

# Initiative “AI & Ocean” 2024-2027

## *PPR Océan & Climat*

<https://www.ocean-climat.fr/Le-PPR/Actualites/Intelligence-artificielle-Appel-a-postdoc-et-data-challenges>

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# PPR Océan & Climat

(French Research Program on Ocean & Climate)



## PROGRAMME PRIORITAIRE DE RECHERCHE OCÉAN & CLIMAT 2021–2027

**Coordination CNRS/Ifremer :**  
W. Sanchez, B. Blanke

**President of the Scientific Board:** Y.  
Shin

**Actions and projects supported by  
the program:**

- Projets de recherche (CLIMARCTIC, FUTURE-OBS, MEDIATION, RIOMAR, FUTURISKS, LIFEDEEPER)
- PhD scholarships
- SLR
- Postdoc fellowships : AI-Océan, Ocean-based solutions

<https://www.ocean-climat.fr/>

# Initiative “AI & Ocean”

**Scope:** <https://www.ocean-climat.fr/Le-PPR/Actualites/Intelligence-artificielle-Appel-a-postdoc-et-data-challenges>

## **Scientific and technological challenges targeted:**

- “AI-native” approaches in the Digital twins of the Oceans
- Better exploitation of the potential of observation and simulation data
- Acceleration and portability of numerical codes

## **Scientific Approach:**

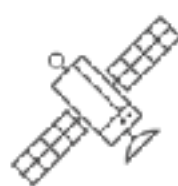
- Structuring through "open" and “at-scale” ML-ready data challenges (benchmarks)
- Benchmarking of AI-native schemes vs. Operational systems
- Exploration of multiple solutions for each data challenge (postdocs)

**Integration in the framework of the European Digital Twin of the Ocean platform** (EDITO)

**Coordination :** R. Fablet (IMT Atlantique), Y. Drillet (MOi), D. Durand (Covartec), Y. Shin (IRD)

## **Supporting resources dédiés :**

- Scientific and technological expertise of Ifremer, IMT Atlantique and Mercator Ocean International
- 2 research engineers to support the design and implementation of data challenges
- Up to 9 two-year postdoctoral fellowships (starting during fall 2025)



# Initiative “AI & Ocean”: Ocean Data Challenges

<https://github.com/ppr-ocean-ia/data-challenges-info>

**Scientific coordination:** R. Fablet, IMT Atlantique/Odyssey

**Technological coordination:** Q. Febvre (Ifremer/Odyssey), K. Ait Mohand, G. Cossio (IMT Atlantique/Odyssey), XXXX (Mercator Ocean Intl)

## Selected Data Challenges

- **DC1. Emulation of Global Ocean Reanalyses**
  - Scientific lead: J. Le Sommer (IGE), A El Anoui (Moi), S. Ouala (Odyssey), A. Storto (CNR)
- **DC2. Probabilistic short-term forecasting of global ocean dynamics**
  - Scientific lead: L. Drumetz, F. Sévellec (Odyssey), Le Sommer (IGE), S. Metref (Dallas)
- **DC3. Arctic Sea Ice Forecasting**
  - Scientific lead: S. Metref (Datlas), P. Rampal (IGE), J. Brajard (NERSC)
- **DC4. High-resolution monitoring and forecasting of tropical cyclones**
  - Scientific lead: Q. Febvre, A. Mouche, B. Chapron (Ifremer//Odyssey)
- **DC5. Marine Biodiversity Prediction**
  - Scientific lead: J.O. Irisson (LOV), L. Guidi (LOV), D. Mouillot (Marbec), A. Joly (LIRMM)

**Targeted Distribution Date:** September 2025

**GIT organisation:** <https://github.com/ppr-ocean-ia>



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# How to follow? How to contact?

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**Webpage:** <https://www.ocean-climat.fr/Le-PPR/Actualites/Intelligence-artificielle-Appel-a-postdoc-et-data-challenges>

**Mailing list:** [ppr\\_ocean\\_climat\\_ia@cnrs.ifremer.fr](mailto:ppr_ocean_climat_ia@cnrs.ifremer.fr)

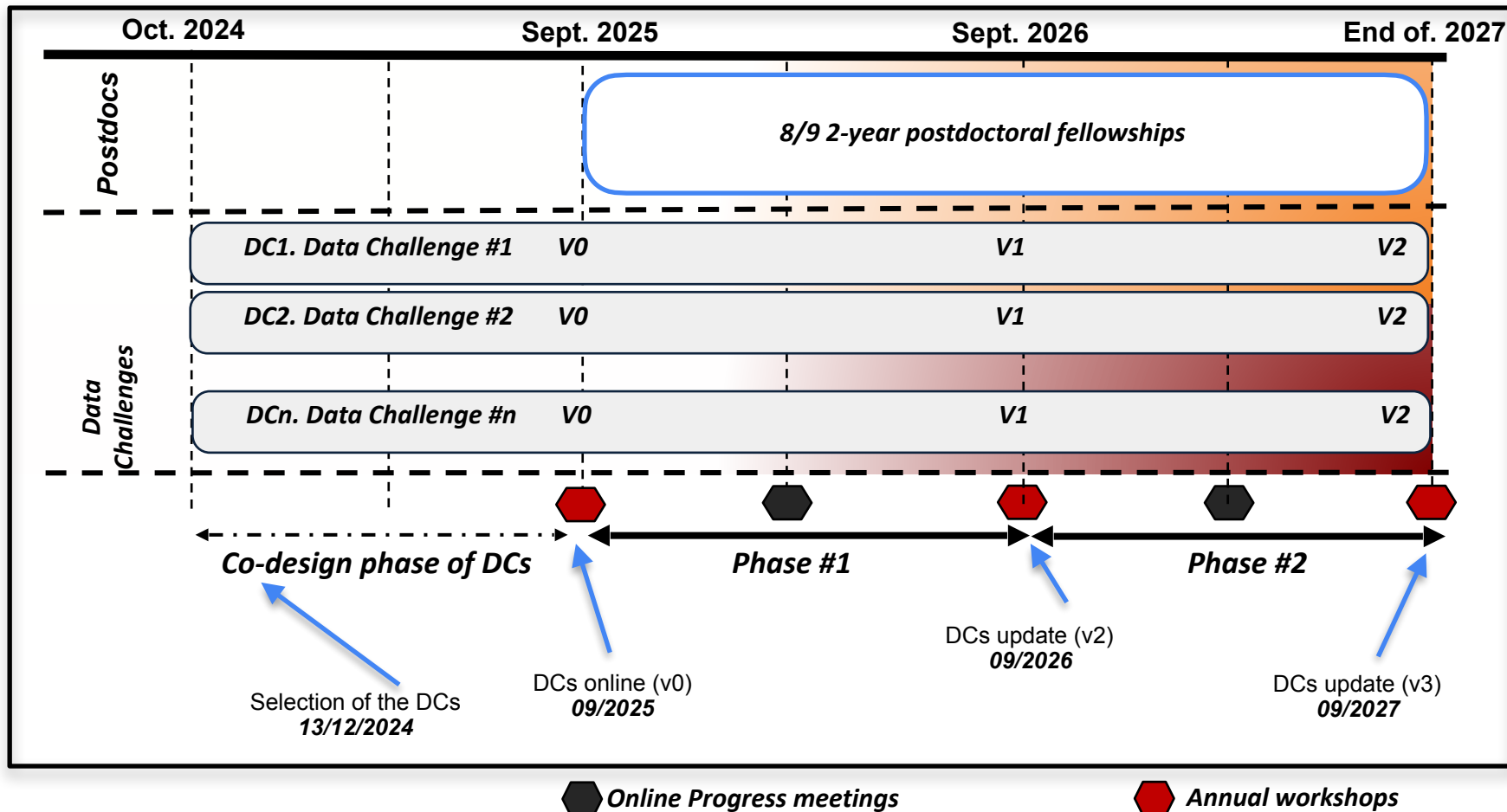
**Slack workspace** “ppr-ocean-climat-ia”

**Git organisation:** <https://github.com/ppr-ocean-ia>

**Annex.**

**Timeline of the initiative**

# Ocean Data Challenge Timeline



# Postdoc Fellowship Timeline

