



**Wendy &
Eric
Schmidt**



R/V FALKOR (too)

A ship for science, art, outreach and community

SCHMIDT



OCEAN
INSTITUTE

R/V *FALKOR* (*too*)

Acknowledgements

UNOLS Office

RVOC
RVTEC
DESSC & New Users
SCOAR
Crew Management

NSF – NASA – ONR – USGS

Scientist & Technology
Funding

US DOS

MSR Authorizations
US Embassy
connections
...the best “insider”
tips!

NOAA

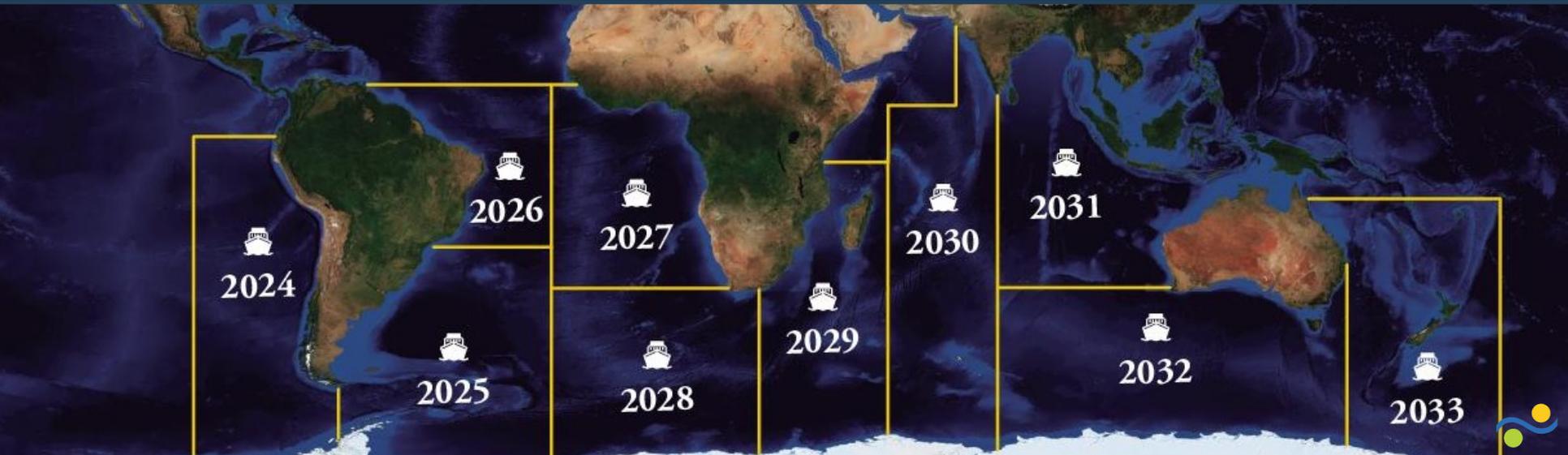
Scientist Funding
Education
Collaborations

MBARI - Marine Ops, ROV, AUV and Engineering Teams
Scripps - Joost van der Zwaag
WHOI - Paul Gallagher, Eric Benway, Kerri Strom
& the Winch / Wire and the AUV / ROV teams



R/V *FALKOR* (too)

Rolling 10 Year Sailing Plan



R/V *FALKOR* (too)

crew compliment: 37+3 19 countries 2 months on/off

Captain

Science Dept - 13

Lead Tech

Marine Tech (2 +1)

Multimedia Tech

* **ROV Supervisor**

* **ROV Senior Sup**

* **ROV Senior Pilot (x4)**

* **ROV Pilot (x2)**

Engine Dept - 8

Chief Engineer

2nd Assistant

3rd Assistant (2)

ETO

AVIT Engineer

Fitter (2)

Deck Dept - 8

Chief Officer

2nd Officer

3rd/2nd Officer

Bosun

Assistant Bosun

Able Seafarer (2 +1)

Interior Dept - 7

Purser

Head Chef

Chef

Chief Stewardess

Stewardess (x2)

Galley Steward

Non-seafarers: Multimedia Correspondent & Artist & Doctor



R/V *FALKOR* (too)

2023 Metrics

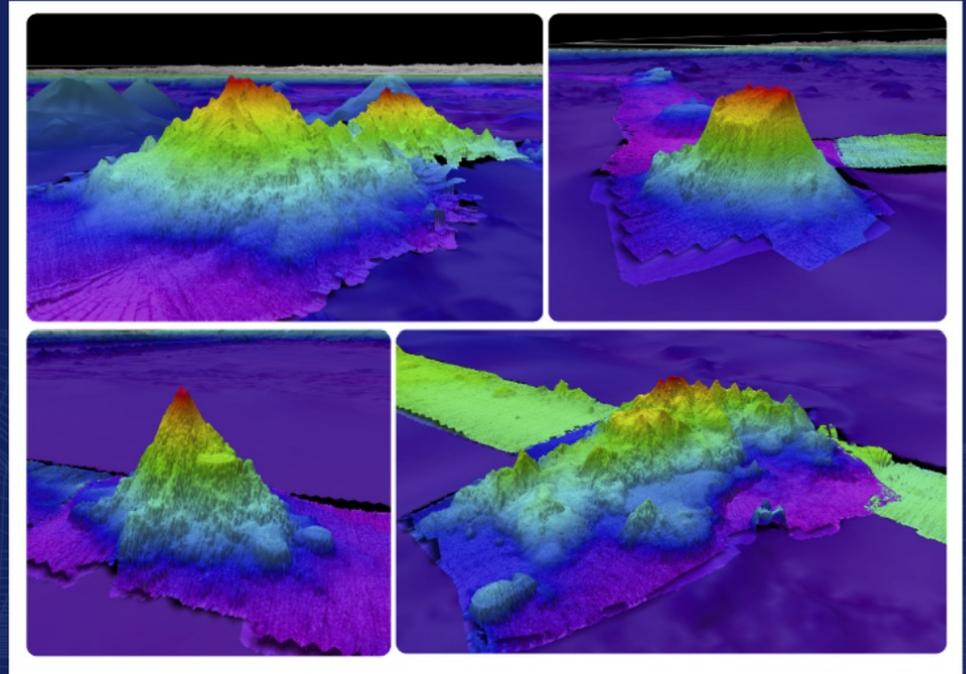


2023 *Falkor (too)* Metrics: Vessel

 9 science cruises - 223 days

 190,025 sq. km mapped
- 7 new seamounts mapped

 39,280 km traveled
- International waters
- 4 countries (Panama, Ecuador, Costa Rica, US)



2023 *Falkor (too)* Metrics: Science



213 Rosette Sampler casts



143 ROV Dives

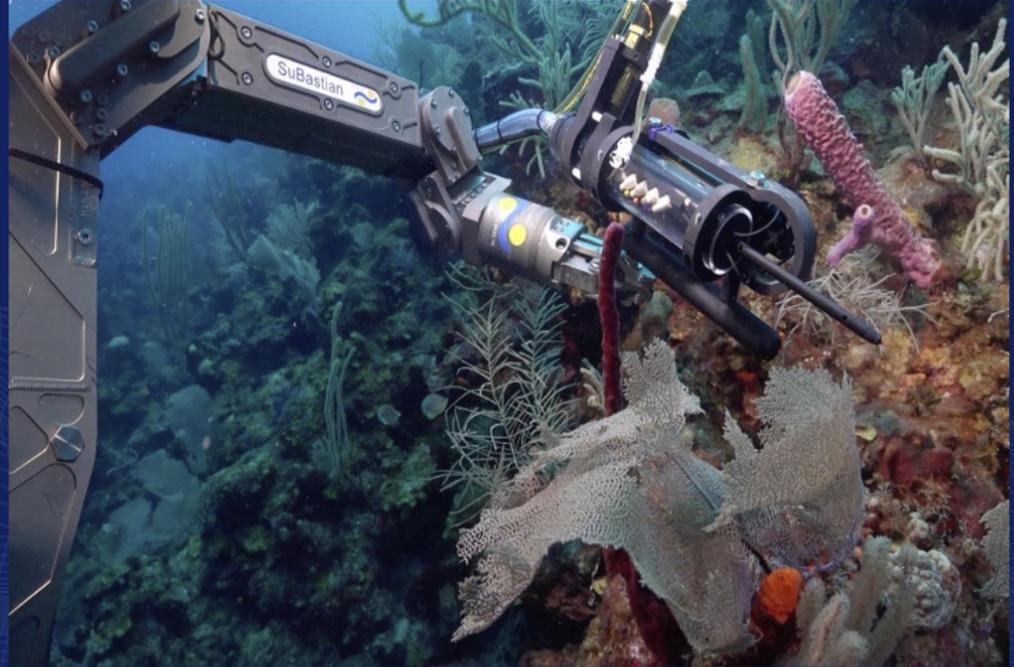
- 2,053 ROV Dive Hours
(Deck-to-Deck)



2,286 ROV Samples Collected



269 TBs of Data (vessel + ROV)



2023 *Falkor (too)* Metrics: People



177 Science Personnel - 84 Scientists / 56 Students



Female: 77% Chief Scientists & 57% Science Personnel



53 institutions - 17 countries



46% Science Personnel from Coastal State



6 Berths of Opportunity, 6 Artists-at-Sea



2023 Falkor (too) Metrics: Outreach



9 Press Releases - 4,000 + published stories, not including broadcast (CBS, Telemundo, etc)



62 Ship-to-Shores (English, Spanish, German, Dutch) - over 8,500 people



50 expedition videos - 950,800 YouTube Views



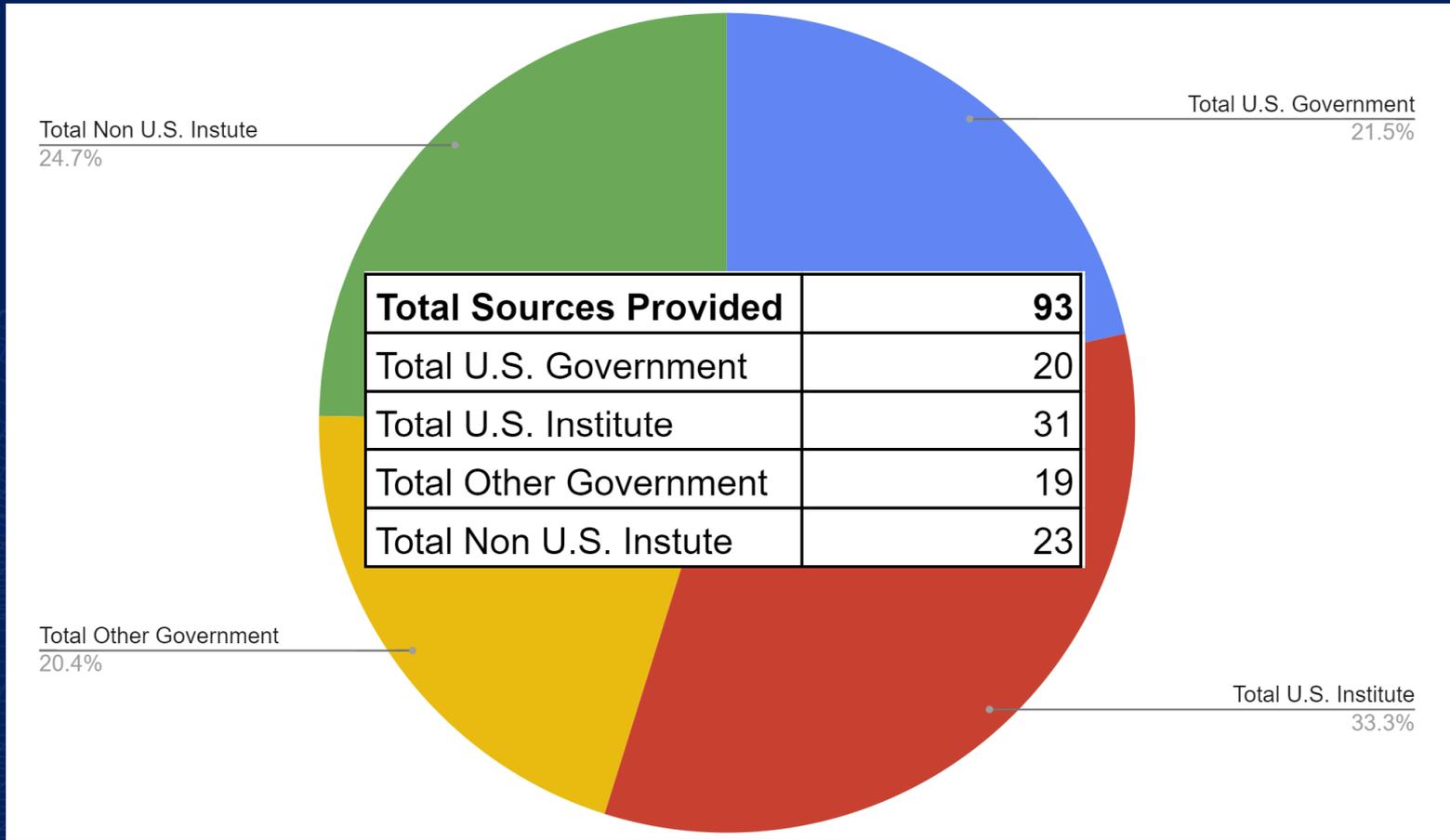
29.65 million divestream and video views across all platforms



33.3 million Social Media Engagement



3/2023 – 4/2024 Science Party Funding Sources



3/2023 – 4/2024 Science Party Funding Sources

FKt230303	NOAA Ocean Exploration, Grant Number OER FFO2020049	David Butterfield
FKt230303	Cooperative Institute for Climate, Ocean, & Ecosystem Studies (CICOES) under NOAA Cooperative Agreement I	U. Washington
FKt230303	NOAA Ocean Exploration Cooperative Institute	Julie Huber
FKt230602	US National Science Foundation (OISE-2114593)	Beth Orcutt
FKt230629	NSF Graduate Research Fellowship 2141064	Avery Fulford
FKt230812	NSF DGE-2234658 Graduate Research Fellowship Program (GRFP	J. McDermott in support of PhD student
FKt230812	NSF 1940100	P. Girguis
FKt230812	NASA awards 80NSSC19K1427	P. Girguis
FKt230812	ONR Young Investigator Program award N00014-21-1-2656-P00002	B. Phillips
FKt230812	NSF DBI-2047598 CAREER	K. Anantharaman
FKt230812	NSF OCE- 2049478	K. Anantharaman
FKt230812	NSF OCE-2141742	R. Beinart
FKt230812	NSF DGE-2234658 Graduate Research Fellowship Program (GRFP	S. Herrera in support of PhD student N.
FKt230812	The USGS Coastal and Marine Hazards and Resources Program	A. Gartman.
FKt230918	US National Science Foundation grant # OCE-1950959	Daniel Fornari
FKt231024	Office of Naval Research (US) - N00014-22-1-2628	Barclay
FKt231024	USGS institutional funding is provided by the Coastal and Marine Hazards and Resources Program	Amy Gartman
FKt231024	USGS Mendenhall postdoctoral fellowships from the Natural Hazards Mission Area, Coastal and Marine Hazards	Unidentified
FKt231218	US National Science Foundation (OISE-2114593)	Beth Orcutt
FKt231218	Ocean Exploration Cooperative Institute	Julie Huber



R/V *FALKOR* (*too*)

A few 1st year challenges, besides bubble sweepdown...

STCW Personal Survival Techniques – all sciparty members

Spanish language – safety / security / general science support

70 mm crane wire – buried, costly untanglement

Biofouling – divers required; *Seacoat SEA-SPEED*

Workboat davit – wave compensating not performing as expected

AI & ML for Fuel Conservation and P/PMS – finding the time to integrate *iOCurrents*





R/V *FALKOR* (*too*)
Capacity Building





FALKOR (too)
GEORGE TOWN

Questions?

9M
8
6
4
2
8M
8
6
4
2
7M
6
4
2
5M





Ice Class-C
(4 inches of flat ice)

Length – 363 ft
Moon Pools – 2
Open Deck – 9,600 ft²
Cranes – 7 (150t max)
ROVs – 100 ft to 14,000 ft
Labs – 8
Science Sonars – 36,000 ft
Underwater Cameras – 6
Lounges – 6
Endurance – 4 months
Crew – 37 (19 countries)
Scientists – 30
Days per Year – 275



R/V *Falkor* handing off to R/V *Falkor* (too)

Vigo, Spain 2022

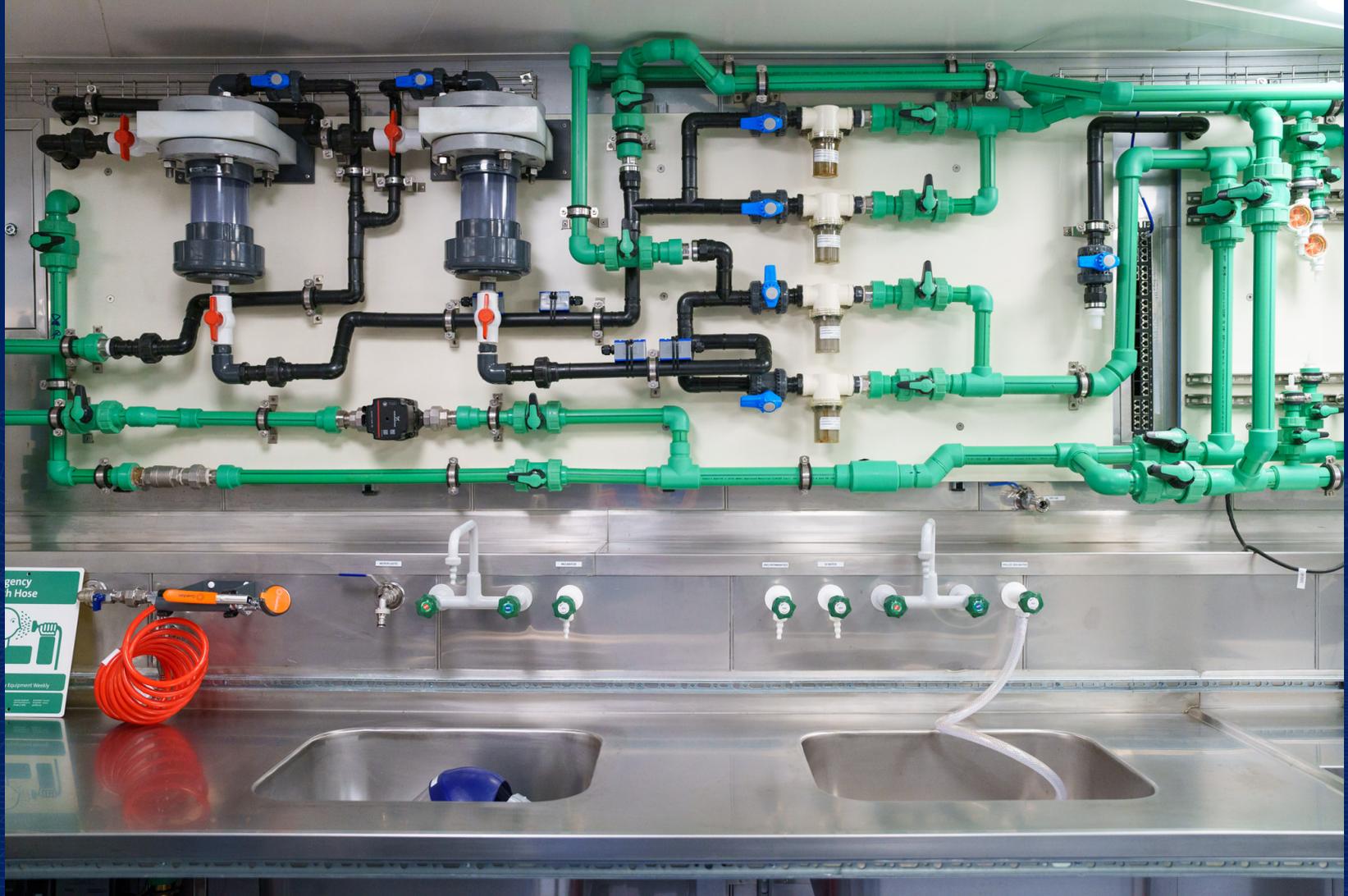
































Sometimes the
House of Change
will rise on little islands
and then the rooms are
suddenly reversed
the floor on top
at the bottom,
that sort of thing.
But it's only being bumped
and it stops when I give it
a piece of my mind.
All in all, it's a well behaved
house and I feel very
comfortable in it.
We have good laughs
together.











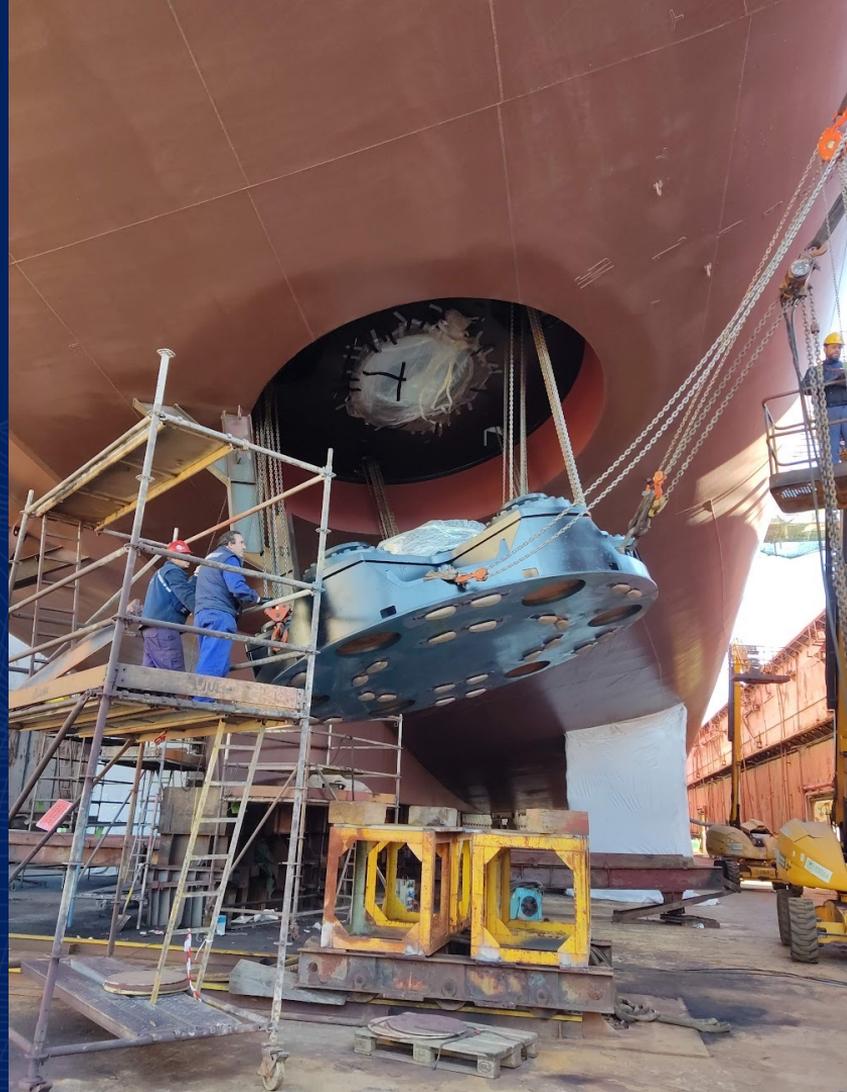








Reinstalling rotor



Reinstalling pivot pin



Freshly
coated with
Propspeed





2

5M

5001







Art, Outreach & Community





Ocean Rising is an initiative launched by Schmidt Ocean Institute and Nekton to deepen people's relationship to the Ocean by galvanizing connections and tangible initiatives within all major sectors of global culture. The aim is to interweave the **arts, fashion, sport, music, gaming, film, social media, literature, and food** with the undersea world to inspire a new generation of Ocean ambassadors. By intertwining the Ocean with popular culture and by ensuring that **Ocean themes seep into all walks of life**, Ocean Rising will create wonder for the undersea world **to inspire its protection**.



OCEAN RISING

2022-2023:

Music and Fashion

2024:

Sport and Art

2025:

Gaming and Food

2026:

Film and Literature



ARTIST-AT-SEA EXHIBITS

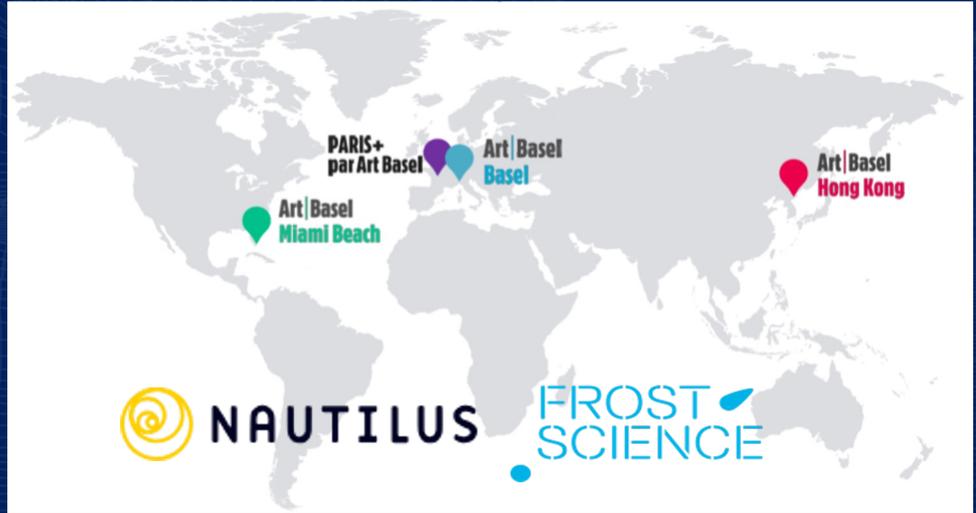
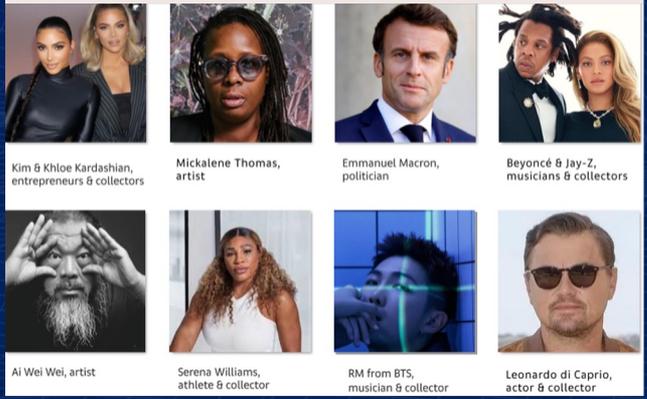


ART BASEL

“Art Basel is the most significant fair of them all, with leading dealers offering their most important works to their biggest-spending clients.”

The New York Times

Art | Basel Miami Beach



VOGUE RUNWAY

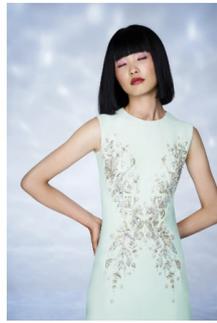
Jenny Packham ocean inspired resort wear collection



Look 1



Look 2



Look 3



Look 4



Look 5



Look 6



Look 7



Look 8



Look 9

OCEAN RISING - SPORT



•.CONNECTING.
CULTURE AND THE OCEAN



**HASHTAG
SPORTS**

2024
NEW YORK CITY
JUNE 4-5

SUNSET + VINE



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United Nations OCEAN DECADE CONFERENCE

- Artist-at-Sea Exhibit
- Communications Workshop
- UN Technology & Innovation Working Group



New York – Times Square NASDAQ



BBC

BBC

BLUE
PLANET
III



Feature Film (now available on YouTube)



Ocean Watch

SCHMIDT OCEAN INSTITUTE



THANKS FOR AN AMAZING CRUISE!

FALKOR 100