

Insights from OceanPrediction Decade Collaborative Center (DCC) and Its Vision of Connecting the World Around Ocean Forecasting

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Connecting the world around Ocean Prediction: *A vision for the Decade and Beyond*

OceanPrediction DCC programme today



**Technical
Framework**



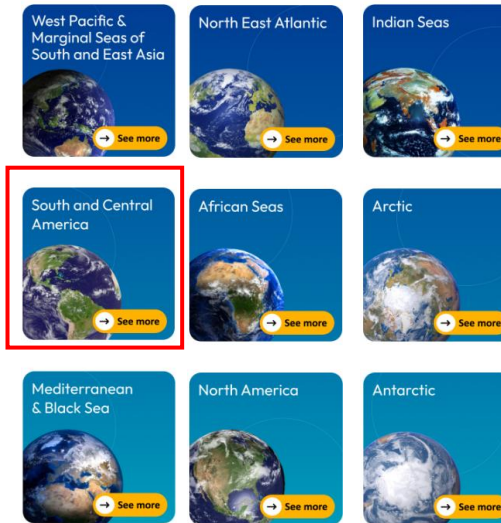
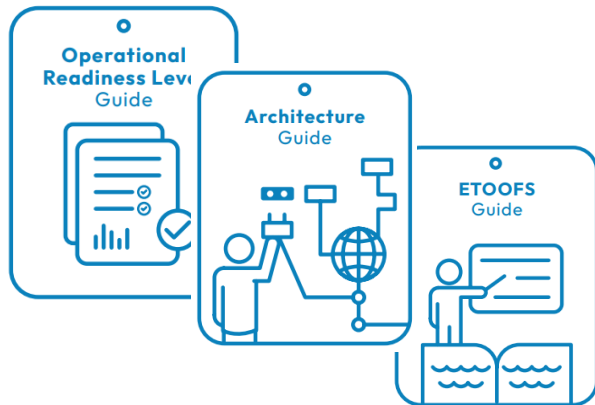
**Community
Framework**



**OPERA
Africa**



**OP4CR
Costa Rica**



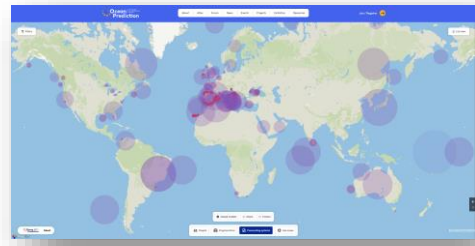
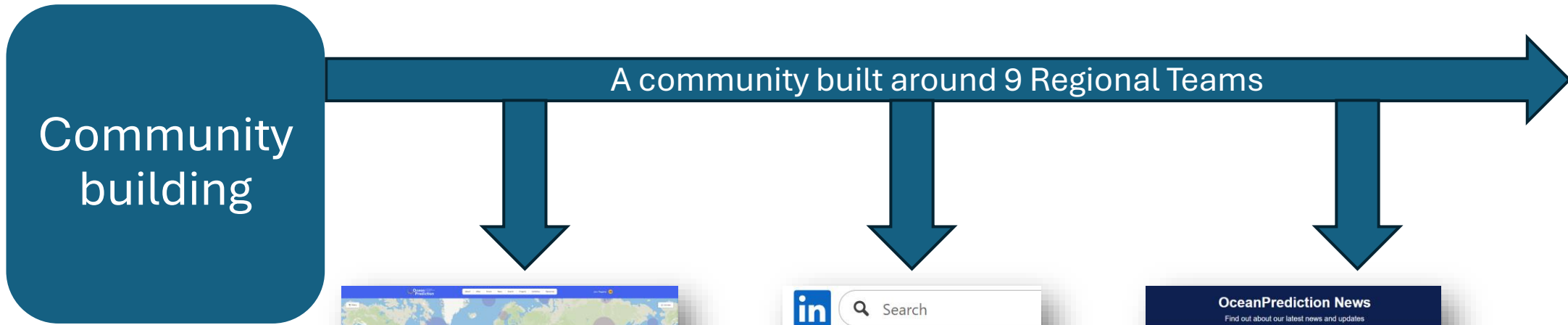
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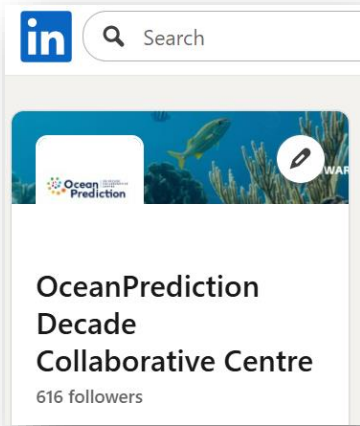


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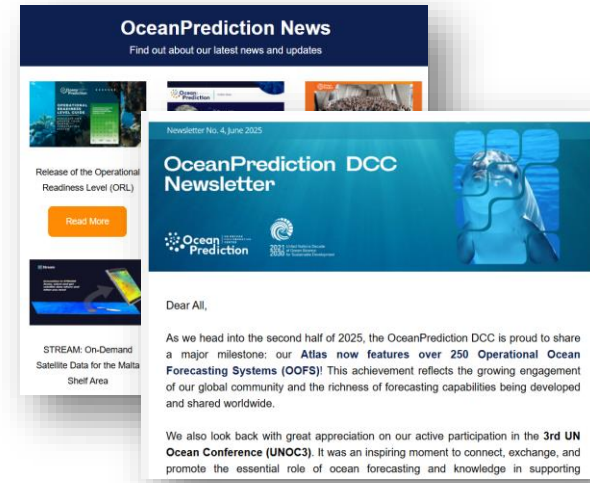
Connecting the world around Ocean Prediction: *A vision for the Decade and Beyond*



Atlas: Close to 300 forecasting services registered



LinkedIn: More than 1000 followers

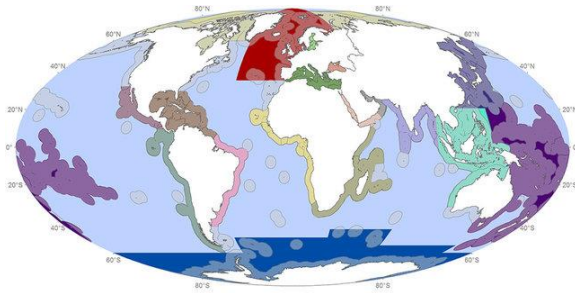


News distribution: web and newsletter

Pillars (1/2): A global and transversal community

Oceanprediction DCC **Regional Teams**: Promoting the implementation and use of ocean forecasting systems worldwide

UNEP regional seas



GOOS regional alliances



- Region 1: West Pacific and MSEA
- Region 2: Indian seas
- Region 3: African seas
- Region 4: Mediterranean and Black Sea
- Region 5: North-East Atlantic
- **Region 6: South and Central America**
- Region 7: North America
- Region 8: Arctic
- Region 9: Antarctic

“Boots on the ground” work:

- Support **decade actions** related to ocean forecasting
- Identify **gaps** and ways forward
- **Capacity building**
- Advocate for the implementation of **Best Practices, Standards, and Tools**
- ...



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4. OceanPrediction community: 9 regional teams



7 countries
15 members
2 Early Career Ocean Professionals - ECOPs



CL



BR



AR



CO



PA



MX



PE

Dr. Boris Dewitte (CEAZA), CL (co-chair)

Dr. Mauro Cirano (UFRJ), BR (co-chair)

Dr. Clemente A. S. Tanajura (UFBA and REMO), BR (co-chair)

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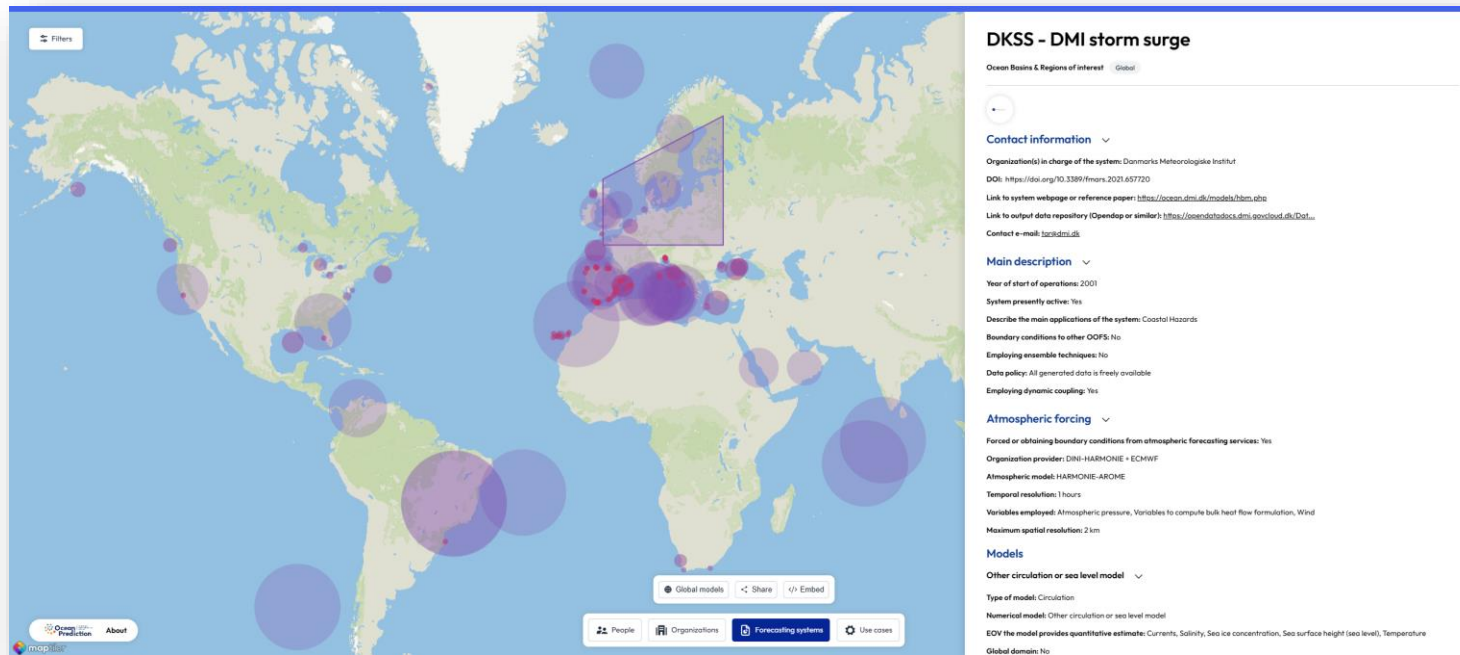


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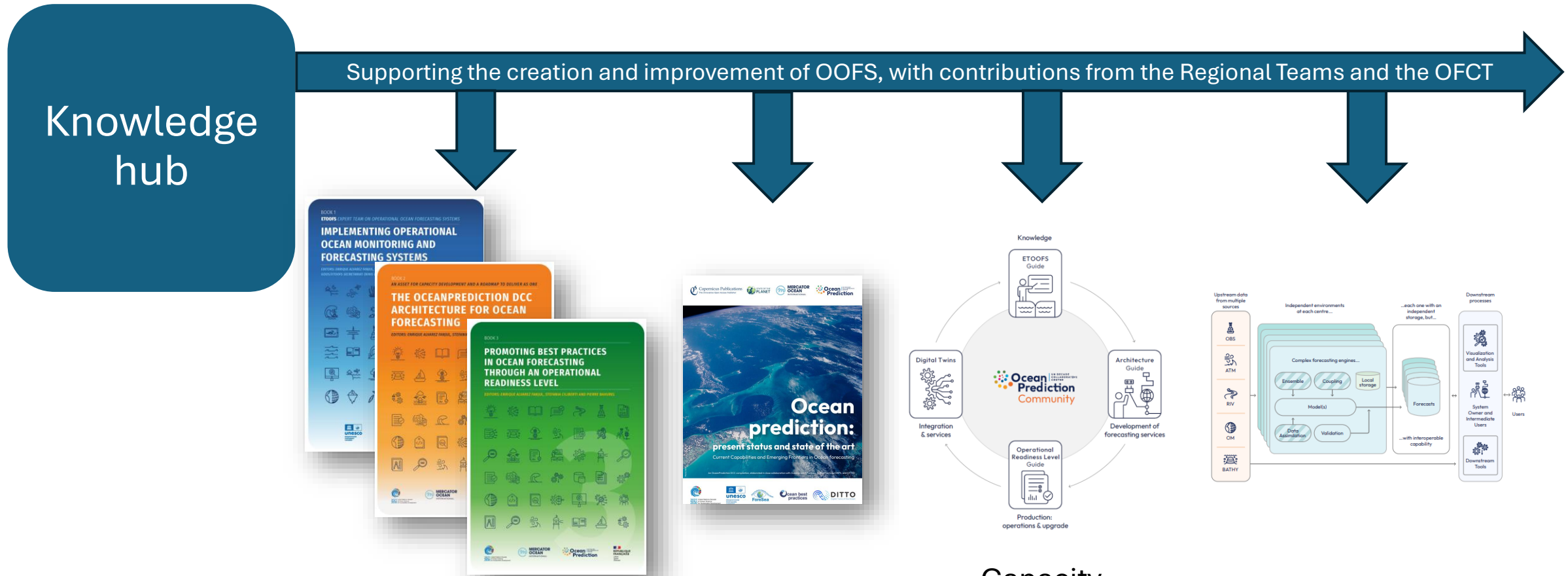


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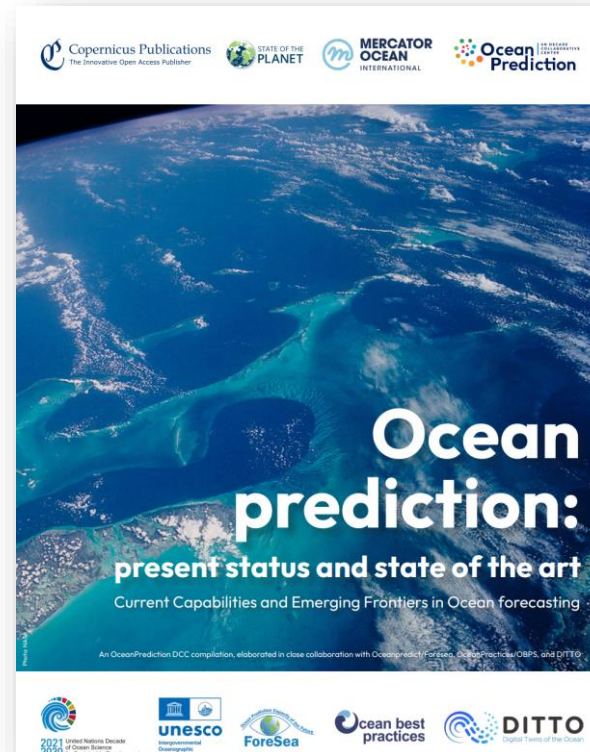
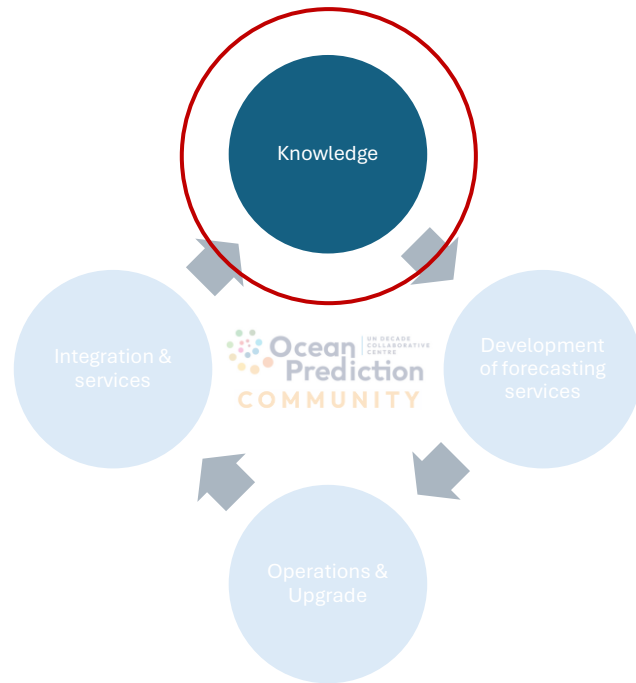
Building a community with our Regional Teams



An atlas built in collaboration with Ocean Predict (OPOS-WG)



Building our shared knowledge



A special issue (26 papers) describing the status of ocean forecasting from 68 authors from all continents. In close cooperation with Ocean Predict

Introduction (1 paper)

From global to Coastal (3 papers)

Description per Regional team (2 papers)

Connecting with observations for improved forecasts (3 papers)

Predicting blue, green, and white ocean (5 papers)

Building trust in forecasting (3 papers)

Air-sea-land interactions for improved forecasts (2 papers)

Advanced modelling approaches for ocean forecasting (5 papers)

Bridging ocean science and society (2 papers)



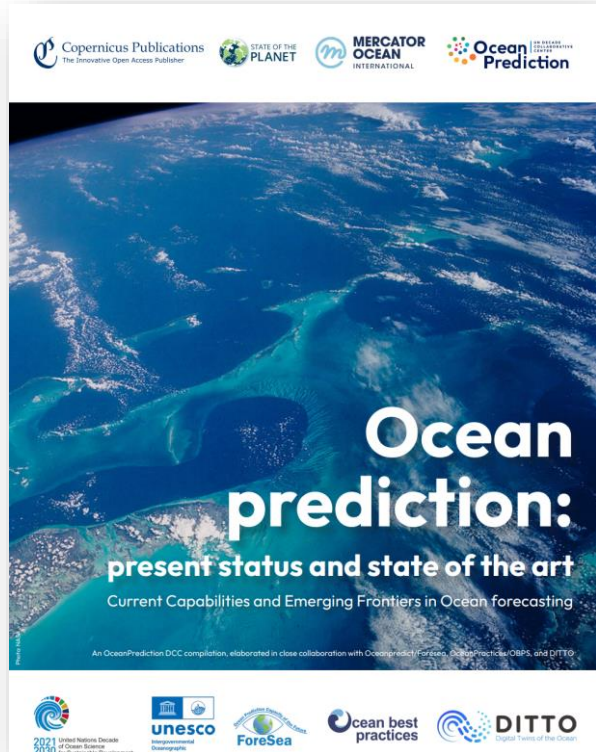
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<https://sp.copernicus.org/articles/5-opssr/>



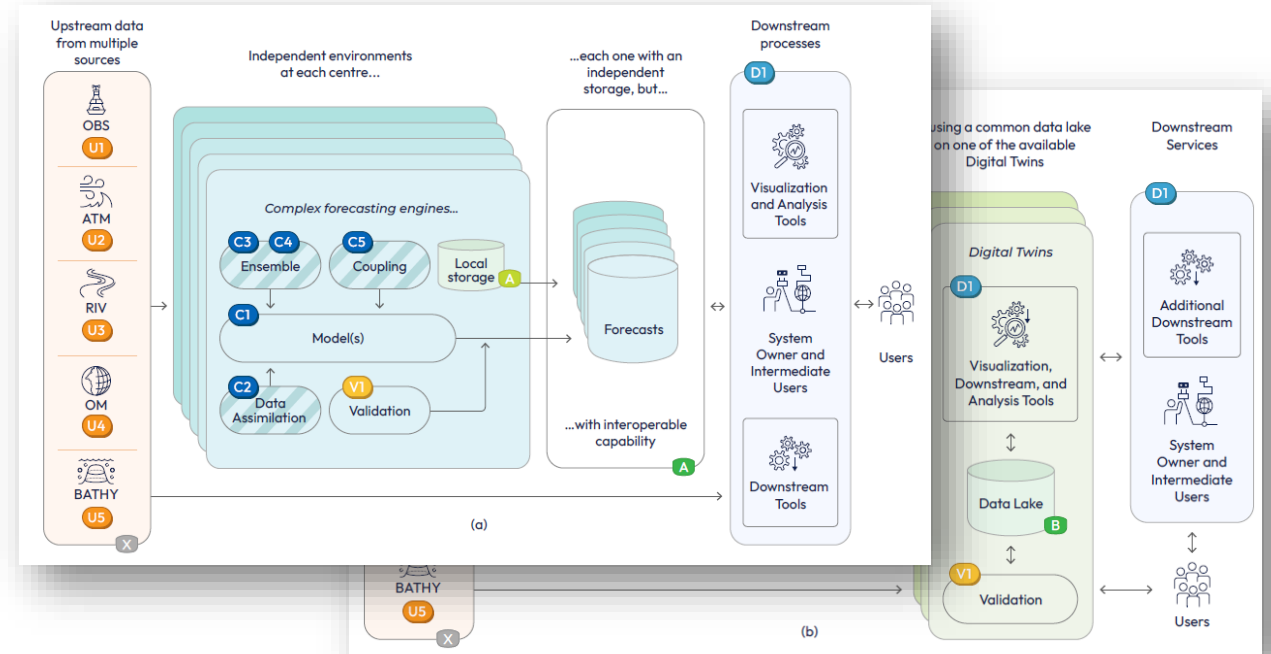
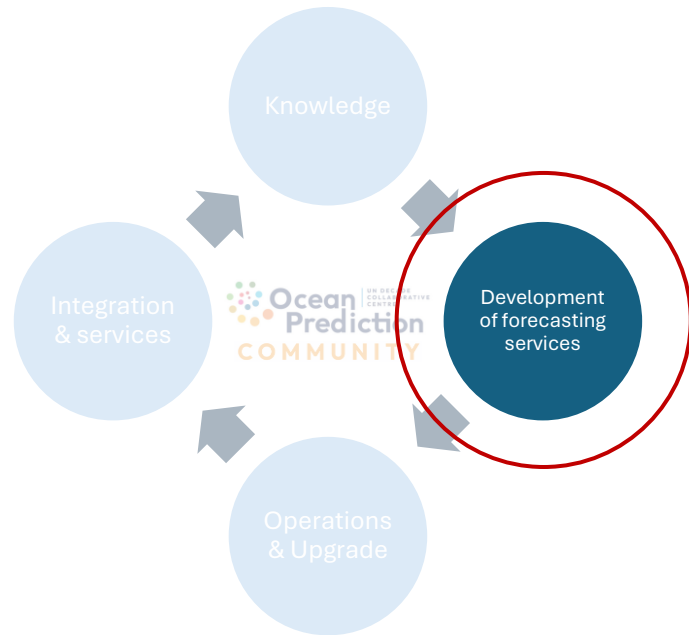
State Planet, 5-opsr, 5, 2025
<https://doi.org/10.5194/sp-5-opsr-5-2025>
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A description of existing operational ocean forecasting services around the globe

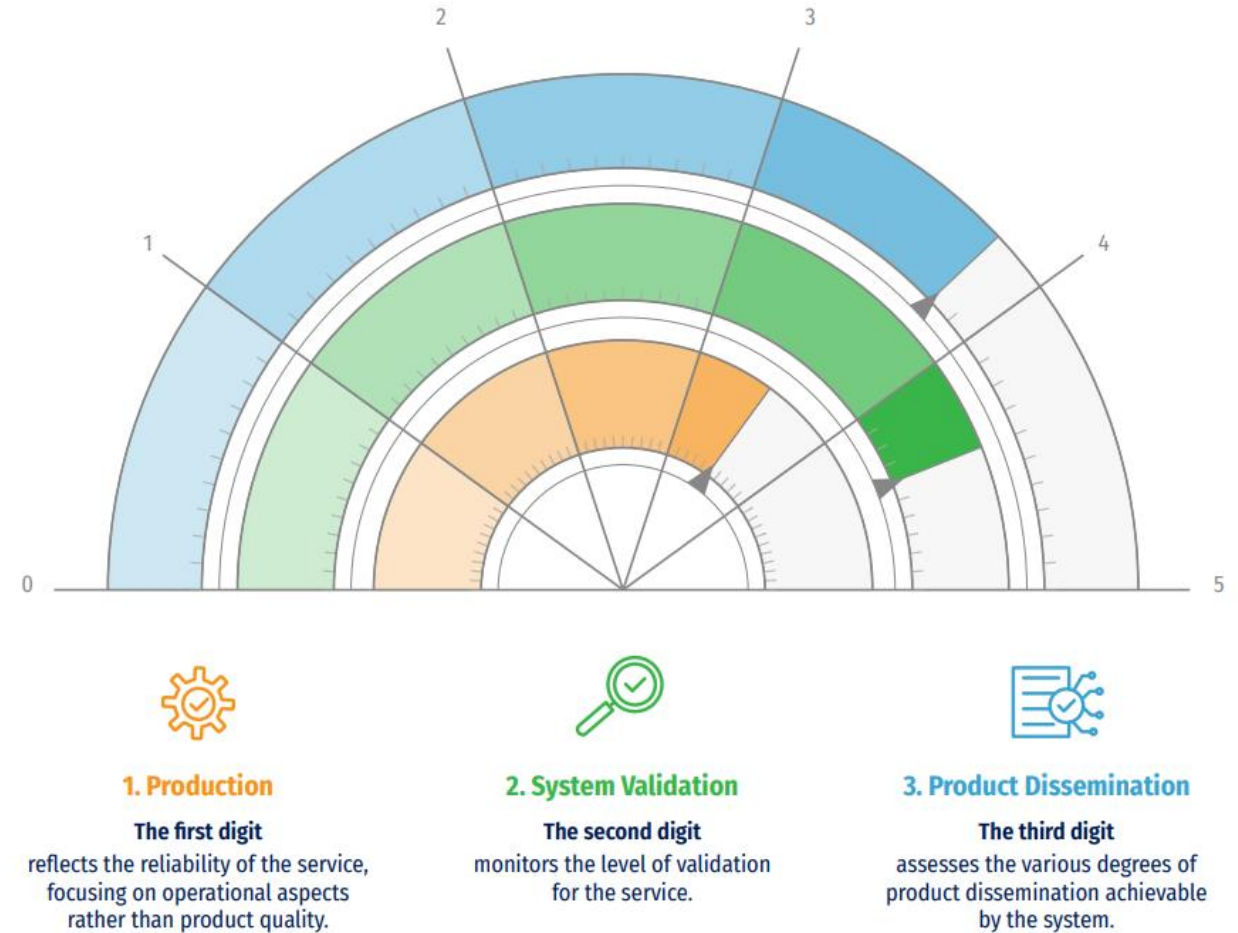
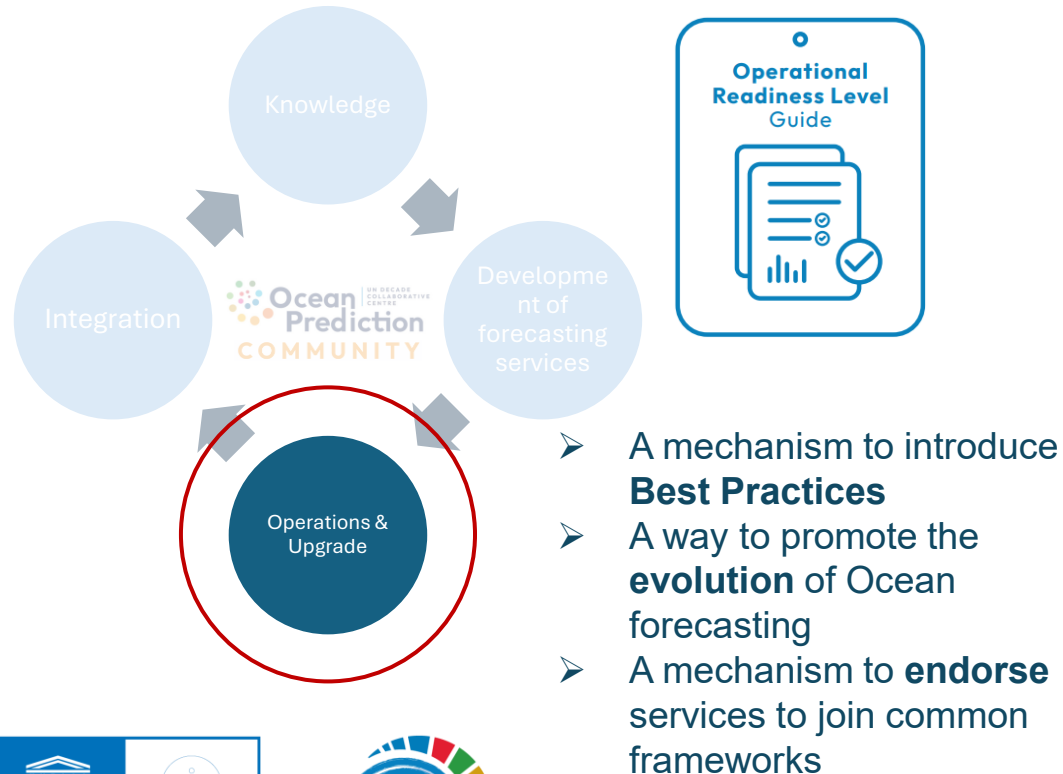
Mauro Cirano¹, Enrique Alvarez-Fanjul², Arthur Capet³, Stefania Ciliberti⁴, Emanuela Clementi⁵, Boris Dewitte^{6,7,8}, Matias Dinápoli⁹, Ghada El Serafy¹⁰, Patrick Hogan¹¹, Sudheer Joseph¹², Yasumasa Miyazawa¹³, Ivonne Montes¹⁴, Diego A. Narvaez¹⁵, Heather Regan¹⁶, Claudia G. Simionato⁹, Gregory C. Smith¹⁷, Joanna Staneva¹⁸, Clemente A. S. Tanajura¹⁹, Pramod Thupaki^{20,a}, Claudia Urbano-Latorre²¹, Jennifer Veitch²², and Jorge Zavala Hidalgo²³

Building robust Ocean forecasting services



- A practical Guide on how to “wire” a Forecasting System
- A **community product** developed in cooperation with Ocean Predict
- Soon will be followed by the actual software in two versions (one for educational purposes)

Operating and improving Ocean forecasting services



Conclusions

- OceanPrediction DCC will work in close collaboration with Decade partners to **promote Ocean Forecasting** and its applications during the Decade
- A community is organized around the **Regional Teams**
- The first results of this effort are visible:
 - Architecture
 - ORL
 - Atlas
 - ... more to come
- Register at <https://www.unoceanprediction.org/en>



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Obrigado
Thanks!