

Royal Netherlands Institute for Sea Research



Update on NIOZ operations

New build update; farewell to *RV Pelagia*; over NIOZ – MFP

Zeynep Erdem

Science coordinator

National Marine Facilities NIOZ

IRSO 2024,
Vancouver, Canada

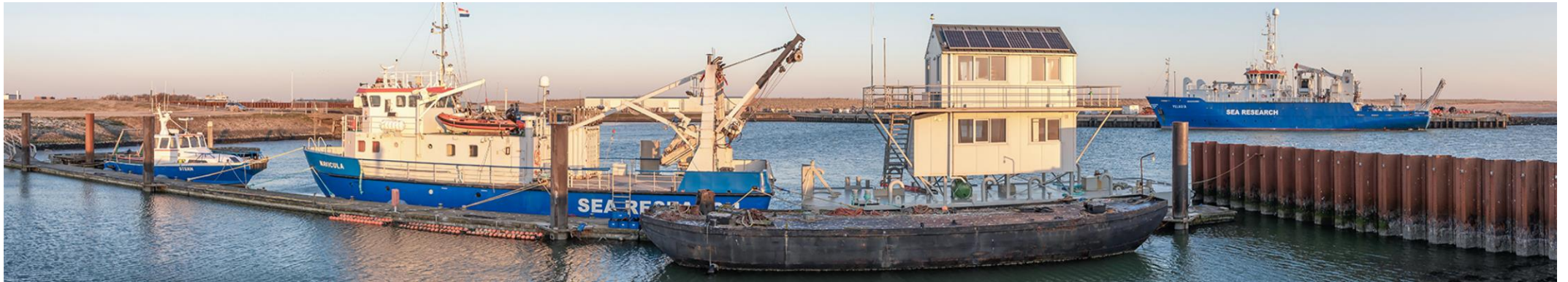


Renewal of Dutch Research fleet

RV Stern

RV Navicula

RV Pelagia



RV Adriaen Coenen



RV Wim Wolff



RV Anna Weber-van Bosse

New build updates: *RV Wim Wolff*



- In full operation since June 2024
- Hybrid propulsion and sustainable fuel
- Operational area coastal sea (within 20nm) and inland waters
- Large deck area
- 6 shared cabins for 12 scientists + 4 crew



Some take home messages:

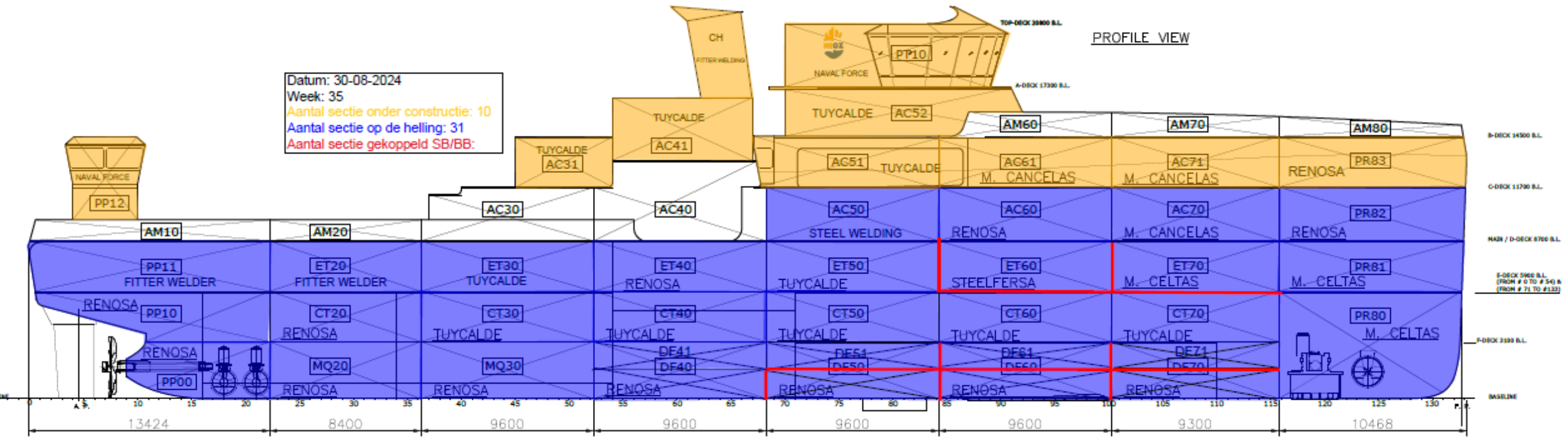
- Delayed delivery; no actual trial period
- Really busy first sampling season; limited time for the shipyard to react to issues
- First-time offshore expedition in a wind park (~15 nm off the coast) in the North Sea; the weather was perfect for this work otherwise the shallow draft is probably not ideal. Good conditions are necessary.
- The vessel is now wide with limited maneuverability for inland waters, however, all went fine this season.
- The underwater ship's surface has a hard coating that is easy to clean.
- The hybrid diesel-electric system is designed for high redundancy and energy-efficient fuel consumption. The internal combustion engines run on HVO.
- Batteries serve as a backup for the generators and help deal with peak power consumption: peak shaving.



Custom-built CTD system for RV Wim Wolff

New build updates: *RV Anna Weber-van Bosse*

Datum: 30-08-2024
 Week: 35
 Aantal sectie onder constructie: 10
 Aantal sectie op de helling: 31
 Aantal sectie gekoppeld SB/BB:



Last update from the August newsletter.

New build updates: *RV Anna Weber-van Bosse*





https://nioz.foleon.com/new-research-fleet/magazine/contents

2/7 Cover Contents Introduction RV Adriaen Coenen RV Wim Wolff RV Anna Weber-van Bosse New Equipment

CONTENTS

In this magazine you can read more information on the replacement of the three national research vessels. Find all the collected background stories, reports on the design and construction of this fleet, photos and videos.

[Subscribe to newsletter >](#)

[Colophon](#)

Introduction

In June 2018, investment plans for fleet replacement were submitted to the NWO executive board. All three ships of the NIOZ-NMF fleet were reaching the end of their economic lifespan.

[Read more >](#)

RV Adriaen Coenen

In the summer of 2022 RV *Adriaen Coenen* replaced RV *Stern* as the first new ship of the fleet. She is in full operation now.

[Read more >](#)

RV Wim Wolff

RV *Wim Wolff*, the replacement of RV *Navicula* is currently built by Thecla Bodewes Shipyard, and will be delivered in the spring of 2024.

[Read more >](#)

RV Anna Weber-van Bosse

The construction of RV *Anna Weber-van Bosse* started in October 2023, at Armon Shipyards in Vigo. She will replace the RV *Pelagia* at the end of 2025.

[Read more >](#)

← →



[Contents - New Research Fleet \(foleon.com\)](https://nioz.foleon.com/new-research-fleet/magazine/contents)



Retirement of *RV Pelagia*: end of September 2025

RV Pelagia over the years

- Built in 1991 in the Netherlands for research in the North Sea
- Been mostly in the North Sea and over the years the operation expanded to the North Atlantic but also the Mediterranean and Black Sea, the Pacific and Indian Ocean.



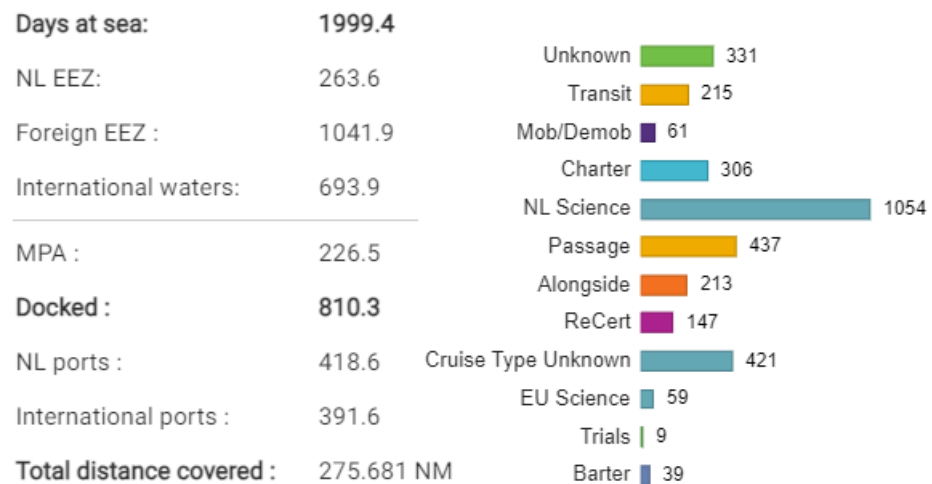
Foto: Archief Schuttevaer - Pelagia



RV Pelagia over the years

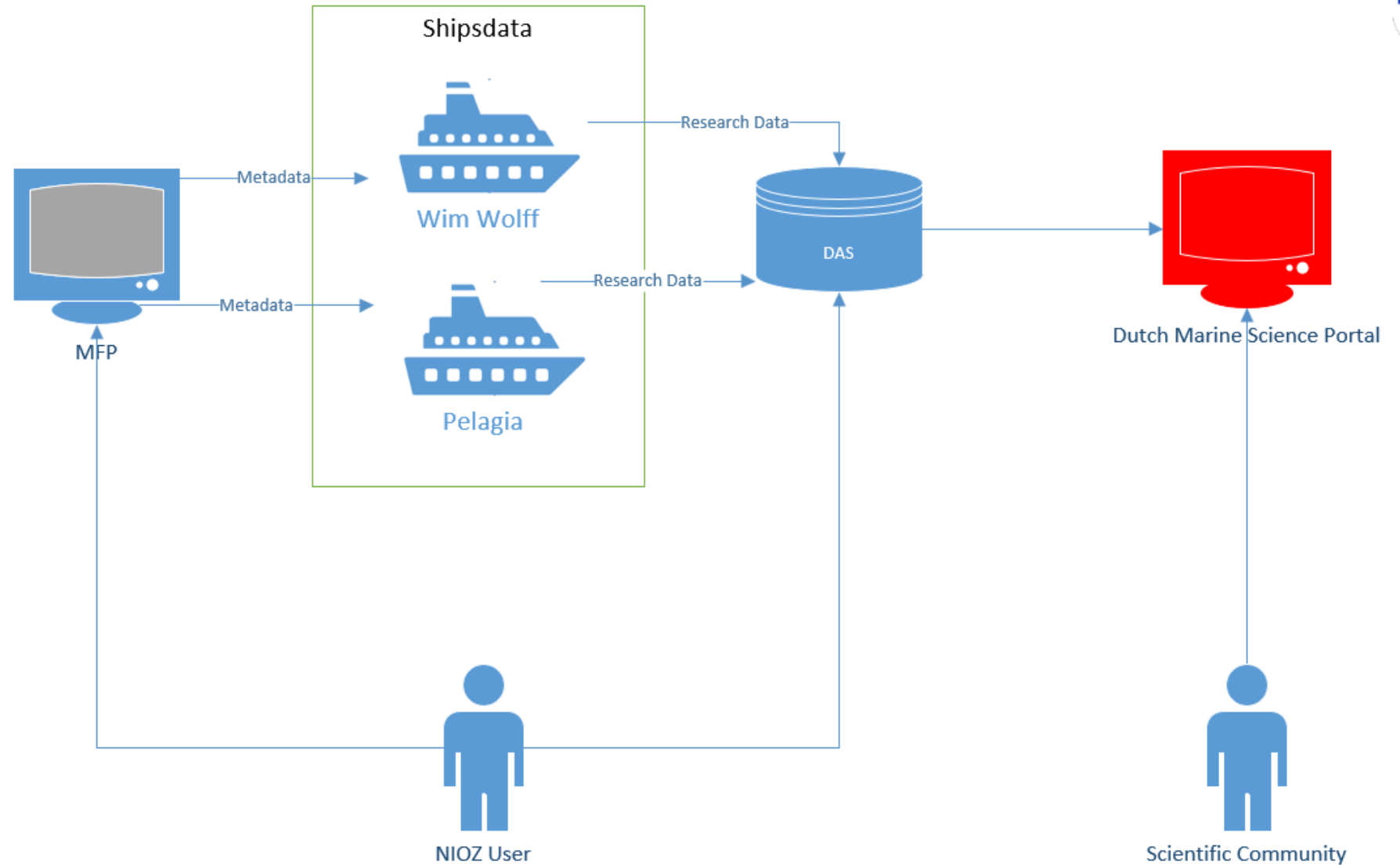


Since 2016 the planning is via MFP



Screenshots taken on September 10th, 2024. MFP – reporting module

From MFP to NIOZ ships data to the Database (DAS)



The Ships data & cruise log

Manual Connected | iakovos.petrou@nioz.nl | 64AWVB001 | STATION 1

Sensors

Valid Unreliable Invalid Expand All / Collapse All

<p>EA600 21-06-2024</p> <ul style="list-style-type: none"> relative_depth(ea600) 4.0m correction(ea600) -4.0m true_depth(ea600) 0.0m 	<p>EM302 21-06-2024</p>	<p>gyro 12-05-1996</p>
<p>KNMI_Radiation 11-11-2023</p>	<p>KNMI_Temperature 11-11-2023</p> <ul style="list-style-type: none"> Air Temperature 17.1 °C Humidity 73% dewpoint 12.3 °C 	<p>KNMI_Wind 11-11-2023</p>
<p>SBE21 17-08-2024</p>	<p>Seapath ...</p>	<p>Water temperature 18-08-2024</p>

Manual Connected

- Overview
- Sensors
- Dataview
- Control**
- Sign out

Set message

Underway to Texel **Set**

Set waypoint

Lat/Lon 53.007 4.79 **Set**

Project

- Test - 1923-12-31
- Test - 1923-12-31
- 529 - SEALINK: Land, Se... - 2024-01-04
- 531 - Mixation-I Recovery - 2024-01-25
- 532 - Large ring-moorin... - 2024-02-25
- 533 - Concerted action... - 2024-04-15
- 534 - NoSE- North Sea A... - 2024-04-25
- 535 - Weeds of Change S... - 2024-06-13
- 536 - SEAPACT "Seabed... - 2024-07-23
- 537 - Methane emission... - 2024-08-15
- Test - 2024-09-12
- 538 - INDEX2024 - Leg 1 - 2024-10-29
- 539 - INDEX2024 - Leg 2 - 2024-11-21
- Mijn Eerste cruise - 2024-12-11
- Create new...

STATION TRANSECT



Iakovos Petrou, NIOZ ICT

Version: 2.X.X.XXX

Version: 2.X.X.XXX

The Ships data & cruise log

Start action

Edit actions

Multibeam

Action Name: Multibeam
Action ID: 2
Action Description: Deep sea multibeam echo sounder

Devices:

Henk's MB

Start action



Running actions

Action	Device	Cast	Status	Started	Controls
Multibeam	#212687	4_1	Start	2024-09-17 18:09:27	BOT
CTD	#00009607	1_1	Start	2024-09-09 15:09:55	BOT

Failed actions

Action	ID	Controls
ADCP Track	1_1	

Manual

- Overview
- Sensors
- Dataview
- Control**
- Sign out

Version: 2.X.X.XXX

Connected

Set message

Underway to Texel

Set

Set waypoint

Lat/Lon **Set**

Project

- Test - 1923-12-31
- Test - 1923-12-31
- 529 - SEALINK: Land, Se... - 2024-01-04
- 531 - Mixation-I Recovery - 2024-01-25
- 532 - Large ring-moorin... - 2024-02-25
- 533 - Concerted action... - 2024-04-15
- 534 - NoSE- North Sea A... - 2024-04-25
- 535 - Weeds of Change S... - 2024-06-13
- 536 - SEAPACT "Seabed... - 2024-07-23
- 537 - Methane emission... - 2024-08-15
- Test - 2024-09-12
- 538 - INDEX2024 - Leg 1 - 2024-10-29
- 539 - INDEX2024 - Leg 2 - 2024-11-21
- Mijn Eerste cruise - 2024-12-11
- Create new....

STATION **TRANSECT**

The Ships data & cruise log



Dataviewer_20220819_64PE509_I_NANO

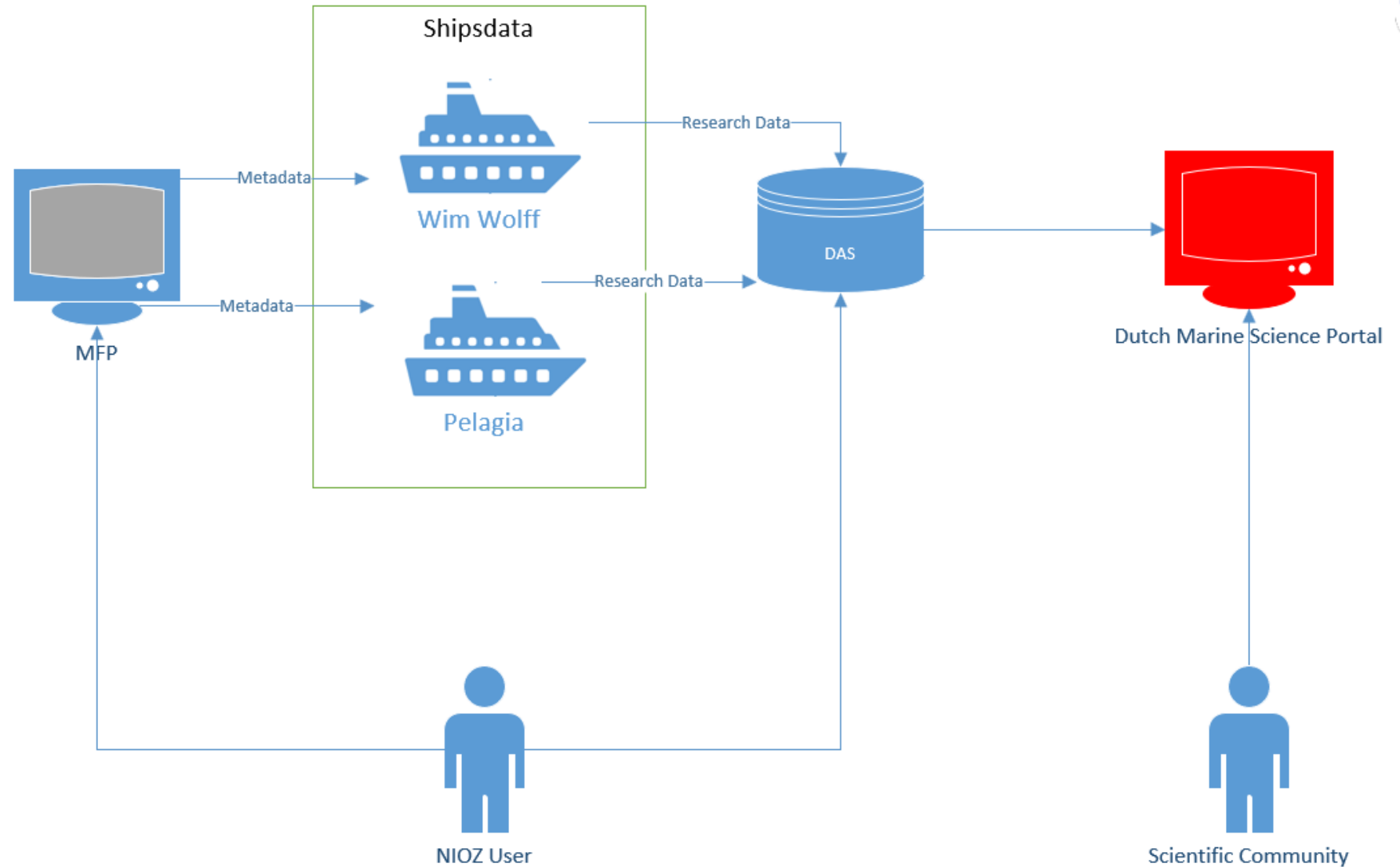
Select other cruise

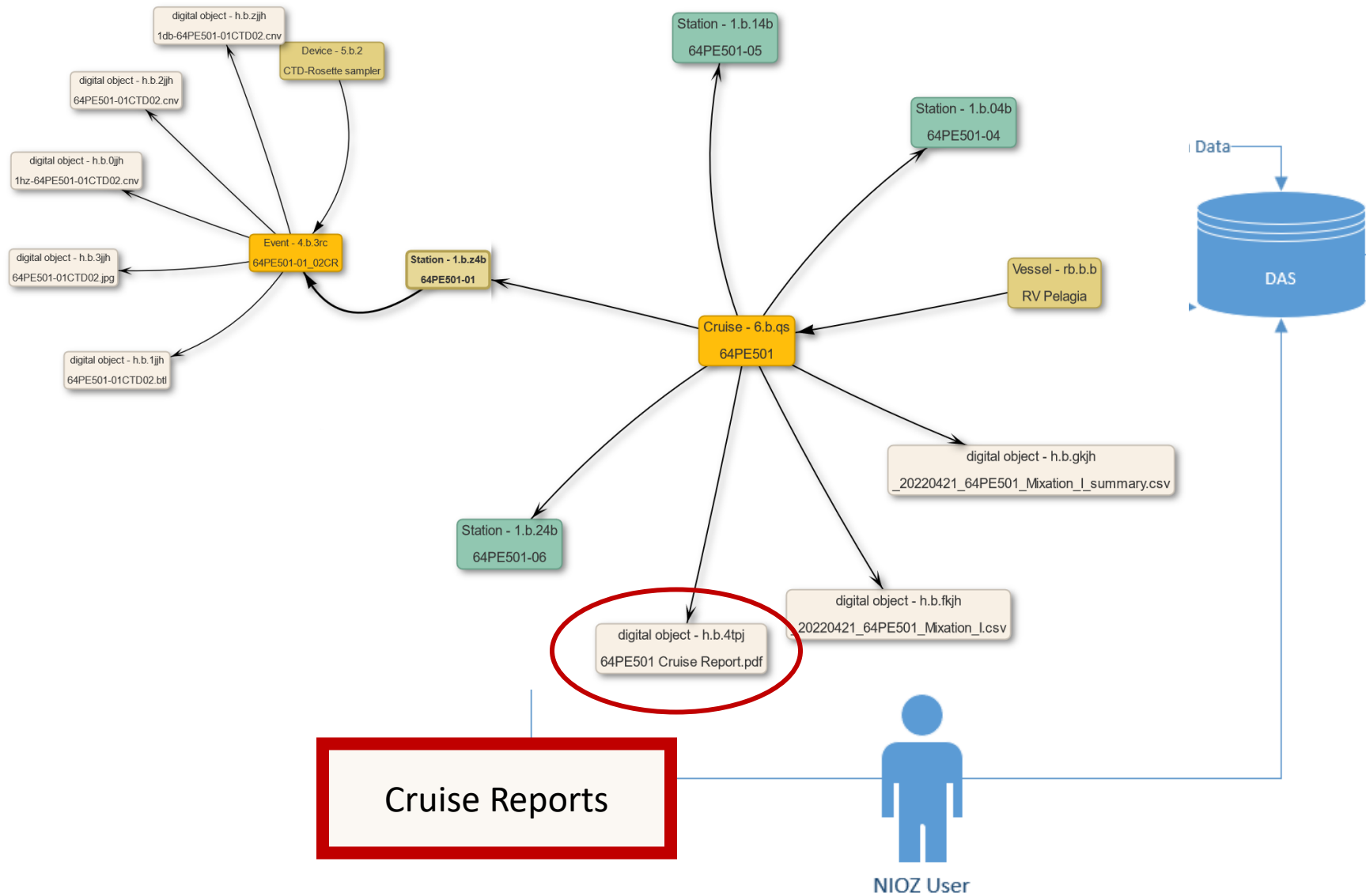
Event summary

CTD Editor Note Export as CSV / ODV

Date	Seapath latitude	Seapath longitude	Phase name	Device name	Action name	Operation Id	Cast	Seapath time	Seapath latitude direction	Seapath longitude direction	Seapath year	Seapath month	Seapath day	Seapath speed over ground	Seapath course over ground	Seapath sea
YYYY-MM-DD hh:mm:ss	* north	* east												kn		
2022-08-23 09:35:47	36.2302	33.9005	STATION 2	CTD with Samples	BOT	64PE509CTDBOT2	2_5	93547			2022	8	23	0.4	284.07	
2022-08-23 08:52:28	36.2292	33.9012	STATION 2	CTD with Samples	BEGIN	64PE509CTDBOT2	2_5	85225			2022	8	23	0.2	60.39	
2022-08-23 08:32:33	36.2292	33.901	STATION 2	In Situ Pump	END	64PE509ISP2	2_4	83231			2022	8	23	0.3	63.13	
2022-08-23 08:05:48	36.2297	33.9005	STATION 2	In Situ Pump	STOP	64PE509ISP2	2_4	80546			2022	8	23	0.5	171.40	
2022-08-22 20:34:29	36.2293	33.9008	STATION 2	In Situ Pump	START	64PE509ISP2	2_4	203427			2022	8	22	0.2	166.28	
2022-08-22 20:30:36	36.2292	33.9007	STATION 2	In Situ Pump	BEGIN	64PE509ISP2	2_4	203033			2022	8	22	0.5	37.13	
2022-08-22 19:46:11	36.2288	33.8942	STATION 2	CTD with Samples	END	64PE509CTDBOT2	2_3	194610			2022	8	22	0.7	163.38	
2022-08-22 16:20:00	36.2298	33.9023	STATION 2	CTD with Samples	BOT	64PE509CTDBOT2	2_3	161958			2022	8	22	0.5	164.14	
2022-08-22 15:34:02	36.2292	33.9033	STATION 2	CTD with Samples	BEGIN	64PE509CTDBOT2	2_3	153400			2022	8	22	0.5	120.26	
2022-08-22 15:15:09	36.2292	33.9105	STATION 2	HD Video	END	64PE509HD2	2_2	151508			2022	8	22	0.1	105.86	
2022-08-22 14:30:59	36.2278	33.9097	STATION 2	HD Video	ENDTRACK	64PE509HD2	2_2	143057			2022	8	22	1.1	271.45	
2022-08-22 13:27:45	36.23	33.8987	STATION 2	HD Video	STARTTRACK	64PE509HD2	2_2	132746			2022	8	22	0.5	282.50	
2022-08-22 12:49:44	36.2297	33.8982	STATION 2	HD Video	BEGIN	64PE509HD2	2_2	124943			2022	8	22	0.6	339.07	
2022-08-22 12:34:19	36.2285	33.891	STATION 2	HD Video	END	64PE509HD2	2_1	123418			2022	8	22	0.5	289.81	

From MFP to NIOZ ships data to the Database (DAS)





Stage
Technical cruise assessment form ▲ Upload summary cruise report ▲ Confirm data submission to BODC ▲ Upload final scientific cruise report
Upload final scientific cruise report ▲
Technical cruise assessment form ▲ Upload final scientific cruise report ▲
Upload summary cruise report ▲ Confirm data submission to BODC ▲ Upload final scientific cruise report



The Ships data & cruise log

	Date	Seapath latitude	Seapath longitude	Phase name	Device name	Barcode	Action name	Operation Id	Cast	EA600 relative_depth(ea600) m
26	4/27/2024 10:28	58.4	5.0993	STATION 4	None		PHASE START	64PE534	None	304.4
27	4/27/2024 11:03	58.4002	5.1002	STATION 4	Boxcore d=300		BEGIN	64PE534BOX3004	4_1	305.6
28	4/27/2024 11:12	58.4002	5.1002	STATION 4	Boxcore d=300		BOT	64PE534BOX3004	4_1	304.6
29	4/27/2024 11:25	58.4003	5.1002	STATION 4	Boxcore d=300		END	64PE534BOX3004	4_1	304.8
30	4/27/2024 11:42	58.3998	5.1	STATION 4	None		PHASE END	64PE534	None	304.6
31	4/27/2024 11:42	58.3998	5.1	TRANSIT 5	None		PHASE START	64PE534	None	304.6
32	4/27/2024 11:42	58.3998	5.1	TRANSIT 5	None		PHASE END	64PE534	None	304.6
33	4/27/2024 11:42	58.3998	5.1	STATION 5	None		PHASE START	64PE534	None	304.6
34	4/27/2024 11:42	58.3998	5.1	STATION 5	Multi Corer		BEGIN	64PE534MC125	5_1	304.4
35	4/27/2024 11:53	58.4003	5.0995	STATION 5	Multi Corer		BOT	64PE534MC125	5_1	304.2
36	4/27/2024 12:01	58.4	5.0993	STATION 5	Multi Corer		END	64PE534MC125	5_1	304.8
37	4/27/2024 12:49	58.4002	5.0997	STATION 5	None		PHASE END	64PE534	None	304.8
38	4/27/2024 12:49	58.4002	5.0997	TRANSIT 6	None		PHASE START	64PE534	None	304.6
39	4/27/2024 12:49	58.4002	5.0997	TRANSIT 6	None		PHASE END	64PE534	None	304.6
40	4/27/2024 12:49	58.4002	5.0997	STATION 6	None		PHASE START	64PE534	None	304.6
41	4/27/2024 12:53	58.4002	5.0998	STATION 6	Pistoncorer d=110		BEGIN	64PE534PC1106	6_1	304.6
42	4/27/2024 13:18	58.3998	5.1005	STATION 6	Pistoncorer d=110		BOT	64PE534PC1106	6_1	304.6
43	4/27/2024 13:36	58.4	5.0997	STATION 6	Pistoncorer d=110		END	64PE534PC1106	6_1	304.4
44	4/27/2024 14:03	58.399	5.0997	STATION 6	None		PHASE END	64PE534	None	305.6
45	4/27/2024 14:03	58.399	5.0997	TRANSIT 7	None		PHASE START	64PE534	None	305.6
46	4/27/2024 14:35	58.4005	5.0992	TRANSIT 7	None		PHASE END	64PE534	None	303.8
47	4/27/2024 14:35	58.4005	5.0992	STATION 7	None		PHASE START	64PE534	None	303.8
48	4/27/2024 14:37	58.4005	5.0993	STATION 7	Hopper Camera		BEGIN	64PE534HOPCAM7	7_1	304.2
49	4/27/2024 14:39	58.4007	5.0992	STATION 7	Hopper Camera		START	64PE534HOPCAM7	7_1	304.2
50	4/27/2024 14:46	58.4015	5.0987	STATION 7	Hopper Camera		BOTTOM	64PE534HOPCAM7	7_1	304.2
51	4/27/2024 15:44	58.4108	5.0905	STATION 7	Hopper Camera		STOP	64PE534HOPCAM7	7_1	302.3
52	4/27/2024 15:51	58.4112	5.0893	STATION 7	Hopper Camera		END	64PE534HOPCAM7	7_1	302.3
53	4/27/2024 15:54	58.4113	5.0888	STATION 7	None		PHASE END	64PE534	None	302.5
54	4/27/2024 15:54	58.4113	5.0888	TRANSIT 8	None		PHASE START	64PE534	None	302.5
55	4/27/2024 16:31	58.4003	5.0998	TRANSIT 8	None		PHASE END	64PE534	None	304.4
56	4/27/2024 16:31	58.4003	5.0998	STATION 8	None		PHASE START	64PE534	None	304.4
57	4/27/2024 16:31	58.4005	5.0997	STATION 8	Multibeam	212687	BEGIN	64PE534EM3028	8_1	304.4
58	4/28/2024 4:03	59.1332	4.457	STATION 8	Multibeam	212687	COCH	64PE534EM3028	8_1	248

Cruise log to MFP > reports



Upload Ships Data

Automatic Data Upload



The ShipsData system running on your vessel is designed to automatically upload the generated data file directly after the cruise is finished.

This upload occurs via a secure API connection, ensuring your cruise data is seamlessly transferred and integrated into the Marine Facilities Planning platform without requiring manual intervention.

Manual Data Upload

Important: Make sure that the file being uploaded is specific to your cruise and is in the correct format required by the ShipsData system. Once uploaded, it will be processed and integrated into the Marine Facilities Planning platform.

Select document

Drop files here to upload

Cruise log to MFP > reports



MFP - Project Management
Jeroen Buijs

Uploaded Cruise title name

csv _20230729_64_PE5...
 Add description
Download

Station name	Devices used	Entry date	Exit date
Station 0	ACQUATO, CTD, with Samples	29-12-2023 8:33	29-12-2023 8:33
Station 1	ACQUATO, CTD, with Samples, In Situ Pump	01-01-2024 7:33	01-01-2024 6:33
Station 2	ACQUATO, CTD, with Samples	02-01-2024 8:33	03-01-2024 8:33
Station 3	ACQUATO, CTD, with Samples	04-01-2024 5:33	06-01-2024 18:24
Station 4	ACQUATO, CTD, with Samples	02-01-2024 8:33	03-01-2024 8:33
Station 5	ACQUATO, CTD, with Samples	04-01-2024 5:33	06-01-2024 18:24

Station 1

Devices(s) Used
None, ACQUATO, CTD with Samples, in Situ Pump

Station Time 13.804.60m	Entry Date 2023-08-02 05:53:01	Entry Coordinates Lat: 55.7432, Lon: -29.0388
Dist. Travelled 13.804.60m	Exit Date 2023-08-02 05:53:01	Exit Coordinates Lat: 55.7432, Lon: -29.0388

CTD with Samples

Begin	Time: 2023-08-06 09:44:58	Lat: 52.01, Lon: -29.41
Start	Time: 2023-08-06 09:44:58	Lat: 52.01, Lon: -29.41

Cruise log to MFP > reports



MFP | NIOZ Project Management Zeynep Erdem

Project Management > **Workflow** 24/727 Introduction purpose cruise

Project Roles

Principle Investigator: Zeynep Erdem
Project Co-Editor: N.A.
Project Manager: N.A.
Expand

Alternate ID:
Priority: Not Set

Project Dates

IMS equipment located at stores quarantine area: N.A.
IMS dispatch date: N.A.
planned mobilisation date: N.A.
planned sail date: N.A.
planned docking date: N.A.
planned demobilisation date: N.A.

Attachments

Upload details science Party	You	Pending	...
4. CRUISE LOGISTICS			
Finalise equipment PlanLists	You, Yvo Witte, Sharyn Ossebaar, Toon Koopman, Henk de Haas, Leon Wuis	Pending	...
5. CRUISE DELIVERY			
Cruise Delivery	You	Pending	...
6. POST CRUISE			
Technical cruise assessment form	You	Pending	...
Upload summary cruise report	You	Pending	...
Upload final scientific cruise report	You	Pending	...
Confirm metadata submission to DAS	nioz rdm	Pending	...
Close cruise project	You	Pending	...

Cruise log to MFP > equipment history



MFP | NIOZ Inventory Management Yasar Abbas

Ultra Clean CTD frame 8204 / 01

[+ Add](#) [Export](#)

Start	End	User	Note	Tags	Properties
25-8-2022	25-8-2022	System .	Ships data - Upload		Cruise: TestCruise, Station: STATION 3, Depth (m): 2.203,10, Cast: 3_2, Time: 2h28m0s ✎ ✕
23-8-2022	23-8-2022	System .	Ships data - Upload		Cruise: TestCruise, Station: STATION 2, Depth (m): 2.242,70, Cast: 2_6, Time: 2h21m0s ✎ ✕
21-8-2022	21-8-2022	System .	Ships data - Upload		Cruise: TestCruise, Station: STATION 1, Depth (m): 848,67, Cast: 1_11, Time: 1h31m0s ✎ ✕
20-8-2022	20-8-2022	System .	Ships data - Upload		Cruise: TestCruise, Station: STATION 1, Depth (m): 808,24, Cast: 1_2, Time: 1h5m0s ✎ ✕
20-8-2022	20-8-2022	System .	Ships data - Upload		Cruise: TestCruise, Station: STATION 1, Depth (m): 803,23, Cast: 1_1, Time: 0h15m0s ✎ ✕

Thank you for your attention!

Zeynep.Erdem@nioz.nl

Follow the project at: www.newresearchfleet.nl

Royal NIOZ National Marine Facilities (NMF) manage and operate the national research vessels and equipment for the benefit of the marine and maritime research community



Mark the date:
RV Pelagia will be open to visit
March 10 to 17th 2025
Las Palmas, Canaries