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EMOD-PACE

European Marine Observation and Data Network Partnership for China and Europe

CEMDnet

China-European Union Marine Data Network Partnership

中国-欧盟海洋数据网络伙伴关系 - 中国-欧盟海洋数据网络伙伴关系

Strengthening International Ocean Data through the European Union's Ocean Diplomacy with China

Marine Knowledge Expert Group 29th November 2022

Contact details: ***eu-chinapco@emodnet.eu***

The project "International Ocean Governance: Strengthening international ocean data through the EU's ocean diplomacy with China" is financed by the European Commission EuropeAid/139904/DH/SER/CN.

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MKEG Closed Session EMOD-PACE CEMDnet EU China updates

Julie Auerbach, Rita Lecci, and Fred LeClercq

- a ppt on EMOD-PACE achievements in general, (with some elaboration on Coastal Adaptation Outputs), as well as…
- a short demonstration to show all present how to access, view, download the products, as well as search the catalogue from the online web-page.
- during the session, we would also like to go through a short questionnaire, which we would like to circulate shortly after the meeting

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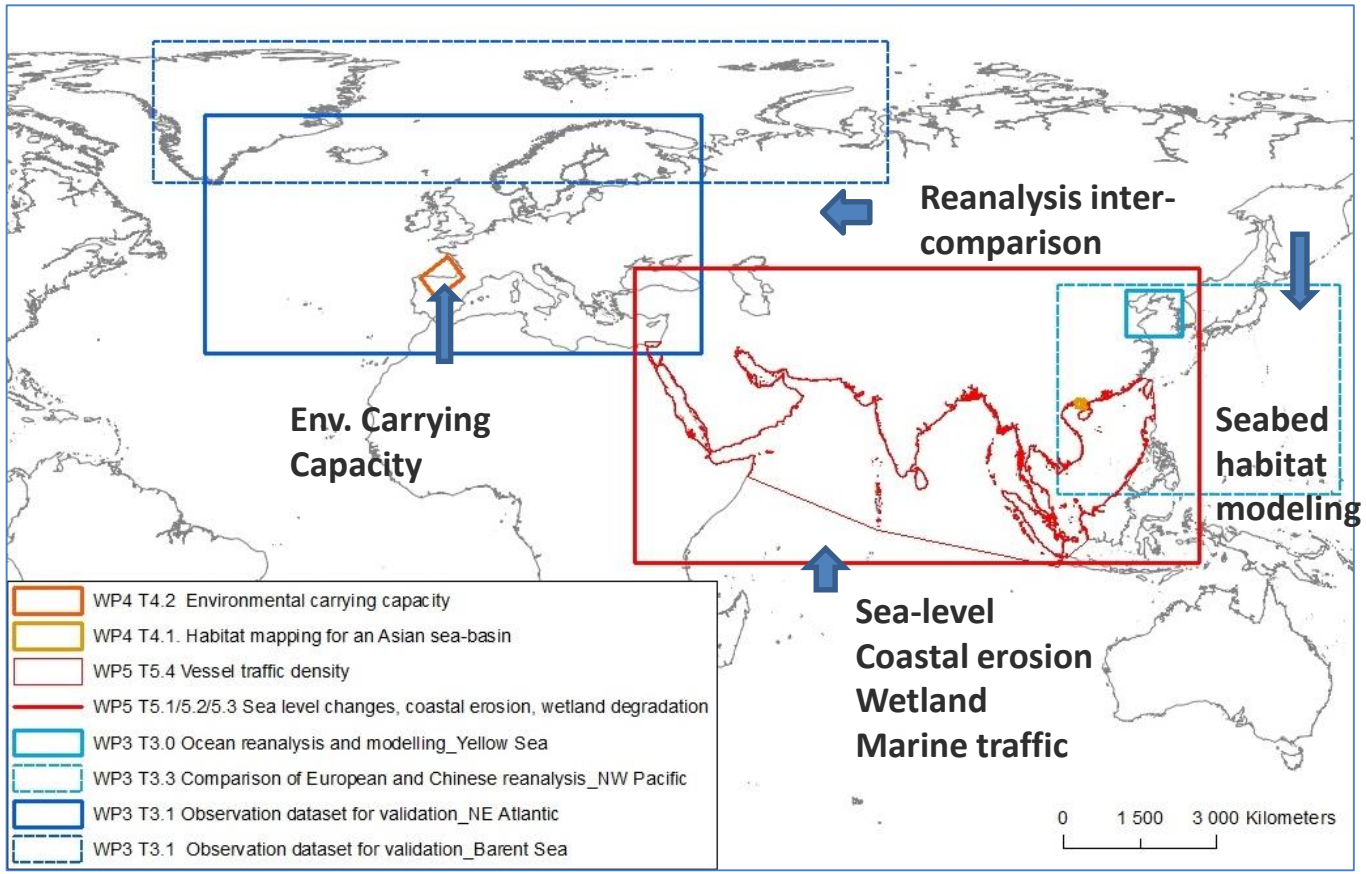
EMODPACE-CEMDNET

Objectives

Facilitate European and Chinese engineers and scientists to build up a picture of the marine environment using data from both sources.

Promote international ocean governance and support the implementation of global commitments by **making ocean marine data and data products more easily accessible and by providing better data and data products**.

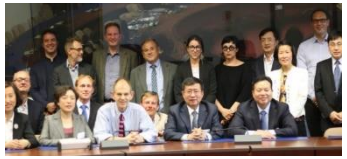
Areas of Interests



Highlights to present

June 2017

EU China Blue Year Event - forecasting, data, monitoring, planning, indicators

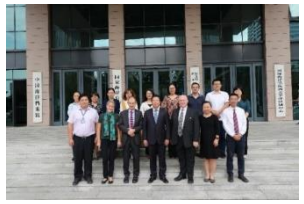


July 2018

China and EU signed a Blue Partnership for the Ocean

September 2018

EU delegation visited NMDIS



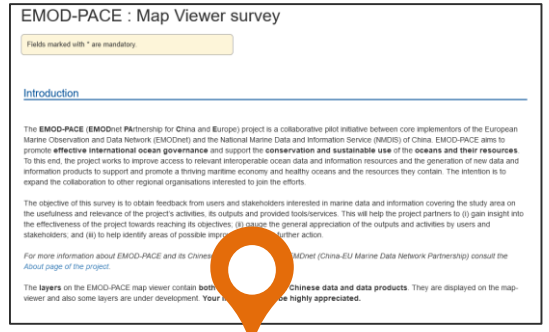
February 2020

E**MOD-PACE** (EMODnet PArtnership for China and Europe) project funded by the Partnership Funding Instrument (PI) and managed by the Unit FPI.4 called Industrialized Countries & Foreign Policy Support (€3.5million, 30 months)

January 2021

EMOD-PACE, CEMDnet Mid-term meeting and MoU between EMODnet and NMDIS Portals online with map viewer & Helpdesk

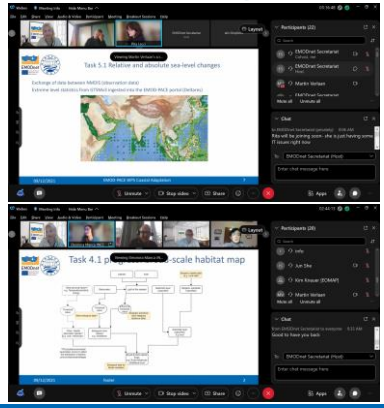
October 2021



1. EMOD-PACE CEMDnet WP1 and WP2 meeting
2. EMOD-PACE CEMDnet IODE and ODIN WESTPAC meeting
3. Project Management Board meeting

December 2021

Meetings for the preparation of EMOD-PACE next milestones and deliverables in all work-packages



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2022

Inter Services Steering Committee meeting advice &
Request for project extension

Early February 2022

Mid February 2022

1. M24 Milestones and Deliverables
2. Interim Report

Project Management Board focus on
1. High level meeting
2. Common Work Plans
3. Dissemination

March 2022

May 2022

Joint High Level Meeting EMODPACE-CEMDnet, online

Project Management Board meeting, *in situ*, Brussels

June 2022

May-December 2022

Dedicated Dissemination & Communication Activities

Oct 2022

Project Management Board meeting, Online

Nov 2022

Workshop (Task 1.3), hybrid, Oostende

Final Conference, hybrid, Oostende

Marine Knowledge Expert Group meeting, Online

Steering Committee Meeting, Online

Dec 1st 2022

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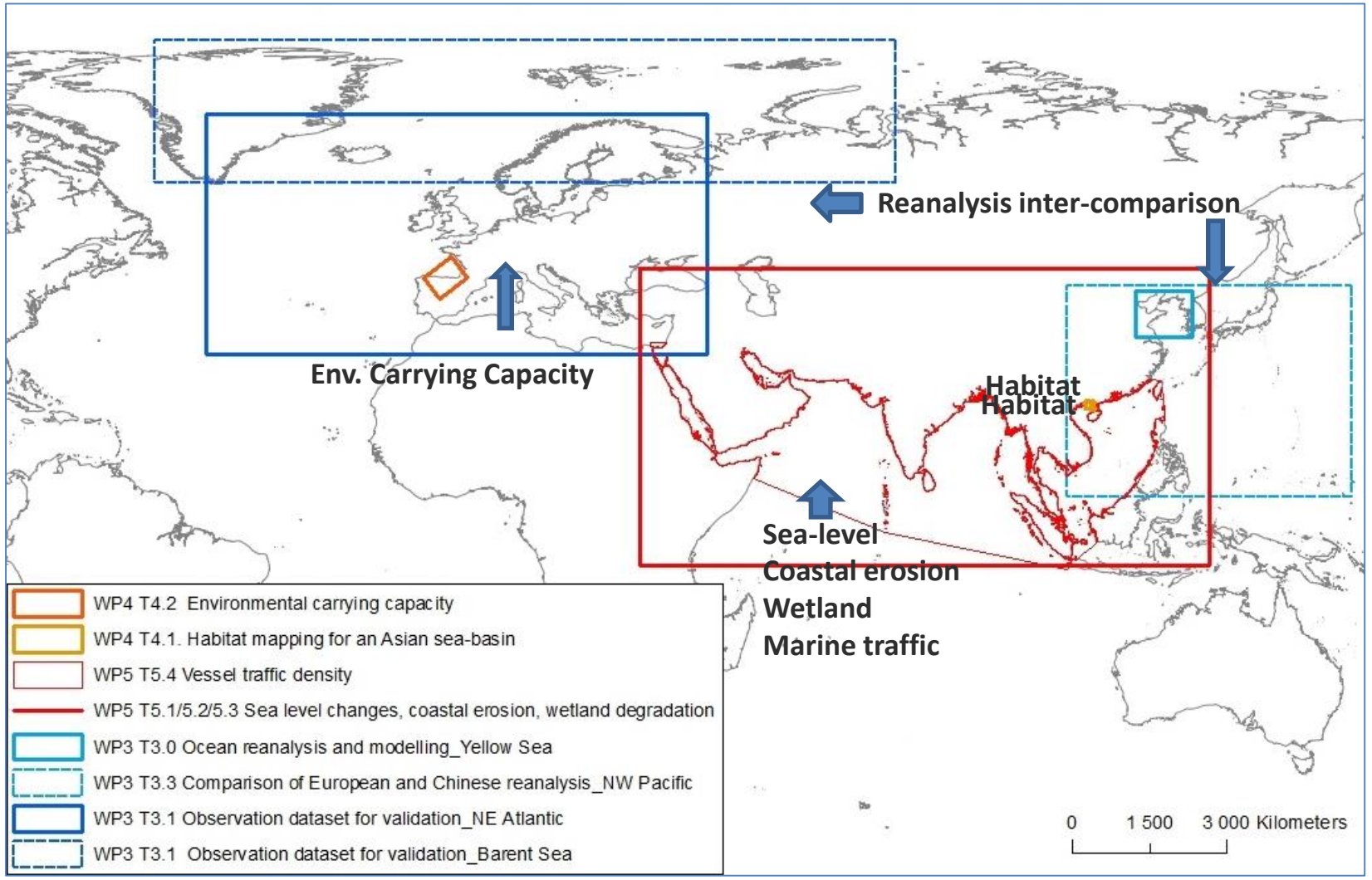
Areas of Interest for the EMOD-PACE CEMDnet Collaboration



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EMOD-PACE-CEMDnet approach

WP 0 *- Project Coordination, Management & Communication*

WP 1 - Creation of **interoperable information system** linking EMODnet & NMDIS

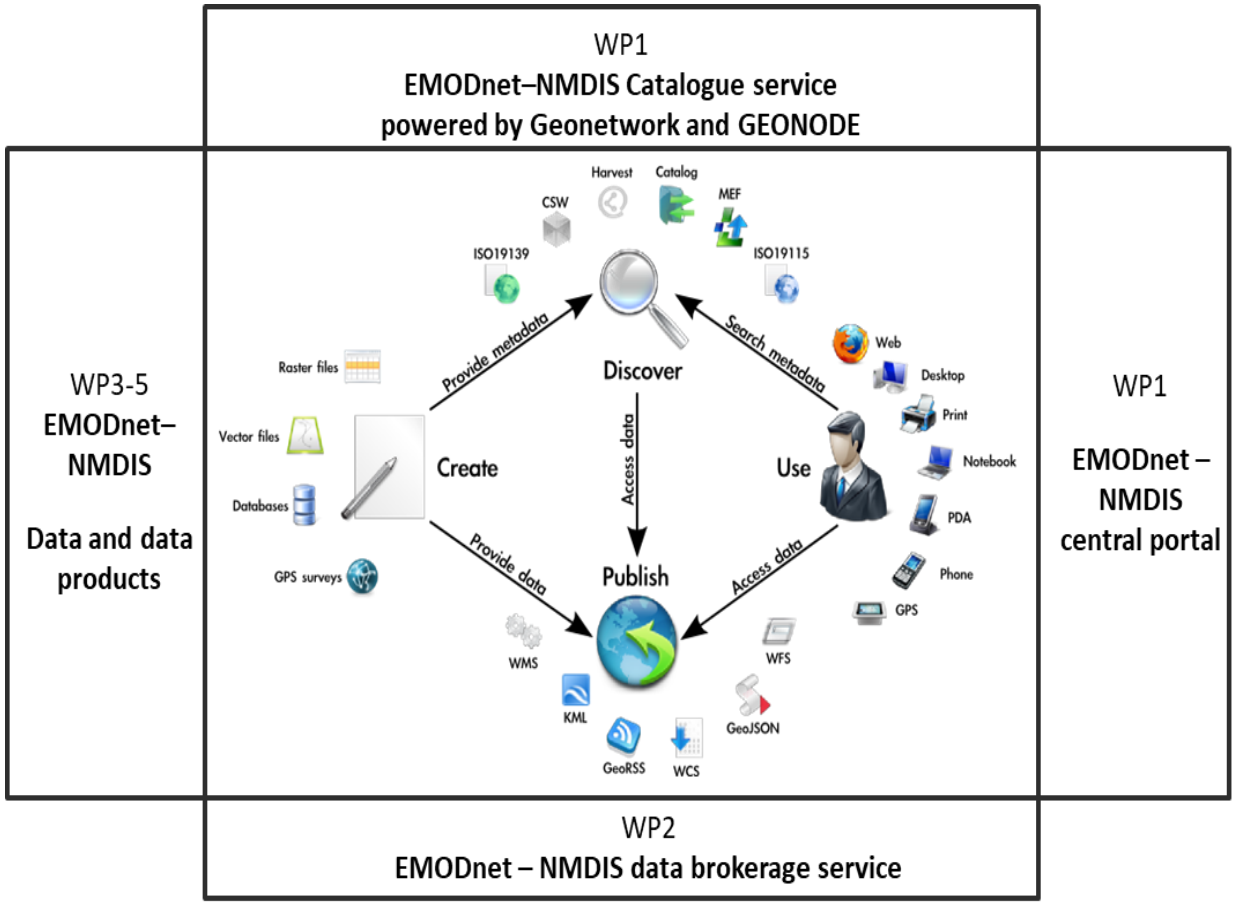
WP 2 - Establishing **data interoperability** between EMODnet and NMDIS

WP 3 - Comparison of European & Chinese **models for regional sea reanalysis**

WP 4 - Comparison of European and Chinese **models for seabed habitat and ecosystem vulnerability**

WP5 - **Coastal Adaptation**

- Relative sea level changes & Absolute sea level changes
- Coastal erosion
- Wetland degradation
- Vessel traffic density



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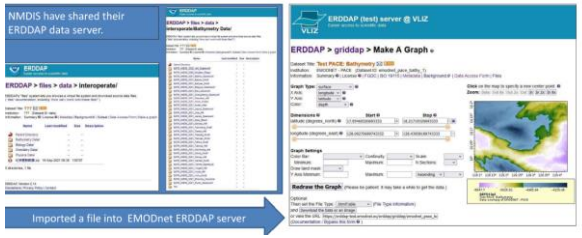
Main Achievements in each Work Stream

Downloadable data ERDDAP



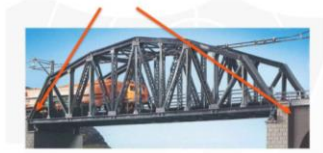
Work-Package 1
Creation of interoperable information system linking EMODnet & NMDIS

Work-Package 2
Establishing data interoperability between EMODnet and NMDIS

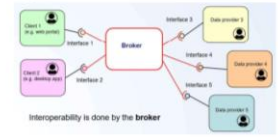
Principle of Brokerage service

Brokerage can be considered as building a 'bridge' between EU data services and NMDIS data services

A bridge requires 2 'bridgeheads' which should be '**web services**'



Use is made of **DAB Brokerage service.** Supports many protocols at metadata and data levels



1 set of WP3-5 research products

1 Set of marine biogeochemistry OGC products

55 OGC layers

1 list of data for sharing

1 set of ocean interoperable data service interface

1 set of metadata and datasets for 4 disciplines, 5520 datasets

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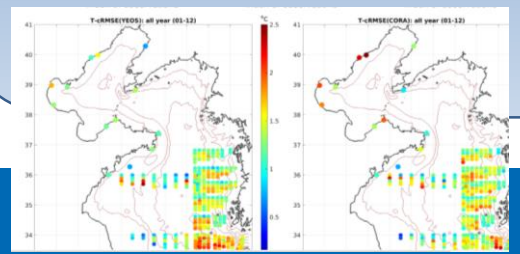
Work-Package 3 Comparison of European & Chinese models for regional sea reanalysis

1 set of data review and observation dataset for validation

5 sets of standard reanalysis grid data products in 3 sea areas

4 review reports

2 inter-comparison reports on regional ocean models and reanalysis



Work-Package 4 Comparison of European and Chinese models for seabed habitat and ecosystem vulnerability

1 set of broad-scale habitat mapping in the Beibu Gulf (15 layers, 4 WMS)

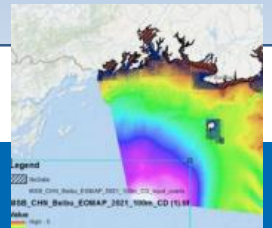
1 guidance manual on creating seabed map and accompany confidence map using the EUSeaMAP approach

1 guideline on evaluating the importance of marine ecological protection

1 report on describing the mapping method and suitability of EUNIS approach to China

1 report on the sustainability of ECC approach to Europe

1 jointly published academic paper



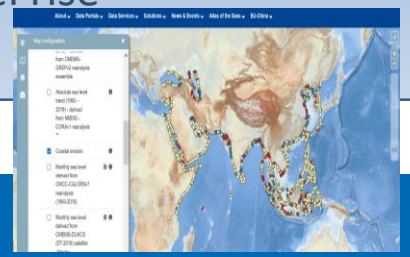
Work-Package 5 Coastal Adaptation

1 set of global tide gauge and sea level analysis products

1 set of sea level projection products on marine silk road region

1 set of extreme sea level projection products at tide gauges in marine silk road region

1 joint report on Assessment of coastal hazards connected to sea level rise



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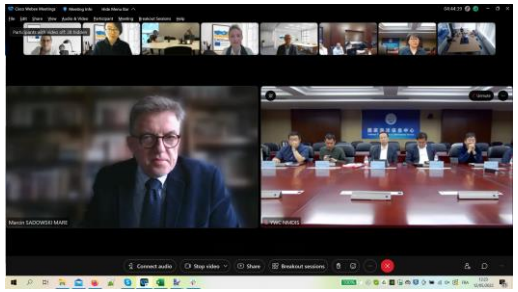
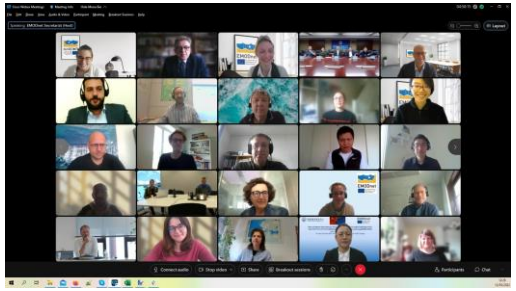
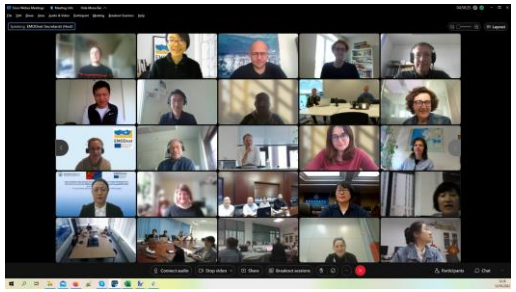
Work-Package 0
Project Coordination, Management & Communication







1 Memorandum of Understanding (MoU)

1 United Nations Ocean Decade Satellite Activity

2 workshops with ODINWESTPAC and other stakeholders in the WESTPAC

2 project brochures

2 project videos (English and Chinese)

.. Internal Meetings, Project Management Board Meetings, 3+1 upcoming Steering Committee Meetings, 3+1 upcoming Marine Knowledge Expert Group + compilation of insights to project progress, Ongoing EMOD-PACE CEMDnet Meetings, Ongoing External Stakeholder Meetings

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Main achievements from a partnership perspective

Building trust in shared data & information

Development of bi-lateral collaboration at the technical and political level

In-depth research and analysis of data and information availability, accessibility and sharing of services between EMODnet and NMDIS

Enable an inclusive data & information ecosystem

Unifying data standards and establishing interoperable datasets

Provide a framework for data strategies and plans to align

Adoption of technologies and functionalities to enable EMODnet-NMDIS catalogue searching

Co-designed solutions that support decision making

Production of joint thematic reports and data products for Coastal Adaptation, Ecological Carrying Capacity and Broad-scale Habitat mapping, and Comparison of European and Chinese models for regional sea re-analysis

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Achievements beyond the initial work plan

MoU + Common Work Plan & Joint Activities as a major achievement which was not planned beforehand BUT which

- **Provided numerous additional outputs**
- **Paves the way for consolidating the Partnership with a range of Opportunities Ahead**

Expanding the remit

Extend the web portal to allow users to discover and view data held by Asian data centres, not yet included in our catalogue, with common formats

- Optimize the full potential of the EMODnet-NMDIS MoU, by using it to broaden the collaboration with other marine data services in the wider region
- Combine data from other providers and regions with already existing open data from NMDIS/EMODnet
- Exchange of technical knowledge
- Provide better data products, new scientific insights in support of decision-making
- Contribute to the UN Decade of Ocean Science objectives

EMOD-PACE/ CEMDnet Open Workshop: Improving FAIRness of European and Asian marine data and data products for regional and global users – 22 November 2022 – 8:30 CEST // 15:30 CST

emodnet.ec.europa.eu/en/open-workshop-improving-fairness-european-and-asian-marine-data-and-data-products-regional-and

UN Ocean Decade Satellite Activity – 11 May 2022 – 11:00 CEST // 17:00 CST

emodnet.ec.europa.eu/en/ocean-decade-satellite-activity-expanding-data-interoperability-between-europe-and-asia

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Key Challenges & Opportunities Ahead

- Establishing and maintaining the connection to NMDIS web-services
- Establishing whether the brokerage is to be a sustainable choice for the project efforts
- Connect with more maritime industry groups to ensure there is easy and effective uptake of the EMOD-PACE data products by the maritime sector
- Optimize the full potential of the MoU, by using it to broaden the collaboration in the Asia Region. Task 1.3, i.e., to 'Extend the web portal to allow users to discover and view data held by Asian data centres, not yet included in NMDIS, with common formats'.

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Recommendations for next steps & lasting legacy

- Sustain and further populate the data brokerage tools & **expand the data and products catalogue** with more relevant datasets from Europe, China and beyond based on identified needs.
- Identify data and data product gaps and **increase the resolution where possible**.
- Use the ultimate **added-value brokerage functionalities and interoperability solutions** between EMOD-PACE and CEMDnet as a basis for connecting expanding the remit
- **Contribute to discussion** on global data interoperability in the framework of UN Decade of Ocean Science for Sustainable Development
- **Connect with more maritime industry groups** to ensure there is easy and effective uptake of the EMOD-PACE data products by the maritime sector.
- **Participate in the marine related international activities** to disseminate our project, eg IODE Conf 2023
- **Optimize the full potential of the MoU**, by using it to broaden the collaboration in the Asia Region.
- Consider confirming/**renewing the MoU** regularly, taking into account the lessons learned, opportunities for future collaboration and embedding the legacy into the developing global data and information ecosystem for the Ocean Decade and IODE's ODIS/Infohub

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Collecting feedback and connecting to users and maritime industry groups to ensure there is easy and effective uptake of the EMOD-PACE results

Some feedback from stakeholders and users

Looking into what EMOD-PACE & CEMDnet aim to deliver, which data/data product (displayed layers) is the most interesting one for your organisation?

- Water chemistry and physical variables;
- Vessel traffic density and production of the low carbon routes for the target area;
- Horizontal wind speed (and direction) at different heights (up to 150m), not only ocean surface wind.

Can we better facilitate international ocean governance through the project?

- Yes - more reliable information improves decision-making, if it is placed in correct context;
- Concrete collaborations on known issues such as data interoperability and high quality product development such as EMOD-PACE can have strong contribution, among others by building collaboration and trust.

Can we better facilitate access to information by the Maritime Private sector companies through the project?

- When new data arrives, use network to promote it's arrival;
- Improve communication;
- Provide accuracy, reliability and long data series. More types of data would encourage usage;
- ...

Do you believe the project/portal/efforts has the potential to support you in your experience?

- Another source of data is useful and the portal allows it to be placed alongside that already available;
- I would love to see the project also extended to Japan;
- If more relevant data becomes available;
- ...

User-driven improvements and identification of opportunities

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Questions for EMOD-PACE MKEG Feedback (1)

Section	Aim	Questions to be included on the EU Survey Platform
	– Profiling respondents (stakeholder groups, nationality, etc.)	0a In which of the following professional groups would you classify yourself? i. Academia & students ii. Government iii. Business/ private sector iv. Media v. Civil society vi. Other 0b. Please indicate your country i. Country ii. Age 0c. What is your main area of interest - Europe - The maritime route between Europe and Asia - Asia - Global - Local and/or National (specify)

Questions for EMOD-PACE MKEG Feedback (2)

Intro	– Obtain insight insight into the understanding of EMOD-PACE & CEMDnet amongst users and stakeholders – Encourage users/stakeholders to complete survey – Completion of survey and encourage to share with others	**1a. Can you provide a level of your understanding of the project and its objectives?** ***Method: on a slider 1-10; with 0 being not clear; 5 being overall understanding; and 10 being clear and helpful to your work, organisation and/or sector.*** **1b. Which data layer/ information presented through the portal is most useful to yourorganisation, sector or industry, and if so for what purpose, e.g., research, planning, decision making, other?** ***Method: Yes/no choice box; followed by a list of purposes.*** **1c. Would you distribute the data and information from the project to colleagues within your company, organisation or network?** ***Method: Yes/No choice box*** **1d. If yes, what other parameters would you be interested in, if this work is continued?** ***Method: add blank text box limited to 50 characters.***
GDPR/ Follow-up	**This question is asked to see if the participant wishes to maintain input to these efforts throughout the project and potentially for related projects.**	**2. Permission to contact for follow-up and maintain details in project database according to GDPR.** ***Method: Yes/No choice box*** ***If yes, please provide your email/contact details***

Questions for EMOD-PACE MKEG Feedback (3)

Ease of download of data or information/ Tackling global ocean challenges	**Assess how well the project and its outputs have achieved the following objective "To facilitate political convergence towards a collective approach to tackle global ocean challenges such as climate change, marine litter, and environmental protection and biodiversity, in particular in the context of the Convention for Biological Diversity."**	**3a. Have you found it easy to download data and information from the web-page?** ***Method: Yes/No choice box, and a text box 'If not why not'*** **3b. Are the accessible datasets well harmonised and easy to use with your existing database/sources/services?** ***Method: Yes/No choice box*** **3c. Is the information displayed useful to your understanding in being able to tackle marine environmental challenges, e.g., climate change, marine litter, and environmental protection and biodiversity, in particular in the context of the Convention for Biological Diversity?** ***Method: Yes/No choice box; and text box asking to list which information has been useful (limited to 50 characters)***

Questions for EMOD-PACE MKEG Feedback (4)

EMOD-PACE data product layers on display. Asking whether previous lack of data was a barrier	•	**To produce ocean maritime data relevant to companies active in the field of maritime transport between the EU and Asia (China).**	**4a. Does the data and information provided help you in your understanding of the Area of Interest, i.e., has it removed barriers and helped you in knowing more about how to influence processes for market access, investment and business?** ***Method: Yes/No/NA choice box*** **4b. Which data and information have you found most interesting with a potential for use in your organisation or sector?** ***Method: Give list of layers and tick boxes; provide a text box for reasons why it is useful (limited to 50 characters)*** **4c. Can you provide your suggestion on how to improve upon the data provided, e.g., resolution, coverage, etc., which can help in tackling environmental marine challenges in your industry?** ***Method: Multiple choice, letting them tick what applies*** ***"- Improve spatial resolution*** ***- Improve temporal resolution*** ***- Include time series*** ***- Data subtheme missing*** ***- …"*** ***(think of others)*** ***Followed by a question, "Please explain your choice(s): …".***

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Questions for EMOD-PACE MKEG Feedback (5 & 6)

Global commitment/ vision	•	**Support the implementation of global commitments by making ocean marine data and data products available and by providing better data and data products. (Project Overall Objective 2 (PIMs))**	**5a. To what degree do you think the project outputs, meet metadata standards and support ready use of marine data for the implementation of global commitments?** ***Method: Slide rule where 0 is not at all; 5 is improved and 10 is high;*** **5b Do you have an example of where this information has/can support dialogues on a state/sub-state level (bilateral, regional, multi-lateral) partnership strategies and policy dialogues?** ***Method: Text box limited to 200 characters.***
Global commitment/ vision	•	**Support the implementation of global commitments by making ocean marine data and data products available and by providing better data and data products. (Project Overall Objective 2 (PIMs))**	**6a. Do you know of a collective approach and/or practice(s) which have been developed/adopted/ implemented with reference to the EMOD-PACE project efforts, i.e., either building upon or as a result of the cooperation between the EU and China for data interoperability and the creation of data products?** ***Method: Yes/No choice box.*** **6b. Please make reference to, and elaborate where possible on, any collective approaches and/or practices which have been developed/adopted/implemented.** ***Method: text box limited to 200 characters***

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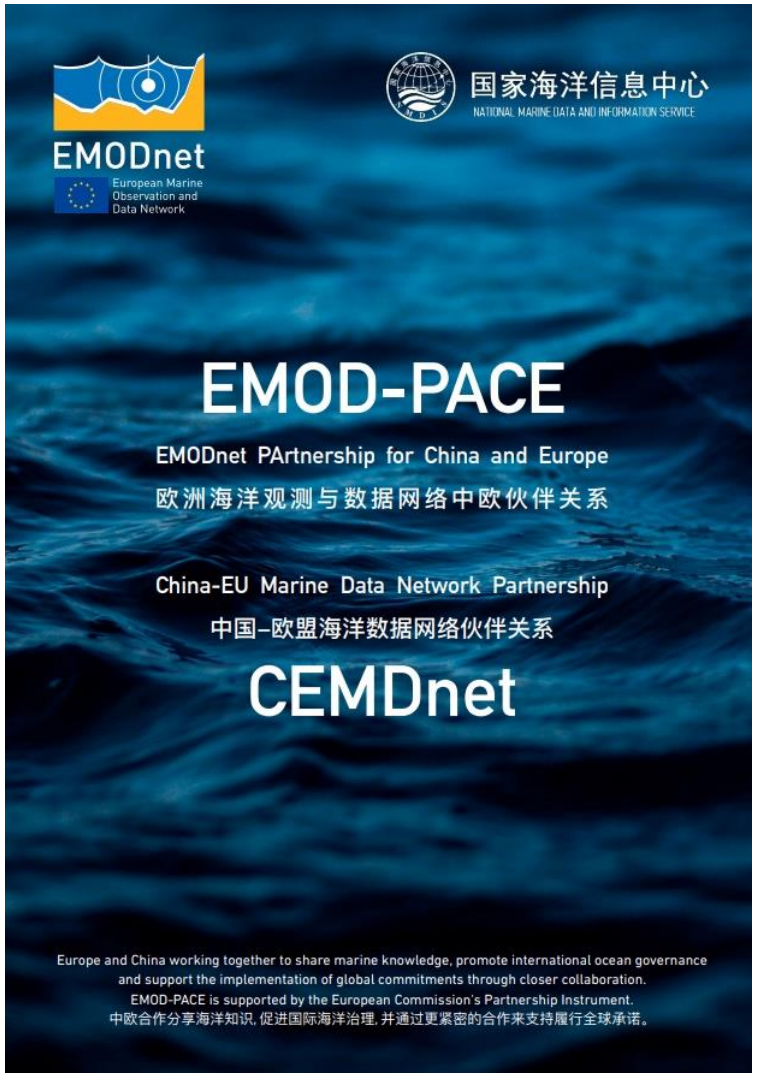
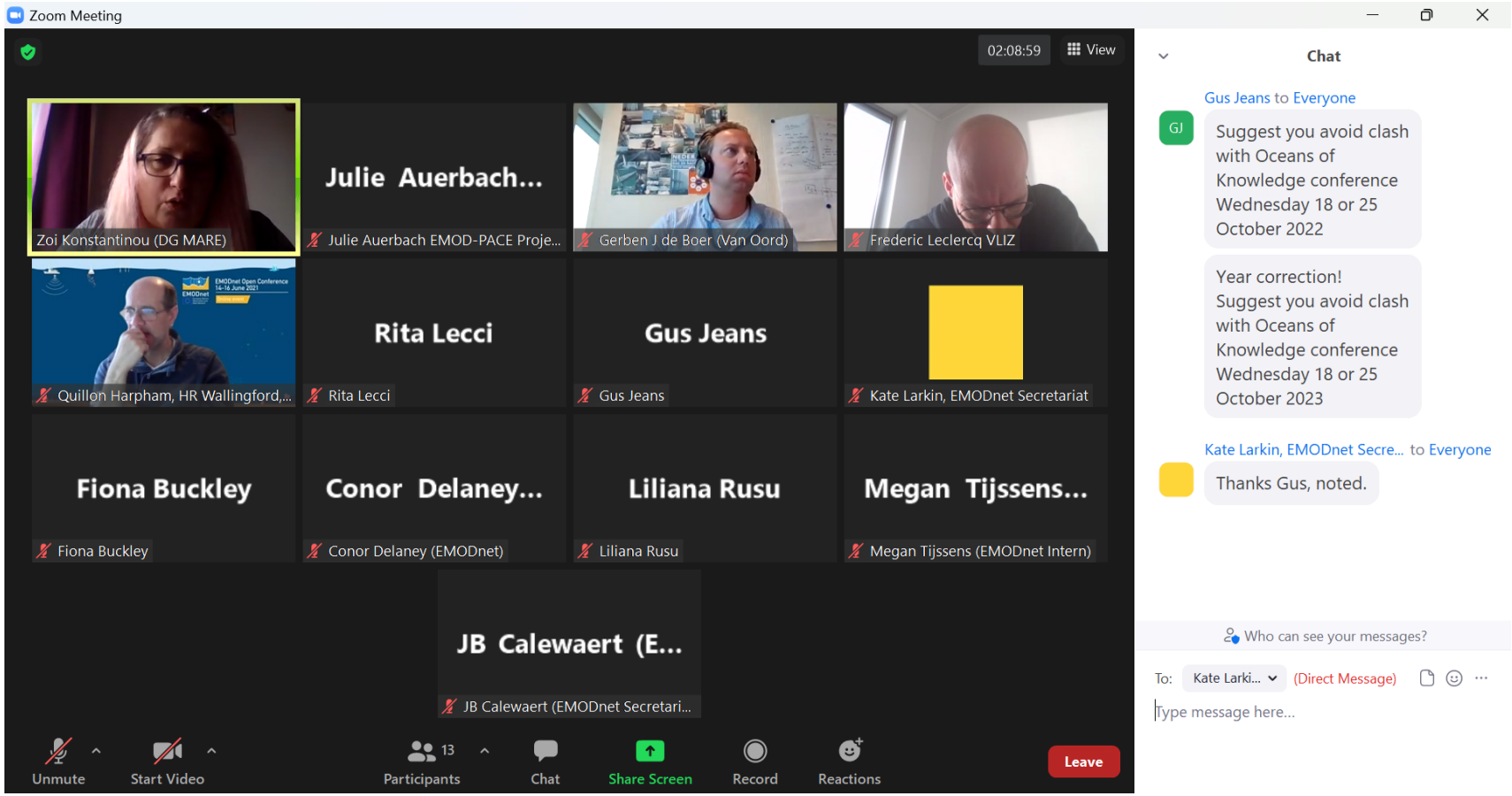
Thank You – 谢谢 (Xie Xie)



https://emodnet.ec.europa.eu/en/emod-pace


Zoom Meeting
02:08:59
View
Zoi Konstantinou (DG MARE)
Julie Auerbach...
Julie Auerbach EMOD-PACE Proje...
Gerben J de Boer (Van Oord)
Frederic Leclercq VLIZ
Quillon Harpham, HR Wallingford,...
Rita Lecci
Rita Lecci
Gus Jeans
Gus Jeans
Kate Larkin, EMODnet Secretariat
Fiona Buckley
Fiona Buckley
Conor Delaney...
Conor Delaney (EMODnet)
Liliana Rusu
Liliana Rusu
Megan Tijssens...
Megan Tijssens (EMODnet Intern)
JB Calewaert (E...
JB Calewaert (EMODnet Secretari...
Unmute
Start Video
13
Participants
Chat
Share Screen
Record
Reactions
Leave
Chat
Gus Jeans to Everyone
GJ
Suggest you avoid clash with Oceans of Knowledge conference Wednesday 18 or 25 October 2022
Year correction! Suggest you avoid clash with Oceans of Knowledge conference Wednesday 18 or 25 October 2023
Kate Larkin, EMODnet Secre... to Everyone
Thanks Gus, noted.
Who can see your messages?
To: Kate Larki... (Direct Message)
Type message here...

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Guidance to the EMODPACE resources

In short, the steps to download the data are included in the box below:

1.	https://emodnet.ec.europa.eu/geonetwork/
2.	use the searchbox: e.g.: 'DY37-MEO-GTS'
3.	Click the first result
4.	(https://emodnet.development.ec.europa.eu/geonetwork/srv/eng/catalog.search#/metadata/1efcc99e-3f84-4db4-ac0b-0f54af2bd61f
5.	Click the "..." in the tab pages (next to [...], Quality, DomainConsistancy) and select 'Distribution'
6.	Scroll down to "Linkage", there you'll find the link to download the data.

Another way to download data is by checking the catalogue:

1.	https://emodnet.ec.europa.eu/geoviewer/?layer_collections=EMOD_PACE#!/
2.	e.g. select the layer "Vessel traffic density All 2019" (available in EU-China EMOD-PACE project > Products)
3.	click the (i) icon next to the name - a pop-up is displayed with a hyperlink 'Download'.