General Comments for Reviewers:

The authors would like to express our sincere thanks for the insightful and constructive comments provided on the manuscript. All of the specific suggestions have been carefully considered and addressed in the revised version. Indeed, following their recommendations, the manuscript has been certainly improved.

More specifically, the structure of the paper has been improved, enhancing its clarity, by means of including in the revised manuscript the following elements requested by Reviewers:

- A Paragraph on the goal of the paper, detailing its specific objectives.
- A Paragraph describing the Sections.
- A New Section on conclusions to give clearer take-home messages, and to ensure a summary of the discussion, reminding the reader of its relevance.

As requested by both reviewers, the content of the validation of different regional systems has been homogenized, with additional details and references provided for some of them.

Finally, the manuscript has been updated addressing all the specific comments and minor corrections proposed by both reviewers.

We appreciate the time and effort the reviewers have put into evaluating our work. Their feedback has been invaluable in improving the manuscript.

Specific comments for Reviewer 1.

As requested, to reach similar level of detail than for the Canadian System, some extra details on model validations performed by other systems have been included.

With respect to the question on the usage of satellite data (Line 173): “are satellite data not used to validate model in the coastal region due to lack of remotely sensed data product or also due to higher uncertainty of remotely sensed coastal data?”

Both interpretations suggested by the reviewer are valid: There is a lack of remotely sensed data in the coastal zone (mainly due to sea-land boundary effects) and the available remote sense data in the coastal zone also exhibits a higher uncertainty there. The sentence has been revised in the manuscript for clarity.

All minor corrections suggested by the Reviewer are included in the updated manuscript.

Specific comments for Reviewer 2.

- The paper has been extensively revised in accordance with the reviewer’s suggestions. The updated manuscript includes an enhanced discussion and a clearer explanation of the relevance of the proposed review.
- An effort to improve the writing has been made to clarify the point brought up, simplifying syntaxis and reducing the use of brackets in the revised manuscript, as suggested by the Reviewer.

- The use of specific model validation jargon, and acronyms, has been minimized to ease the paper readability. As suggested, all acronyms have been systematically defined at the first reference.
- "The section on the Copernicus Marine Service, to my opinion, does not reflects the quality of the work done. CMEMS is often cited as the reference in terms of operational oceanography, and this is not clearly conveyed. A more detailed description of the procedures with examples and references would help illustrate this."

  As requested, the section on Copernicus Marine has been updated to better reflect the service's work in model validation. As stated in the updated manuscript (Section 3), Copernicus Marine is a benchmark in operational oceanography, offering a comprehensive multi-product service portfolio. Its catalog includes over 150 operational global/regional products and covers more than 60 essential ocean variables across the blue, green, and white ocean.

  As discussed in the paper and highlighted in the new conclusion section, the service operates through a distributed production network that connects several regional production centers. These centers run models for ocean physics, including sea ice and wave modeling systems, as well as biogeochemistry. The service ensures the delivery of homogenized product quality information across all variables and products offered. To achieve this, the Copernicus Marine Service organizes product quality information from producers, providing dedicated scientific documentation that is then communicated to end-users. Every product in the Copernicus Marine portfolio is accompanied by the relevant product quality documents, and updated estimated accuracy values for every product are made available through the Copernicus Product Quality Dashboard.

  The manuscript also refers to the service's extensive operational experience and to the analysis of strengths and weaknesses of the ongoing process to establish a common, homogeneous Product Quality framework across Copernicus Marine products and EOVs.

- About the Reviewer 2 Specific comments:

  All the specific comments made by the Reviewer have been addressed by the authors in the updated manuscript.

  The authors state that the only exception where the authors did not follow the Reviewer's recommendation concerns the point: "L19. Define CMEMS as an acronym early on and use throughout the manuscript."

  With this respect, the authors note that the Copernicus Marine Service recently distributed among their producers a guideline recommending the avoidance of acronyms (e.g., CMEMS, CMS) to refer to the service. As a result, the CMEMS acronym is no longer used throughout the revised manuscript, except when referencing papers or reports from the time when the service was referred to by that acronym.