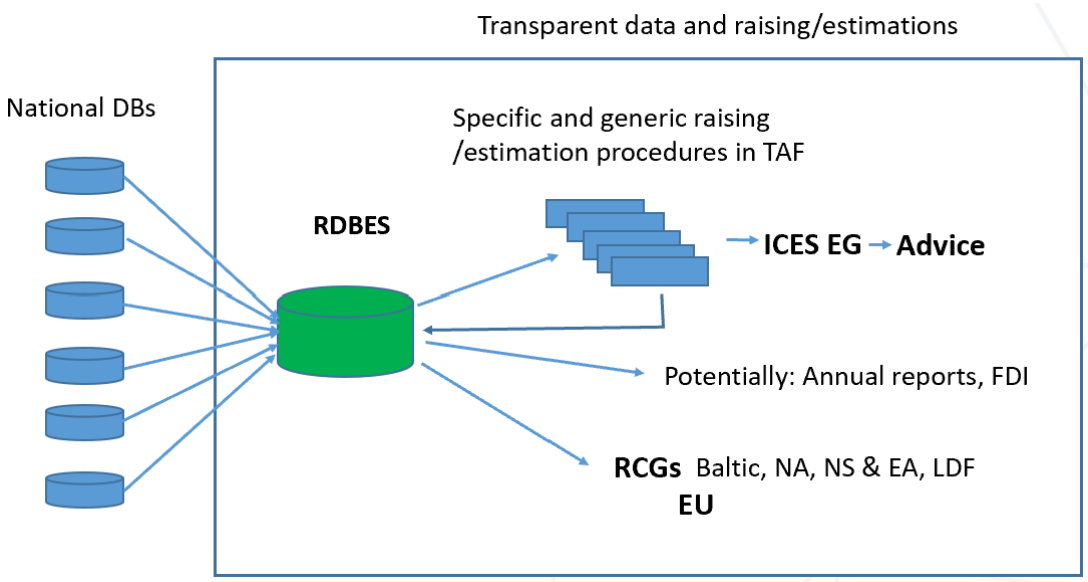
- This year the dialog started with WGBAST to get salmon and sea trout data into the RDBES.
- New data fields have been added to the landing and effort data model.
- For the recreational data for salmon and sea trout the data model has been send to the recreational fisheries experts. Experts from the ISSG RCG recreational and WGRFS. The recreational experts and WGRFS have update the data model and split the catch and effort. The WGRFS have this spring send out a data call based on the data model, so they can test it.

ICES Data centre need the following specifications as soon as possible

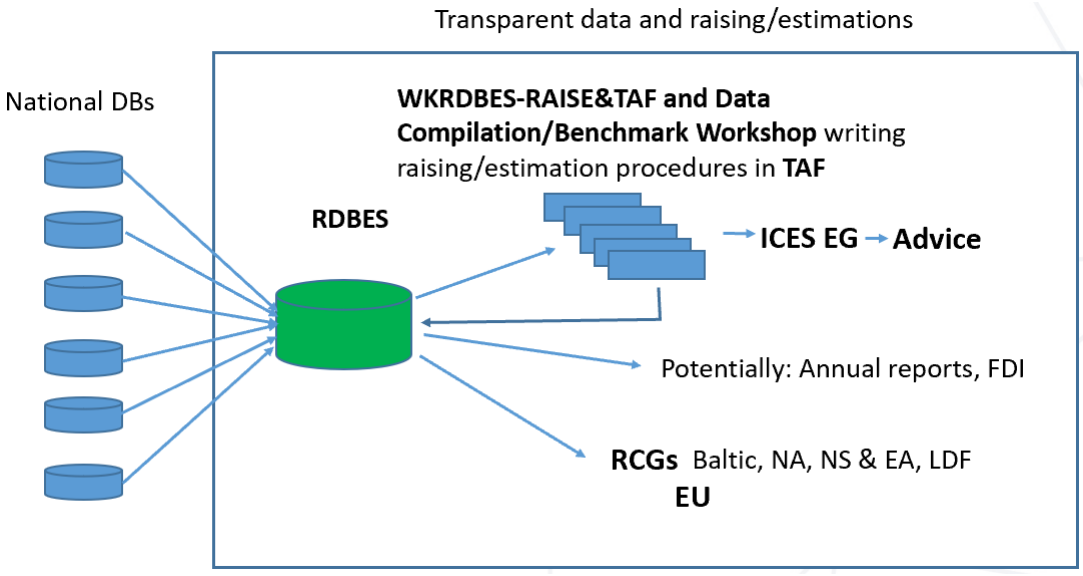
- Finish data model in the broader aspect
- Specifications of recreational data model
- Overview needs of data
- Upload logs file upload
- User roles
- Export further specifications
- Checks
- Processing of outputs and reports

RDBES and TAF

Below is a schematic overview of data to and from the RDBES and TAF system. Where stock coordinators and national data estimators will estimate the catch data and age or length distributions in TAF using the RDBES data, see below.



It is important that stock coordinators and national data estimators participate in the WKRDBES-RAISE&TAF. The national estimations are persons who before the sample data are uploaded into InterCatch do the estimation of sample data to typically quarter and division/subdivision area level. At the WKRDBES-RAISE&TAF stock coordinators and national data estimators will work with and can get guidance on how to do the estimation based on the RDBES data. Beside the WKRDBES-RAISE&TAF it is the idea that the stock coordinators and national data estimators will do estimations at the data compilation/benchmark workshops, see below



Workshops for 2022

3 days WKRDBES-INTRO (31th May – 2nd June at web session)

Chair: Henrik Kjems-Nielsen (ICES)

5 days WKRDBES-RAISE&TAF (26th – 30 September)

Chairs: Edvin Fuglebakk (IMR), Sofie Nimmegeers (ILVO)

5 days WGRDBES-EST (10th - 14th October)

Chairs: Kirsten Håkansson (DTU Aqua), Nuno Prista (SLU)

Countries data upload in 2021 to the RDBES

Country\Data type	Landing	Effort	Sample Details	Sample	Frequency Measure	Biological Variable
BELGIUM	Yes	Yes	Yes	Yes	Yes	Yes
Cyprus	Yes	Yes	Yes	Yes		Yes
DENMARK	Yes	Yes	Yes	Yes		
England	Yes	Yes				
ESTONIA	Yes	Yes	Yes	Yes		Yes
Faroe Islands						
Finland	Yes	Yes	Yes	Yes	Yes	Yes
FRANCE	Yes	Yes	Yes	Yes	Yes	
GERMANY	Yes	Yes	Yes	Yes	Yes	Yes
Iceland						
GUERNSEY	Yes	Yes				
IRELAND	Yes	Yes	Yes	Yes	Yes	Yes
ISLE OF MAN	Yes	Yes				
JERSEY	Yes	Yes				
LATVIA	Yes	Yes	Yes	Yes	Yes	Yes
Lithuania	Yes	Yes	Yes	Yes	Yes	Yes
NETHERLANDS	Yes	Yes	Yes	Yes		Yes
Northern Ireland	Yes	Yes	Yes	Yes	Yes	
NORWAY	Yes	Yes	Yes	Yes		Yes
POLAND	Yes	Yes	Yes	Yes	Yes	Yes
PORTUGAL	Yes	Yes	Yes	Yes	Yes	
Russia						
Scotland	Yes	Yes				
SPAIN	Yes	Yes	Yes	Yes	Yes	Yes
SWEDEN	Yes	Yes	Yes	Yes		Yes
UK (England and Wales)	Yes	Yes	Yes	Yes	Yes	Yes
Wales	Yes	Yes				

It is very positive that all countries except three uploaded data into the RDBES.

Data Call for 2022 all species data from 2021

- The WGRDBESGOV have specified the data call and the commercial landing and effort data is for all species and is a production data call

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- The sample data requested in the data call is for all species and is a test data call
- Deadline in the 23rd September 2022

RDBES Roadmap

Year	RDB	Inter-Catch	RDBES	Estimation incl. stock coordination	ICES Community
2022	Production Data in/out	Production Data in/out	Production: CE/CL Data in/out Development and testing: CS Data in/out	Test estimation of selected stocks and by-catch in TAF (WKRDB-RAISE&TAF autumn)	WKRDB-RAISE&TAF (autumn) to help countries with migrating estimation routines (include bycatch?) Target: species already covered under TAF. Focus on complete process from upload to estimation, WKRDBESIntro (31 May) 3 days
2023	Stay alive Data out	Production Data in/out	Production: Data in/out	Estimation in TAF for selected stocks based on availability and outcomes of WKRDBRAISE&TAF	WGRDBES-EST to finalize design-based estimation package. WKRDB-RAISE&TAF (autumn) to help countries with migrating estimation routines
2024	Terminated (if appropriate)	Stay alive Data out	**Production: Data in/out**	Estimation in TAF for all stocks that are in the RDBES.	End of RDBES development and implementation plan – beginning of operational roll-out plan.

In 2023 only the RDBES should be used not the RDB, and InterCatch and the RDBES will run in parallel. In 2024 only the RDBES should be used.

Proposals for Recommendation and Decisions

No proposals for recommendations nor decisions.

5.3 ToR 3 Review impact on management measures on data collection

During this year's meeting, progress has been made under ToR 3 as follows:

- Questionnaire on impacts of current events on sampling and data availability

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5.3.1 Questionnaire on impacts of current events on sampling and data availability

Introduction

Since 2020, RCG NANSEA and Baltic has been collecting and analysing information on impact of coronavirus pandemic on commercial fisheries data collection, focusing primarily on biological sampling. In order to fulfil this task, a questionnaire was designed and circulated among MSs to capture information by country and stock. Overview of data collected from countries served as a basis to identify data gaps in stock assessment work. Having analysed answers from the years 2020 and 2021, it can be concluded that generally the severity of pandemic impact on data collection has decreased. More information can be found in the report of ISSG 'End Users and RCGs'.

Following the experience gained from analysing impact of coronavirus on sampling and in the face of other important events (e.g., war in Ukraine) it was decided to restructure the questionnaire. The new updated version allows to specify impact of various factors on data collection from commercial fisheries and research surveys. Countries were requested to fill in the spreadsheet that capture stock related information for the respective quarters. The overview tables were pre-filled with relevant stocks from RDB. If any factor has been identified that had a negative influence on data collection, the severity of impact on fishing effort, sampling of commercial catches and research surveys was specified in the questionnaire. The table contained a list of already identified impact factors, e. g. coronavirus pandemic, war in Ukraine. However, it was also possible to report any other factor with an appropriate description in the comments.

General feedback on the questionnaire

While the questionnaire was intended to be more general, completing it became more complicated. It was especially difficult to assess the impact when a single stock is influenced by multiple factors. There was a suggestion from the group that instead of filling in the questionnaire by stock, it would be more convenient to do it by sampling schemes specified in NWPs (tables 2.3, 2.4, 2.5 and 2.6). This could be afterwards linked to stocks if needed. It was also noticed that recently there has been a number of questionnaires asking similar questions. It would be useful to review them and find commonalities.

Methods for preparing plots

The overview of impact of various factors on data collection is presented in a set of bar plots. The plots present numbers of responses separately for 1st and 2nd (covering April and May) quarter 2022, by type of factor and severity of impact. Four types of plots were prepared for each region showing impact on fishing effort, at sea sampling, on shore sampling and research surveys. Only answers showing any impact were included in the plots: High impacts (75-100%), Medium impacts (25-75%) and Low/Null impacts (0-25%). Number of stocks affected and number of countries that responded is provided for each type of answer.

Overview of the answers

Responses were received from 11 countries. Coronavirus pandemic seems to be the most frequent impact factor in all regions; however, the severity of impact is generally low. When comparing the results with the previous version of the questionnaire focusing solely the effects of coronavirus, it can be concluded that data collection has been constantly improving since 2020.

Legislation has influenced data collection mainly in the Baltic Sea and to a lesser extent in the North Sea and North Atlantic. This mainly concerned the fisheries closures and other landing restrictions.

The war in Ukraine was also reported as impact factor in most of the regions, which is most likely related to high fuel prices.

In the questionnaire it was also possible to specify other impact factors than those mentioned above. In this case, respondents were asked to give more details in a comment. Among the registered answers, decline of fishing activity was the most common. However, in many cases it was difficult to specify precise reason for this.

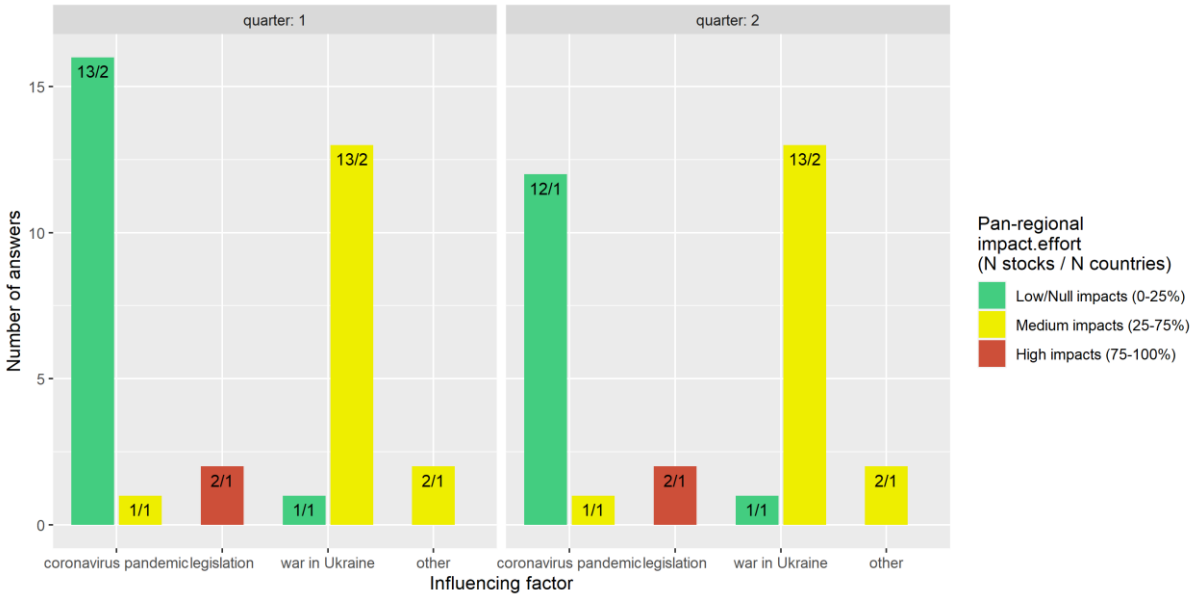

Figure 5.3.1. Example plot showing impact on fishing effort for Pan-regional stocks.

The review of the results of data analysis was followed by discussion, which showed that countries might have interpreted the guidance in the questionnaire differently, so the results should be treated with caution. It was agreed to continue the collection of data with the current questionnaire in remaining quarters of 2022. However, the guidance should be improved, to avoid misinterpretation of requested information.

All plots are available in Annex 5.3.1.

Proposals for Recommendation and Decisions

No proposals for recommendations nor decisions.

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5.4 ToR 4 Development and implementation of Regional Workplans (RWP)

During this year's meeting, progress has been made under ToR 4 as follows:

- Feedback from ISSG 'Optimized and Operational Regional Sampling Plans'
- Feedback from ISSG 'Case study of fisheries for small pelagics in the Baltic'
- Feedback from ISSG 'Case study freezer trawler fleet exploiting pelagic fisheries in the Northeast Atlantic'
- Feedback from ISSG 'Case study of the trawl fishery in Iberian Waters'
- Feedback from ISSG 'Evaluation of the data collected for the SSF at EU level'
- Feedback from ISSG 'Identification of case studies for PETS bycatch monitoring'
- Feedback from ISSG 'Diadromous species'
- Feedback from ISSG 'Recreational fisheries'
- Feedback from ISSG 'Regionally coordinated stomach sampling'

5.4.1 Feedback from ISSG 'Optimized and Operational Regional Sampling Plans'

The overarching ISSG Optimized and Operational Regional Sampling Plans, also referred to as the 'Umbrella Group', supports the development of RPSs through different case studies. In 2021-2022 the three ISSGs for RSP case studies Iberian trawlers, Freezer trawlers, and Baltic small pelagic were questioned by the Umbrella Group chairs whether any support was needed. As the case studies indicated that they were fully occupied in the process of development and no support from the Umbrella Group was needed, it was therefore decided to put work from the Umbrella Group on hold.

Through the Fishn'Co project it did become clear that a fourth case study, namely the Large Pelagic case study on Tropical Tunas in Purse Seine, should be included in the Umbrella Group.

Feedback from the presentation on 25th of May

There was a question on what a RSP actually is and whether it is the same as the RWP. The RWP should be seen as an alter ego of the NWP, where country is replaced with region. The RSP is part of the RWP (i.e., Table 2.5 in the RWP). It was noted that it would be helpful if such an explanation could be visualised.

It was discussed whether the RCG needs an Umbrella Group. When the three case studies started, there was a need for the Umbrella Group. Now the case studies are developing, there appears to be less need resulting in a low activity mode of the Umbrella Group. Work can be intensified once new plans within the case studies are identified and structured. Furthermore, at present the Fishn'Co project is conducting some of the work of the Umbrella Group. Once the project has finished, there will be perhaps more work for the Umbrella Group.

Workplan for 2022 – 2023

- Include LP case study on Tropical Tunas in Purse Seine through questionnaire that was sent to the other case studies in 2020-2021

Tasks from 2021-2022 transferred to 2022-2023, if needed by case studies:

- Provide guidance on operational RSPs
  - Organize the guidance
  - Continue the development of guidance based on examples / lessons learned from the RSPs. This work will be based on a questionnaire to the RSPs
- Provide guidance on optimized RSPs
  - Keep the overview of existing optimization tools updated, summarise the optimizations done in the RSPs, and summarise the 'theoretical gaps' encountered in the RSPs. This work will be based on a questionnaire to the RSPs.

Proposals for Recommendation and Decisions

No proposals for recommendations nor decisions.

5.4.2 Feedback from ISSG 'Case study of fisheries for small pelagics in the Baltic'

RCG Baltic agreed to use the fisheries for **small pelagic species** as a **case study** for the development of a regional sampling programme in the Baltic Sea. It was agreed to establish a subgroup for in-depth analyses how a regional sampling programme for small pelagics can be established and suggest how it can be implemented. The pelagic fisheries target western Baltic herring, central Baltic herring, herring in Gulf of Bothnia, herring in Gulf of Riga and sprat.

Progress during 2021-2022

In the 2021 DM **(D06)** 5 MSs (Germany, Denmark, Poland, Lithuania, Sweden) agreed to participate in the Baltic small pelagic RSP and take part of the non-binding RWP for 2022. 3 MSs (Finland, Estonia, Latvia) agreed to participate in Baltic small pelagic RSP, but would reflect it only in their NWP.

The ISSG have, following this decision, worked to understand the documentation needed to frame such a RSP into tables. The subgroup started to draft table 2.5 in the WP by simply combine lines from the participating countries workplans. It did however quickly become evident that the information in the different MS lines was not directly comparable as MSs design their sampling plans differently. How compatible the information from the different MSs depends (besides using different nomenclature for the same thing…) on the agreed level and status of ambition for different focus areas in the RSPs. These levels of ambitions are expressed in the "level of ambition document" developed by the Fishn'Co project and updated in May 2022. It was decided during the RCG meeting in Oostende that a physical work shop should work with table 2.5 in 2022.

Within the NWPs are the details of the sampling schemes expressed in a text file (annex 1.1). All headings in the national annex 1.1 might further not be relevant for the RSP as the content of the plan will be dependent on which agreements that are made. ISSG Baltic are thereby working on a regional version of annex 1,1 aligning the document with the ambition levels and also quality aspects that are agreed within the RSP. This is also ongoing work for the ISSG RSP Small Pelagic Baltic and will be dealt with in the planned meetings in September.

In the 2021 DM **(D07)** 8 MSs (Germany, Denmark, Finland, Poland, Lithuania, Estonia, Latvia, Sweden) agreed to:
Each MS with trawlers fishing small pelagics in the Baltic need to decide if they can commit to an analysis of potential "historical" misreporting of the proportion of herring and sprat in their national data. The commitment includes to perform an analysis, to present it at the ISSG small pelagics in the Baltic and to decide if historical catch data should be corrected on the basis of the analysis. Deadline for the analysis is October 2022. The aim is to feed in the overall outcome to the benchmark process of central Baltic herring and sprat 2023."

Two meetings have been conducted in 2022 in this subject (18-19 January and 10 May 2022).
In the first meeting the stock assessors for the sprat and herring stock were invited to the meeting to get the end-users perspective. It was decided during the meeting to:

- Document present WGBFAS time series in respect to corrections.
    - Fill in a template about corrections done (or not done) in connection to historic misreporting based on template produced by the ISSG.
- Analyze if it is possible for MSs to use some quality indicators to check if there has been inconsistency between official numbers in catch composition and data from alternative sources (national control data, Danish control data, observer trips, scientific surveys)
- Collate quota shares by year and country

The SG has planned for having an up following meeting in June 23 where the MSs should have started to look into these issues and needs to give a status on the progress and again in September to ensure that the ISSG can deliver a common working document for the data compilation workshop planned to be conducted 14-17 November 2022.

Workplan for 2022 – 2023

- Continue the pilot / or as a full regional program
- MS to investigate species misreporting between herring and sprat in a historic context
- Participate and support Herring and sprat benchmark in November 2022
- Prepare a common document with an alternative time series
- Finalize 2.5 and annex 1.1 for the RWP in 2023 before September meeting 2022

Proposals for Recommendation and Decisions

No proposals for recommendations nor decisions.

5.4.3 *Feedback from ISSG 'Case study freezer trawler fleet exploiting pelagic fisheries in the Northeast Atlantic'*

Progress during 2021-2022

Within the case study on the European freezer trawler the work in 2021/2022 concentrated on the design of a pilot study following point 1 of the workplan. The group met virtually several times.

The European freezer trawler fleet comprising mainly Dutch, German, UK and French flagged vessels is sampled currently by the Netherlands and Germany. Both countries have an observer programme but the Dutch programme is designed to meet the requirement for bycatch monitoring only whereas the national assessment data needs are covered by a market sampling programme. In contrast, the German observer programme is designed to fulfil the national stock assessment requirements plus the monitoring of bycatch and catch composition. Therefore, the observer programme was selected (rather than the market sampling scheme) as it likely represents the most efficient approach to implementing a coordinated sampling programme with the other sampling nation.

In 2021/2022 the group analysed data from the Dutch observer programme in order to developed a setup for a pilot study for this approach. The analysis was finalized and the results were presented at the TM of the RCG NANSEA 2022 and RCG Baltic 2022. In a first step a Dutch fishing trip in the herring fishery will be carried out in a new sampling design following the analysis which meets the requirements for assessment data collection and bycatch monitoring. This is scheduled for quarter 3/4 in 2022.

Following the recommendation (R07) to capture the end-user needs on the pelagic stocks the group developed a questionnaire. The questionnaire was circulated to stock assessors and coordinators of relevant stocks in January 2022 asking for current stock assessment data requirements, relative contribution of catch from the freezer fleet and obvious gaps/duplicates in sampling coverage. The feedback (from a limited number of replies) pointed out that most assessments are age-based, and the freezer fleet catch can be a significant component of the overall catch. Occasionally, national sampling programmes provide duplicate coverage, usually in the most heavily fished divisions and quarters while some divisions are missed. In areas with low sampling coverage, the age-length-keys can be sparse.

Workplan for 2022 – 2023

- The specifications of pilot study must be finalized and a pilot fishing trip must be identified (NS Herring Q3/4 2022)
- Perform pilot study and conduct an age workshop (improve quality)
- The results of the pilot study must be reviewed, analysed and compared with the Dutch market sampling scheme and the German observer sampling scheme
- Investigate possibility of extending to all NS Herring trips in 2023
- Appropriate harmonized protocols for other fisheries needs to be developed and the possibility to pool the Dutch and German sampling schemes investigated

Proposals for Recommendation and Decisions

No proposals for recommendations or decisions.

5.4.4 Feedback from ISSG 'Case study of the trawl fishery in Iberian Waters'

Progress during 2021-2022

Work of this case study has been achieved through intersessional work during 2021-2022 by the ISSG (including 4 meetings) and the Fishn'Co project.

The main tasks proposed for 2021-2022 in the RCG 2022 were:

1. Define RSP for pilot study and allocate sampling effort to institutions/countries
    - Define scenarios for sampling design of the RRSP.
    - Project FishPi2 defined scenarios and identified preferential scenarios based on bias, precision, feasibility and suitability.
    - Selection of scenario for implementation in a pilot study needs to take into account the output from FishPi2 and the sampling protocol.
    - Allocation of sampling effort needs to take into account the final scenario selected.
    - Work will be done under the scope of Project Fishn'Co.
2. Work on WP/AR Table and Textbox 2.5 (biological sampling)

The work developed in 2021-2022 is presented in detail in Part III. Here we present a summary:

Task 1. Define RSP for pilot study and allocate sampling effort to institutions/countries

The ISSG assessed the feasibility and suitability of a RSP to be tested through a pilot study. To this end the ISSG considered Scenarios S35 and S55 from FishPi2 [that both include sampling of major ports in terms of landed weight and number of trips, but differ in whether they include foreign landings (S55) or not (S35)].

The ISSG first focused on two aspects of feasibility, namely:

a. a detailed assessment of the possibility of sampling national landings in scenario S35 in a pilot study;
b. a detailed assessment of the possibility of sampling foreign landings in scenario S55 in a pilot study.

From what was assessed, scenarios S35 and S55 from project FishPi2 could not be implemented in all the ports planned. In summary, for 8 of the ports it is feasible to implement the sampling effort proposed in the RSP; but for the other 13 ports there are limitations to the implementation of the sampling effort proposed in the RSP. Limitations from current issues in NSP are expected to be solved in the near future (3 ports); limitations from funding/contracting cannot be solved in the short term (1 port); and operational limitations in the ports cannot be solved regardless of funding/contracting (9 ports).

The ISSG also focused on suitability (c), and found that given the feasibility limitations, an RSP in the short to medium term would differ only slightly from the current NSP. Since national landings are sampled in the same

ports, the difference would be in the effort allocated in the 8 sampled ports. Moreover, compared to RSP, the current National Sampling Plans sample all ports relevant in the RSP, and sampling in those ports covers relevant trawl fleets (OTB and PTB) and with adequate sampling effort. In what concerns the ports that cannot be sampled for operational reasons (i.e., ports where sampling is not possible even when adequate funding/contracting is in place), this limitation occurs in National Sampling Plans as well as in RSP.

Overall, considering aspects in a), b) and c) above: in the short-term (2022-2025) a pilot study for regional sampling of Iberian trawl fisheries based on the scenarios from project FishPi2 could only be implemented in the ports that are currently already included in the National Sampling Plans, and would differ from the current National Sampling Plans only in terms of the proportional allocation of samples in the ports, whereas it would not allow sampling foreign landings, sampling new ports or increasing sampling effort in ports.

The view of the ISSG is that the implementation of a pilot study should be programmed for after the end of 2025, i.e., 2026, since it is expected that it will be feasible to change the conditions of the contract (of the non-Basque Spanish NWP) from that time onwards and not before. The definition of such a pilot study should aim at sampling foreign landings (landings of Portuguese vessels in Spanish ports, and vice-versa landings of Spanish vessels in Portuguese ports), sampling new needed ports and adjusting sampling effort per port and fleet as needed, since these seem to be the aspects representing more differences from the National Sampling Plans. In contrast, the pilot study to be implemented should be based on the premise of excluding ports where it is demonstrated that there are operational limitations to sampling since these limitations apply to both National and RSPs.

Task 2. Work on WP/AR Table and Textbox 2.5 (biological sampling)

No progress was made in this task, given the outcome of the work in task 1.

Workplan for 2022 – 2023

June 2022–May 2023

- no progress

June 2023–May 2024 and June 2024-May 2025 (starting in April 2024):

- update the allocation of sampling effort to ports based on recent data on landings from trawl fisheries in the Atlantic Iberian waters (data for 2 years 2022 and 2023, available in Q2 2024).
- define the sampling plan to be implemented in the pilot study and prepare changes/additions to contracts to allow for the implementation of the pilot study.

June 2025-May 2026 and June 2026-May 2027 (calendar year of 2026):

- implementation of the pilot study

June 2026-May 2027 and June 2027-May 2028 (starting in April 2027):

- analysis of the results of the pilot study (data for 2026, available in April 2027).
- define future steps.

Proposals for Recommendation and Decisions

No proposals for recommendations nor decisions.

5.4.5 Feedback from ISSG 'Evaluation of the data collected for the SSF at EU level'

Progress during 2021-2022

During the TM, the tasks covered by the ISSG for the period 2021-2022 were presented. Many of these tasks were carried out jointly with the metiers sub-group to avoid duplication. Among these tasks are the improvement of the allocation of metiers in the case of SSF, and also the issue of harmonisation for effort estimation. As in previous years, fisheries overviews reports have also been provided for the three regions covered by these RCGs, but specific to the SSFs.

The tasks that could not be carried out during this period will be covered for next year. These tasks include the sampling coverage of the SSF and estimation methodologies, that will be covered together with ICES WGCATCH SSF subgroup in November´s meeting, and the inclusion of the SSF into the RDBES, following the different data models developed. This work will be carried out together with the RDBES core group.

One of the issues discussed during the meeting was the usefulness of the fisheries overview's reports. Although these reports have been produced for the SSF for the last few years, the impression of the subgroup is that these reports are not being used to their full advantage, even though they provide a lot of relevant information. For this reason, one of the most important tasks for the coming year will be to review these reports in detail to see how they can be used to improve the data collection of this fleet, at regional level.

Workplan for 2022 – 2023

- In parallel with ICES WGCATCH "Sampling coverage of the SSF and estimation methodologies"
- Use of RDB and Fisheries Overviews data to improve SSF data collection coordination
- RDBES and SSF data inclusion (Follow in contact with the core group)
- Fishn'Co outputs analysis and identify follow up actions to be taken by the ISSG
- Comparison between transversal and sampling data

Proposals for Recommendation and Decisions

NANSEA BALTIC_2022_R04: Implement the collection of additional variables needed for SSF effort estimates in the control regulation.

5.4.6 Feedback from ISSG 'Identification of case studies for PETS bycatch monitoring'

Progress during 2021-2022

All tasks that were planned for the period 2021-2022 were considered as work in progress. The reason for this was that both in the past year and in the following years, a lot of work is being done on issues related to the PETS bycatch. This work is being carried out both by the different ICES groups such as WGBYC, WGCATCH, but also through specific European projects on this topic (e.g., CetAMBITion) where most of the ISSG members are involved. In addition, DGENV has also made a special request to ICES, and because of this, different WKs etc. are planned in line with the tasks identified by this ISSG for next year. From this special request from DGENV to ICES, there is already an output where issues relevant to this ISSG are addressed (https://doi.org/10.17895/ices.pub.10075).

In addition to the tasks mentioned above, a template was prepared, where the objective was to identify the differences in the information that is collected through the logbooks, taking into account especially the variables that are essential for bycatch estimates. There is a minimum that must be completed by all EU countries within the Control Regulation, but additionally and due to the requirements, that may exist in the different national regulations, there may be differences in the information that is collected in these logbooks. This template will allow to identify on the one hand the differences that exist between the different countries and at the same time identify what the main gaps are and thus provide some recommendations on how to collect the necessary information.

Another important task for this ISSG was to keep in touch with the main end-users and see what their needs are. Last year's RCG meeting was attended by colleagues from HELCOM and ASCOBANS. It was considered essential to continue to maintain this contact between these end-users and the members of this ISSG. Therefore, these end-users have been contacted this year to ask for their input for this year's meeting.

Workplan for 2022 – 2023

- Follow-up on ongoing work regarding PETS sampling with relevant WGs and end-user
  - Reviewing the DGENV special request report
    - Several WKs scheduled for PETS data collection
  - Data collection overviews (potential gaps, data quality, differences in MS, ...)
    - Together with WGCATCH and WGBYC (data quality issues)
    - Reviewing control regulations on variables collected and their quality
  - Case studies for RWP
    - Two projects identified, first actions for coordination started
- Identify where RCG is responsible to set-up or improve data collection

Proposals for Recommendation and Decisions

NANSEA BALTIC_2022_R05: Implement the collection of additional variables needed for bycatch estimates in the control regulation.

NANSEA BALTIC_2022_R06: Provide prioritization of species list.

5.4.7 Feedback from ISSG 'Diadromous Species'

Data collection for diadromous species (eel & salmon) under DCF was introduced in 2007 and improved in 2012. Since then, end-user data needs and assessment aspects have changed or adapted, which is why some DCF mandatory data is currently not used in ICES EGs / international assessment.

The ISSG Diadromous is coordinating the data collection of primarily three species (eel, salmon and sea trout) in NANSEA, Baltic and MED&BS regions. Eel is panmictic over all regions meanwhile salmon and sea trout occur in hundreds of individual river stocks in NANSEA and Baltic regions. Assessment models and data needs differ by species and region and are still under active development. Consequently, the ISSG Diadromous aims at direct communication and exchange with end-users, since it is practically impossible to gather all needed species- and region-specific expertise in the ISSG Diadromous.

Progress during 2021-2022

The annual meeting of the group in 2022 has been postponed until autumn. Output of (at that point not yet published) workshops (e.g., WKEELDATA, WKEMP, GFCM EEL Project) will be considered and may contribute to helpful improvements in data collection for future assessment.

Direct communication with ICES EGs has been strengthened. ISSG Diadromous is now recognized and considered by EGs. The group has broad response and good attendance during last annual meeting 2021.

So far, there is no data collection activities on any diadromous species that are coordinated on a regional level. However, there are some potential elements in data collection (electrofishing surveys, smolt counts, spawner counts among others) that may be possible to construct under a RWP in medium term.

Main points discussed in the RCG TM

Data needs for international assessment must result from direct input from end-users such as ICES WGEEL, WGNAS, WGBAST, WGTRUTTA.

There are various challenges to transfer and develop relevant elements of the currently mandatory data collection to RWPs and better regional coordination in the future. To tackle these challenges, the ISSG Diadromous urges for direct input from end-users on needed data in order to improve end-user driven assessment and international management.

Providing collected data under DCF to end-users seemingly does not follow a clear homogenous structure across EGs. For example, while the ICES WGEEL uses data calls to ask for existing data, WGBAST uses DCF data that finds its way naturally to EG meetings for assessment by national experts.

Workplan for 2022 – 2023

- Complete all ICES EG annual meetings, discuss data needs for assessment and extract relevant information from relevant workshops and projects to distribute and discuss in (postponed) ISSG meeting.
- Implement outcomes and recommendations that may result from Fishn'Co.
- Promotion of data workshops (potential reissue of WKESDCF2012, workshop on data management, data processing for the connected EGs).

- Further strengthen a regular and direct exchange ICES EGs and GFCM responsible experts to ask for advancements and new information on data needs for improvements in data collection for assessments under DCF.

Proposals for Recommendation and Decisions

No proposals for recommendations nor decisions.

5.4.8 Feedback from ISSG 'Recreational fisheries'

The progress of the ISSG on Recreational Fisheries was presented during the one-day digital meeting of the RCG NANSEA and RCG Baltic 2022. The aim of this ISSG fits on preparatory work for decision making, including input for RWPs. The ISSG on Recreational Fisheries work is coordinating with the relevant ICES EG (WGRFS) and the Fishn'Co consortium.

Most of the work plan objectives of this work season could not be finished, as the group strongly relies on the data output and exchange with WGRFS. At the time of the TM, the annual meeting of the group was not yet possible, as the ongoing war in Ukraine and the respective temporary stop of all ICES activities (including the WGRFS meeting) did not allow for coordination and feedback.

The group did review and update their work progress that could be done without the WGRFS input. The ISSG on Recreational Fisheries report can be found in Part III.

Workplan for 2022 – 2023

ISSG Recreational Fisheries annual meeting postponed to November 2022 – as relevant developments are starting with WGRFS meeting in June

- Work in the RWP with the proposed stocks: cod, sea bass, eel, and salmon
- In liaison with WGRFS, analyse the end-user needs regarding regional data collection
- Decide the list of species to incorporate at the regional level by analysing the results of the pilot studies. Selection criteria and thresholds (always based on end-user needs) should also be decided.
- Progress on the RDBES for MRF: to arrange a test data call using CSV/Excel file submission based on the proposed recreational data format (agreed with WGRDBESGOV)

Proposals for Recommendation and Decisions

No proposals for recommendations nor decisions.

5.4.9 Feedback from ISSG 'Regionally coordinated stomach sampling'

Progress during 2021-2022

During the 2021-2022 period, the ISSG "Stomach sampling" worked on the four ToRs listed below.

ToR 1 was dedicated to the specification of the coordinated rolling stomach sampling program in the North Sea, Skagerrak and Kattegat, using IBTS as a powerful platform to collect stomachs, which was presented at the technical RCG NANSEA meeting in 2021. The originally proposed rolling sampling plan was presented to the IBTSWG in 2021. The IBTSWG commented on the sampling plan, pointed out some shortcomings and proposed various improvements of the design and plan and proposed an improved sampling plan.

Since the stomach sampling had started during the 1st quarter IBTS in 2022 with the originally proposed three species Whiting (*Merlangius merlangus*), Megrim (*Lepidorhombus whiffiagonis*) and Anglerfish (*Lophius piscatorius* and *L. budegassa*) for the first year of the 5-year sampling programme and because a certain disbalance was observed in the expected number of stomach samples based on the IBTSWG proposal, both proposals were merged into an updated sampling plan proposal. Numbers of stomachs collected during this survey revealed some mismatches, notably caused by COVID and bad weather issues. In addition, non-EU countries are important contributors to the total number of stomachs collected.

A coordination group for the regionally coordinated stomach sampling in different areas of the North Atlantic was seen as necessary due to numerous tasks (coordination of e.g., sampling, analyses, communication, data compilation, etc.). The establishment of an ICES coordination group, dedicated to these tasks was identified as the best solution. However, until such group is established, the RCG ISSG on Stomach sampling should serve as a provisional coordination group, that will coordinate the regionally coordinated stomach sampling in the North Sea, Skagerrak and Kattegat. Other tasks will be the recruitment of members to the coordination group and the organisation of a workshop for the finalisation of the stomach sampling scheme and manual.

ToR 2 was dedicated to the identification and collation of the specific end-user needs with regards to stomach sampling in the different areas covered by RCG NANSEA and Baltic. As the question of end-users needs and expectation is also covered by the Fishn'Co project, Manon Troucelier (Fishn'Co project engineer) developed an online questionnaire, dedicated to collate the expectations of all potential end-users involved in stomach sampling. The link to contribute to the questionnaire was sent, mostly to the persons already involved in the ISSG and ICES WKBECOSS. A total of 23 replies to this questionnaire were received and a summary of the results are available in the RCG ISSG Stomach sampling report 2022.

A presentation of the results of the identification and collation of specific end-user needs with regards to stomach sampling in the different areas covered by RCG NANSEA and Baltic (**ToR 3**) was not realised and the work on WP/AR Table and Textbox 4.1 on stomach sampling (**ToR 4**) was not completed.

Presentation and discussion of the results during the TM

The results of the work on the four ToRs were presented at the TM. The main questions that were discussed in plenary after the presentation were: "How can we coordinate the stomach sampling?" and "Who will analyse the stomachs and how to fund this?" with specific questions regarding the decision process and the inclusion of non-EU countries:

1. Comment on the coordination of the stomach sampling and the finalisation of the sampling scheme and manual

At this point the ISSG Stomach should coordinate the sampling. The ISSG can fix the manual for now; and subsequently meet up with IBTSWG to finalise the manual.

2. Should the workshop for the finalisation of the sampling scheme and manual be an RCG or ICES based workshop?
   Push the workshop from RCG rather than through IBTSWG. It is noted by someone that there is also a workshop planned from the ICES side.
   Comment on this*: A Workshop on Operational Implementation of Stomach Sampling (WKOISS) has been planned some time now. However, ICES has trouble finding a second chair.*
3. Sole is missing in the sampling scheme as this species is not encountered in the IBTS. When will you move on to other surveys as there is a high need from WGNSSK for stomach information? Similarly, was the possibility to use fish collected by commercial fisheries considered?
   The species included are mainly seen as predatory fish; accordingly, sole was not included. The ISSG as used the IBTS as a starting point, because it is a well organised survey covering the entire North Sea, Skagerrak and Kattegat twice a year. Before we move on the inclusion of additional surveys or species, the planned sampling system should be up and running smoothly.
   Regarding commercial fishing vessels, as storage conditions are largely different between research vessels and commercial fishing boats, degradation of the preys in the stomach would be different, and could lead to discrepancies in the quality of the data, precluding from a complete merge of these two types of data.
4. It is still a bit unclear, what the driving force of the sampling plan is/ Who is the end-user?
   Stomach sampling should be an end-user driven process, i.e. need clear end-user. There is a difference in working up the stomach data when (i) estimating natural mortality, or (ii) for MSFD food web. However, it should be kept in mind that the implementation of this protocol should be management-driven. By example, it may not require the estimation of the complete diversity of the preys in the stomach, but rather focus the effort on preys of commercial importance.
5. How do we move from here? Who will analyse the stomach samples?
   The plan at this point is for ISSG is to set up how stomach analysis could be accomplished (i.e., distribution over countries, number of samples, cost). When this is done, then ask NCs for financing.

Further work conducted during the TM 2022

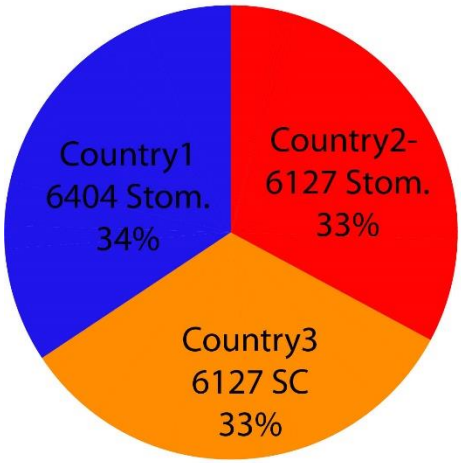
Based on comments made during the plenary of the RCG TM 2022, we propose here a plan for the repartition of the stomachs collected during IBTS Q1 in 2022, and to be collected during IBTS Q3 2022, and IBTS 2023 to 2026 in Q1 and Q3. This plan is based on actual numbers of fish collected during IBTS Q1 2022 and on expected numbers for the subsequent surveys. It is also based on the option of having three countries (A, B, C) being selected as Stomach Analysis Centers. These countries will be able to receive and analyze samples collected by all countries. The plan was designed to balance the number of stomachs both between years, and among a 5-year DCF cycle. It is also based on the "compromise" rolling scheme, that was designed to take comments regarding species list by IBTSWG into account.

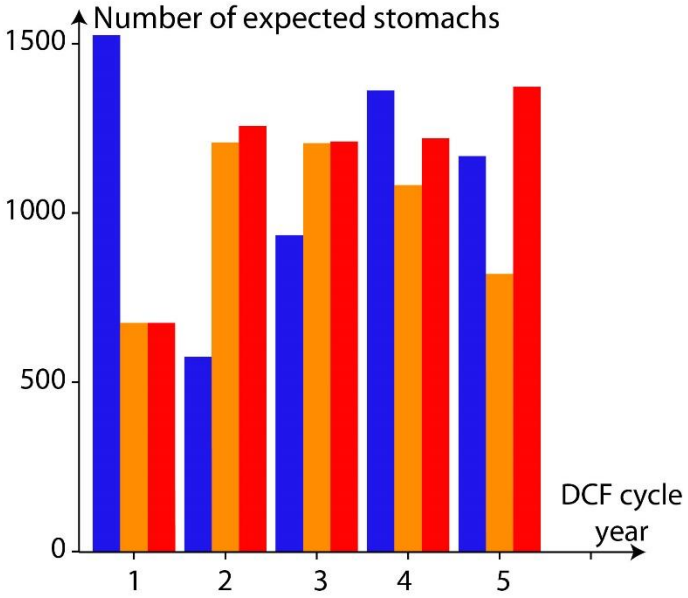
Numbers in bold are actual numbers of stomachs collected during IBTS 2022 Q1.

Year	Quarter	Species	Expected no of stomachs	Proposed MS in charge of the analysis
1	1	Whiting	**1525**	A
		Whiting	**412**[a]	B
	3	Whiting	675[b]	B

Year	Quarter	Species	Expected no of stomachs	Proposed MS in charge of the analysis
		Whiting	675[b]	C
	1	Anglerfish	**63**	C
	3	Anglerfish	67	C
	1	Megrim	**80**	C
	3	Megrim	180	C
2	1	Cod	1257	C
	3	Cod	1208	B
	1	Horse Mackerel	306	A
	3	Horse Mackerel	575	A
3	1	Hake	505	B
	3		934	A
	1	Plaice	1206	B
	3		1211	C
4	1	Haddock	1362	A
	3	Haddock	1221	C
		Mackerel	1082	B
5	1	Saithe	534	A
	3		820	B
	1	Red gurnard	159	B
	3		58	B
	1	Grey gurnard	1373	C
	3		1168	A

A graphical summary of the stomach repartition:





Notes on this table:

a: As to keep a balanced number between countries, B will analyze whiting collected during Dutch IBTS while "A" will analyze all other whiting stomachs

b: expected number of stomachs was equally split between "C" and "B", to keep a balanced number

Regarding species occurring in low number and to be sampled annually, the exact number of stomachs is hard to estimate. Species were thus haphazardly attributed to the countries.

Year	Quarter	Species	Proposed MS in charge of the analysis
All	1 & 3	Turbot	A
All	1 & 3	Brill	C
All	1 & 3	Halibut	B
All	1 & 3	Pollack	A
All	1 & 3	Tusk	C
All	1 & 3	Ling	B
All	1 & 3	Tub gurnard	A
All	1 & 3	Starry ray	C
All	1 & 3	Cuckoo ray	B
All	1 & 3	Thornback ray	A
All	1 & 3	Spotted ray	C
All	1 & 3	Common skate-complex	B
All	1 & 3	Spurdog	A
All	1 & 3	Tope	C

The discussions on possible locations of stomach analyses centres (based on the consultations within the Fishn´Co project) revealed several candidates being Latvia, Poland, France, Belgium and the Netherlands.

Workplan for 2022 – 2023

- Organize a workshop on the finalization of the stomach sampling plan and methods
- Coordinate the IBTS stomach sampling and propose different options for the analysis of collected samples
- Better define the cost allocated to sampling and analyses

Proposals for Recommendation and Decisions

NANSEA BALTIC_2022_R07: Participation in the regional stomach analysis program.

NANSEA BALTIC_2022_R08: MS to evaluate options and capacities of national labs to become analysis hub for the collected IBTS case study stomachs.

5.5 ToR 5 Propose ways to improve the regional coordination and feedback on regional issues

During this year's meeting, progress has been made under ToR 5 as follows:

- Feedback from Fishn'Co project
- Feedback from ISSG & SG 'National Correspondents'
- Feedback from SecWeb project
- Review the process made in the RCG NANSEA and RCG Baltic in 2021-2022
- ISSGs for season 2022-2023

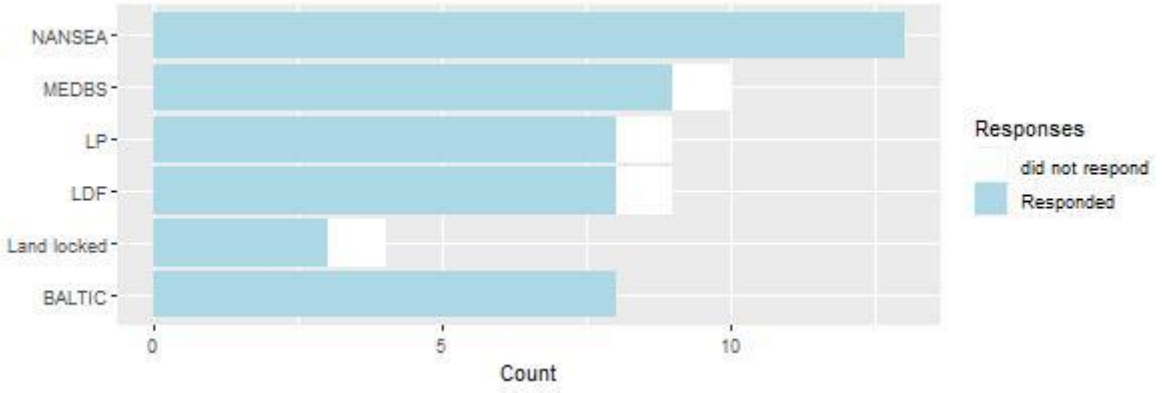
5.5.1 Feedback from Fishn´Co project

Fishn'Co Consultation output

A large consultation was prepared and sent to all NCs in Europe on the 14th of April 2022. This consultation was meant to prepare the discussions in the RCG 2022 TMs regarding the development of RWP, based on RCG/ISSGs ongoing work and Fishn'Co contribution to adapt all coordination initiatives in a RWP format. The specifics of this consultation were to inform NCs on the work progress of the Fishn'Co project as well as asking for feedback on the overall setup of RWP and NWP and the suggested decision-making process for future RWP.

After some weeks, almost all NCs had responded fully to the consultation (Figure 5.5.1), which marked a real success of the initiative and an important information to consider during the 2022 RCGs. It is to be noted that answers from Mediterranean countries are not reported here, but will be passed to the STREAMLINE project to prepare the forthcoming RCG Med&BS.

Figure 5.5.1: responses received from Member Countries pertaining to the different RCGs (one MC can be in several RCGs)



The following sections summarise the outputs of the consultation as presented in RCG NANS&EA and Baltic. The full detailed outputs will be available later and before the September NC meeting as a deliverable of the Fishn'Co project.

Section on General Principles

Table 5.5.1. Responses to questions related to general principles

	NANSEA			BALTIC		
	Yes	**No**	**Partly**	**Yes**	**No**	**Partly**
Q2.a. Do you agree with the step-wise approach and the option of proceeding with a RWP 2025-2027 without formal adoption by the DG Mare services?	9	0	4	5	0	3
Q2.b. Do you agree that the RWP should only contain elements agreed at RCG and remaining unchanged during the time period of the RWP? This implies that all other elements under development which are not formally agreed should not be part of RWP.	7	0	6	5	0	3
Q2.c. Do you agree with the general principles (#1-5) laid out by RCG NANS&EA and RCG Baltic chairs, STECF and Fishn'Co?	9	0	4	7	0	1

Synthesis of comments

Since RWP is a new concept, its development requires consistency and a long-term approach, seeking consensus throughout the process. There was a general agreement on the proposed step-wise approach (Q2.a) which consists of developing RWP steps by steps, with the next stage being the development of RWP 2025-2027 one year ahead of the submission of NWP for the same period (i.e., as soon as 2023). The main comments and reservations were on the adoption or not of the next RWP 2025-2027 by COM.

General agreements were reached on the fact that RWP should only contain elements agreed at RCG (Q2.b) and on the proposed general principles (Q2.c), although some reservations were leading to responses as Partly. These reservations were on the invariable characteristics of RWP during the 3-year period and demands to allow the possibility to modify and resubmit a RWP during an interim year if deemed necessary. Regarding the general principles, the reservations were on the need to clarify and possibly redraft the principles that seem contradictory to one to another.

Ways forward

A RWP for each RCG (Baltic and NANS&EA) **needs to be developed before the RCG/TM of 2023**. The RCG takes note of some doubts on the feasibility of such development within a year and will double its vigilance during the intersession work.

Regarding the adoption or not of the RWP 2025-2027 by COM, the RCG clarified that the proposed non adoption timeline was to be considered as the next stage of RWP development and not the ultimate goal. The learning phase expected with this non adoption will provide arguments (pros and cons) for a future adoption or not eventually.

It is recommended that NCs consider if this clarification is sufficient for a decision to be taken during the forthcoming DM.

Should the RWP 2025-2027 be allowed to be modified if deemed necessary during an interim year can be agreed provided some points of vigilance. Indeed, the linkage between the RWP and all related NWP impose that it should be avoided making changes that would lead to a resubmission of all NWP. Conversely, modification of NWP in interim years should not lead to a modification of the RWP.

The general principles were commented by MSs and will need to be developed within Fishn'Co and ISSG/RWP together with the development of RWP 2025-27 and before RCG/TM meetings 2023. The RCG thought the best way to agree on these principles is when confronting these to the reality of the proposed RWP.

Section on Decision Making process

Table 5.5.2. Responses to questions related to the Decision-Making process

	NANSEA			BALTIC		
	Yes	No	Partly	Yes	No	Partly
Q3.a. Do you agree with the overall structure of the decision-making process described in section 3?	11	0	2	8	0	0
Q3.c. Do you agree with the timeframe suggested in annex 2?	10	2	1	7	1	0

Synthesis of comments

In general, the MSs of the RCG Baltic and RCG NANSEA agrees to the principle and the suggested structure of the decision-making process. When initiating the process in setting up a RWP it should be ensured that experts/representatives from MSs with sufficient mandate are included earlier in the process. It is suggested that options to amend the RWP may be possible at a very last stage. Major amendments may require additional analysis, discussion and redrafting agreements and therefore this should not be possible. Some concerns are expressed on whether it is possible during the 2023 RCG meetings to finalise the RWP 2025-2027.

It should be noted that agreements on separate elements of the RWP do not need consensus as agreements can be made by two or more MSs. Several MSs express concerns if the timeline of reaching agreements is shorter than one month.

It could be considered to outline what happens with the RWP and how it will be evaluated by the COM.

Ways forward – Decision Making process

The RCG Baltic and the RCG NANSEA agreed as the RWP will consist of a number of building blocks, that MSs agree to include. Therefore, instead of having an official adoption an approach where the NC's concerned make agreements could be the solution. Figuratively speaking a RWP could be "A book of agreements". This approach is flexible, changes can easily be made and the agreement process is quick.

The NCs at the RCG Baltic and RCG NANSEA agreed to recommend that all elements included in the RWP will be based on agreement made by the MSs (NCs) concerned.

It should be ensured that the RWP 2025-27 has to be circulated to all MSs one month ahead of the 2023 RCG/TM

In order to ensure efficient progress in drafting RWP's the RCG Baltic and the RCG NANSEA recommend that at the DM in September 2022 each MS/NC appoint a named expert to take part in the drafting process of the RWP.

Section on RWP Contents

- ***PETS, Recreational and SSF***

PETS, recreational and SSF are three areas of increasing interest as well as a continuously growing important part of the DCF. Although there has been some progress in these areas over the last number of years, there are still some basic needs lacking to move forward in an efficient way. To further improve the collection of data in PETs, recreational fisheries and SSF, MSs were asked to identify obstacles in order to allow us to come up with a proper plan for each of the areas.

Synthesis of comments - PETS

Many countries considered financial aspects an obstacle, highlighting the need for investment in additional sampling required to collect PETS data (including additional staff, investment in new monitoring technologies to collect data (e.g., CCTV) all to be determined by the extent of end-user needs identified. Legislative obstacles will be access to the data recorded under the Control Regulation and the General Data Protection Regulation (GDPR), the implementation of mandatory electronic monitoring, etc. Data confidentiality is a main issue to consider. In addition, other acts require to collect data on bycatch, such as the Marine Strategy Framework Directive (MSFD). Such data collection follows other protocols than observers at sea and has a dedicated program. Articulation with DCF should be clarified. Although the expertise is not considered an obstacle, the data collection should be regional coordinated. PETs monitoring until recently is not the focus yet. Setting up a dedicated program will be a challenge. The priority should be assessed for high-risk fisheries. Some issues could be related to very rare species determination.

It should be considered that some fleets are under oversampling pressure considering all observation activity performed on board. The on-board observations should be rationalized both to make the best use of human and economic resources and not to interfere with the activity of the fleet. The cohesion of different observation programmes would allow for greater efficiency in the use of resources. The sampling intensity could lead to difficulties in the access to fishing vessels. In addition, the sampling of the SSF is also a challenge due to the characteristics of this fleet. Due to security issues, it is also difficult to put scientific observers onboard this fleet and other technologies may be needed. Finally, the lack of cooperation with fishers on the use of CCTV and proper reporting in the logbooks is considered as an important obstacle.

Ways forward – PETS

To establish a dedicated programme, extra funds are needed. The implementation of technologies (e.g. CCTV), will be also required to improve the data collection for PETS. In addition, it is essential that the main objectives of these programmes are well defined based on main end-user needs and prioritisation of high-risk fisheries. These high-risk fisheries will be identified based on a risk assessment analysis.

Finally, it is essential to share the experiences between experts, countries and learn from each other, and promote best practice among the community.

Mandate to ISSG/PETS to develop a clear plan together with the costs, but prioritisation needs to be done before. Recommendation to COM for prioritisation.

Synthesis of comments – Recreational Fisheries

Many countries highlighted the requirement for additional funding in order to improve efficiency of data collection (including use of new technologies), increase sampling coverage and for recruitment of additional staff. Also, angling effort estimation currently requires population surveys at a significant expense. There is no framework for the licensing of the recreational fisheries at this time so it is difficult to estimate the exact number of recreational fishermen and the recreational fishing boats. Recreational Fisheries are not covered under the current Control Regulation, and that hampers the data collection. Prioritisation of recreational fisheries may depend on the regional importance of a given recreational species. The lack of representation by the angling sector in MSs at the management table was raised as an issue. Also, the concerns from the angling community about engaging with data collection process, and the purpose of collection, due to potential introduction of controls for recreational fisheries. Outreach to recreational fishermen is still required.

Ways forward – Recreational Fisheries

- Suggestion to create a Pan-regional ISSG for Recreational Fisheries in order to avoid major differences between methodologies
- Standardisation of methods for collection and analysis of recreational fisheries data across all MSs - workshops under ISSG.
- Outreach and communication with the fishing sector - crucial for improving data.

Synthesis of comments - SSF

Many countries considered financial aspects an obstacle, highlighting the need for investment to increase the amount and quality of data collected for biological and socio-economic variables. Required investments include on-board observation programs such as the use of on-board cameras, staff, increased coverage, as well as

access to and communication with SSF fishermen. Legislative obstacles affecting the data collection for SSF include GDPR, while the lack of control regulation and mandatory logbook for all vessel sizes as well as limited stock management can also affect the data collection for SSF. The lack of expertise was not identified as a major obstacle by most countries. However, the highly variable nature of this fishing fleet, its complexity and continuously changing nature make it difficult to characterise. Low priority was identified as an obstacle by some MS, this was either because they do not have a significant SSF fleet or because they sense a low priority under the DCF, with a desire to have a dedicated programme for SSF. From the SSF side, other MSs highlighted the high priority nationally and at industry level. Many MSs agreed that limited space, safety issues and access to vessels can pose obstacles for data collection. This affects observer at sea programmes but also the installation of cameras and other data capturing devices. COVID prevention measures further hampered some observer programmes on small vessels. Some MSs suggested that the use of remote technologies for data collection can be a solution to space limitations and safety issues. Other limiting factors for data collection included digital literacy issues if electronic data methods are being used; achieving the right coverage and the quality of data collected under the control regulation.

Ways forward – SSF

RCG has recommended the COM for years to adapt the control regulation to the needs for fisheries advice. ISSG SSF has recommended to the COM to contact Control Regulation colleagues to implement the collection of additional variables needed for SSF effort estimates in the control regulation (R04; see also section 5.3.5 and Part II).

- ***Stomach Sampling***

Table 5.5.3. Responses to questions related to data collection of stomach sampling

	NANSEA			BALTIC		
	Yes	No	Partly	Yes	No	Partly
Q4.2.a. Have you started collecting stomach samples according to ISSG protocol? If yes, please comment on which surveys and in which region? If no, please comment on what is the plan i.e., when and how?	7	3	3	4	2	2
Q4.2.b. If stomach samples are being collected, is funding already in place for stomach sampling and analysis in your country?	6	4	3	5	2	1
Q4.2.c. Are you analysing the stomach samples within your national lab?	5	5	3	3	3	2

	NANSEA			BALTIC		
	Yes	No	Partly	Yes	No	Partly
Q4.2.d. If no capacity, would you be willing to arrange the sending of samples to another country to be analysed by a centralised lab (Stomach Analyses Centre) in the form of a multilateral agreement?	8	5	0	4	4	0
Q4.2.e. Do you have the capacity to analyse samples from other countries?	5	8	0	2	6	0

In RCG 2021 Decision D08 stated that MSs ([DK, FR, DE, NO, SE, NE, UK(SC), UK(EN)]) should start sampling stomachs during the IBTS survey in the North Sea (RCG NANSEA RCG Baltic, 2021).

From these MS, all started sampling stomachs in the IBTS Q1 2022 (but it should be noted that Norway and UK were not consulted with this questionnaire).

The question Q4.2a was posed in general, however from the answers it became evident that some MSs answered the question considering IBTS in the North Sea, while others answered the have started stomach sampling in other surveys than the IBTS in the North Sea: Portugal and Spain in IBTS Q4 (Atlantic), Latvia, Poland, Denmark and Sweden in BITS Q1 and Q4 (Baltic). Further Belgium suggested that the BTS could be a candidate survey if the sampling program should be expanded.

On funding issues (Q4.2b): From the 5 participating MS, all found funding for the sampling (collection of samples in survey) but only 2 had funding for the stomach sample analysis. From the additional sampling in the Atlantic, one out of the two MSs had funding for the present sampling. In the Baltic, three out of the four MSs had funding for the present sampling.

On analysing the sampling data (Q4.2c), one of the 2 participating MSs that had funding for the stomach analysis are currently analysing samples within their national lab. The other participating MSs is sending samples to another lab abroad. From the Atlantic, the one MS with funding is also working up the samples in their national lab. In the Baltic, two out of the 3 MS that had funding, are analysing the samples in their national lab, and the other MS is sending samples to another lab abroad.

From the 5 participating MSs within IBTS NS all are willing to send samples to another lab (Q4.5d), regardless of several of them conducting their analysis in their own lab presently. In the Atlantic, none of the participating MS are presently willing to send samples abroad for analysis: one MS does not have the need for it, and another does not currently have the funding for it.

From the MSs participating within IBTS NS 2 out of 5, would be willing to analyse samples from other MS s (Q4.2e), if additional funding were available for hiring the sufficient human resources for conducting the

analysis. For the Atlantic, the 2 participating MSs are not able to receive additional samples for analysis. And in the Baltic, 2 out of the 4 MSs are willing and have the capacity to analyse samples for other MSs.

Ways forward – Stomach Sampling

The MS that agreed to participate in stomach sampling in the IBTS Q1 NS have all started sampling, however for some MSs funding for the analysis is still a pending issue. Some countries (PO, LV) have capacity for analysing samples from other MS, and this needs to be agreed by NCs.

Some MSs have also started sampling in other surveys, and when funding for analysis has been solved these could be candidate surveys for an extended sampling stomach sampling (IBTS Q4 Atlantic, BITS).

- ***RWP***

Table 5.5.4. Responses to questions related to the inclusion of tables in the RWP

	NANSEA			BALTIC		
	Yes	No	Partly	Yes	No	Partly
Q4.4.a. Do you agree with including in future RWP the table 1.2. International coordination as proposed in the test run RWP 2022?	12	0	1	8	0	0
Q4.4.b. Do you agree with including in future RWP the table 1.3 Bi-Multilaterals as proposed in the test run RWP 2021 but with a renewed format as in the test run 2022?	12	0	1	8	0	0
Q4.4.c. Do you agree with including in future RWP the table 2.1. Stocks as proposed in test run RWP 2021 and 2022?	12	0	1	8	0	0
Q4.4.d. Do you agree with including in future RWP the table 2.6 Surveys-at-sea as proposed in the test run RWP 2021 but with a renewed format as in the test run 2022?	12	1	0	8	0	0

Synthesis of comments - RWP

The inclusion of Tables 1.2 (Q4.a), 1.3 (Q4.B), 2.1 (Q4.c) and 2.6 (Q4.d) is almost unanimously accepted by NCs, but methodology for follow-up and possibility for mid-term updates have to be solved for each table. Also, duplication between NWP and RWP should be avoided. More specifically for Table 1.2 (International coordination) meetings to be listed here have to be specified and follow up of listed meetings to be decided.

Table 2.1 (Stocks) is mentioned to give a good overview of fishing by MS's, but problems with expressing species without TAC or with joint TACs in the table have to be solved. Table 2.6 (Surveys-at-sea) is a good overview on surveys and a new test run for 2022 is not resisted. Cost sharing of surveys will be part of RWP. Also, the format of the table needs to be specified.

Ways forward - RWP

The four proposed tables need to be part of the RWP 2025-2027, taking into account the comments made by MS.

Section on Monitoring progress in RCG/ISSGs

Table 5.5.5. Responses to questions related to monitoring progress in RCG/ISSGs

	NANSEA			BALTIC		
	Yes	**No**	**Partly**	**Yes**	**No**	**Partly**
Q5.a. Do you consider the level of ambition, as detailed in Infographic, achievable? If not, for with Thematic Focus Area (TFA) do you foresee difficulties? Please explain in comments	9	0	4	6	0	2
Q5.b. Can the level of ambition be agreed at RCG level. If not, for which Thematic Focus Area (TFA) have you identified barriers? Please explain in comments	10	0	3	7	0	1
Q5.c. Do you find the information available on the infographic useful and clear? Please explain in comments.	10	1	2	6	1	1
Q5.d. Do you agree to display the interactive infographic of Levels of ambition developed within Fishn´Co on the RCG´s website?	12	0	1	8	0	0
Q5.e. In your opinion, will it be useful to keep the infographic updated beyond Fishn´Co (finishing in Dec. 2022)?	12	0	1	8	0	0
Q5.f. Would you agree that the maintenance of this infographic beyond Fishn'co project makes part of the RCG's Secretariat tasks in collaboration with the relevant RGCs and ISSGs?	11	2	0	7	1	0

	NANSEA			BALTIC		
Q5.g. Providing that your answer to questions Q5.e and Q5.f is YES. Do you agree that efforts should also be directed to incorporate the RCG Med & BS into the infographic?	9	2	2	5	2	1

Synthesis of comments

The infographic is considered useful in general according to answers received for Q5.c, however the comments received suggest there may be need for consideration of some issues to improve its clarity. As it condenses a huge amount of information there is need to revise how the information provided in it about the ambition levels and the status is formulated in a way that they can be unambiguously understood by experts beyond the Fishn'Co partnership.

The feasibility of achievement of the Ambition Levels (Q5.A) raises some concerns about the timeframe they refer to, about the absence of information for some of the topics and TFAs.

The RCGs website is in general considered a suitable media to publish the infographic (Q.5.d) and the RCG Secretariat is confirmed as the body in charge of its update (Q.5.e). Some comments suggest a concern about the extent to which the Secretariat can deal with this task. It needs to be clarified that the Secretariat can undertake the update of the information display, but the information itself needs to be provided by the experts in charge of the Thematic Focus Areas (TFA) in the relevant ISSGs.

Ways forward

A thorough revision of the text clarity is to be made before the public upload of the infographic on the RCGs website.

It is suggested to consider making it explicit the timeframe for which the targets about the ambition levels are formulated and if there is a way to enable time/version comparisons to see the progress achieved. Any topic that is not applicable to a given TFA in the form provided by the infographic should be identified as not applicable.

The presentation guiding the users through the contents and filters of the infographic will also be made available at the same site and recommended for a quick check before starting the navigation.

Further discussion needs to be undertaken by Fishn'Co regarding the timeframe for the levels of ambition as there are different visions about how this improvement could be addressed.

The options to make progress assessment feasible within the limits of the tool used for the infographic development will be explored.

RCG agreed that Infographics are to be updated annually before the RCG/TM

References

RCG NANSEA RCG Baltic 2021. Regional Coordination Group North Atlantic, North Sea & Eastern Arctic and Regional Coordination Group Baltic. 2021. Part I Report, 78 pgs. Part II Decisions and Recommendations, 16 pgs. Part III, Intersessional Subgroup (ISSG) 2020-2021 Reports, 350 pgs.

Workplan for 2022 – 2023

Will be defined when ISSG "Development of Draft Regional Work Plan" is revived.

Proposals for Recommendation and Decisions

NANSEA BALTIC_2022_D04: Development of RWP 2025-2027 for NANSEA and Baltic region in coordination with ISSG/RWP

NANSEA BALTIC_2022_R09: Naming of experts to join ISSG RWP.

5.5.2 Feedback from ISSG & SG 'National Correspondents'

Progress during RCG NANSEA 2022 and RCG Baltic 2022

Progress during RCG NANSEA and RCG Baltic TM

The NC SG met at the RCG Baltic and NANSEA meeting to discuss status and actions since the RCG meeting 2020.

Since the RCG 2021 the NC ISSG finalized the revision and merging of the RoP for the Baltic with the RoP for the NANSEA. The revised proposal for RoP was put forward for adoption at the NC DM in September 2021. The NCs from the MSs concerned unanimously adopted the RoP.

One of the work packages (WP 2) of the Fishn'Co project is having the task to identify all topics to be taken into account when describing the decision-making processes for adopting an RWP. Based on the present version of the RoP a draft proposal for decision-making structures for adoption of a RWP has been submitted to the NC for comments.

One of the outputs of the work on decision-making structure work was the question whether the RWP needed to be official adopted. The DCF[1] article 9 paragraph 11 prescribe "*The Commission may adopt implementing acts laying down rules on procedures, cost-sharing arrangements for participation in research surveys at sea, the area of marine region for the purpose of data collection, and format and timetables for the submission and approval of regional work plans, as referred to in paragraph 8 of this Article. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 25(2)".* As this article do not require an official adoption alternative have been explored.

As the RWP will consist of a number of building blocks, MSs agree to be included. Therefore, instead of having an official adoption an approach where the NCs concerned make agreements could be the solution. Figurative speaking a RWP could be "A book of agreements". This approach is flexible, changes can easily be made and the agreement process is quick.

The NCs at the RCG Baltic and RCG NANSEA agreed to recommend that all elements included in the RWP will be based on agreement made by the MSs (NCs) concerned.

Workplan for 2022 – 2023

Tasks from 2021-2022 transferred to 2022-2023

- Work on WP/AR Tables 1.2; meetings, 1.3; bi-multilateral agreements, 1.4; recommendations
- Continue discussions regarding potential effects of Brexit and start communication with other third countries
    - Initiate communication with the UK to resolve the issues on sampling commercial catches.
    - Evaluate implications of the quota share and threshold changes.
    - Identify potential stocks/fisheries of concern.
    - Coordinate interaction of RCGs with third countries and initiate first step in 2023 with chairs.
    - Develop open communication channel between the RCGs and third countries to inform on changes in sampling and survey strategies as well as new initiatives for RSPs.

Proposals for Recommendation and Decisions

No proposals for recommendations nor decisions.

[1] REGULATION (EU) 2017/1004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 17 May 2017 on the establishment of a Union framework for the collection, management and use of data in the fisheries sector and support for scientific advice regarding the common fisheries policy and repealing Council Regulation (EC) No 199/2008 (recast)

5.5.3 Feedback from SecWeb project

SECWEB Status and way froward long term scenario

The status of the project SecWeb was presented by the project leader (Els Torreele). SecWeb is not a project with a scientific input/output as a research project, it is focussing on the requested services by the RCGs... It has a hands-on approach to demonstrate feasibility and to orient a design for a long term run of the needed services such as Secretariat, website and stakeholder database.

The project is organised in four WPs:

- **WP1 support structure for the RCGs.** The support structure is the Secretariat for dealing with: meetings organisation support, document management, reporting, stakeholder consultation, etc.

Support has been provided to RCGs, ISSGs, LM. But not all to the same extent as there was an agreement to pilot the activities with RCG NANSEA & Baltic as a Case Study.

Logos, templates, etc. are developed and used by all RCGs, incl. LM. All is currently much more homogeneous and the RCGs image is more consistently promoted with the use of all these materials by the network.

Alignment with the Fishn'Co project is also mentioned as accomplished.

- **WP2 presented main development of the website (https://www.fisheries-rcg.eu).** Live navigating with all the meeting participants, who were being asked to connect and follow the navigation.

Generic information about the RCGs, microsites for each of the RCGs is presented.

There is zoomed in to the NANSEA webpage, the infographic about the RCG scope is presented.

During the discussion it has been pointed out that the ToRs for the ISSGs are not updated (this is noted by the partners for appropriate amendment).

Participants in the RCGs network are encouraged to go into the RCGs website and identify missing things or outdated things and send the request for updates to the Secretariat.

Twitter is also shown as a media for the project communication which is currently on-going. The partners are encouraged also to follow it and to visit the News section and subscribe to the e-newsletter.

- **WP3 in Secweb is about developing scenarios for the long-term implementation of activities.** There is not much to say about the scenarios as they were presented also during several occasions and a consultation process involving all the NCs in the RCG network was also implemented.

Apart from the key aspects of the consultation process, some of the outstanding consequences of having made progress with the Secretariat setup are mentioned. E.g. some of the chairs have accepted the chairpersonship commitment to the RCGs encouraged by the existence of the Secretariat support.

The outcomes from the Consultation Process mentioned are in general terms very positive. The European Commission is informed about the outcomes from the consultation.

In spite of the above, there are some administrative and legal constraints which need to be further studied to find solutions to overcome them. In Spain there is a process ongoing to find pathways for a solution to the

identified barriers. CETMAR is in contact with the Spanish NC to deal with that, and the NC have assigned a person to support the process.

SecWeb project leader reports that the EC team for MARE08/2020 grants made a suggestion about the ACs as a potential feasible business model for the future of the Secretariat. It could happen that some NCs have new ideas on how to formally establish the Secretariat by the end of SecWeb. Should this be the case, the NCs are invited and encouraged to get in contact with SecWeb leadership about this.

It was also noticed that at the official end of the SecWeb project, i.e. 1st Jan. 2023, it is unlikely that there is a solution in place or at least a well-advanced solution for the long-term stability of the secretariat. There may be need to explore opportunities for extension of SecWeb and the RCG is informed that this will be studied by Fishn'Co and SecWeb and if feasible requested to the EC. There is agreement between Fishn'Co and SecWeb to look at the projects finances and explore the possibility for an extension of 2-3 months (using the money which was originally foreseen for non-partners' travel expenditures).

- **WP4 is for coordination and management**. There is no need to go into details about this.

Major outcomes by Secweb by the moment of the RCG TM 2022:

- Renewal of Chairs in RCGs can be facilitated by the existence of the secretariat
- More professional approach to communication and reporting helps the perception and the visibility of the work by the network
- The website is available and is offered to be used and promoted
- Soon new content for the ISSGs will also be made available on the website

There is a request from SECWEB to the MSs to put the reference to SecWeb on the Text box in NWP about other data collection activities. This may facilitate the allocation of funds to the future period in the context of EMFAF funds to the DCF.

SecWeb is also planning to deliver a Stakeholder database, there'll be a specific meeting about this during the RCG break out room meetings.

Long term scenario: during the RCG TM break out room meetings a specific meeting is setup with the COM to have further brainstorm about how to develop the optimal scenario for all MS. See below for a short summary on this.

Considering the possibility to emulate the AC structure, it is also commented that there may also be need to think about the name for the Secretariat when it becomes permanent.

Q&A

COM asks about the level of engagement by all the RCGs with the Secretariat.

SecWeb project leader reports that NANSEA and Baltic are the Case Study for SecWeb. As such they received the full support of the Secretariat in their processes, and got fully engaged. All other RCGs have been consulted and have received partial support. Even in that situation, all the other RCGs received more support than what was planned by the design of the project, but it was considered crucial to understand the work requirements and dynamics of the different RCGs. This included the support provided by the Secretariat to the LM and the support offered for this year's meeting of LDF RCG, or the support provided to the Med&Black Sea for the training with GFCM on PETs, etc. These all are records about extra commitments taken up by the Secretariat.

The participants in the meeting confirm the words of the SecWeb project leader about the functioning of the Secretariat and the engagement of the whole network of the RCGs.

Feedback from the RCG TM break out meeting with the COM to have further brainstorm about how to develop the optimal scenario for all MS. Long term funding of the SecWeb

Parallel meeting (Els Torreele, Monika Sterczewska and Rosa Fernández)

Objective:

Discuss the financial and administrative options for the continuation of the Secretariat Service to the RCGs.

The situation is as follows:

- It is largely recognised and accepted that the Secretariat of the RCG has added value to the network and most of the countries have expressed support to continue the secretariat support service.
- Those countries who have expressed some constraints are being approached individually. For example, in the case of Spain, its General Secretariat for Fisheries has reacted positively to the direct consultation process with the assignment of one person with the legal background to better explore the options to sort out the barriers they foresee based on a previous experience with one cost-sharing agreement for an IBTS survey.

Following there are presented the options discussed to formalise the service considering both the financial and the legal implications:

	Options under consideration	Pros	Constraints
1	Multilateral agreement among all the Member States. They put the money in one country (as a common pot) and this country launches a procurement process to hire the Secretariat service provider.		There may be some countries like Spain facing real difficulties related with legal/financial burden. Portugal could have issues for paying cross-border costs charged by CETMAR due to EMFAF regulation (this is something to be consulted) Some countries also present concerns with the criteria behind the calculation of the fee (financial scenario)
2	Follow the model of the Advisory Councils and set up a new structure following the same model (esp. LDAC)	Stability. Extra costs could be compensated with a grant by the EC	Setting up a new structure entangles some extra management costs and burden.

3	The Member States and the EC hire CETMAR directly under the EMFAF, with amounts under the thresholds of need for public procurement when possible.	Flexibility to adapt the financial management to the Member State's needs. The EC can also hire the services and contribute to finances	VAT could need to be added if the payments require issuing service invoices. Some risk of withdrawals, delays or no payments… this would be hampering the cash-flow availability. This can be mitigated with the contribution by the EC, and with the agreement to pay once for a two- or three-year period.

Actions needed and Timeline for action

Revision of the assignment of fees to make them proportional not only to EMFAF assignment to the country but also to the use each country is making of the RCGs networks. (SecWeb: WP3). This needs to be an **imminent action.**

Elaboration of a document explaining the plan proposed, the fees' assignments and the type of commitments to be adopted by the MSs as well as a synthesis of the service provision that will be offered through the payment of the fees by the service provider to be hired. This document will include a direct and specific request to each country to declare if they will accept what is proposed. If they say they cannot go for it, they will be requested to propose a solution. It could happen that the network is set with some "variable geometry" in the formalisation of the legal-financial procedure to adapt to these cases. Draft the text to be sent during the summer to the NCs and gather their commitment during the DM 2022 if possible.

If the decision is taken to launch the process, then CETMAR and the network, and specially SecWeb, will work until the end of the year to gather all the individual agreements.

A short extension of SecWeb will also be explored to guarantee sufficient coverage of the preparation period.

Proposals for Recommendation and Decisions

NANSEA BALTIC_2022_D05a: Text on regional contribution per MS to be taken into the national plans.

NANSEA BALTIC_2022_D05b: Formal agreement on the principle of the implementation of a long-term Secretariat

NANSEA BALTIC_2022_R10: NCs of all MSs that have mandate to make decisions should be present at the DM 2022.

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5.5.4 ISSGs for season 2022-2023

Progress during RCG NANSEA and RCG Baltic 2022

The intersessional work 2021-2022 was setup for 16 different ISSGs (including WGRDBESGOV that is not a proper RCG ISSG). All ISSGs presented their results during the meeting; twelve ISSGs conducted their tasks as planned, two ISSGs made little progress in 2021-2022, one ISSG put their work on hold after deliberation within the group in 2021-2022, and one ISSG had to postpone their work until autumn 2022.

The setup of working intersessional again proved to be successful to achieve the goals to make regional coordination efficient on a regional scale. The suggested next steps for the different ISSGs are presented in this report and have been endorsed by the RCG Baltic and RCG NANSEA. The ISSG "Development of Draft Regional Work Plan" will be revived after the accompanying project Fishn'Co is finished. Furthermore, the work of ISSG "Case Study of the trawl fishery in Iberian Water" will be put on hold for one year. In total 16 different ISSGS (including WGRDBESGOV) are suggested to work actively on different tasks within different topics in 2022-2023. The overview of the suggested ISSGs for the next period are presented below (Table 5.5.5.1).

Workplan for 2022 – 2023

Table 5.5.5.1. *ISSGs overview for season 2022-2023*

TOR	Topic	ISSG	ISSG short name	chairs
TOR 1	End-users and RCGs	End-user and RCG interaction	End-user and RCG	RCG chairs
TOR 2	Data Analysis and Quality	RDB catch, effort and sampling overviews	RDB overviews	Lucia Zarauz, Ana Cláudia Fernandes
		Métier and transversal variable issues	Métier/ transversal	Josefine Egekvist
		Data Quality	Data quality	On hold
		Electronic Monitoring Technologies	EMT	Jørgen Dalskov, Gildas Glemerec , TBD
	Regional Database	ICES WGRDBESGOV		Els Torreele, Lucia Zarauz
		RDBES Core group		Henrik Kjems-Nielsen
TOR 3	Implication of management measures on data collection	Questionnaire on Impacts of current events on sampling and data availability	*Data questionnaire*	*Maciej Adamowicz*

TOR 4	Diadromous Fishes	Diadromous Fishes	Diadromous	Tapani Pakarinen, Marko Freese
	Surveys	Surveys	Surveys	Sieto Verver, Christoph Stransky
	Regional Sampling plans	Optimized and Operational Regional Sampling Plans	Umbrella	Kirsten Håkansson , Rita Vasconcelos, Harriet van Overzee
		Case Study on the trawl fishery in Iberian Waters	CS Iberian Waters	On hold until 2023 (Rita Vasconcelos)
		Case Study on freezer trawler fleet exploiting pelagic fisheries in the NEA	CS pelagic freezer trawler	Andrew Campbell, Jens Ulleweit
		Case study on fisheries for small pelagics in the Baltic	CS small pelagics Baltic	Katja Ringdahl, Marie Storr-Paulsen
		Evaluation of the data collected for the SSF at EU level	SSF	Estanis Mugerza
		Optimisation of PETS bycatch sampling	PETS	Estanis Mugerza
		Regionally coordinated stomach sampling	Stomach sampling	Pierre Cresson, Matthias Bernreuther
		Recreational fishery	Recreational	Harry Strehlow
TOR 5	Governance	*Development of Draft Regional work plan*	*RWP*	Joel Vigneau, Maria Hansson
		Implementation of generic tools for the RCGs: Web, secretariat	*Secretariat*	*On hold until SecWeb funding decision (Els Torreele)*
		National Correspondents	NC	Anna Hasslow

Proposals for Recommendation and Decisions

NANSEA BALTIC_2022_D06: Agree on proposed ISSGs to work during season 2022-2023 and ensure that experts and manpower is assigned to ISSG work.

5.5.5 Chairing RCG NANSEA and RCG Baltic

RCG Baltic NANSEA will continue with their back-to-back TM and DM in 2022-23. Chairing the meeting depends on the continuation of the Secretariat work (see also D07):

a) If Secretariat continues, number of chairs will be reduced to 3 (I.e., one per region) and chairs term is increased to three years in a rotating system (I.e., each year one region appoints a new chair).

To switch the running system to this approach, the incoming 2022-23 chair would run for 3 years, while one of the current chairs would increase their term by 1 year.

b) If Secretariat cannot be continued or is on hold in 2023, the 4-chairs system is kept to reduce the workload per chair.

Two new chairs would be appointed for the season 2022-23, and one will run for two years while the other will run for three.

Proposals for Recommendation and Decisions

NANSEA BALTIC_2022_D07: Agree on proposed set-up and chairing of season 2022-2023.

5.6 ToR 6 AOB

5.6.1 Discussion of the role of Advisory Councils in the RCGs

The presentations on genetic methods in data collection (PelAC) and the FishGenome project were the launch for discussing the role of ACs in the RCGs. There was a general discussion on the way forward in terms of collaboration with the industry on data collection. The possibility of combining efforts of different sampling activities was also discussed.

It was discussed that while industry collected data can be valuable, at first reliable catch statistics, including logbook registered discards, are essential to support fisheries management. The RCG commented that the PelAC should contribute on this.

Sampling by the industry is possible, but using industry collected data to assess the stocks is very different because there is a need to guarantee the same quality checks as the data obtained through research surveys. The transparency and other quality issues of the data were strongly raised.

More discussion is needed on the role of ACs in the RCGs. However, the conclusions of this discussion made it clear that the coordination between ACs and RCGs could be more comprehensive, and benchmarks could be joint. It was suggested that the RCG chairs may, on behalf of the RCG, reach out to the different ACs and discuss further coordination.

6. AOB

None.

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7. Conclusions

Also in 2022, the approach of having the ISSG as the basis of the RCG NANSEA and the RCG Baltic was very positively evaluated and will be continued for the next year. The timing will again change slightly as the ISSGs are encouraged to start their work earlier. The chairs will address the NCs more directly to nominate participants for the ISSG work. The output produced in these ISSGs is very productive and forms the basis of the discussions and future development of the RCG work. The back-to-back meeting of the two RCGs (i.e., RGG NANSEA and the RCG Baltic) was continued and again positively received by members of both RCGs. It was perceived as a more efficient way to address the common issues and to improve coordination and synergies between the two RCGs. During the evaluation of the first year with the new RCG set up it was agreed to keep the back-to-back meeting for the ongoing RCG term 2022-2024. Some NCs encouraged the reduction of the chairs from 4 to 3 (i.e., one per region). This will be discussed during the DM and LM and strongly depends on the continuation of the RCG Secretariat and the respective reduction in workload for the chairs.

The digital one-day meeting of the new set-up was received positively and reduced the number of presentations during the TM significantly, but some discussion evolved around the content of that day (i.e., presenting ISSG work or rather plan the TM and focus on pending issues). During the 2022 TM of the RCGs, subgroups met in allocated sessions. More time could be allocated this year due to the beforehand one-day meeting that already covered 7 ISSGs. Subgroups and ISSG chairs appreciated the off-plenary time on Thursday afternoon which enabled them to write large parts of their ISSG and SG report parts and wrap-up pending subgroup work and discussions (e.g., in the SecWeb and Fishn'Co projects).

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8. Next meeting

The RCG NANSEA and RCG Baltic 2022 meeting will be followed up with the one-day **RCG DM** for NCs (**19th September 2022**).

Preliminary dates and venue for the **next RCG NANSEA and RCG Baltic TM are 06-09 June 2023 in Poland (Gdansk) or Spain (Vigo) for the TM and 1-2 days of virtual meeting in mid-May 2023.**

For the RCG NANSEA 2023 the chairs are *Dália Reis* and Josefine Egekvist, for RCG Baltic 2023 *Maciej Adamowicz*.

Annex 1: List of Participants

Country/ Org.	Name	Email	Comment
DE	**Sven Stötera**	**sven.stoetera@thuenen.de**	**Chair of RCG Baltic**
PL	**Maciej Adamowicz**	**madamowicz@mir.gdynia.pl**	**Chair of RCG Baltic**
NL	**Harriet van Overzee**	**harriet.vanoverzee@wur.nl**	**Chair of RCG NANSEA**
PT	**Dália Reis**	**dalia.CC.Reis@azores.gov.pt**	**Chair of RCG NANSEA**
IE	Ailbhe Kavanagh	ailbhe.kavanagh@marine.ie	Observer
PT	Ana Cláudia Fernandes	acfernandes@ipma.pt	ISSG chair - RDB overviews
IE	Andrew Campbell	andrew.campbell@marine.ie	ISSG chair - CS pelagic freezer trawler NEA
DK	Anja Gadgaard Boye	angabo@aqua.dtu.dk	Participant
SE	Anna Hasslow	anna.hasslow@havochvatten.se	**NC,** Chair of ISSG NC
SE	Anna Persson	anna.s.persson@slu.se	Participant
SE	Annelie Hilvarsson	annelie.hilvarsson@slu.se	Participant
SE	Annica de Groote	annica.isaksson.de.groote@slu.se	Participant
LT	Antanas Kontautas	antanas.kontautas@ku.lt	Participant
COM	Blanca Garcia Alvarez	Blanca.GARCIA-ALVAREZ@ec.europa.eu	EU COM
DE	Christoph Stransky	christoph.stransky@thuenen.de	**NC,** Chair of ISSG Survey
PT	Cristina Rosa	crosa@dgrm.mm.gov.pt	
MT	Daryl Agius	daryl.agius@gov.mt	Observer
IE	David Currie	David.Currie@Marine.ie	Participant
ES	David Espino García	david.espino@ieo.csic.es	Participant
LV	Didzis Ustups	Didzis.Ustups@bior.lv	**NC**
IE	Edward Farrell (Killybegs Fishermen's Organisation)	edward@kfo.ie	Observer. Only taking part on Thursday
EE	Elo Rasmann	elo.rasmann@envir.ee	**NC**
BE	Els Torreele	els.torreele@ilvo.vlaanderen.be	**NC,** Leader of project SecWeb
ES	Estanis Mugerza	emugerza@azti.es	Chair of ISSGs PETS and SSF
FR	Florent Renaud	Florent.Renaud@ifremer.fr	Participant
SE	Göran Sundblad	goran.sundblad@slu.se	Participant
DE	Harry Strehlow	harry.strehlow@thuenen.de	Chair of ISSGs Recreational fishery
FI	Heikki Lehtinen	heikki.lehtinen@mmm.fi	**NC**
NL	Heleen van Bemmel	h.h.a.vanbemmel@minlnv.nl	**NC**
BE	Heleen Raat	Heleen.Raat@ilvo.vlaanderen.be	Observer
IE	Helen McCormick	Helen.McCormick@Marine.ie	Participant
ICES	Henrik Kjems-Nielsen	henrikkn@ices.dk	Chair of ISSGs RDBES Core group
SE	Henrik Pärn	henrik.parn@slu.se	Observer
SE	Hongru Zhai	hongru.zhai@slu.se	Participant

Country/ Org.	Name	Email	Comment
SE	Ida Ahlbeck Bergendahl	ida.ahlbeck.bergendahl@slu.se	Observer
PL	Iga Gaca	igaca@mir.gdynia.pl	Participant
PT	Inês Ferreira	ifferreira@dgrm.mm.gov.pt	Participant
PL	Ireneusz Wójcik	iwojcik@mir.gdynia.pl	**NC**
LT	Irina Jakovleva	irina.jakovleva@zuv.lt	Participant
ES	Isabel Bruno	isabel.bruno@ieo.es	Participant
LV	Ivars Putnis	ivars.putnis@bior.lv	Participant
ICES	Jan de Haes	jan.dehaes@ices.dk	ICES
DE	Jens Ulleweit	jens.ulleweit@thuenen.de	Chair of ISSG CS pelagic freezer trawler NEA
PL	Joanna Pawlak	jpawlak@mir.gdynia.pl	Participant
FR	Joel Vigneau	Joel.Vigneau@ifremer.fr	Leader of project Fishn'Co
DK	Jonathan Stounberg	Jostou@aqua.dtu.dk	Other
FI	Joni Tiainen	joni.tiainen@luke.fi	Participant
DK	Jørgen Dalskov	jd@aqua.dtu.dk	**NC**
SE	Josefin Sundin	josefin.sundin@slu.se	Participant
DK	Josefine Egekvist	jsv@aqua.dtu.dk	Chair of ISSG Métier issues
FI	Jukka Pönni	Jukka.Ponni@luke.fi	Participant
MT	Jurgen Mifsud	jurgen.a.mifsud@gov.mt	**NC,** Chair of RCG Med&BS
SE	Karolina Wikström	karolina.wikstrom@slu.se	Participant
SE	Katja Norén	katja.noren@slu.se	Participant
SE	Katja Ringdahl	katja.ringdahl@slu.se	Participant
DK	Kirsten Birch Håkansson	kih@aqua.dtu.dk	Chair of ISSG Optimized RSP
LT	Kristina Maknavičienė	kristina.maknaviciene@zuv.lt	Participant
ICES	Lara Salvany	lara.salvany@ices.dk	ICES
BE	Laura Lemey	laura.lemey@ilvo.vlaanderen.be	Participant
COM	Leonie O'Dowd	leonie.o'dowd@ec.europa.eu	EU COM
BE	Lies Vansteenbrugge	Lies.Vansteenbrugge@ilvo.vlaanderen.be	Participant
IE	Linda O'Hea	linda.ohea@marine.ie	**NC**
SE	Lisa Sörman	lisa.sorman@slu.se	Participant
ICES	Lotte Worsøe Clausen	Lotte.worsoe.clausen@ices.dk	ICES
FR	Louise Véron	louise.veron@agriculture.gouv.fr	**NC**
ES	Lucía Zarauz	lzarauz@azti.es	Chair of ISSG RDB catch, effort and sampling overviews
LV	Maksims Kovsars	Maksims.Kovsars@bior.lv	Participant
ES	MAPA SGP	sgprotec@mapa.es	Participant
SE	Maria Hansson	maria.hansson@slu.se	Participant

Annex 1: List of Participants

Country/ Org.	Name	Email	Comment
DK	Marie Storr-Paulsen	msp@aqua.dtu.dk	Chair of ISSG CS small pelagics Baltic
	Mark Sytse Ybema	ybema@sustainovate.com	*Observer.* Only taking part on Wednesday
DE	Marko Freese	marko.freese@thuenen.de	Chair of ISSG Diadromous
	Martin Pastoors	mpastoors@pelagicfish.eu	Observer. Only taking part on Wednesday
PL	Marzenna Pachur	pachur@mir.gdynia.pl	Participant
DE	Matthias Bernreuther	matthias.bernreuther@thuenen.de	Chair of ISSG Stomach sampling
MT	Michelle Mizzi	michelle.mizzi.1@gov.mt	Observer
COM	Monika Sterczewska	Monika.STERCZEWSKA@ec.europa.eu	EU COM
SE	Nuno Prista	nuno.prista@slu.se	Participant
FR	Pierre Cresson	Pierre.Cresson@ifremer.fr	Chair of ISSG Stomach sampling
LT	Remigijus Sakas	remigijus.sakas@apc.ku.lt	Participant
ES	Ricard Buxó	rbuxo@mapa.es	Other
PT	Rita Vasconcelos	rita.vasconcelos@ipma.pt	Chair of ISSGs Optimized RSP and CS trawler Iberian Waters
RCG secretariat	Rosa Fernández	rfernandez@cetmar.org	Technical support
ICES	Ruth Fernandez	ruth.fernandez@ices.dk	ICES
NL	Sieto Verver	sieto.verver@wur.nl	Chair of ISSG Survey
RCG secretariat	Susana Rivero Rodríguez	srivero@cetmar.org	Technical support
SE	Susanne Tärnlund	susanne.tarnlund@slu.se	Participant
PT	Suzana Faria Cano	sfcano@dgrm.mm.gov.pt	**NC**
EE	Tiit Raid	tiit.raid@ut.ee	Participant
BE	Tim Plevoets	tim.plevoets@ilvo.vlaanderen.be	Participant
DE	Uwe Krumme	uwe.krumme@thuenen.de	Participant
LT	Vilda Griuniene	Vilda.Griuniene@zum.lt	**NC**

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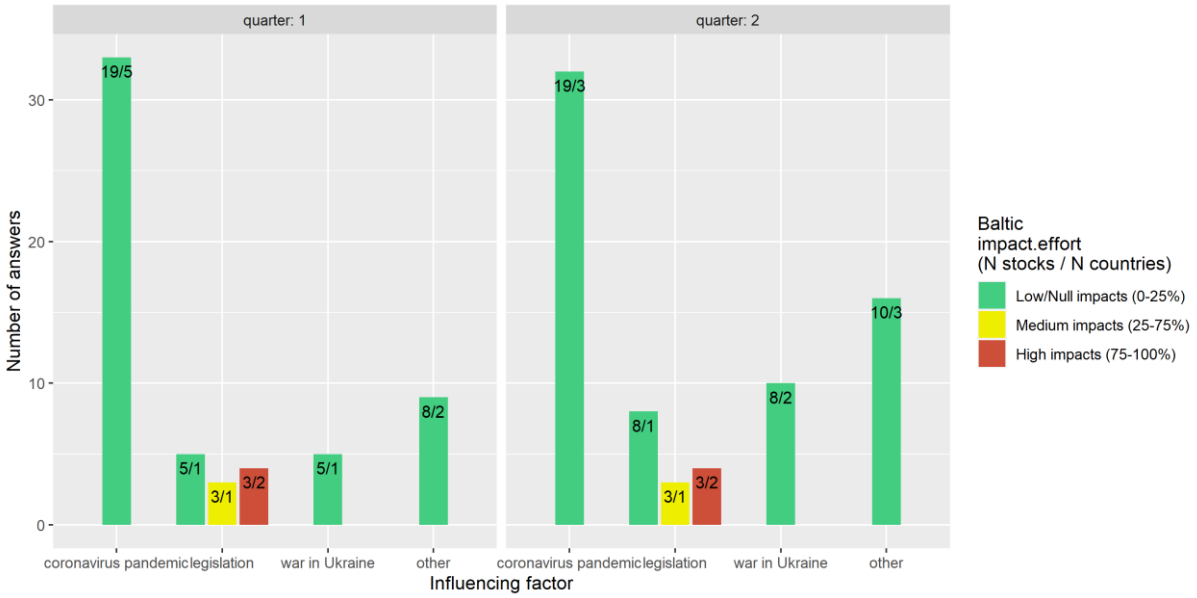
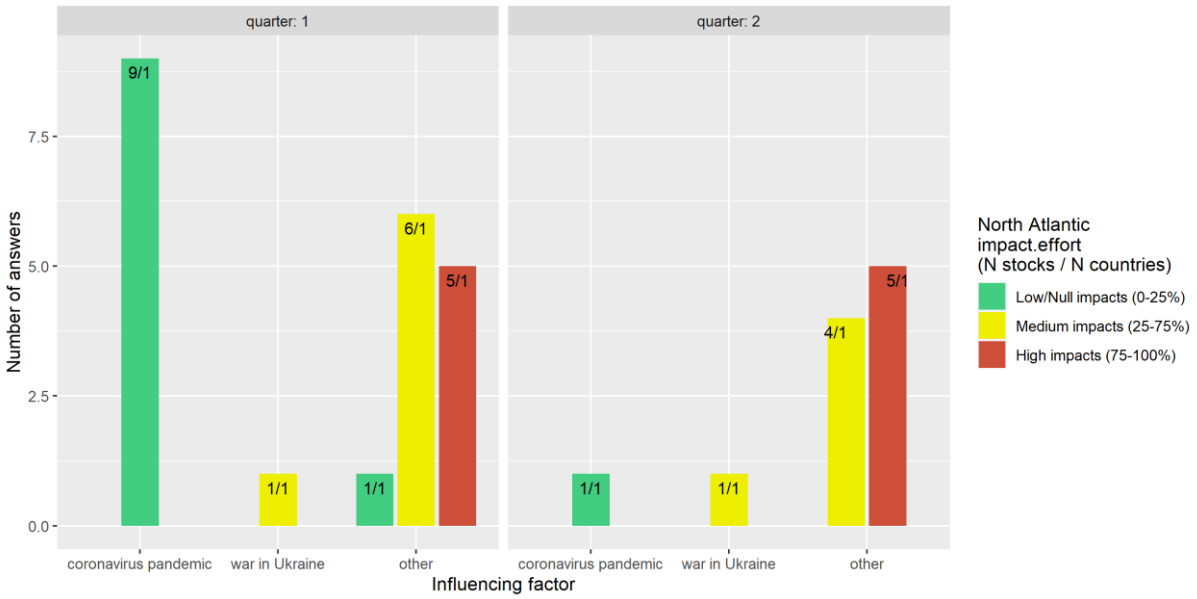
Annex 5.3.1: Overview of impact of various factors on data collection





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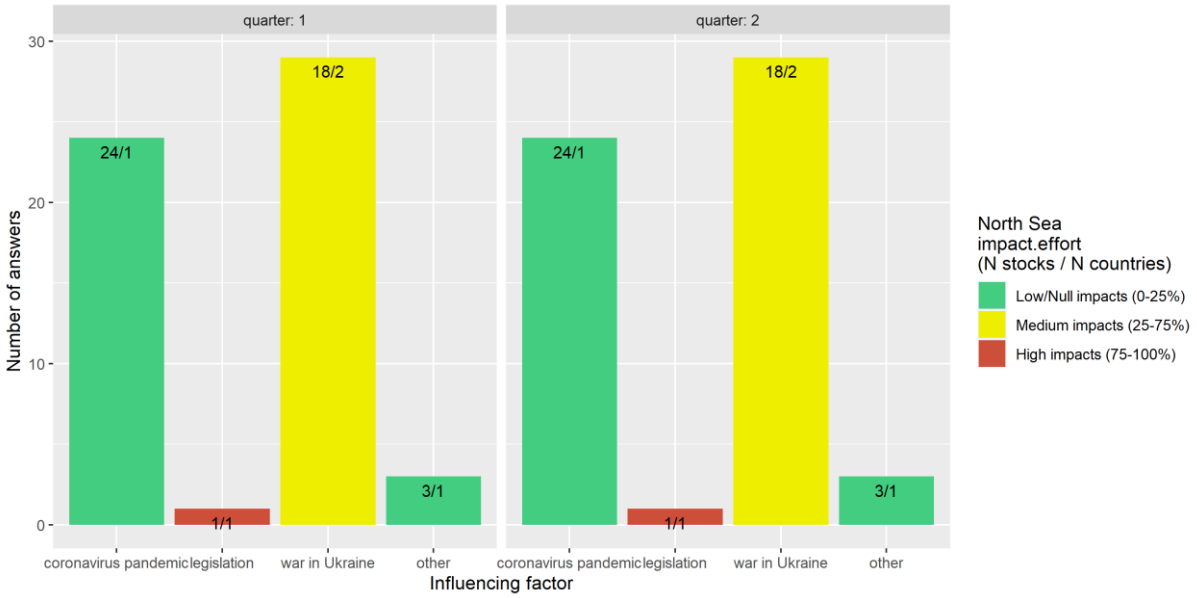

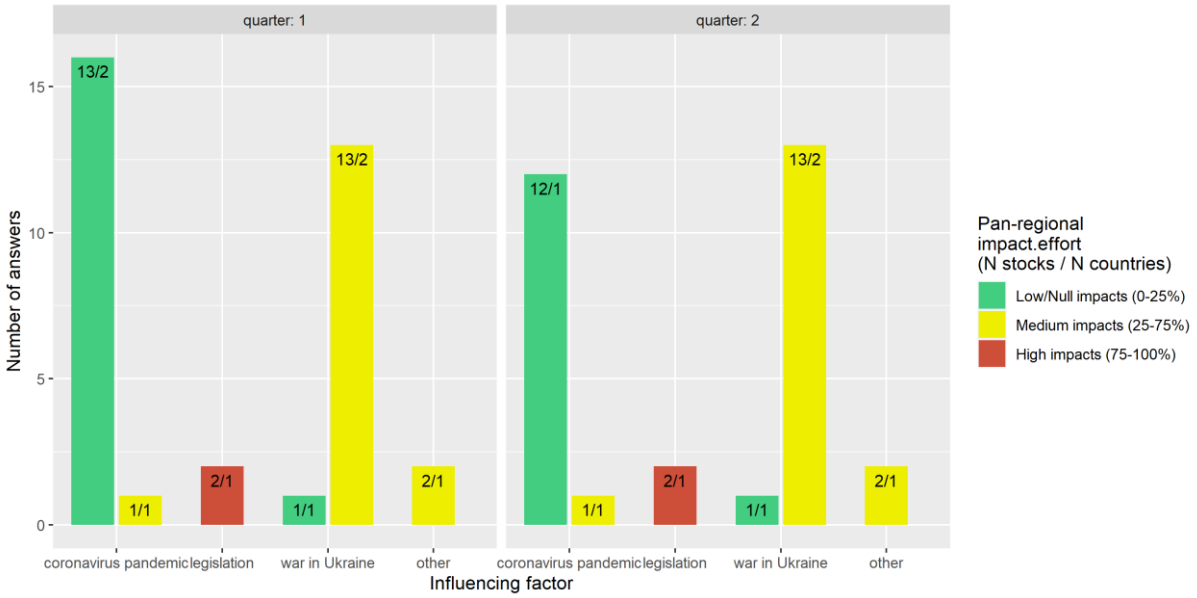

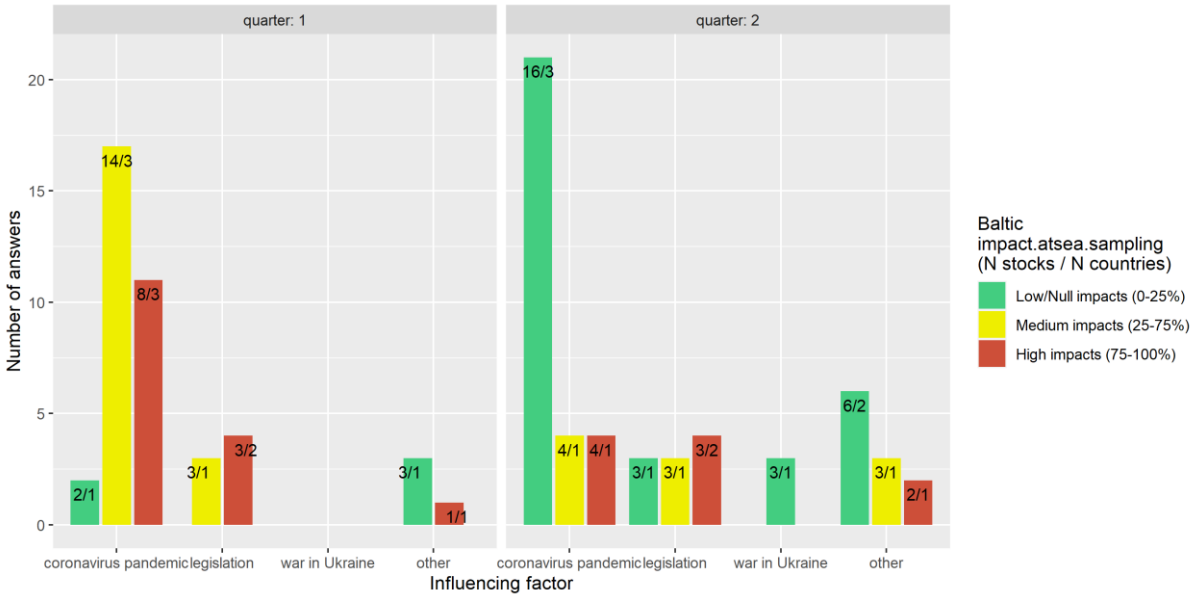
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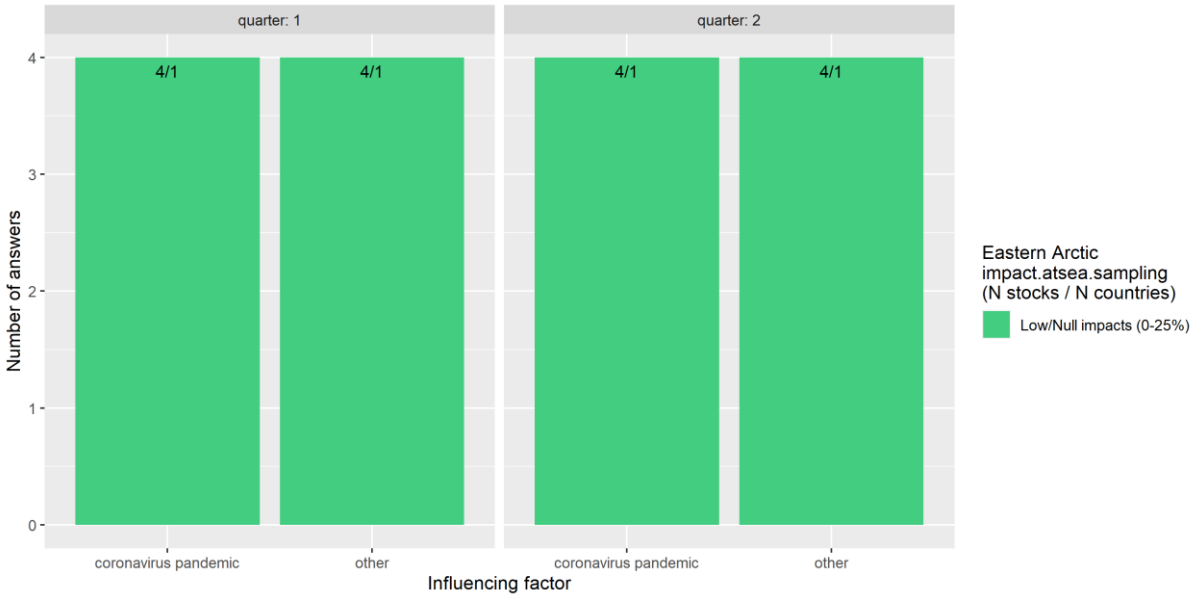
(N stocks / N countries)
Low/Null impacts (0-25%)
Medium impacts (25-75%)
High impacts (75-100%)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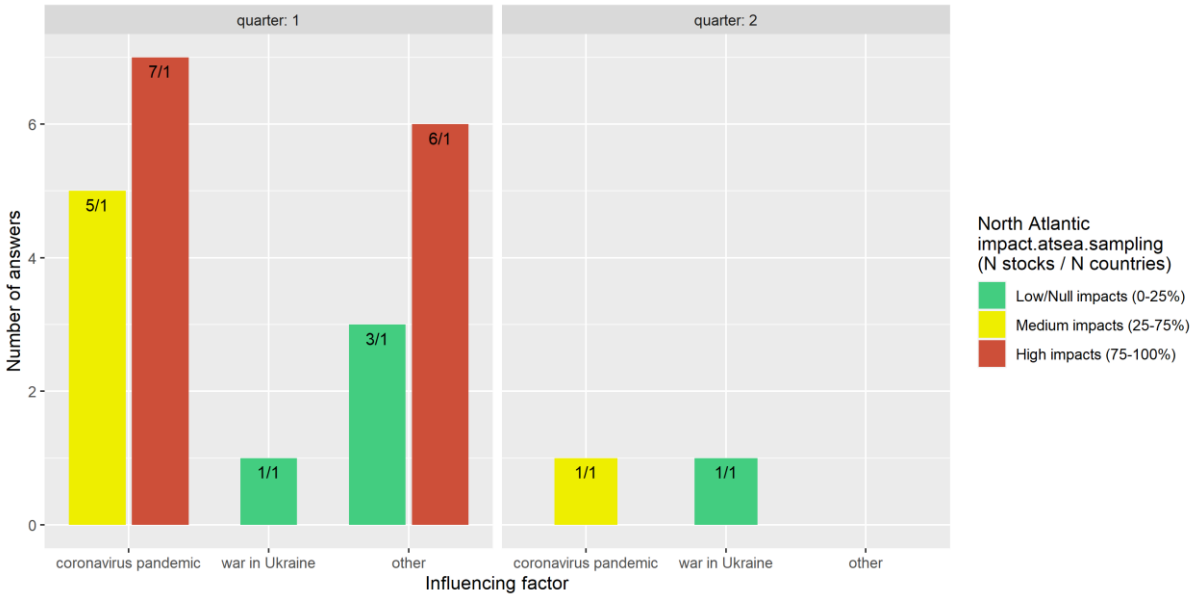
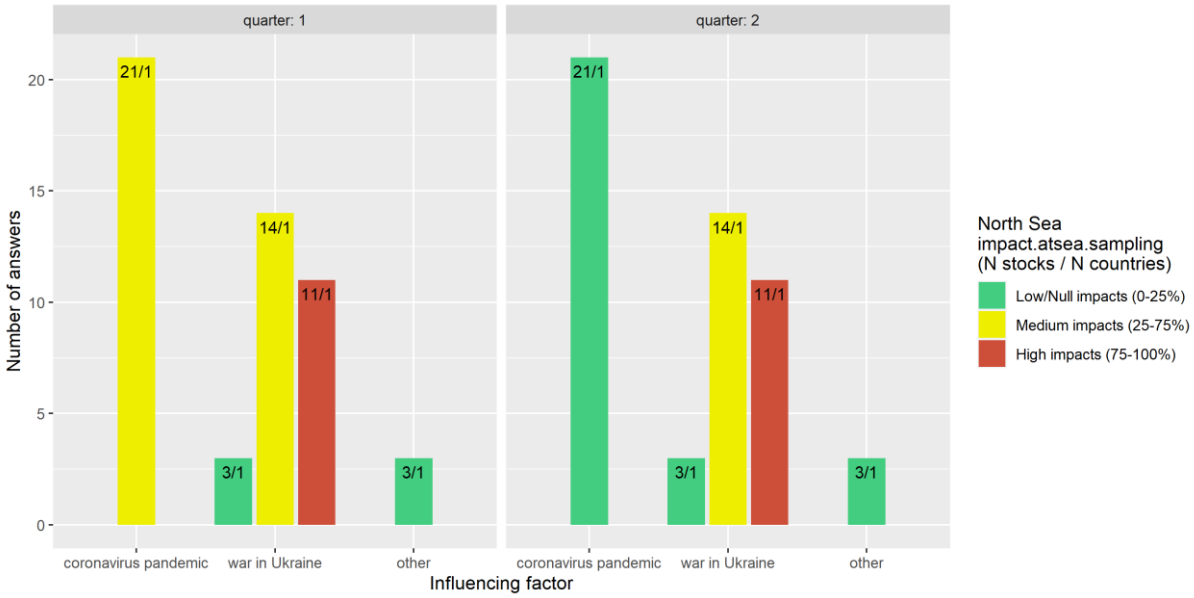
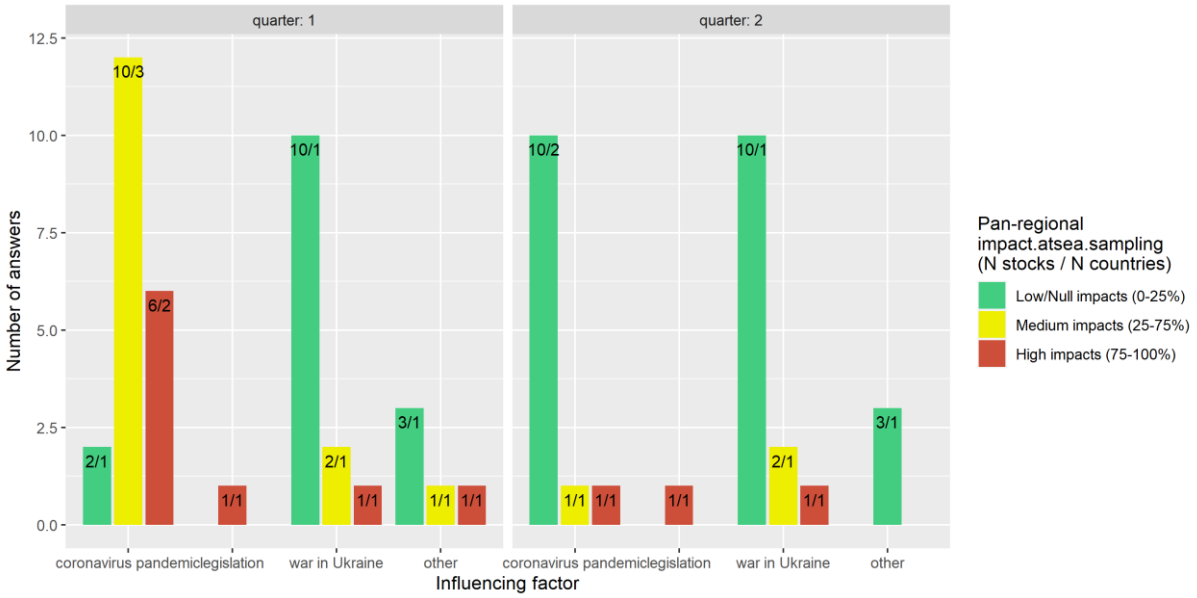
(N stocks / N countries)
Low/Null impacts (0-25%)

Annex 5.3.1: Overview of impact of various factors on data collection



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1/1
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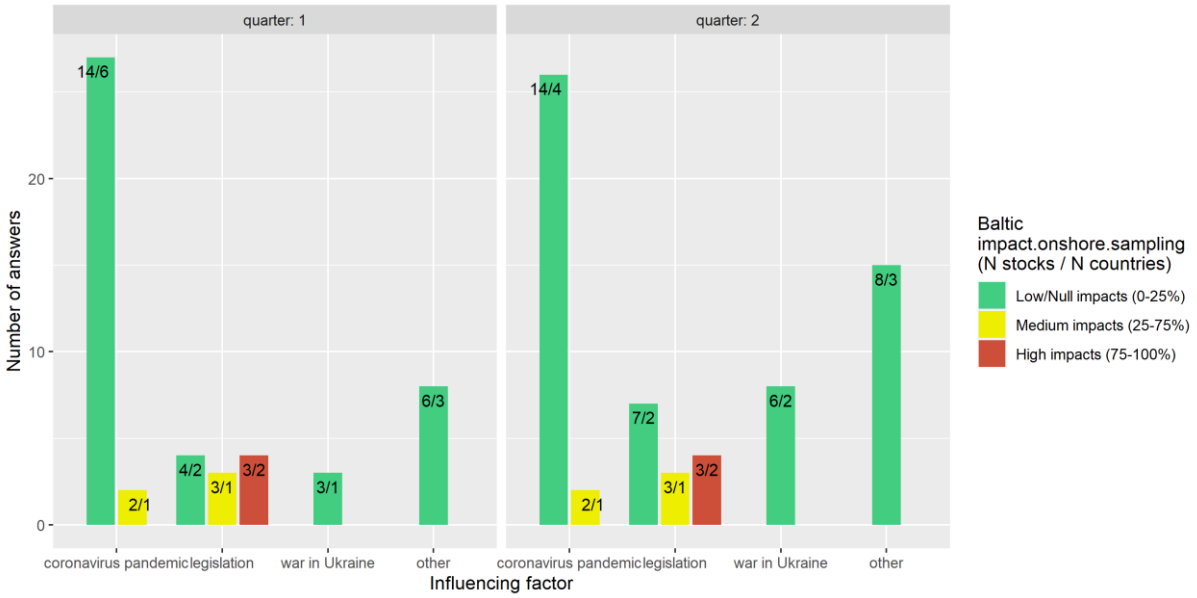
1/1
3/1
1/1
1/1
10/2
1/1
1/1
1/1
10/1
2/1
1/1
3/1
coronavirus pandemic
legislation
war in Ukraine
other
Influencing factor
Pan-regional
impact.atsea.sampling
(N stocks / N countries)
Low/Null impacts (0-25%)
Medium impacts (25-75%)
High impacts (75-100%)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3/2
3/1
6/3
14/4
2/1
7/2
3/1
3/2
6/2
8/3
coronavirus pandemic
legislation
war in Ukraine
other
Influencing factor
Baltic
impact.onshore.sampling
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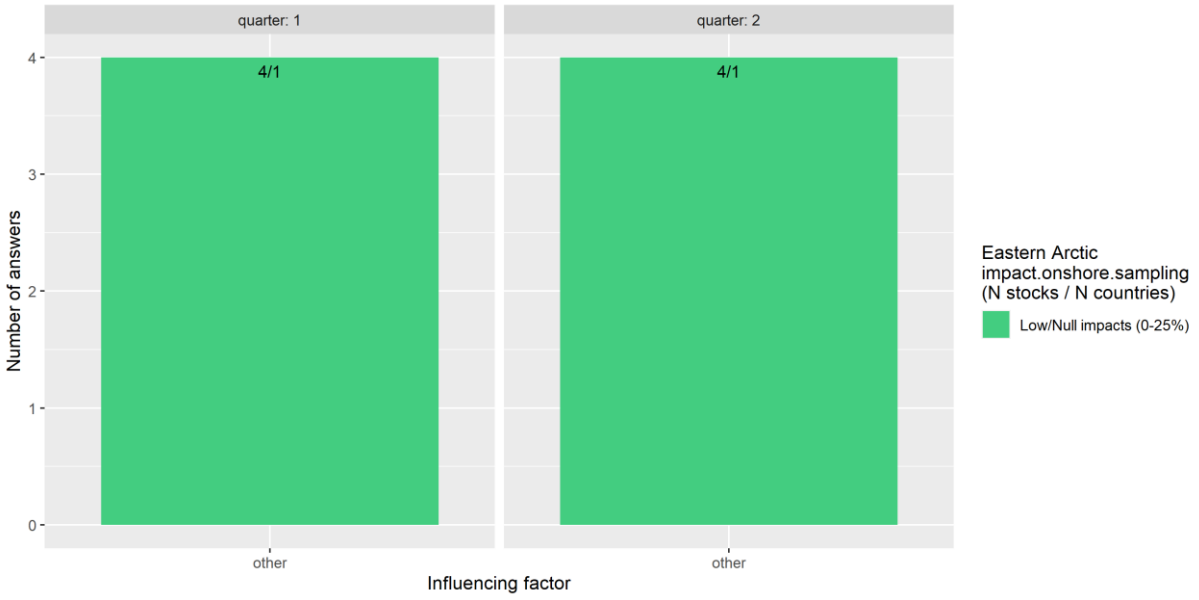
Low/Null impacts (0-25%)
Medium impacts (25-75%)
High impacts (75-100%)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4/1
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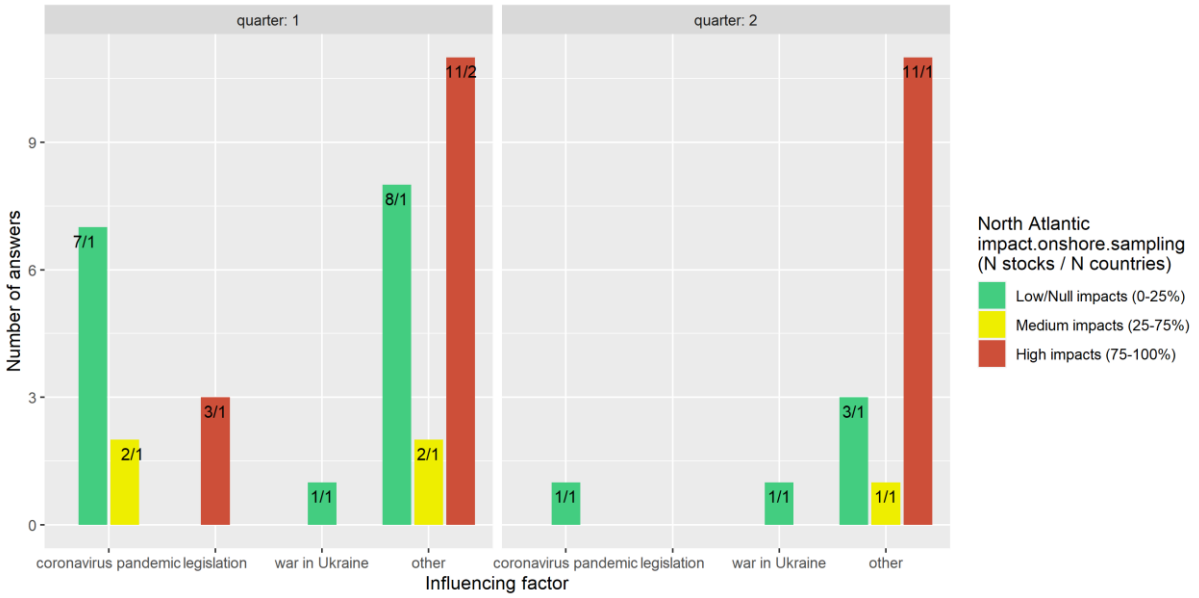
other
other
Influencing factor
Eastern Arctic
impact.onshore.sampling
(N stocks / N countries)
Low/Null impacts (0-25%)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1/1
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1/1
11/1
Number of answers
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6
9
coronavirus pandemic
legislation
war in Ukraine
other
coronavirus pandemic
legislation
war in Ukraine
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Influencing factor
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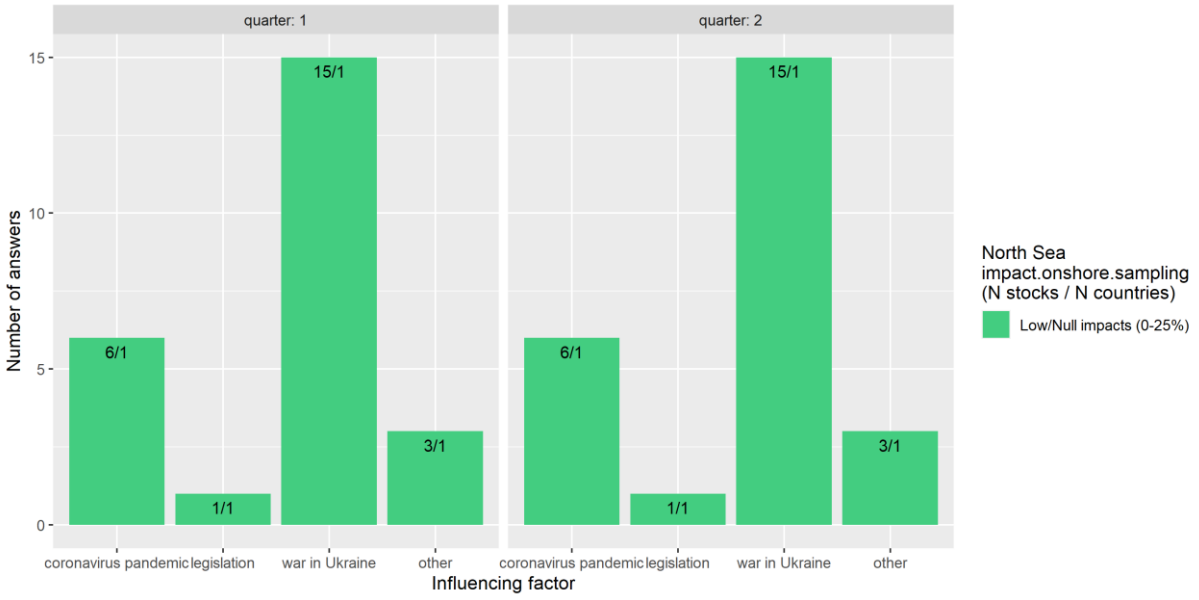
impact.onshore.sampling
(N stocks / N countries)
Low/Null impacts (0-25%)
Medium impacts (25-75%)
High impacts (75-100%)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15/1
3/1
coronavirus pandemic
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war in Ukraine
other
Influencing factor
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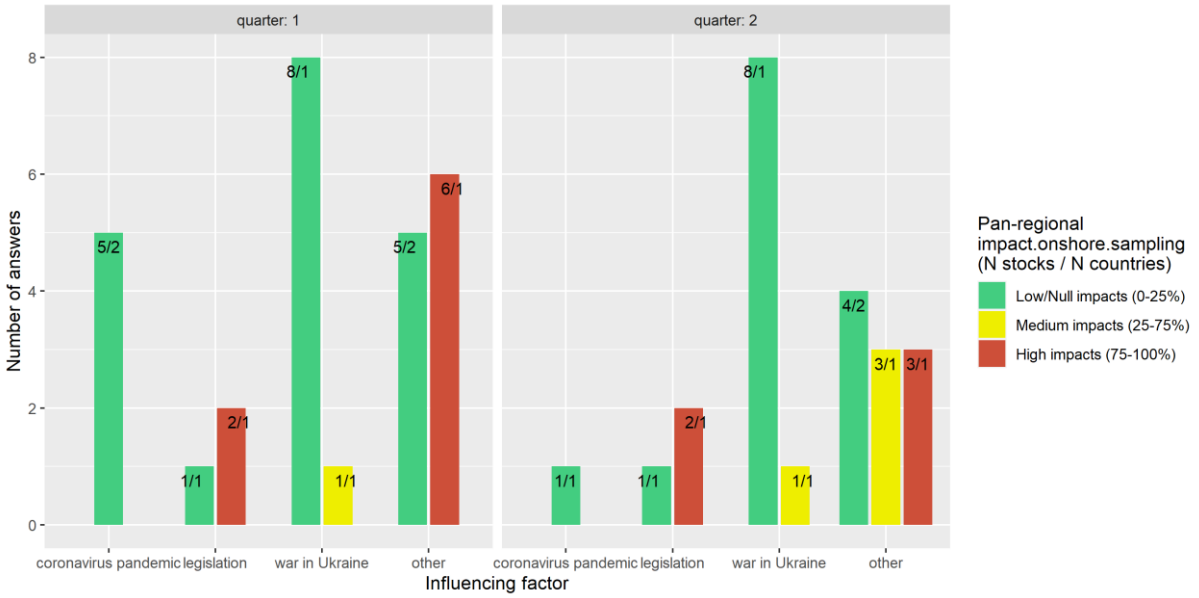
(N stocks / N countries)
Low/Null impacts (0-25%)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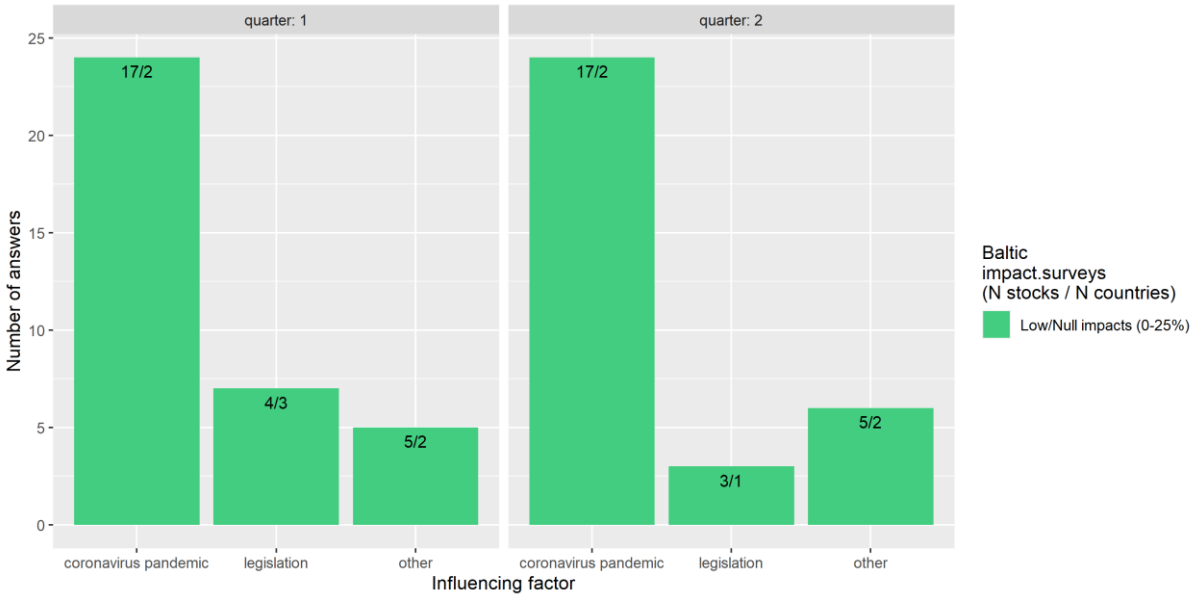
8/1
1/1
5/2
6/1
4/2
3/1
3/1
coronavirus pandemic
legislation
war in Ukraine
other
Influencing factor
Pan-regional
impact.onshore.sampling
(N stocks / N countries)
Low/Null impacts (0-25%)
Medium impacts (25-75%)
High impacts (75-100%)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17/2
3/1
5/2
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legislation
other
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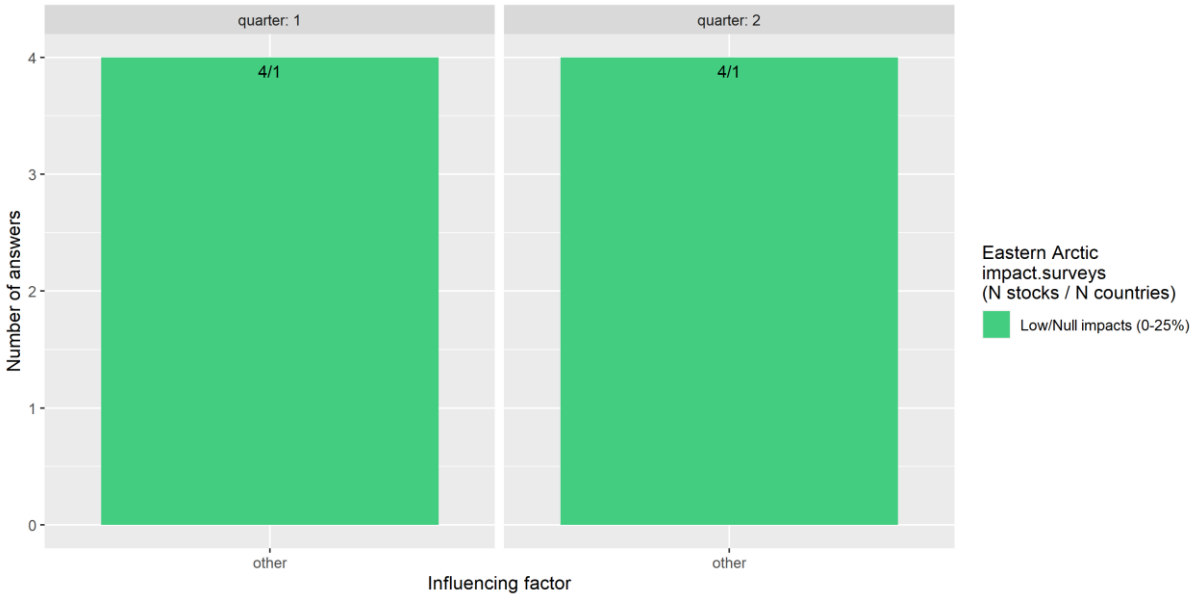
legislation
other
Influencing factor
Baltic
impact.surveys
(N stocks / N countries)
Low/Null impacts (0-25%)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Influencing factor
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impact.surveys
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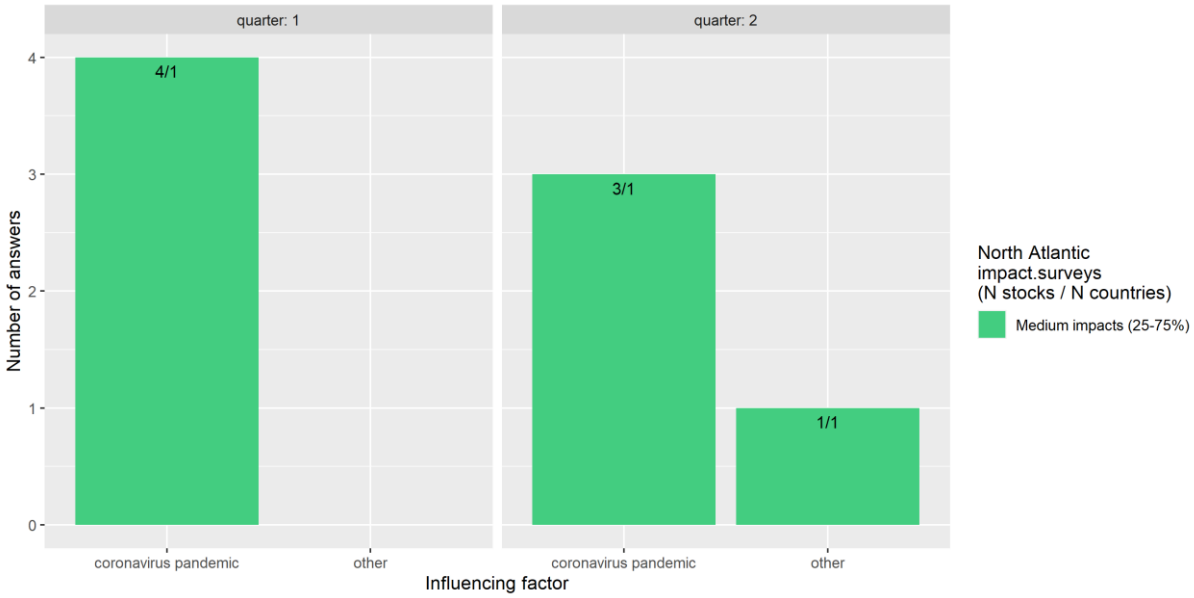
Low/Null impacts (0-25%)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North Atlantic
impact.surveys
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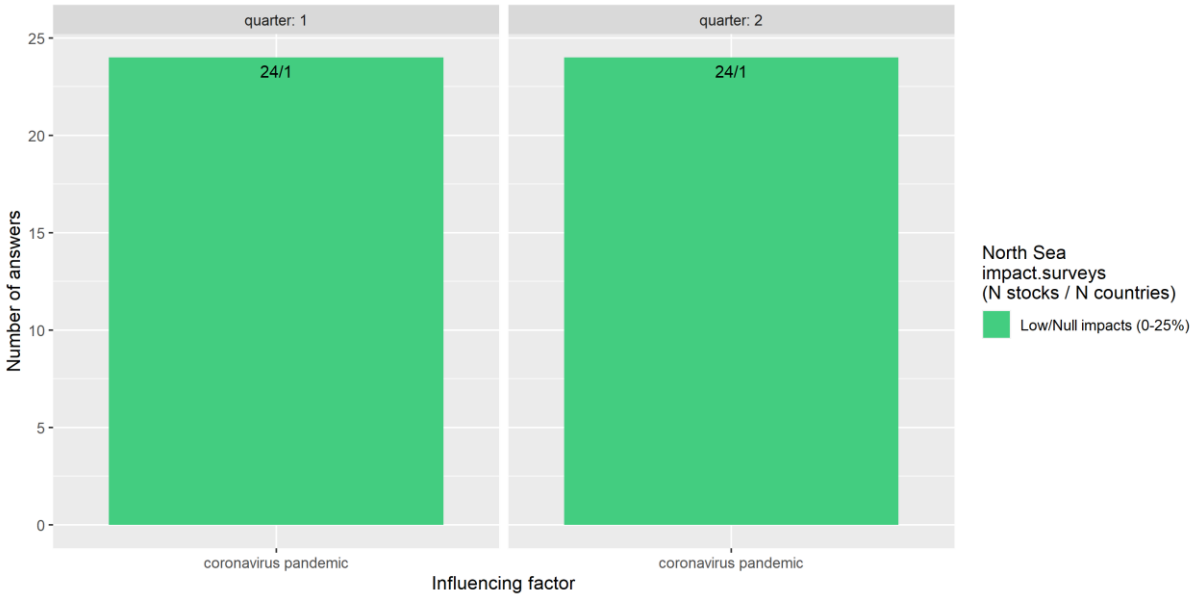
Medium impacts (25-75%)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North Sea
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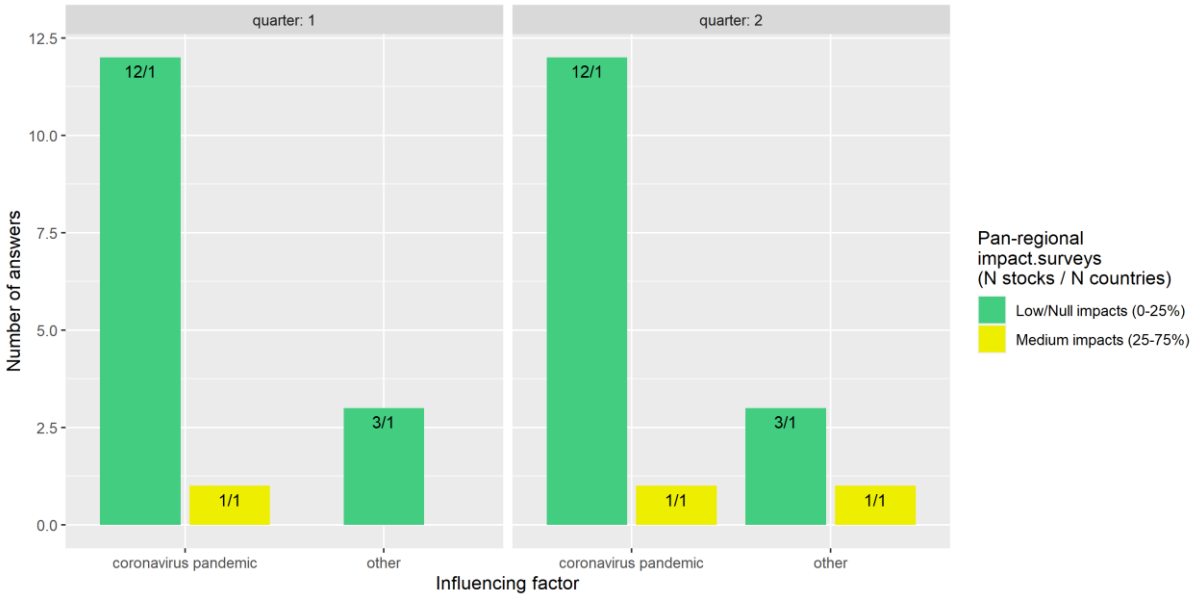
Low/Null impacts (0-25%)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3/1
12/1
1/1
3/1
1/1
coronavirus pandemic
other
coronavirus pandemic
other
Influencing factor
Pan-regional impact.surveys (N stocks / N countries)
Low/Null impacts (0-25%)
Medium impacts (25-75%)