

The logo for the National Oceanography Centre, featuring a white square with a black border. The text "National Oceanography Centre" is written in black, sans-serif font inside the square.

National
Oceanography
Centre

OPTIMISING SHIPTIME WITH INTERNATIONAL BARTER PARTNERS & COLLABORATIONS

ELLA DARLINGTON

MOTIVATIONS

• EFFICIENCY

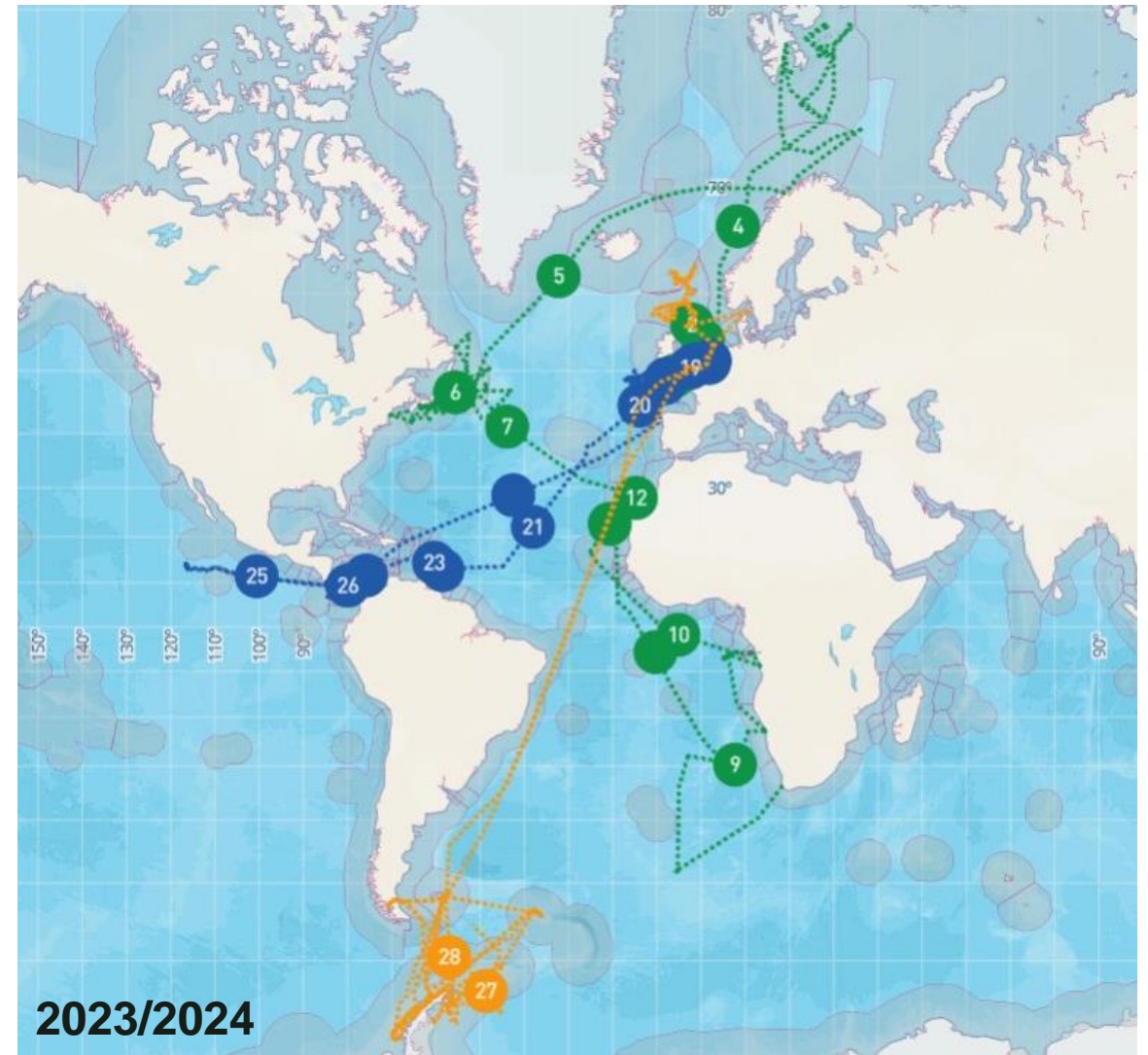
- Financial ££ costs
- Carbon costs
- Reduce passage, increase science delivery

• INCREASED OPPORTUNITIES

- Access to greater range of equipment and facilities
- Access to other geographical locations
- Delivery of smaller projects / tag on work / early career opportunities

• INTERNATIONAL RELATONSHIPS

- Greater collaborations
- Impactful outputs
- Engagement at local and international levels



CARBON ACCOUNTING



Route Statistics

Time	Distance	Fuel Consumption / CO2e
Travel Time: 4d 21h	Transit to first research location: 20.31 nm	Transit (4d 21h) : 54 T / 175 T
Time at Stations: 24d 0h	Distance during science: 1,150 nm	Station (24d 0h) : 264 T / 858 T
Time to first research location: 0d 2h	Transit back to demobilisation port: 4.19 nm	Port calls (0d 0h) : 0 T / 0T
Time back to demobilisation port: 0d 0h		
Minimum number of cruise days: 17d 0h	Total Distance: 1,175 nm	Cruise Days Fuel Consumption / CO2e: 318 T / 1033 T
Science/Process Days: 24d 0h		Estimated Fuel Consumption / CO2e on Science/ Process Days: 264 T / 858 T
Contingency days: 0d 0h		Estimated Fuel Consumption / CO2e on Contingencies Days: 0 T / 0T
Total Required Time: 41d 0h		Total Estimated Fuel Consumption / CO2e: 582 T / 1891 T

- All UK grant applications for shiptime now have a carbon 'cost'
- Fuel use is the same whether it's 30 days out of Southampton, or 30 days out of Chile
- Accessibility to alternative fuels e.g. HVO
- Optimisation needs to happen at the programme schedule level
 - Greater impact than on individual projects

CHALLENGES

- **PLANNING TIMELINES**

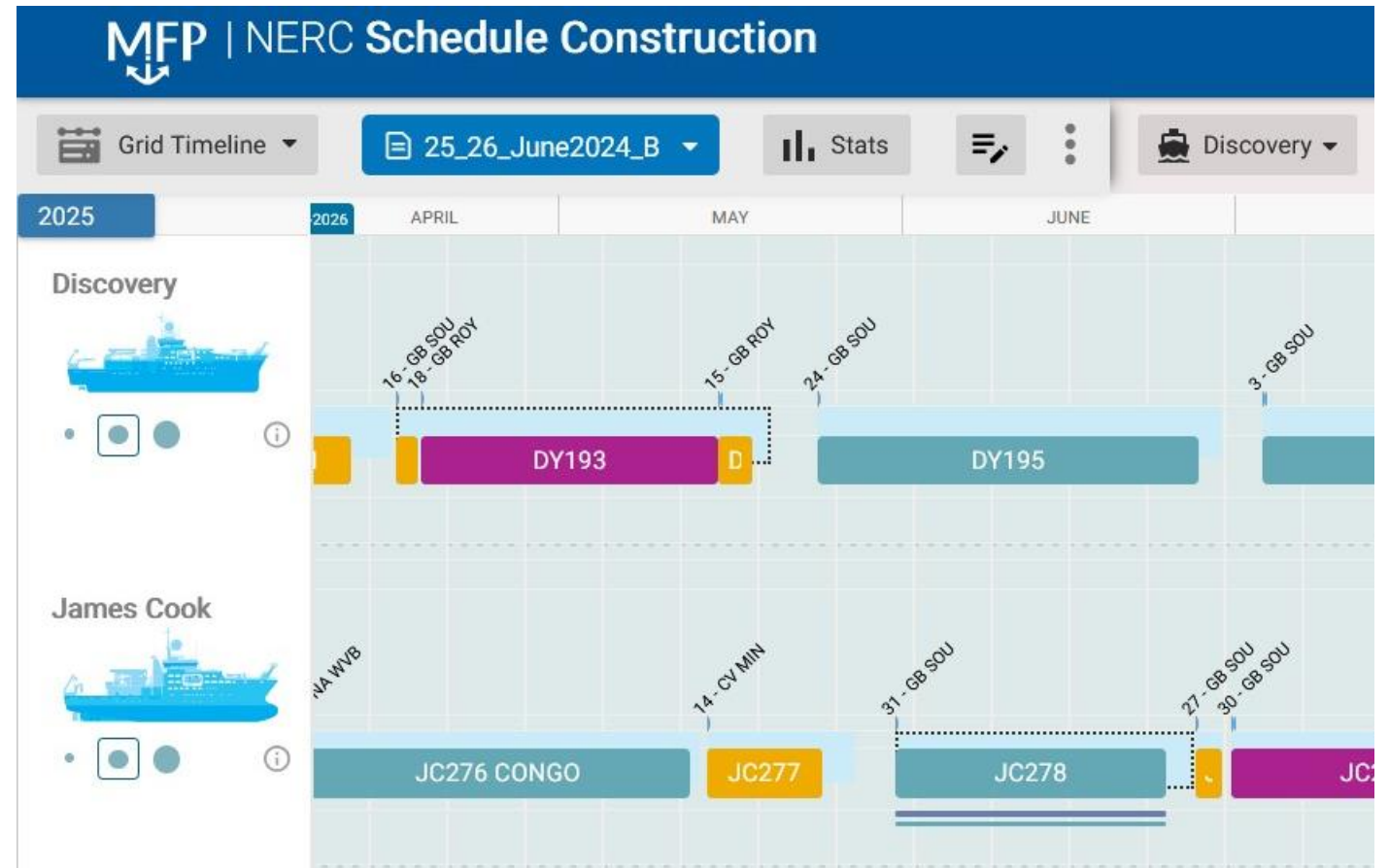
- Funding decisions
- Programme decisions
- Short notice funding calls

- **NATIONAL PRIORITIES**

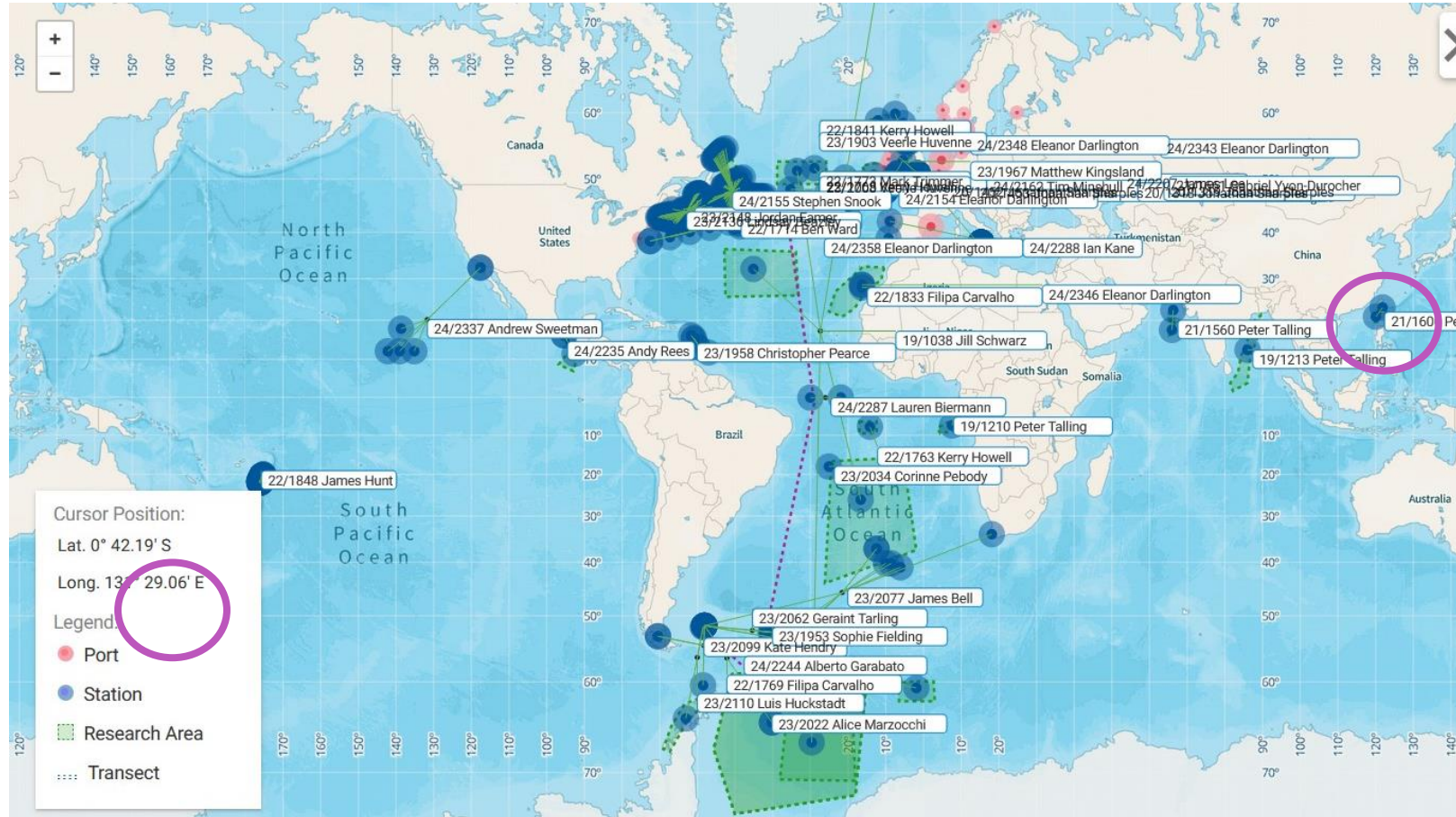
- Drives decisions
- Timeframe for delivery usually fast

- **FUNDING MODELS**

- E.g. UK grants charged heavily subsidised rate



GEOGRAPHICAL SCOPE



OCEAN FACILITIES EXCHANGE GROUP



OFEG consists of: UK (NERC) – (CSIC) – Netherlands (NIOZ) – Germany (BMBF) – Norway (IMR) – France (IFREMER)

UK-NERC is a barter conduit between OFEG and USA – UNOLS

Recent NERC activity

NERC – BMBF – CSIC (JC228 December 2022)

RRS James Cook used to deliver programme of work for BMBF off the coast of Costa Rica, using 6 km seismics streamers from CSIC

NERC – NIOZ (DY182 August 2024)

RRS Discovery used to deliver NIOZ & US sections of the North Atlantic OSNAP programme

UNOLS – NERC (April 2023)

RV Atlantic delivered ROV survey in Galapagos on behalf of NERC

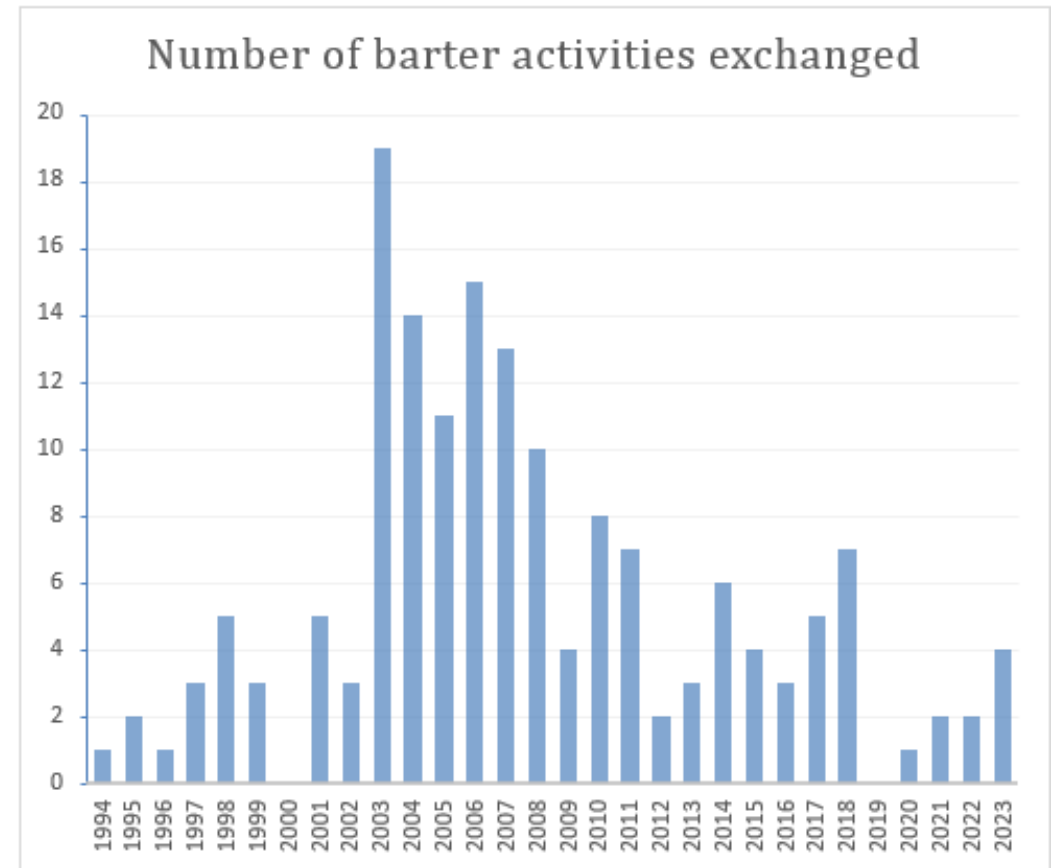
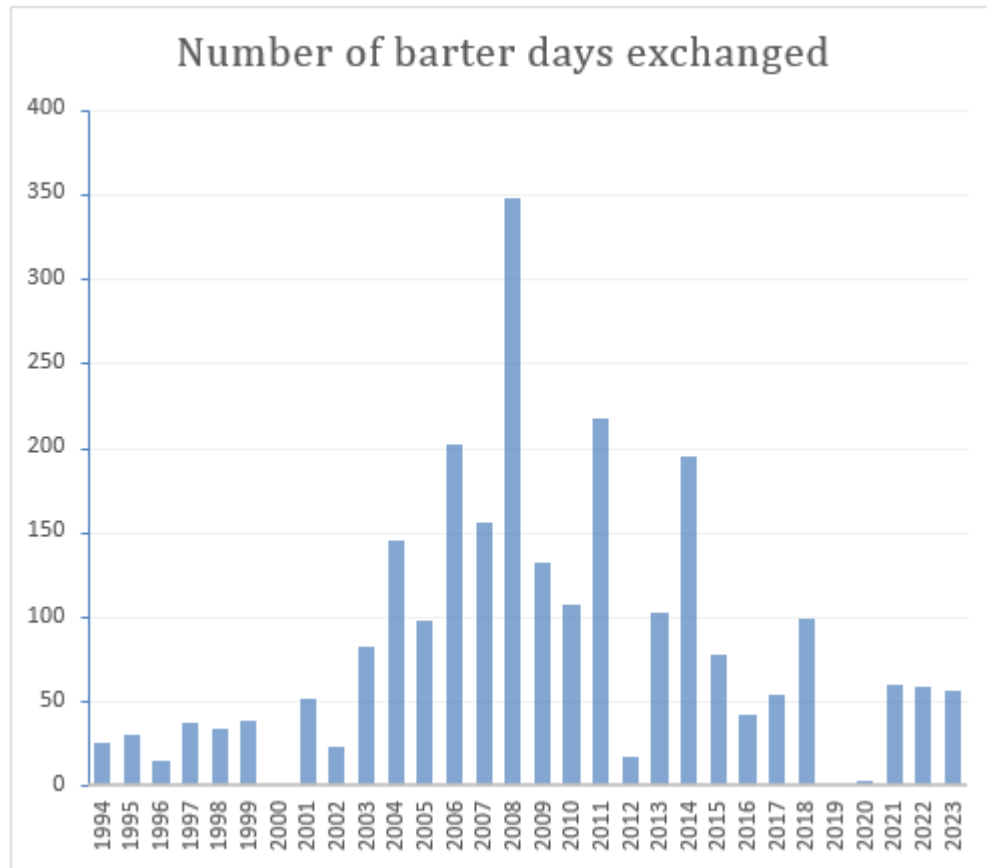
UNOLS – NERC (August 2024)

RV Langseth delivered seismic survey in North Atlantic on behalf of NERC



<https://www.ofeg.org>

OCEAN FACILITIES EXCHANGE GROUP



All funded applications globally are put into an AI bot

scheduled in the most cost efficient, both financially and carbon, way possible

meets all the terms and conditions of all personnel contracts

manages all the different funding agencies and grants

arranges all port calls and logistics



... I/we'll be out of a job...



OPPORTUNITIES



Opportunities

Search by keyword [Open to](#) [Availability](#) [View all Organisations](#) [Reset view](#)

Exploration of Deepwater habitats off Puerto Rico and the U.S. Virgin Islands for Biotechnology Potential NERC [Read Synopsis](#)
PI: Tammy Russel | 8 Jul 2024 - 25 Aug 2024 | Southeast Atlantic

Piggyback Project

Description
No berths or dedicated time available.

Open to	Start date	End date	Institute
Netherlands	18 Jul 2024	16 Aug 2024	Nerc

[Apply for opportunity](#)

Find A Science Berth

Description
No berths or dedicated time available.

Open to	Start date	End date	Institute
Global	18 Jul 2024	16 Aug 2024	UNOS

[Apply for opportunity](#)

Supplementary

Description
No berths or dedicated time available.

Open to	Start date	End date	Institute
Europe	18 Jul 2024	16 Aug 2024	UNOS

[Apply for opportunity](#)

Supplementary

Description
No berths or dedicated time available.

Open to	Start date	End date	Institute
Europe	18 Jul 2024	16 Aug 2024	UNOS

[Apply for opportunity](#)

Exploration of Deepwater Habitats around Bermuda and the Azores for Biotechnological Potential NIOZ [Read Synopsis](#)
PI: Kurt Russel | Expected year of delivery - 2024 | Northwest Atlantic

Piggyback Project

Description
No berths or dedicated time available.

Open to	Start date	End date	Institute
Netherlands	18 Jul 2024	16 Aug 2024	Nerc

[Apply for opportunity](#)

Find A Science Berth

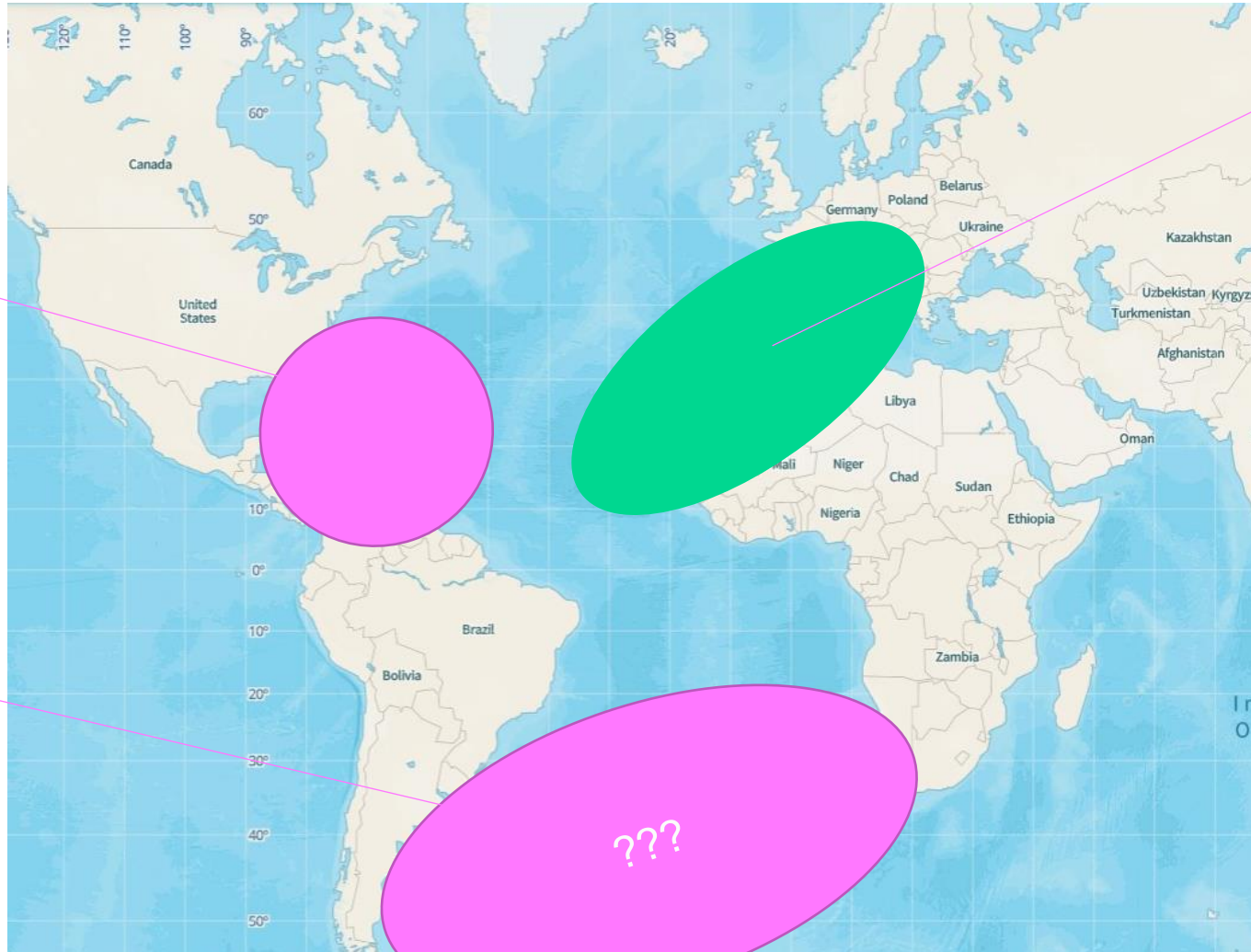
Description
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Global	18 Jul 2024	16 Aug 2024	UNOS

[Apply for opportunity](#)

- Use MFP to:
 - Highlight ALL funded applications publicly
 - Give an approx. delivery timeframe
 - Advertise type of opportunities
 - Spare berths
 - Piggyback projects
- Streamline the process to reduce overhead on people resource

UPCOMING AVAILABILITY



RRS James Cook:
Nov 2026 – Jan 2027

RRS Discovery:
Nov 2025 – mid Jan
2026

RRS Discovery:
Nov 2026 – Mar 2027

TAKE AWAY MESSAGE



- National priorities underpin national programmes
- Programmes follow the funding lines
- It's complicated!!!
- Early engagement needed to increase chances of optimal delivery
- Carbon reduction will come with programme/schedule efficiency
- Building long term partnerships and relationships is essential
- Asked to do "More for Less"
 - Streamline the process
 - Don't let the extras become the noise that's unmanageable

ENGAGEMENT

- Nuuk, Greenland
 - 160 members of the Greenlandic public aboard RRS *James Cook*
 - Collaborative discussions between NOC, the British Embassy in Copenhagen, the Greenlandic science community and Government of Greenland
 - Science exchange seminar between NOC science party and local researchers in Greenland
 - Offered spare berths to Greenlandic researchers



ENGAGEMENT

- Reykjavík, Iceland
 - 30 Ambassadors to Iceland onboard RRS *Discovery* for the British Embassy Reception on the occasion of its visit to Iceland
 - 35 Icelandic students came onboard for a Future Careers Tour on RRS *James Cook*

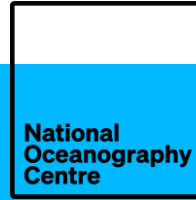


ENGAGEMENT



The screenshot shows the homepage of the Charles Darwin Foundation. At the top left is the logo for "Fundación Charles Darwin Foundation GALAPAGOS". To the right of the logo is a navigation menu with links for "Contact us", "Resources", "Shop", and social media icons for Facebook and Instagram. Below the navigation menu are five main menu items: "ABOUT US", "OUR WORK", "GET INVOLVED", "NEWS", and "RESEARCH HUB", with "RESEARCH HUB" highlighted in a blue box. The main content area features a large yellow background on the left with the headline "PROTECT GALAPAGOS IMPACT THE WORLD" and a sub-headline "Join us on our mission to safeguard Galapagos through science and conservation action." Below this is a paragraph of text: "From invasive species and climate change to habitat loss and overfishing, the Galapagos Islands face unprecedented threats. Since 1959, the Charles Darwin Foundation has been on the frontlines, tackling these challenges through scientific research and conservation action." To the right of the yellow area is a large image of a coral reef with a sea turtle swimming in the clear blue water.

<https://www.darwinfoundation.org/en/>



THANKS FOR LISTENING...

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