Report of the Meeting of the Online Reporting Technology Working Group (WG-ORT) (Online, 11-12 February 2025)

1. Opening of the meeting

The ICCAT Executive Secretary, Mr Camille Jean Pierre Manel, opened the meeting and welcomed all the participants to the Meeting of the Online Reporting Technology Working Group (WG-ORT). The Executive Secretary reiterated the availability of the ICCAT Secretariat, particularly the IOMS team (including the external expert Mr Carlos Palma, a former long-standing member of the ICCAT Secretariat), to contribute to a successful meeting. Lastly, Mr Camille Manel expressed appreciation to the team of interpreters for their work during this complex and highly technical meeting, and thanked the Chair of the WG-ORT, Dr Bryan Keller, for his commitment and leadership. Dr Bryan Keller thanked Mr Manel, all the participants, and the ICCAT Secretariat and congratulated the IOMS team for their continuous hard work to consistently advance the IOMS development.

2. Appointment of Rapporteur

Mr Carlos Palma was appointed as Rapporteur for the meeting.

3. Adoption of Agenda and meeting arrangements

The meeting Agenda was adopted with minor modifications (to switch the order of items in 5.1 so that the Form Manager would be presented before the Vessel Manager and to bring the workplan forward to item 7) and is attached as **Appendix 1**. The List of participants is attached as **Appendix 2**. The Chair, also informed that if time is available, the Secretariat will present under agenda item 13 (Other matters), the activities involved in a new project management software (Jira from Atlassian), which could be used to manage IOMS implementation.

The Chair briefly informed the participants about the meeting arrangements and logistics, including the information about the NextCloud shared folder (here) containing all the WG-ORT documents for this meeting (folder 2025) and all the previous WG-ORT meetings back to 2021. It also recalled that the meeting was recorded and had interpretation in the three ICCAT official languages.

4. Review of ICCAT regulations with implications for the Working Group's mandate

The Chair reviewed the mandate of the WG-ORT and provided an update on the proceedings of the 24th Special Meeting of the Commission held in hybrid format / in-person in Limassol, Cyprus, from 11-18 November 2024. He briefly presented the following recommendations:

- Recommendation by ICCAT for the development of an Online Reporting System (Rec. 16-19). This measure establishes the creation and the terms of reference of the WG-ORT for the development of the IOMS.
- Recommendation by ICCAT to continue the development of an Integrated Online Reporting System (Rec. 21-20). This measure reinforces the WG-ORT mandate by strengthening the intersessional work and allowing for a more flexible and autonomous decision-making process for the release of new functionalities into production.

The Chair also informed that, aiming to replace the *Recommendation by ICCAT on the application of the Integrated Online Management System* (Rec. 22-17) and upon guidance from the WG-ORT, a new Recommendation was adopted at the 2024 annual meeting to address the release into production of IOMS modules for both compliance and statistical data:

- Recommendation by ICCAT on the application of the Integrated Online Management System (Rec. 24-17). This measure requires CPCs to register at least one user in the IOMS. In addition, beginning in 2023, CPCs are required to submit portions of the Annual Report directly in the IOMS; and, as new modules are developed in IOMS, CPCs will be required to submit the relevant information using the dedicated IOMS modules as they become available.

The Chair recalled the importance of this revised measure as well as its timely to accommodate the new IOMS statistical modules planned for the short term.

The European Union (EU) thanked the Chair for summarizing the WG-ORT mandate and reiterated the importance of streamlining the release into production of new modules as they become available. It asked about the process for releasing new modules into production and how the associated data are provided.

The Chair recalled the sequence of activities (development, testing, training, release into production, experimental provision period, mandatory provision) for adoption of a new IOMS module by the WG-ORT and that these activities will always have specific dates (or time periods), as described in the WG-ORT workplan, which will be adopted during the meeting under section 7. As from the start date of the last activity i.e. "mandatory provision", CPCs will be required to use only the IOMS module for providing associated data to ICCAT. CPCs will be informed of expectations and the start dates of mandatory provisions through ICCAT circulars (including reminders), like when the IOMS Annual Report module was released into production and it became mandatory to submit Section 3 (Parts 1 and 2) through only the IOMS only.

5. Status update of the Integrated Online Management System (IOMS)

The Chair introduced this section by reminding the WG-ORT that the 2024 Status Report (contained in Appendix 2 to Annex 9 to the *Report for Biennial Period 2024-2025, Part I (2024), Vol. 1*) was presented to the Compliance Committee (COC) by the WG-ORT Chair at the 24th Special Meeting of the Commission. This executive summary report summarizes the WG-ORT activities developed during 2024. It also contains some useful statistics on Annual Report completion. The Chair recalled that all but one (proposal for making appropriate IOMS data publicly available) of the planned intersessional activities were fully completed. The ongoing activity was addressed in section 12, which will foreseeably be implemented successfully.

5.1 Review of current status and progress made during 2024

The Secretariat gave a presentation to summarize the main purpose of the IOMS as an integrated online reporting system: to centralise and manage virtually all the data reporting requirements of ICCAT. Subsequently, the Secretariat provided a short historical synopsis of IOMS work since the establishment of the WG-ORT in 2016 (see Rec. 16-19). The IOMS is currently in its fourth development phase (details provided in the WG-ORT workplan in section 7).

A summary of achievements of Phases 1, 2 and 3 can be found in the Report of the 2024 Meeting of the Online Reporting Technology Working Group (WG-ORT). During 2024 (the last five months of Phase 3 and the start of Phase 4), the development work focused on completing the Vessel Manager module (containing the UN/FLUX) and the Form Manager. The Ports Manager module, which also began in the second half of 2024, is well advanced, therefore general testing and user's training can start. In addition, three new modules have also commenced in the last few months: Check sheets Manager for sharks and billfishes, T1NC (Task 1 nominal catch) Manager, COCT (Compliance tables) Manager. During Phase 4, the focus will be to release into production the three main modules that are virtually completed (Vessel Manager, Form Manager, and Ports Manager) and progress with the three newly started modules.

Finally, the Secretariat provided some statistics related to IOMS submission of Annual Reports for the four years in production (2021 to 2024), to enable the WG-ORT to observe the improvements made and to identify potential weaknesses. In summary, those statistics indicate that:

- Since 2023, all ICCAT CPCs have IOMS registered users (in compliance with paragraph 1 of *Recommendation by ICCAT on the application of the Integrated Online Management System* (Rec. 22-17)).

- Full completion of the two sections of the Annual Report (S3P1: Section 3/Part 1; S3P2: Section 3/Part2) submitted via the IOMS steadily increased between 2021 and 2024 for the 57 CPCs (53 Contracting Parties and 4 Cooperating Parties):
 - S3P1 (statistics): from 72% (41 CPCs) in 2021 to 86% (49 CPCs) in 2024
 - S3P2 (compliance): from 70% (40 CPCs) in 2021 to 81% (46 CPCs) in 2024
- In addition to the steady increase indicated above, the support provided by the Secretariat to upload and correct both sections (S3P1, S3P2) decreased progressively from 2021 (40% of CPCs) to 2024 (<5% of CPCs).
- Seven to ten ICCAT CPCs encountered difficulties in providing both Annual Report sections from 2021 to 2024.

The above statistical indicators (details in **Table 1.** Number of 2021, 2022, 2023, and 2024 Annual Reports stored in the IOMS by category (S3P1: Statistics, S3P2: Compliance,), completion rate (0% to 100%), Secretariat support (Yes/No), and pending status. The total number of expected Annual Reports is "57" (53 Contracting Parties + 4 non-Contracting cooperating Parties). Field "Remarks" indicates which Annual Report sections were fully completed and submitted (OK "final version"), or not (complete but in draft mode, incomplete but submitted, and incomplete and in draft mode). The three latest cases will require joint work of CPCs and the Secretariat.) signal good progress over the last four years. However, some difficulties still exist for some CPCs (pending submissions for both incomplete and complete sections). The Secretariat is committed to analysing each case and contacting the CPCs to solve the problems encountered.

Across all the IOMS development phases, the IOMS team will maintain its engagement in three simultaneous types of activities:

- User's support: Continuous work aimed at assisting all IOMS users to work within the IOMS (training courses or individual meeting sessions, both intersessionally, or at the Annual Meeting of the Commission), responses to questions or concerns by email (email: general@ioms.iccat.int), creation of the user manuals for each module, dynamic help system module, etc.).
- Maintenance: Work associated with maintaining the IOMS in production.
- New development: Study, design, modelling, and new code development.

The increase in the IOMS regular budget by the Commission in 2023 made it possible for a stable team of four senior software developers to work full time on the IOMS project. These conditions have increased the robustness and effectiveness of the project through better balance and optimization of time dedicated to these three major IOMS activities (current share: 30% for user's support and new development, and 40% for maintenance) with a major focus on new development to accelerate the IOMS project. The Secretariat therefore considers that all the conditions have been met for the IOMS work scheduled in the long term.

The Chair congratulated the Secretariat and all the CPCs that contributed to the progress made during 2024, noting that the presentation gave a tangible perspective of the vast amount of work done. One CPC also acknowledged the work carried out and asked if the plan to release into production the two new modules (Form Manager and Vessel Manager) by mid-2025 contemplates the existing ICCAT deadlines, the concerns of the CPCs regarding their readiness to use those modules and the mandatory aspects of their use. The Chair informed that the Secretariat's recommendation to postpone the release into production of those modules to the second half of 2025 was made to avoid rushing the whole process, since the WG-ORT had agreed last year (see 2024 workplan) to release both modules in early 2025. In reaching its recommendation, the Secretariat explicitly evaluated the following three aspects: a) timing, given that the release into production takes place after the majority of ICCAT deadlines; b) there would be additional time for the IOMS users to learn the modules; c) an additional period of three months after the release into production would be established and only then would it become mandatory for the associated data to be provided through the IOMS. The Chair supported the proposal, deferring any further discussion to the adoption of the 2025 workplan (section 7).

5.1.1 Form Manager module

The main goal of the Form Manager module is to centralize and manage all the ICCAT standard electronic forms of various types (CP: compliance; ST: statistics; TG: tagging) sent by ICCAT CPCs to ICCAT. This way,

a CPC can access online the inventory of all the forms submitted over time and verify their status. Each form uploaded will have a unique thread identifier (dates, actions, remarks, etc.) to track intermediate events and resulting status (rejected, inventoried, validating, corrected, processed, etc.) until the information is effectively stored in the ICCAT databases (IOMS or current ICCAT-DB system) and the thread ultimately closed. The Form Manager has an IOMS dedicated database to handle all the information it manages.

The Secretariat carried out a real-time demonstration of the Form Manager in its current development state, using the sandbox environment (which any IOMS user can test, 15 of a total of \sim 50 forms are ready for testing). The remaining forms will be addressed by the Secretariat, but the standardization process will take some time. The demonstration focused on three main functionalities (form uploads, querying facilities, and administrative and communication tools). The three main functionalities can be summarised as follows:

- Uploading: One or more forms can be simultaneously uploaded. After uploading a form, the Form Manager checks if the form is valid by reading its header section (basic validation). If valid, the Form Manager inventories the form in its database, complemented with related metadata (upload date and reference, IOMS user, elements of the header section, etc.), and assigns a unique thread identifier to it. Non-registered forms are not accepted by the Form Manager. From now on, several intermediate events will occur until the form is considered fully verified (directly by the IOMS module itself if it already exists, or otherwise indirectly by the Secretariat if the IOMS modules was not yet developed) and properly stored in the respective database (IOMS database system or current ICCAT-DB system, respectively). Each intermediate event and the associated status of the form uploaded will be recorded sequentially under the respective thread. All the recorded events can be queried thereafter.
- Querying: IOMS users can query (simple and combined filters) the status of all the forms uploaded by their CPCs and identify which ones require a specific action. IOMS users can currently only see the status of their CPC, but the WG-ORT is discussing the possibility of querying other CPCs' forms.
- Administrative and communication tools: These tools aim to manage the direct messaging between the CPC and the Secretariat. They can be simple notifications or messages requiring a specific action. The communication system is bi-directional and managed internally in the IOMS. The communication tools allow to annex small files (e.g. screenshots with examples) to facilitate the interaction between the Secretariat and the IOMS user.

The WG-ORT congratulated the IOMS team for the achievements as regards the Form Manager module. The Group requested a detailed explanation of the Form Manager validation process, specifically the occurrence of automatic and manuals processes. The Secretariat recalled that both the IOMS and the current database system (ICCAT-DB) managed in the ICCAT intranet, have already a large set data validation tools but not all are fully automated and optimized. The IOMS aims to automate and optimize the largest portion of all the data validation processes behind the data submissions, by developing more elaborated and advanced tools. The validation of each form submitted through the Form Manager and handled by the target module (the module that takes care of the information arriving in that specific form type), if it exists, involves the following events:

- i. The Form Manager performs a basic validation (automatic), by:
 - Identifying if the form is registered and uses the latest version
 - Verifying if the header section of the form has all the fields completed
 - Checking if all the completed fields are consistent (each form has their own validity checks)
 - Identifies the target module that handles the form details (detailed data section(s))
- ii. If a target module exists (bi-directional communication):
 - It transfers to the target module, the higher-level validation processes (automatic)
 - Record based validation criteria (syntaxis, semantics, business logic)
 - Record based consistency checks among fields (e.g. correlation among characteristics)
 - Readiness for advanced statistical analyses: use external tools for exploratory analyses and data mining (one or multiple dimensions across an entire dataset/database)
 - The target module informs the Form Manager on the results to change the form status

iii. Otherwise

- The validation work is carried out by the Secretariat using the ICCAT-DB (outside the IOMS)
- The form is validated automatically (e.g. all ST type forms) and potentially stored, or
- The form is validated manually (or partially automatic) and potentially stored

The Chair of the SCRS Subcommittee on Statistics (SC-STAT), Dr Pedro Lino, after congratulating the Secretariat for the progress made on the IOMS, requested a few explanations. The SC-STAT Chair enquired if the latest version of each electronic form will be directly accessible in the IOMS at any time, to eliminate past mistakes concerned with form versions. The Secretariat confirmed that the IOMS will always have up to date the latest form versions available for download. The SC-STAT Chair also enquired about the notification actions after an IOMS user uploads a form to the IOMS. The Secretariat informed that email notifications will be sent to the IOMS user in several processing phases indicating further actions if required. A first email is sent after a form is uploaded and inventoried (stored and registered with various elements, including a unique thread identifier), and acts as an official acknowledgement. Invalid forms are not inventoried, and errors will be shown in real time in the IOMS. Afterwards, additional emails will be sent with any change in the form processing status (rejected due to errors and requiring a revision, accepted with warnings for further improvements, processed and stored, etc.), accompanied with the pertinent further actions. Additional notifications reminding the CPC of pending actions, can also be sent.

Another issue raised by the SC-STAT Chair were the concerns of adopting a proprietary format (Microsoft EXCEL) for the ICCAT electronic forms, recalling that the IOMS has itself adopted an open-source license (GPLv3) and that all the IOMS technologies rely on open-source tools (Linux operating systems, docker containers, database servers, etc.). The SC-STAT Chair suggested, with the general approval of the Group, that the Secretariat study the possibility of adopting the widely adopted Open Document Format for Office Applications (also known as OpenDocument Format or ODF, currently in version 1.3) an ISO-26300 file format standard for office applications (word documents, spreadsheets, presentations, etc.) developed and maintained by the OASIS Technical Committee ODF-TC. The Secretariat agreed to carry out this study and present the outcome at the 2026 Meeting of the WG-ORT (see section 12), but reminded the Group that the EXCEL format is today widely used by ICCAT, and a format replacement would be challenging. Therefore, building and adopting ODF electronic forms should only be seen as an optional format to be used by the IOMS.

Several other questions were raised by the Group. The first one concerns the time it takes to disseminate the information of a CP01 form after being uploaded without errors and accepted by the Secretariat. The Secretariat informed that, as for all cases of data provided via the IOMS, there is no delay after a successful form upload is accepted by the Secretariat as it becomes automatically stored and available for dissemination with the Secretariat final acceptance. The second question related to the availability of the historical information (example given: all ST form types provided by the CPCs to ICCAT in the past) in the IOMS. The Secretariat informed that all the data stored in the current system (ICCAT-DB) will be migrated to the IOMS and it was planned as one of the main goals of the IOMS. This migration task will take place only once and just before the release into production of the related IOMS module, to avoid maintaining both systems (IOMS ICCAT-DB and IOMS) up to date. The first large data migration will occur with the ICCAT vessel record (containing information back to 2013). The third question was related to when the IOMS data will become official and available to the public. The WG-ORT Chair confirmed official data availability to the public will always take into account the ICCAT data dissemination policy (latest version). Finally, it was also asked if the Form Manager will allow access to the original form uploaded to the IOMS and export the IOMS existing information submitted by a CPC to the respective electronic form. The Secretariat confirmed that all the original forms uploaded to the IOMS will always be available, but the export functionality of a given form requires that the module in charge of managing that particular information is developed.

The WG-ORT also asked if a CPC would need to upload vessel data using the CP01-VessLst to both the Form Manager and the Vessel Manager. The Secretariat responded that, because the two modules will communicate and interact with each other, only one should be used for the same data. The interaction among IOMS modules reflects one of the main operational characteristics of the IOMS which includes the exchange of information among module databases and the streamlining of reporting requirements.

5.1.2 Vessel Manager module

The IOMS Vessel Manager module is a highly complex module, incorporating a multitude of functionalities aimed at handling all the vessel information submitted to ICCAT based on the various Recommendations (details are contained in the "Guidelines for submitting data & information required by ICCAT"). They contain three main sets of features incapsulated in the respective submodules: a) Vessel registration and authorization manager linked to form CP01-VessLst; b) Transhipment authorizations to carriers manager linked to form CP46-VessTran; c) Chartering arrangements manager linked to form CP53-ChartrCP_FS. A fourth submodule planned for a future development (lower priority) is the Vessels previous year fishing activity manager reported using form ST01-T1FC, serving the needs of both the SCRS and the Compliance Committee (four data requirements merged in a unique provision). All three Vessel Manager submodules are capable of online completion (direct change: add, edit, delete) and offline completion (fill in the forms outside the IOMS and finally upload). For now, only the Vessel registration and authorization submodules will be capable of automatic data exchange (using the UN/FLUX language integrated into the IOMS) in real time and with minimal human intervention (machine to machine data exchange). The automatic data exchange using UN/FLUX will only be completed at a later stage. All the remaining elements are virtually ready to be released into production.

The Secretariat provided a demonstration covering each one of the three submodules of the Vessel Manager main module with all the current features. This demonstration used the IOMS testing environment and fictitious vessel data.

Vessel registration and authorization manager (form CP01-VessLst)

The demonstration covered the large set of features this module has, including a review of the dashboard with important vessel statistics, the querying facilities (how to search for one or more vessels with simple or compound criteria), the editing facilities (change in vessel characteristics and authorizations, etc.), and the addition facilities (register a new vessel and their authorizations). Among other exercises, it was explicitly shown how to reactivate a temporarily inactive vessel (not authorized in any list). The Secretariat called the attention that after one or more vessel changes its status and that update is accepted by the Secretariat, an email will notify the IOMS user responsible for that update, with a copy to all the IOMS users registered in the IOMS by the respective CPC.

The Secretariat confirmed the module's readiness for the release into production in the short term, with only two tasks undergoing its completion: update the Vessel Module help content user's manual of the dynamic help system and the preparation of the existing Vessel data in the ICCAT-DB system. The Chair recalled that, a decision on this subject will be discussed and agreed in section 7 of the meeting.

Transhipment authorization to carriers manager (form CP46-VessTran)

The demonstration covered the main features of this submodule that handles the fishing vessels authorized to tranship fishing products to carrier vessels. It started by recalling that both the fishing vessel and the carrier vessel must be registered with their respective authorizations in force. Various features were shown, including the querying, the editing facilities, and addition facilities. The last two actions (editing and addition) produce preliminary data that only become final after being checked and accepted by the Secretariat. Final Secretariat acceptance of one or more transhipment authorizations is followed by an email notifying the IOMS user responsible for that update, with a copy to all the IOMS users registered by the respective CPC of the fishing vessel.

No questions were raised by the Group on this subject.

Chartering arrangements manager (form CP53-ChartrCP_FS)

The demonstration covered the functionalities of this submodule that takes care of managing the chartering arrangements of a vessel between two ICCAT CPCs (or their flag states). Each charter always involves a registered fishing vessel (active or temporarily inactive) and, a formal agreement between the flag CPC that charters the vessel (chartering flag) and the flag CPC possessing the vessel nationality (chartered flag). Various features were shown, namely the querying tools (search for one or more chartering arrangements with simple or compound criteria), the editing facilities (update one of more charter arrangements), the addition facilities (register a new chartering arrangement), and others. The last two actions (editing and addition) produce preliminary data and only become final, after being checked and accepted by the

Secretariat. Similarly to other IOMS modules, a final Secretariat acceptance of one or more chartering arrangements is followed by an email notifying the IOMS user responsible for that update, with a copy to all the IOMS users registered in the IOMS by the respective CPC of the fishing vessel.

The Secretariat informed that it is working on a set of new functionalities recently identified and required by the Vessel Manager that allow to complement the submission of a standard form with factual documents (e.g. confirmation of a vessel reflagging, evidence of a vessel becoming permanently inoperative, approval of chartering arrangements, chartering control measures, etc.) supporting such events. Whenever required, these documents can be annexed to each CP01 form's thread handled by the Vessel Manager. For now, only a few document formats (PDF documents and images (PNG, GIF)) have been prioritized but other formats are under evaluation. It was confirmed by the Secretariat that these new features of the Vessel Manager will be completed in a couple of months, before its release into production. The Chair considered these new features of the Vessel Manager very valuable and supported their implementation.

The Global Fishing Watch (GFW) thanked ICCAT for allowing their participation as an observer in the meeting and congratulated the WG-ORT for developing the IOMS, a tool that could dramatically contribute to improving data interoperability and therefore strengthening the collaborative work among fisheries organizations. This achievement will greatly benefit data exchange and easy usage in scientific and fisheries management work, namely in cases involving ICCAT and the Global Record of Fishing Vessels of the Food and Administration Organization (FAO) of the United Nations and potentially other fishery statistics data. The Chair thanked the GFW for its participation and concurred with its statement on the crucial role of the IOMS in strengthening the data interoperability and simplification of data provision.

One CPC mentioned that the Indian Ocean Tuna Commission (IOTC) already uses similar online submission systems, e-MARIS and e-RAV, and asked whether there were plans to collaborate with the development team and whether the creation of a manual on how to submit was being considered. The Secretariat responded that it was possible to integrate the system with e-MARIS and other systems in the future, and that it would be practical to be able to view all RFMO information in one system. It also said that with regard to the IOMS manual, it would be possible to review videos from past workshops, and that if any unusual problems occurred, it could request an online meeting with the development team.

5.2 Potential enhancements

The Secretariat presented a status update of the work done on the IOMS enhancements planned by the WG-ORT in 2024 (Table 2 of the Report of the 2024 Meeting of the WG-ORT). Two out of six enhancements of 2024 were already completed:

- Item 14: Enhance the visualization of vessels charts for better understanding
- Item 16: Enable batch file upload (*.zip) without the need to specify their type

Due to the complexities of handling compressed files (*.zip) containing multiple forms requiring validation, enhancement 16 was adjusted to allow instead the submission of multiple standard electronic forms. This approach is more practical and efficient by allowing the Form Manager to read, validate, inventory, and track in a unique thread the status of each valid form uploaded to the IOMS.

The five remaining enhancements proposed in 2024, still ongoing or planned, are:

- Item 12: Discriminatory questions to automatically fulfil Annual Report requirements (includes developing CPC profiles)
- Item 13: Review Standard responses
- Item 15: Edit/Add the complete Annual Report (not only Section 3)
- Item 17: Automatic completion of the Annual Report based on the submission of forms (only specific requirements)
- Item 18: Automated ahead reminders to CPCs informing on deadlines proximities

As planned in 2024, the Secretariat presented a status update of those pending enhancements, recalling that items 12, 15, and 17 still required additional time to be implemented. The Group agreed to proceed with these activities during 2025, in parallel with and without affecting the normal IOMS development.

For 2025, the Secretariat presented to the WG-ORT a list of 5 additional enhancements proposed intersessionally by CPCs and the Secretariat which aim to improve further the functionality of the IOMS in the long term. The new enhancements proposed were:

- Item 19: IOMS will internally store the texts of the Recommendations, including paragraphs and subparagraphs, to allow links to specific paragraphs within the different modules
- Item 20: Allow attachments in the Annual Report
- Item 21: Expand the Annual Reports to store the responses in all three languages
- Item 22: Enable the submission of Annual Reports through the Form Manager

As in previous years, each potential enhancement was assessed by the WG-ORT in terms of usefulness, development cost (time), and feasibility of implementation. The WG-ORT established its priorities (high, medium, low), recalling that the enhancement work should not interfere with the normal execution of the IOMS workplan. The full and detailed list of IOMS enhancements (2023, 2024, and 2025) is presented in **Table 2**.

Two additional questions were raised to the Secretariat. The first one requested a clarification on the potential duplication arising from the provision of the Annual Reports by email and using the IOMS. The Secretariat informed that the "Guidelines for submitting data and information required by ICCAT" (2025 version, see "2. Submission process") contain all the details on this provision and confirms that there are currently no duplications. Sections 1 and 2 should be sent by email using MS-Word documents (one part per section), and Section 3 (compliance table and statistics table) should be completed using the IOMS. The enhancement 15 agreed in 2024 by the WG-ORT, when completed (a few technical difficulties linked to the types of annexes involved must be solved in advance), will allow all the sections of the Annual Report to be provided using exclusively the IOMS.

The second question was related to the shark/billfish check sheets annual completion process, specifically a clarification on the need to provide full updated versions every year or only differential updates containing the new responses related to the most recent ICCAT measures. The Secretariat described the current process behind the provision of the sharks/billfishes check sheets (manually handled outside the IOMS) and confirmed that CPCs need to update the check sheet if the requirements are changed from the previous year. The Secretariat informed that both check sheet templates are revised every year to accommodate the most recent ICCAT regulations. Thus, all CPCs must consider those potential updates (labelled differential updates), and if applicable, complete those new responses. The IOMS Check Sheets Module Manager (under development) will follow the same principles; more aspects of this new module will be discussed in section 8.

The Secretariat called attention to the increasing number of enhancements already agreed (**Table 2**) and the considerable time that some enhancements may require. The large number of ongoing IOMS tasks, makes it difficult to advance on the enhancements in parallel with and without affecting the normal IOMS development. Thus, some enhancements may require changes in prioritization and larger time frames for completion. Additional enhancements should also be considered with caution.

5.2.1 Review of 2024 intersessional tasks

The Chair summarized the 2024 Status Report of the WG-ORT contained in Appendix 2 to Annex 9 to the *Report for Biennial Period 2024-2025, Part I (2024), Vol. 1*), which documented the progress made on the 12 intersessional tasks planned for 2024. The Secretariat complemented the review with a presentation updating the intersessional work. In summary, all tasks have progressed as planned, except for task 9 (Secretariat's proposal to publish IOMS data, which directly relies on the ICCAT data dissemination policy). Some tasks will require further work whether as a task continuation or embedded in other IOMS activities.

In relation to task 9 which concerns the proposal for making IOMS data publicly available (last year the discussion focused on the Annual Report data), the Chair recalled that the Group agreed that only completed submissions (final versions and never draft versions) can be disseminated and recommended to extend this rule to all other data managed by the IOMS in the future. Furthermore, the Chair stated that the intention is not to change the ICCAT confidentiality rules, an action reserved to the Commission, but that this Group

ensure that all the IOMS public data be bound by the Rules and Procedures for the protection, access to, and dissemination of data compiled by ICCAT.

After unanimously acknowledging the achievements as regards the large list of intersessional tasks, the Group requested a clarification about how the publicly available IOMS data (task 9) will affect future data exchanges with FAO (vessel data, catch statistics, port inspections, geo-referenced data, fisheries related codes, etc.) and other parties. The Secretariat confirmed that these will not be affected once only public information is shared with FAO and other parties. The IOMS application programming interfaces (APIs) for automatic data exchange will slowly and consistently replace the current manual data provision system. The Secretariat also informed that it maintains its collaboration with FAO, the Coordinating Working Group on Fishery Statistics (CWP), the Fisheries and Resources Monitoring System (FIRMS), Tuna Compliance Network (TCN) and other organizations, to define and promote fisheries statistics standards and mechanisms for data exchange.

After a constructive debate in which several issues were discussed (what metadata, data aggregation levels, legal aspects, etc.), the Chair concluded that more work is required in several aspects of IOMS data dissemination and proposed to continue this intersessional task. The Chair recommended using a cautious approach when planning to publish any IOMS data, always relying on the ICCAT data dissemination policy. There was a consensus on the Chair's approach, with the EU recalling the importance of the legal analyses (e.g. personal data such as vessel owners and operators are strictly confidential in the EU) in deciding what IOMS data should be published.

In relation to task 10 (proposal to translate IOMS data into the three official languages), "Information paper: Translation of Integrated Online Management System (IOMS) data and documents" (COC_317/2024) prepared by the Chair and the Secretariat and presented to COC at the 2024 Annual Meeting of ICCAT, contains a recommendation which was approved by the Commission and implies the continuation of this work by the Secretariat throughout the 2025 intersessional period in consultation with the IOMS development team and the Chairs of the Standing Committee on Finance and Administration (STACFAD), the Compliance Committee, and the WG-ORT to determine the costs associated with the proposed translation. A report with the outcome of this work should be presented to STACFAD at the 29th Regular Meeting of the Commission for consideration in the 2026-27 biennial budget. In addition, the WG-ORT Chair will also present an update to the Compliance Committee at the 29th Regular Meeting of the Commission in 2025.

5.3 Review of the 2024 ICCAT data requirements for IOMS integration

The Chair of the WG-ORT informed the group on the ICCAT reporting requirements for 2025 which reflect the new management measures adopted by the Commission in 2024 and were also incorporated into the IOMS templates of Section 3 (Part 1: Statistics; Part 2: Management) of the Annual Report. The 2025 list of reporting requirements amount to 179 in total (131 compliance related requirements and 48 statistical related requirements), a net increase of 4 additional requirements when compared with 2024. The updated list of requirements for 2025 stored in the IOMS is now automatically rendered (IOMS API) and published on the ICCAT website (Compliance: List of 2025 Requirements for the Commission; Statistics: List of 2025 Requirements for the SCRS).

The Secretariat informed that, from now on, CPCs can start to complete preliminary versions of the 2025 Annual Reports in the IOMS.

6. Status update of IOMS complementary projects

The Secretariat presented a status update of the two IOMS complementary projects, running in parallel with the IOMS main development project.

6.1 European Union IOMS related grants (2025-2026)

On the follow-up of previous European Union (EU) complementary projects (last EU grant EMFAF-2022-VC-ICCAT3-IBA), the EU grant agreement EMFAF-2024-VC-ICCAT3 "Development and capacity building

within ICCAT - Online Management System", is an IOMS complementary project with a total budget of €250,000 planned for a period of 24 months (2025 and 2026). It has two topics or sub-projects:

- Topic 1 (EMFAF-2024-VC-ICCAT3-IBA-01 (Project No. 101197348) Integrated Online Management System (acronym: EU-IOMS2024-TT12 (in short TT12: Topic Tasks 1 & 2 modules)) with a budget of €150,000
- Topic 2 (EMFAF-2024-VC-ICCAT3-IBA-02 (Project No. 101197349) Integration of the UN/FLUX standard into the IOMS (acronym: EU-IOMS2024-TF2 (in short TF2: Topic FLUX part 2)) with a budget of €100,000

The Topic 1 sub-project (TT12) aims to support the completion of ongoing modules, but it is mostly linked to the work on the Task 1 and Task 2 IOMS new modules. The specific objectives are:

- Vessel Manager: Support its finalization, including the incorporation of all ICCAT reporting obligations on vessels (registration, authorisation lists, transhipments, chartering)
- Form Manager: Support its finalization, including the standardization of the remaining electronic forms for data uploading
- T1NC (Task 1 Nominal Catches) Manager: Start the development of this new module that will manage the Task 1 nominal catch data reporting obligation
- T2CE (Task 2 Catch & Effort) Manager: Start the development of this new module that will manage the Task 2 catch and effort data reporting obligation

Work will begin with the development of these two new modules on fisheries statistics (T1NC Manager and T2CE Manager), which are two crucial datasets used by the Scientific Committee of ICCAT (SCRS) and occasionally used by the majority of ICCAT subsidiary bodies (e.g. COC, Permanent Working Group for the Improvement of ICCAT Statistics and Conservation Measures (PWG), Panels 1-4, Working Group on Integrated Monitoring Measures (IMM), etc.). The Topic 2 sub-project (TF2) aims to complete the ongoing activities on the integration of the UN/FLUX standard into the Vessel Manager module (a priority for the EU and ICCAT), which covers two data flows: a) Vessel registration data (add/edit/deactivate and other actions), and; b) Fishing authorisation data (add/edit/remove actions on 11 ICCAT lists of authorised vessels). The main activities will cover:

- a) Set up a fully working FLUX-TL end node (TL: Transportation Layer at ICCAT cloud infrastructure)
- b) Set up fully functioning data flows for 2 UN/FLUX domains (vessels, authorisations), including the business logic (relevant business rules)
- c) Fully integrate (a) and (b) into the IOMS Vessel Manager module
- d) Result in fully functioning data flows of vessel and authorizations and primarily the ones using form CP01-VessLst, via UN/FLUX

This work, and especially a) and b), will be done in close collaboration with the European Commission. Finalising the integration of the UN/FLUX standard into the IOMS is a priority. The UN/FLUX standard will allow the automatic exchange of vessel information (two domains, for now).

As for all IOMS complementary projects, the associated work just described will be integrated in the IOMS global project and coordinated by the IOMS team and the WG-ORT. The overall budget will allow the hiring of an additional Senior Software developer for two years with shared activities on both sub-projects. A small portion of the overall budget was reserved to contribute to the overall development and support costs (translation services, infrastructure, software costs, hardware) of the IOMS.

6.2 GEF-ABNJ II project on the IOMS (2024-2027)

One of the 5 capsules financed by Phase II of the Common Oceans Areas Beyond National Jurisdiction (ABNJ) Program and the Tuna Project (GEF-ABNJ Tuna II) is the "Enhancement of Online Reporting (OR) systems". This complementary project aims to enhance the IOMS through the development of extensions (standard REST public APIs) for automatic data interoperability, with a focus on public data dissemination (standard

data structures to be consumed/published by any "end user"). The term "end user" means a large spectrum of potential users. It can be a single user who wants to download a certain IOMS dataset for specific studies, an ICCAT party (e.g. FAO) that wants to explore and use ICCAT public information, a web site that wants to publish ICCAT public data, or even complex projects wanting to use more than one type of dataset. In all cases, ICCAT ownership and any restrictions on data privacy are assured. Two major end users of ICCAT information stored in the IOMS will be the ICCAT website and the TUNA-ORG website. Other potential end users considered are the five tuna Regional Fisheries Management Organizations (t-RFMOs) and their CPCs, FAO (e.g. Global Tuna Atlas), and virtually any potential user or stakeholder that wants to explore ICCAT public information stored in the IOMS.

The GEF-ABNJ Tuna II total budget delivered to the IOMS development of extensions is about €490,000 and is planned for a total effective duration of four years. The project was signed by ICCAT and FAO in August 2023, with the work starting in September 2023, and it is expected to end around May 2027. ICCAT recently delivered to FAO the third interim report (semestrial) on 15 January 2025. It includes the progress made during the previous six months (July-December 2024). Examples of two IOMS public APIs were described, one already being used by the ICCAT website (ICCAT 2024 data requirements), and the one under testing to disseminate ICCAT vessel information (using the IOMS sandbox with vessel data). The three agreed progress report indicators are:

- Number of ICCAT CPCs effectively using the IOMS
- Global IOMS utilization combined score (scale: [0, 100]) accounts for all functionalities
- Number of IOMS public REST APIs for data dissemination

The WG-ORT Chair thanked the Secretariat for the update on the ongoing complementary IOMS projects, and the associated advancements made by the IOMS team. He also thanked the EU for the continued support of the IOMS project with an additional complementary project of two years, and the GEF project which allow the Group to benefit from Carlos Palma expertise for another two years. The SC-STAT Chair seconded the Chair's acknowledgments and requested a clarification on how the IOMS public APIs standards will be adopted. The Secretariat informed that all t-RFMOs that are developing their IOMS equivalent solutions, are potential adopters of the IOMS standard APIs for data interoperability. This would allow to combine different sources of similar information in a unique place.

7. Update and approval of the IOMS workplan

The Chair started with a recommendation not to include new modules and additional phases in the IOMS workplan due to the already heavy workload of the IOMS team and the Secretariat for 2025. The current workplan already contains the activities of phase 5 planned to end around May 2028.

The ICCAT Secretariat provided a detailed explanation of the tentative 2025 IOMS workplan. The proposed revisions made to Phases 3, 4 and 5 are summarised below:

- Close completed activities planned for Phases 2 and 3
 - Vessel Manager 2nd training session (held on 2024-10-09)
 - Form Manager 1st training session (held on 2024-07-04)
- Reschedule activities planned for Phases 2 and 3
 - Form Manager 2nd training session (planned for 2025-05-06)
 - Vessel Manager 3rd training session (planned for 2025-06-30)
 - Release into production the Vessel Manager (planned for 2025-08-01)
 - Release into production the Form Manager (planned for 2025-08-01)
 - Terminate the UN/FLUX of the Vessel Manager (tentatively 2025-11-01)
- Change priorities on modules of Phases 4 and 5
 - 3 modules promoted to priority 1 (T1NC Manager, COCT Manager, T2CE Manager)
 - 2 modules demoted to priority 2 (Sharks/Billfish Check Sheets Manager, SDP (SWO, BET) Manager)
 - 1 module demoted to priority 3 (BFT periodic reports Manager)
 - Training sessions priority have changed in line with the respective module

The Secretariat also reminded the list of priority IOMS modules to be developed in future phases, discussed by the WG-ORT in 2024. After selecting two issues to be included as modules in Phase 5 (added: T2CE Manager module; merged: Statistical Document Programs (SDPs of SWO/BET) Manager module, also comprises the seals/signatures validation of the SDPs), the updated list is:

- Inspection reports
- Task 2 Size samples
- Task 1 Fleet characteristics (active vessels in previous year)
- Transhipment declarations / Supply declarations / Transhipment reports
- Port inspection / Joint Inspection Scheme reports
- Fishing plans
- Access agreements
- Seabird mitigation
- Lost/found gears and others

The WG-ORT Chair thanked the Secretariat for putting together the rescheduled workplan and the pathway to move forward the IOMS project. The Chair suggested to start the discussions by agreeing on the roadmap to release into production both the Vessel Manager and the Form Manager modules. Recalling that both modules were firstly scheduled to be released in January 2025, their release was suspended due to the need for additional training. Furthermore, the new release dates must consider the ICCAT data provision deadlines and the potential peaks of data submissions just before those dates. The Chair considered the proposed date of 1 August 2025 to be reasonable for the release into production of both modules, with an additional adaptation period of 3 months (ending on 1 November 2025) when it becomes a requirement to use only the Vessel Manager and the Form Manager modules of the IOMS. During the three-month period the Secretariat will support the CPCs in uploading and validating the vessel information arriving also by email. The integration of UN/FLUX into the Vessel Manager module will be delayed until 1 November 2025, due to the need for additional joint EU-ICCAT work and heavy testing.

After a constructive debate on several aspects associated to the release into production of the Vessel Manager and the Form Manager modules, the Group agreed by consensus with the dates proposed, and praised that all dates were established before the ICCAT Annual Meeting. The Group also considered crucial to establish a three-month adaptation/transition period with flexibility to use the email for sending electronic forms (e.g. if a CP01-VessLst form arrives by email, the Secretariat will help uploading the information to the IOMS). This three-month period will serve both the Secretariat and the CPCs users and serve as a safeguard to solve unexpected issues. In relation to release into production of the UN/FLUX component, the Group agreed with the date of 1 November 2025. The Group further noted the required heavy testing that will validate the UN/FLUX business logic.

Following consultation with the Secretariat, the Chair shared that the Shark/Billfish Check Sheets should be delayed since it will require additional work by Panel 4 to streamline the respective templates as regards structure and redundancy elimination.

The Secretariat explained the rationale behind the overall priority change for Shark/Billfish Check Sheets module, the BET/SWO SDP (Statistical Document Program) Manager module (including the SDP seals and signatures element) and the BFT Periodic Reports Manager module. These three demotions allowed the promotion to priority 1 of two modules from phase 4 (T1NC Manager and COCT Manager) and one module from phase 5 (T2CE Manager).

The Group acknowledged the Secretariat's effort to adjust the workplan and understood the rationale behind the reprioritizations of the modules. Panama requested a clarification on the Shark/Billfish Check Sheets Manager module, asking if the "freezing" of the development had to do with the ongoing revision of the current templates by Panel 4. The Chair responded affirmatively reminding that any change to the current templates must be made by Panel 4 (mandated to revise redundancy and simplify the structure), with the approval of the Compliance Committee and the Commission in 2025.

After a productive discussion, the agreed roadmap for releasing into production the Vessel Manager and Form Managers modules is:

Date	Event	Environment						
2025-05-15	Have ready one way migration of the Vessels DB from SQL Server (intranet) to MariaDB (IOMS)							
2025-08-01	71 Form Manager into production (https://ioms.iccat.int)							
2025-08-01	Vessel Manager into production (https://ioms.iccat.int)	Production						
2025-11-01	Development of the FLUX component in Vessel Manager finished and into production - tentative date (heavy testing from EU-ICCAT will be necessary after this date)	Production						
2025-11-01	Form Manager only way to submit forms registered in the module	Production						
2025-11-01	Vessel Manager only way to edit vessel characteristics and authorizations online	Production						

The Group generally agreed with the 2025 IOMS workplan (**Table 2**) which is to be adopted by the WG-ORT with the adoption of this meeting report.

8. Review and assess the current approach to collecting data from Sharks/Billfish Check Sheets

The Chair introduced this subject by informing the Group about the complexity of the Sharks/Billfish Check Sheets and referenced the work presented by the WG-ORT ad hoc group to address redundancy in reporting requirements interim report (PA4_807/2024) presented to the ICCAT Annual Meeting.

The Secretariat recalled, for both sharks and billfishes, each check sheet response needs to be maintained up to date by CPCs on a yearly basis (if required, updated with the Annual Report provision). The Secretariat started the presentation with a brief overview of the study on the Billfish Check Sheets, with the current template having a total of 22 unique questions. The questions rely on three ICCAT Recommendations (Recommendation by ICCAT on management measures for the conservation of Atlantic sailfish (Rec. 16-11), Recommendation by ICCAT to establish rebuilding programs for blue marlin and white marlin/roundscale spearfish (Rec. 19-05), and Recommendation by ICCAT on improvement of compliance review of conservation and management measures regarding billfish caught in the ICCAT Convention area (Rec. 18-05)). The questions cover four major species or groups of species (blue marlin, white marlin/roundscale spearfish, sailfish/spearfish).

The Billfish Check Sheet study used the following stepwise approach:

- Classify each question within one or more topics (catch limits, data collection/provision, landing exemptions, landing limits, live releases reduce mortality, live releases crew security, Monitoring, Control and Surveillance (MCS) measures, observer coverage, prohibitions, recreational fisheries, minimum sizes, sales prohibition, small-scale fisheries)
- Simplify questions with multiple subjects, by splitting them into questions with a unique subject
- Evaluate overlapping in the resulting questions (potential redundancy)
- Evaluate if resulting questions are covered elsewhere (other provisions like Task 1 catches) (if "YES", there is a potential to use that information automatically)
- Check if complementary explanatory notes to responses of type "YES", "NO" "N/A" are required OR covered in other documents (e.g. Annual Reports)
- Check how feasible each response can be adapted to more quantitative responses (ratios, scales, etc.)
- Prepare a unique file containing all the CPC latest responses of the check for a deep exploratory analysis to evaluate response trends per question

The above approach is a work in progress and will require refinements. The latest element will require additional work but will be crucial to further improve the methodology. Despite the study being incomplete, the initial work allowed the Secretariat to present a couple of examples with cases where questions can be simplified and become more effective (see presentation "Billfish check sheets study - an alternative simplified questionnaire for the IOMS" for more details).

The Chair thanked the Secretariat for this initial study aiming to improve the Billfish Check Sheets to make more user-friendly to the IOMS. The Chair of the Compliance Committee, Mr Derek Campbell, seconded the WG-ORT Chair, and agreed with the proposal to prioritise the T1NC Manager and the COCT Manager modules, and reduce the Billfish/Sharks Check Sheets Manager module priority, to provide additional time to Panel 4 to improve the templates. The COC Chair noted that the Secretariat study can help to streamline the check sheets template with simplified and more objective questions but recommended retaining the obligation and complementary information to the responses, where appropriate.

The Secretariat also presented a summary of the ongoing study on the Shark Check Sheets, with the current template having a total of 79 unique questions (with a couple new ones to be added in 2025). Those details can be found in the presentation "Shark check sheets – initial studies on a simplified questionnaire for the IOMS", available through the NextCloud Folder.

The Secretariat clarified that it has no mandate to change the current check sheets. These two studies intend only to support streamlining and simplify the Billfish/Sharks Check Sheets by Panel 4 and COC, to be adopted by the Commission at the 2025 Annual Meeting (or in later years). The WG-ORT Chair agreed with the Secretariat and recalled that the Shark/Billfish Check Sheets were measures implemented by Panel 4, and the WG-ORT has no mandate to change those measures either, and accordingly both the Panel 4 and the COC Chairs are involved in the simplification and standardisation process of the Shark/Billfish Check Sheets. The COC Chair supported this approach and also thanked the Chair and the Secretariat for supporting the constant update and improvement of the check sheets. The COC Chair also suggested that the question of whether to include the new measure on mobulid rays prohibition (*Recommendation by ICCAT on mobulid rays (family Mobulidae) caught in association with ICCAT fisheries* (Rec. 23-14)) in the 2025 check sheet template despite not being a shark species could be further discussed at the Panel 4 level in 2025.

9. Activities towards enhancing a new system architecture for the IOMS

The Secretariat briefly described the ongoing studies and activities aimed to enhance the IOMS system architecture in a way that it be prepared for the future. These activities aim to maintain the IOMS architecture in line with the accelerated evolution observed in the cloud infrastructure and services, especially in relevant areas for the IOMS like easy scalability and maintenance.

One CPC asked if the UN/FLUX system (two transportations layers servers with various integrated services) will be also covered by this architecture, and if this will incur additional costs. The Secretariat informed that, after all the studies and tests, the migration is planned to occur slowly over time and without any implications for IOMS normal functioning. The study will also be made with the budget constraint not to affect the current IOMS regular budget. The migration to the new architecture will also cover both FLUX TL servers, and all the potential associated traffic.

The SC-STAT Chair expressed concerns about having the IOMS information stored on the cloud elsewhere and not on physical servers in ICCAT. The Secretariat informed that the adoption of the current cloud infrastructure for the IOMS deployment was due to much lower costs, when compared to the inherent costs associated with maintaining physically in the ICCAT intranet all the servers required by the IOMS. The EU also expressed concerns about where all the IOMS information is physically stored, due to the existing legal limitations. The WG-ORT Chair thanked the EU for bringing this subject to discussion, and suggested this subject be further debated at the 2026 Meeting of the WG-ORT since many other CPCs may have similar concerns.

10. Planning the IOMS users training sessions (Vessel and Form Manager modules)

The Chair announced that, given the overscheduled 2025 meeting calendar of ICCAT, and particularly the large list of ongoing activities of the IOMS teams, only two training sessions will be carried out, instead of the three sessions held in 2024. Consequently, the Chair suggested to dedicate the first one exclusively to the Form Manager (second exclusive session) and the second one exclusively to the Vessel Manager (third exclusive session), envisioning to assure that all the IOMS users (CPCs and ICCAT Secretariat) are prepared for the release into production of the Vessel Manager module and the Form Manager module. The following tentative dates were proposed:

- Session 1 (Form Manager training session #2): 2025-05-06*
- Session 2 (Vessel Manager training session #3): 2025-06-30

*The first session was initially scheduled for 2025-05-08 but was rescheduled to 2025-05-06 due to scheduling limitations.

All the training sessions will use the IOMS sandbox. The main goal will be learning in detail how to work with each module (understanding and practicing with the functionalities). The Chair recalled that the recorded videos from the previous IOMS training sessions are available in the NextCloud shared folder reserved for the WG-ORT, and invited all the participants to review those videos.

The WG-ORT agreed by consensus with the training sessions on the proposed dates.

11. Review of the activities of the ad hoc working groups of the WG-ORT

11.1 Redundancy elimination

The Chair provided a summary of the work done during 2024 by the WG-ORT ad hoc group to address redundancy in reporting requirements (2024 interim report, PA4_807/2024). This work concentrated on evaluating the shark measures in place, where some proposals to reduce redundancy were made. The Chair welcomed additional participants to join the group, and to continue this work.

The Chair also informed about a document prepared by the Secretariat ("Streamlining of ICCAT conservation and management measures" (PLE_103/2024)) which compiles the decisions adopted in 2024, many in line with redundancy elimination. This work has contributions from the majority of the ICCAT subsidiary bodies (three Panels, COC, PWG, etc.) and is usually prepared every year for the Commission Annual Meeting.

After agreeing with the complexity of the redundancy elimination, the EU informed that it is preparing to release a grant specifically for work on the matter of redundancy elimination of ICCAT measures. The Chair, seconded by the majority of CPCs, welcomed this initiative. The WG-ORT Chair offered to help establish the respective terms of reference for hire of the expert.

11.2 IOMS glossary of terms and definitions

The Chair presented the outcome of the 17th Meeting of the Working Group on Integrated Monitoring Measures (IMM) (glossary attached as Appendix 9 to the Report of the 17th Meeting of the Working Group on Integrated Monitoring Measures (IMM)) in relation to the IOMS glossary of terms and definitions, and recommended to maintain it up to date whenever new terms and concepts are adopted for the IOMS. The Secretariat proposed to publish the IOMS glossary inside the IOMS help system. The Chair agreed with the proposal, noting that it should be done without affecting the normal progress of the IOMS work.

12. Intersessional work required in 2025 (Working Group and Secretariat)

In addition to the various IOMS enhancements discussed/adopted (summarized in **Table 2**) the WG-ORT together with the ICCAT Secretariat has planned the following list of intersessional work:

Follow up actions and intersessional WG-ORT tasks:

1. To review and adopt this meeting report, including modifications to the workplan.

- 2. Concerning the Annual Report: The ICCAT Secretariat will work throughout the 2025 intersessional period in consultation with the IOMS development team and the Chairs of STACFAD, the Compliance Committee, and the WG-ORT to determine the costs associated with the proposed translation (complete details available in "Information paper: Translation of Integrated Online Management System (IOMS) data and documents" (COC_317/2024). A report should be presented to STACFAD at the 29th Regular Meeting of the Commission for consideration in the 2026-27 biennial budget. In addition, the WG-ORT Chair will also present an update to the Compliance Committee at the 29th Regular Meeting of the Commission in 2025.
- 3. Accessibility, searching within IOMS The IOMS development team to investigate steps required to enable CPCs to view, sort, filter, search, etc. completed reporting documents (Annual Report Section 3) of other CPCs within IOMS.
- 4. The IOMS development team to investigate using an open format for data submission (non-proprietary) for the ICCAT standardized forms handled by the Form Manager.
- 5. The Secretariat will prepare a proposal for the next WG-ORT meeting on making appropriate IOMS data publicly available following the ICCAT data confidentiality policy.
- 6. The Chair and the Secretariat will develop a proposal to share with COC and PA4 chairs to simplify the structure of shark and billfish check sheets.
- 7. The WG-ORT ad hoc group to address redundancy in reporting requirements will assist in developing guidelines for a consultant to address redundancy in reporting requirements.

13. Other matters

The Secretariat presented the results of a study carried out on several project management software solutions available on the market, aimed to handle in an efficient way the development of the IOMS project. The adoption of this kind of software was considered necessary to efficiently manage the IOMS project as it grows over time. Among various solutions tested, the *Jira* project management tool (Atlassian Corp, https://www.atlassian.com) is one of the potential ones to be adopted by the IOMS team. *Jira* is an agile project management tool with multiple features, including the capability to create and track tasks, bugs, flow diagrams, relations, and many other features that needs to be tracked within a project. The issuetracking features of *Jira* will enable the IOMS team to plan, identify and resolve issues, and efficiently plan the release process. The Secretariat intends to continue this study intersessionally and present the outcome to the next meeting of the WG-ORT.

14. Adoption of report and adjournment

It was agreed that the Report would be adopted by correspondence.

Table 1. Number of 2021, 2022, 2023, and 2024 Annual Reports stored in the IOMS by category (S3P1: Statistics, S3P2: Compliance,), completion rate (0% to 100%), Secretariat support (Yes/No), and pending status. The total number of expected Annual Reports is "57" (53 Contracting Parties + 4 non-Contracting cooperating Parties). Field "Remarks" indicates which Annual Report sections were fully completed and submitted (OK "final version"), or not (complete but in draft mode, incomplete but submitted, and incomplete and in draft mode). The three latest cases will require joint work of CPCs and the Secretariat.

				Year of annual report / Secretariat support [Yes/No])															
				2021 2022 2023					2024										
Indicator	Section	Completion status	Party	No Y	es pendin	Total	No	Yes	pending	Total	No	Yes p	ending	Total	No	Yes pe	ending	Total	Remarks
			type																Remarks
	Compliance	Complete/sent	CP	19	18	37	32	8		40	37	2		39	42			42	OK (final version)
			NCC		3	3	4			4	4			4	3			3	OK (final version)
		Complete/draft	CP				1	2		3	3			3	1			1	Requires "Submit" (draft version)
		Incomplete/sent	CP	2	2	4	1	2		3					3	1		4	Required "Edit/Complete/Submit"
		Incomplete/draft	CP		1	2 12			7	7			11	11			6 1	6	Requires full revision
number of			NCC			1 1													Requires full revision
annual	Compliance Total			21	23 1	3 57	38	12	7	57	44	2	11	57	49	1	7	57	
reports	Statistical	Complete/sent	CP	16	20	36	32	8		40	35	2		37	43			43	OK (final version)
reports			NCC	1	2	3	4			4	4			4	3			3	OK (final version)
		Complete/draft	CP	1	1	2	1	2		3	3			3	3			3	Requires "Submit" (draft version)
		Incomplete/sent	CP	4		4	1	2		3		3		3	1	1		2	Required "Edit/Complete/Submit"
		Incomplete/draft	CP		1	1 11			7	7			10	10			5	5	Requires full revision
			NCC			1 1											1		Requires full revision
	Statistical Total			22	23 1	2 57	38	12	7	57	42	5	10	57	50	1	6		
	Compliance	Complete/sent	CP	33% 3	2%	65%	56%	14%		70%	65%	4%		68%	74%			74%	
			NCC		5%	5%	7%			7%	7%			7%	5%			5%	
		Complete/draft	CP				2%	4%		5%	5%			5%	2%			2%	
		Incomplete/sent	CP	4%	4%	7%	2%	4%		5%					5%	2%		7%	
		Incomplete/draft	CP		21	% 21%			12%	12%			19%	19%			11%	11%	
			NCC		2	% 2%											2%	2%	
Ratios (%)	Compliance Total			37% 4	0% 23'	6 100%	67%	21%	12%	100%	77%	4%	19%	100%	86%	2%	12%	100%	
Natios (70)	Statistical	Complete/sent	CP	28% 3	5%	63%	56%	14%		70%	61%	4%		65%	75%			75%	
			NCC	2%	4%	5%	7%			7%	7%			7%	5%			5%	
		Complete/draft	CP	2%	2%	4%	2%	4%		5%	5%			5%	5%			5%	
		Incomplete/sent	CP	7%		7%	2%	4%		5%		5%		5%	2%	2%		4%	
		Incomplete/draft	CP		19	6 19%			12%	12%			18%	18%			9%	9%	
			NCC		2'	% 2%											2%	2%	
	Statistical Total			39% 4	0% 21	6 100%	67%	21%	12%	100%	74%	9%	18%	100%	88%	2%	11%	100%	

Table 2. List of IOMS enhancements proposed, discussed, and adopted to be developed intersessionally. The development time is a preliminary qualitative indicator (Legend: completed - shaded "green"; discarded - shaded "red"; ongoing/studying – no shade).

Year	Number	Enhancement (short description)	Module	Cost (dev. time)	Adopted	Intersessional work	Status (current)	Notes
2023	1	Allow formatting (rich text) of non-protected cells of the exported Annual Report in EXCEL	Annual Report	low	Yes	No	done	
2023	2	Make the cells bigger, font smaller or wrap text to be able to see what is required	Annual Report	low	Yes	No	done	
2023	3	An automated message will be sent to the sender confirming the successful submission (CC to: info@iccat.int?)	Annual Report	medium	No	No	discarded	Replaced by 18 (WG decision to focus on deadline reminders)
2023	4	Change "organization" to CPC	Annual Report	low	Yes	Yes	done	
2023	5	Show percentage of CPCs which have completed the annual report (e.g. 19 CPCs out of $57 = 33.3\%$, particularly on the deadline $+\ 1$)	Annual Report	medium	No	No	studying	No decision made (maybe added to dashboard)
2023	6	Order alphabetically those with 100% complete, not in order of completion, and add "date submitted" column to graph	Annual Report	medium	Yes	Yes	ongoing	
2023		Option to cancel an "importing" file	Annual Report	high	No	No	discarded	Versioning already contemplates it
2023	8	In the management files, the redundant requirements do not appear, but they do appear in the scientific extract	Annual Report	low	Yes	Yes	done	
2023	9	Cap-Vert should be Cabo Verde (same for Côte d'Ivoire and Türkiye)	Annual Report	low	Yes	Yes	done	
2023	10	Invert the "not-applicable" (negative) response to "applicable" (positive) response (choices: Yes/true & No/False)	Annual Report	high	Yes	Yes	done	
2023	11	If requirements are edited manually by the Secretariat Staff at the request of the CPC/original submitter, is it necessary save it as a new version and thar our name appears?	Annual Report	medium	No	No	discarded	Traceability needed in any cases
2024	12	Discriminatory questions to automatically fulfill Annual Report requirements (includes developing CPC profiles)	Annual Report	high	Yes	Yes	studying	Study/create how CPC profiles can help in autocompletion of AR's
2024		Review Standard responses	Annual Report		Yes	Yes	ongoing	
2024	14	Enhance the visualization of vessels charts for better understanding	Vessel Module	medium	Yes	Yes	done	
2024	15	Edit/Add the complete Annual Report (not only Section 3)	Annual Report	medium	Yes	Yes	Studying	

2024	16	Enable batch file upload (.zip) without the need to specify their type	Form Manager	high	Yes	Yes	done	The Form Manager allows the upload of multiple files at the same time, although not in ZIP format
2024	17	Automatic completion of the Annual Report based on the submission of forms (only specific requirements)	Form Manager	high	Yes	Yes	studying	
2024	18	Automated ahead reminders to CPCs informing on deadlines proximities (replaces 3)	Annual Report	medium	Yes	Yes	studying	
2025	19	IOMS will internally store the texts of the Recommendations, including paragraphs and subparagraphs. This way, there will be links to specific texts within the different modules that compose it	Core	high	Yes	Yes	studying	
2025	20	Allow attachments in the Annual report	Annual Report	medium	Yes	Yes	studying	
2025	21	Expand the annual reports to store the responses in all three languages	Annual Report	high	Yes	Yes	studying	
2025	22	Enable the submission of Annual Reports through the Form Manager	Annual Report	medium	Yes	Yes	studying	

Table 3. Revised IOMS workplan adopted by the WG-ORT, covering ongoing and future development phases. Details of each phase are shown at the bottom. Phases 4 and 5 are preliminary module references.

	Module/					Phase	
Phase	Priority Task	Description	Data requirements	DevStatus	DateStart DateEnd	end	Budget Remarks
1	1 Module	IOMS core/database	n/a	COMPLETE	2019-06-01 2021-08-01	2	COM-18
		IOMS annual report				_	
1	2 Module	(Part 1/Section 3, Part	S:GEN01, M:GEN01	COMPLETE	2019-06-01 2021-08-01	2	COM-18
1	3 Task	2/Section 3) IOMS in production		COMPLETE	2019-06-01 2021-08-01	2	COM-18
1		Training/workshop				Z	
1	1 Task	sessions (Phase 1)		COMPLETE	2022-04-28 2022-09-01	2	COM-18 Two sessions (4 hours each)
		Maintenance (including					
1	1 Task	improvements & error		Ongoing	2019-06-01 n/a	n/a	COM-18 Continuous task (maintenance)
		fixing)					
2	1 Module	Dynamic Help system (module)	n/a	COMPLETE	2021-03-31 2022-03-31	2	CPC (EU)
2	1 Task	Adjustments to the new	n/a	COMPLETE	2022-02-15 2022-03-15	2	COM-19 Adopted by WG-ORT 2022
	1 Task	roles definition	ii/a	COMPLETE	2022 02 13 2022 03 13		• •
2	1 Module	ICCAT Vessel Manager	Up to 21 data requirements (Vessel registration, 11 authorisation lists, carriers, chartering arrangements, transhipment authorizations, previous year activity)	Ongoing	2021-03-01 2025-08-01	4	Development extended to Phase 3 COM-19 (10 additional months) jointly with WN/FLUX integration. Partially CPC(EU) covered by EU voluntary contributions (2021, 2022, 2023)
2	1 Task	UN/FLUX integration into Vessel Manager	All requirements of Vessel registration and authorizations (11 lists)	Ongoing	2022-04-01 2025-11-01	4	CPC EU contribution (2021, 2022, 2023) (EU) + EU contribution (2025-2026)
2	2 Module	Enhancements to Dynamic Help system (generalization) Vessels	n/a	COMPLETE	2022-04-01 2023-03-31	3	CPC (EU)
2	1 Task	training/workshop session (1st session) Vessels	n/a	COMPLETE	2024-04-29	4	COM-19 IOMS users preliminary tests on Vessel module
2	1 Task	training/workshop session (2nd session)	n/a	COMPLETE	2024-10-09	4	COM-19 IOMS users continuation tests on Vessel module
2	1 Task	Maintenance (including improvements & error fixing)	n/a	Planned	2020-06-01 n/a	n/a	COM-19 Continuous task (maintenance)

3	1 Module	Form Manager	Module to upload and manage all ICCAT forms (ST, CP, TG)	Ongoing	2023-07-01 2	2025-08-01	4	COM-21 Includes improvements from workshops
3	1 Task	Form manager workshop sessions (1st session)	n/a	COMPLETE	2024-07-04	TBD	4	COM-21
3	1 Task	Form manager workshop sessions (2nd session)	n/a	Planned	2025-05-06		4	COM-23
3	1 Task	Vessels training/workshop session (3rd session)	n/a	Planned	2025-06-30		4	COM-23
3	1 Task	Maintenance (including improvements & error fixing)		Ongoing	2022-06-01	n/a	n/a	COM-21 Continuous task (maintenance)
4	1 Module	Port Manager	M:GEN11, M:GEN12, M:BFT20, M:BFT21, M:SW010	Ongoing	2024-11-01	TBD	4	COM-21
4	1 Module	T1NC (Task 1 nominal catches) Manager	S:GEN03	Ongoing	2025-01-15	TBD	4	COM-23 Started but studies need to continue
4	1 Module	Compliance tables (COCT) Manager	M:GEN03	Ongoing	2025-01-15	TBD	4	COM-23 Started but studies need to continue
4	2 Module	Sharks/billfishes check- sheets Manager	M:SHK05, M:BIL01	Ongoing	2024-12-01	TBD	4	Not possible to reuse AR code. COM-21 Requires big structural changes (improvements are being made).
4	2 Task	Sharks/billfish check- sheets training/workshop sessions	n/a	Planned	TBD	TBD	4	COM-21 More than one workshop may be required
4	1 Task	T1NC/COCT training/workshop sessions	n/a	Planned	TBD	TBD	4	COM-23
4	1 Task	Maintenance (including improvements & error fixing)	n/a	Planned	TBD	TBD	4	COM-23
5	1 Module	Task 2 - Catch and effort	S:GEN04	Planning	TBD			COM-25
5	2 Module	SDP programs (SWO, BET)	M:TR006, M:SW001	Planning	TBD			COM-25
5	3 Module	Bluefin tuna (BFT) weekly and monthly reports Manager	M:BFT22, M:BFT23, M:TRO14 weekly BET	Planning	TBD			COM-25
5	1 Task	Maintenance (including improvements & error fixing)		Planning	TBD			COM-25

Complementary information on IOMS Phases:

Phase	Start	End	Budget (months)	СОМ	Budget Year	Budget type
Phase 1	2019-06-01	2020-05-31	12	annual	2018	Extraordinary
Phase 2	2020-06-01	2022-05-31	24	biannual	2019	Regular
Phase 3	2022-06-01	2024-05-31	24	biannual	2021	Regular
Phase 4	2024-06-01	2026-05-31	24	biannual	2023	Regular
Phase 5	2026-06-01	2028-05-31	24	biannual	2025	Regular

Appendix 1

Agenda

- 1. Opening of the Meeting
- 2. Appointment of Rapporteur
- 3. Adoption of the agenda and meeting arrangements
- 4. Review of ICCAT regulations with implications for the Working Group's mandate
- 5. Status update of the Integrated Online Management System (IOMS)
 - 5.1 Review of current status and progress made during 2024
 - 5.1.1 Vessel Manager module
 - 5.1.2 Form Manager module
 - 5.2 Potential enhancements
 - 5.3 Review of the 2024 ICCAT data requirements for IOMS integration
- 6. Status update of IOMS complementary projects
 - 6.1 European Union IOMS related grants (2025-2026)
 - 6.2 GEF-ABNJ II project on the IOMS (2024-2027)
- 7. Review and assess the current approach to collecting data from Sharks/Billfish Check-Sheets
- 8. Activities towards enhancing a new system architecture for the IOMS
- 9. Planning the IOMS users training sessions (Vessel and form manager modules)
- 10. Review of the activities of the ad hoc working groups of the WG-ORT
 - 10.1 Redundancy elimination
 - 10.2 IOMS glossary of terms and definitions
- 11. Update and approval of the IOMS workplan
- 12. Intersessional work required in 2025 (Working Group and Secretariat)
- 13. Other matters
- 14. Adoption of report and adjournment

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