



**FAST MARINE
SERVICES**

V O L V O
P E N T A





EEXI

ENERGY EFFICIENT DESIGN INDEX IMPROVING THE TECHNICAL PERFORMANCE OF EXISTING SHIPS

The requirements for EEXI certification **ENTERED INTO FORCE** on 1 November 2022



The EEXI is a **GREENHOUSE GAS** EFFICIENCY INDEX for existing ships, depending on their parameters

There are a variety of technical means to **IMPROVE THE CARBON INTENSITY** of existing ships and **achieve the Required EEXI**



A **review clause** requires IMO to **REVIEW THE EFFECTIVENESS** of the implementation of the EEXI requirements, by 1 January 2026 at the latest, and, if necessary, **develop and adopt further amendments**



CARBON INTENSITY INDICATOR (CII RATING)

IMPROVING THE OPERATIONAL PERFORMANCE OF EXISTING SHIPS



Each year, ships of 5,000 gross tonnage and above **collect and report fuel consumption data**. On the basis of this data, **A CARBON INTENSITY RATING IS ASSIGNED TO THE SHIP, FROM A TO E**



There are a variety of operational means to **IMPROVE THE CARBON INTENSITY OF EXISTING SHIPS** and achieve the Required CII, e.g.:

- Ship speed optimization
- Weather routing
- Just-in-time arrival
- Trim, draft, and ballast optimization



Every year, ships have to implement **operational measures** to improve their CII, and the company regularly assessed whether they are provided to best and most value





10-25%

of energy consumption can be saved by better managing vessel use



17%

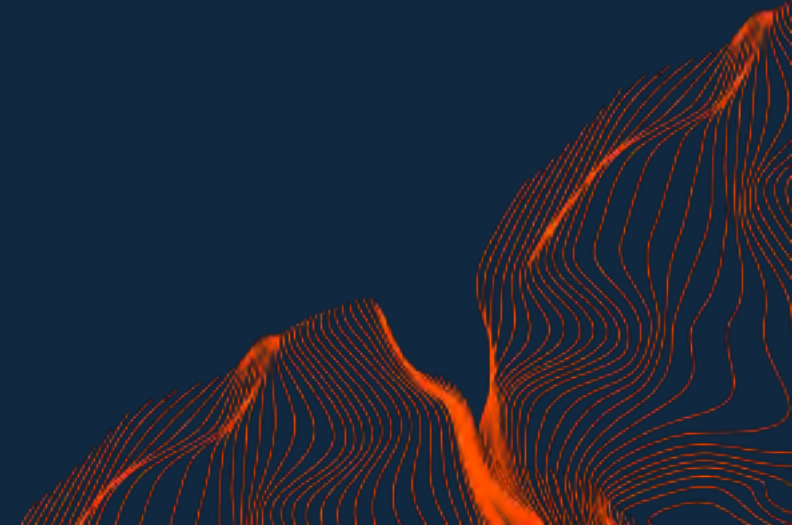
reduced fuel consumption in their first year at Öckerö

10%

fuel saved in eight months on Strömma

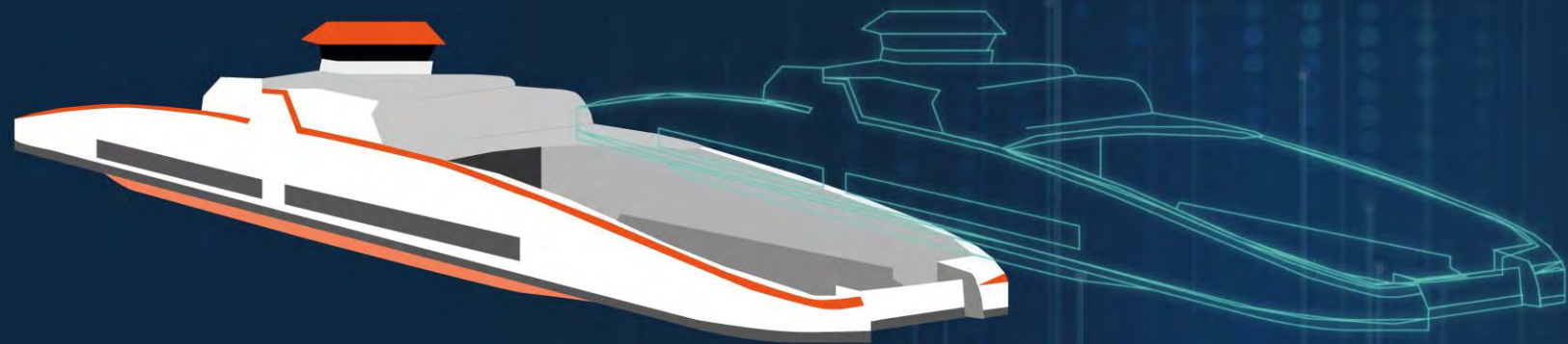


Technology

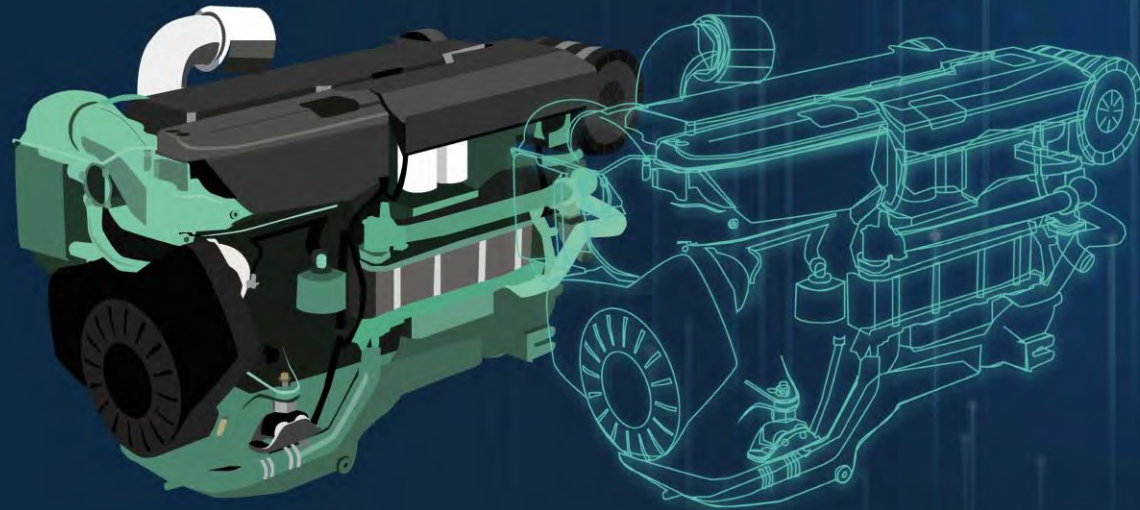


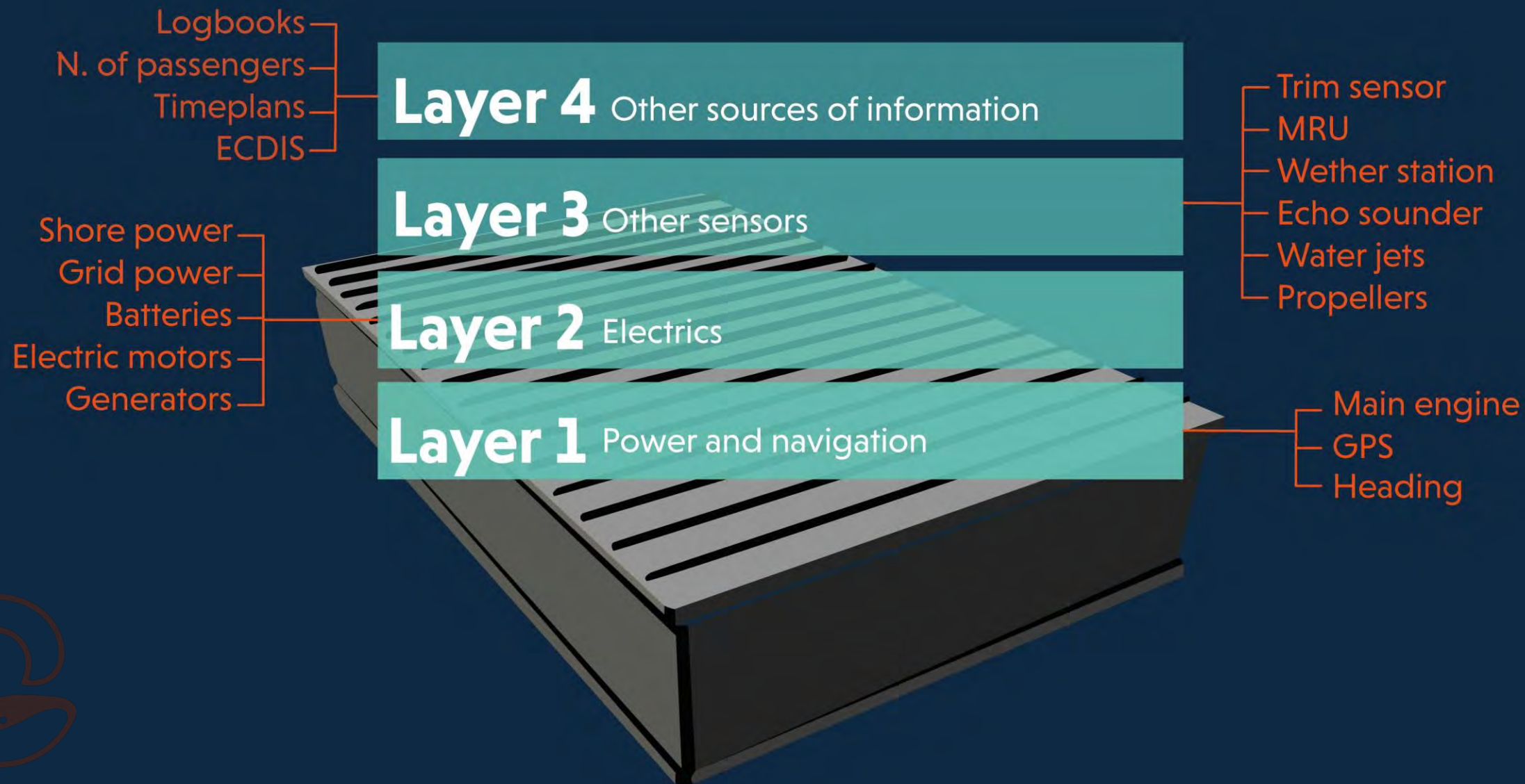
Cetasol gets to know your vessel.





Digital Twins





CMU (Cetasol Main Unit)

550 gram



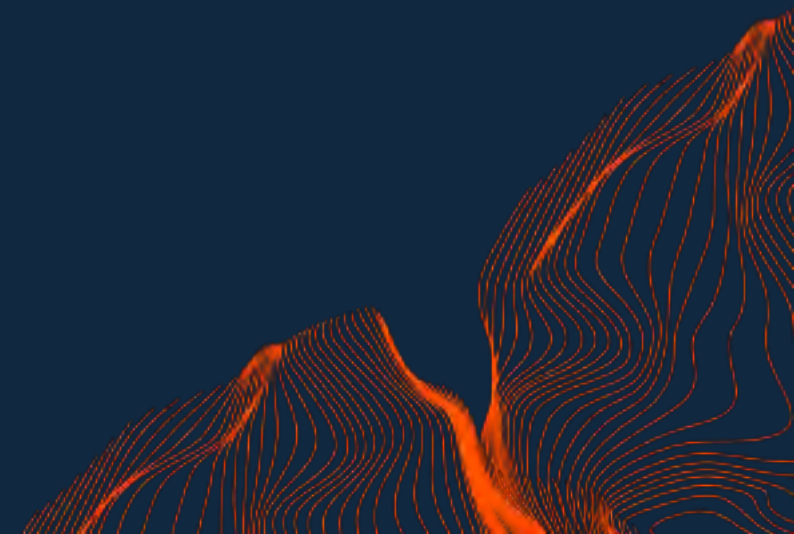
25 mm

84 mm

132 mm



Product



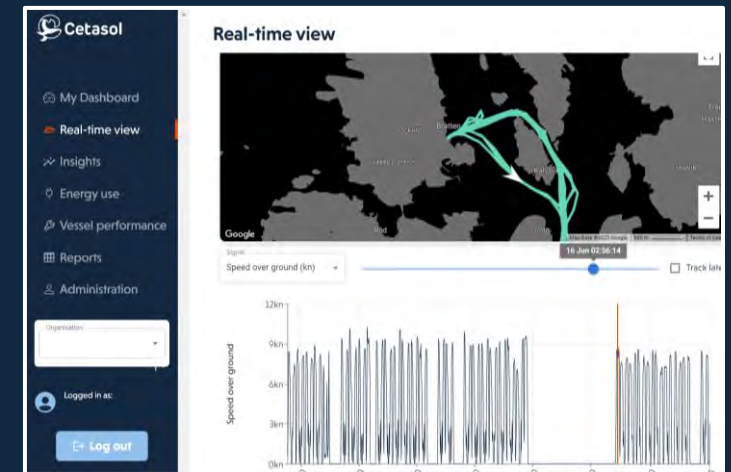
The iHelm Platform.



Powerful.



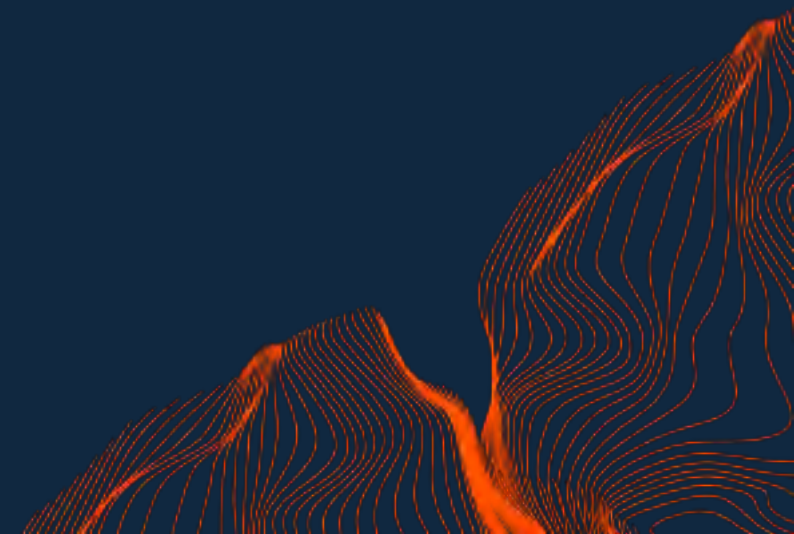
Real-time.



Insights.



Captain display 1.0





HAASELUNDEN

VÄSTRA ÖRMINGE

Flisksåtra

Gashaga

Björknäs

Kappala

Brevik

SKURU

Ekto

MOJNA

Molna

Kottla

Ingö

KUSÄTRA

GALENUM

Lidingöbro

Djurgårdsbrunn

Kvinn

Djurgården

Södrahammarbyhamnen

Google

TWS: 9.4 kn

Main

Destination

Södra Grinda

Signals

Fuel usage L/h - Now

62

Torque Nm - Leg

0.0

Speed - Now

13.7 kn

Fuel used - Leg

26.2 L

10:14:15

 **iHelm**
BY CETASOL

Choose user

PIN

Login

— OR —

Use without login >>



 **iHelm**
BY CETASOL
v 1.01.dev0

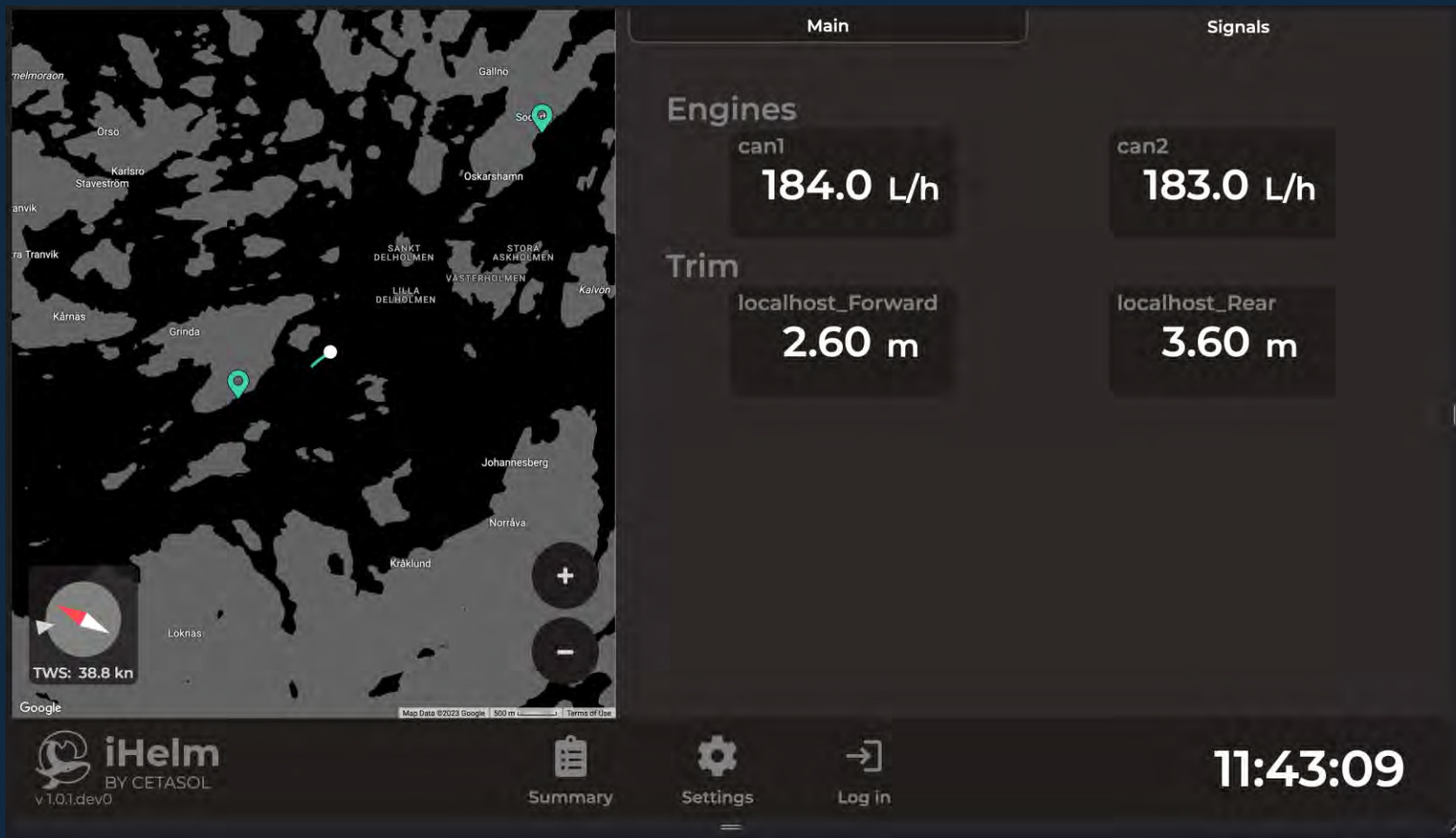
Summary

Settings

Log in









Main

Signals

Destination

Nacka S

Target arrival

10:13:50

± 0 m

TWS: 6.7 k

iHelm
BY CETASOL
v1.0.0dev

Summary

Settings

Log in

Fuel usage

Fuel usage

Torque

Speed - Now

13.7 kn

Fuel used - Leg

25.1 L

Settings

Language

☒ English

☐ Svenska

Decimal sign

☒ Period

☐ Comma

Map

☐ Show map

Gauges

☒ Fuel usage (L/h - Now)

☒ Fuel usage (L/h - Leg)

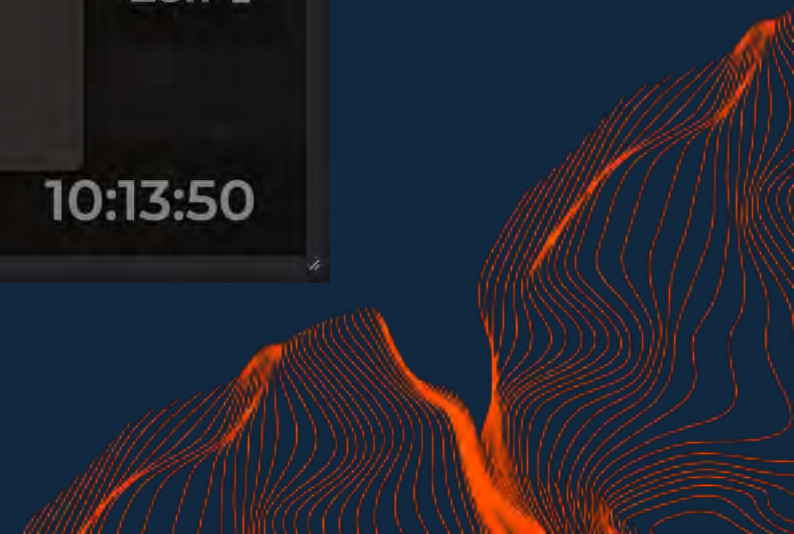
Fuel usage (L/NM - Now)

Fuel usage (L/NM - Leg)

Energy usage (kW - Now)

Target speed

☒ Show indicator









HAUSEHOLM

GADEHAGA

KAPPAHA

BREVIK

ISKRETTA

MOLNA

KOLNA

ÖGÖ

ÖRSÄTRA

VÄSTERÅS

LIDINGÖBRO

DJURGÅRDS

TWS: 7.5 kn

Google

YASARA

SWINDE

ESKEGÅRA

Destination

Fuel usage

Torque
Nm - Leg

0.0

Speed - Now

8.0 kn

Fuel used - Leg

30.0 L

10:15:50

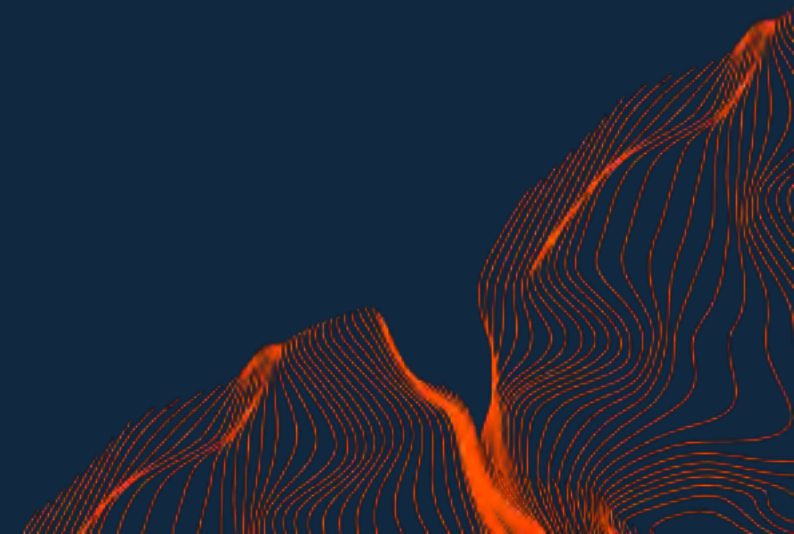
Summary

Leg	Fuel	Per hour	Per NM	Departure	Arrival
Since reset	30.0 L	115.2 L	10.6 L		
Previous totals	N/A	N/A	N/A		

RESET

OK

Captain display 2.0



Log Out

Dest. Brännö

O.M. F.W.

T.T. 15 : 42 +12

E.T.A. 15 : 54

13 M/s

+

-

Navigation Menu

^

15:17:59

L/M

12.4

L/M

9.4

L/M

8.6

78 °C

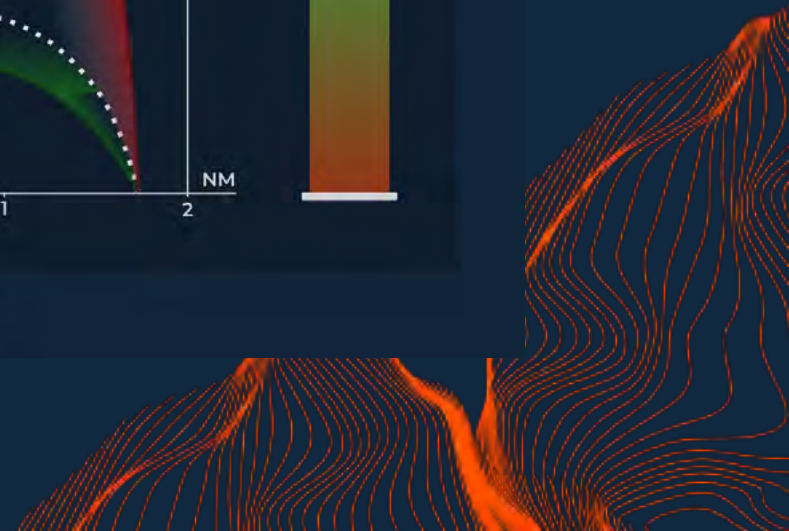
Operating Temp.

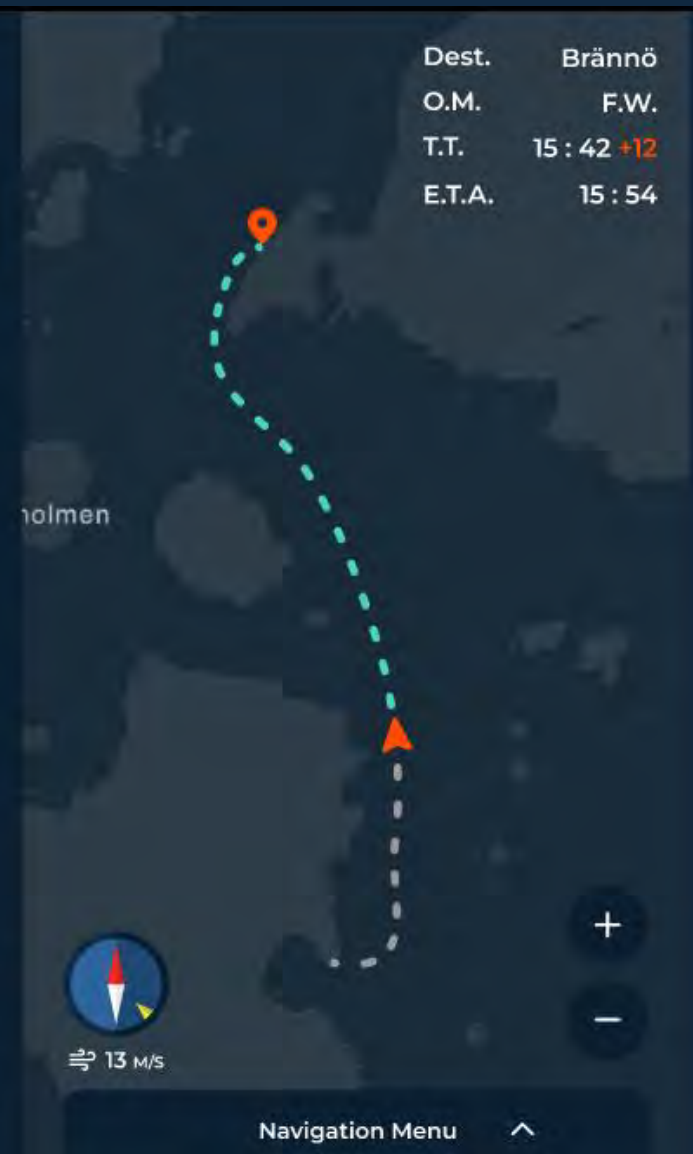
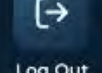
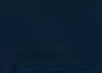
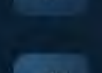
7.5

Operating Hours

Speed/Distance

62%





15:17:59

L/M



L/M



L/M



78 °C

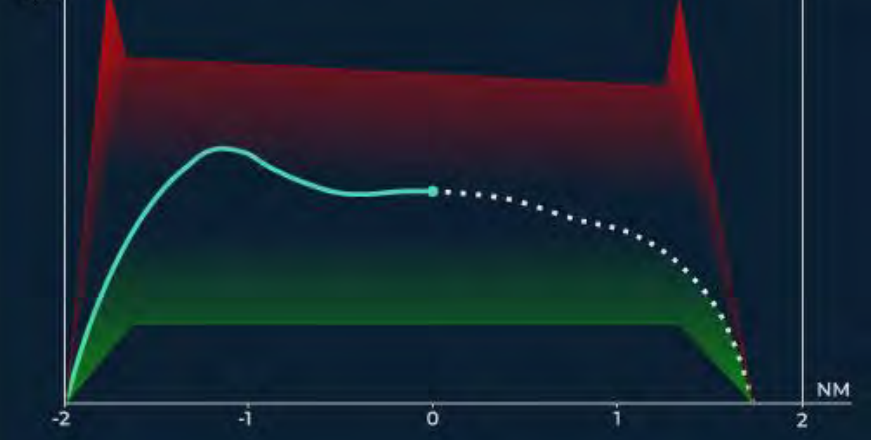
Operating Temp.

7.5

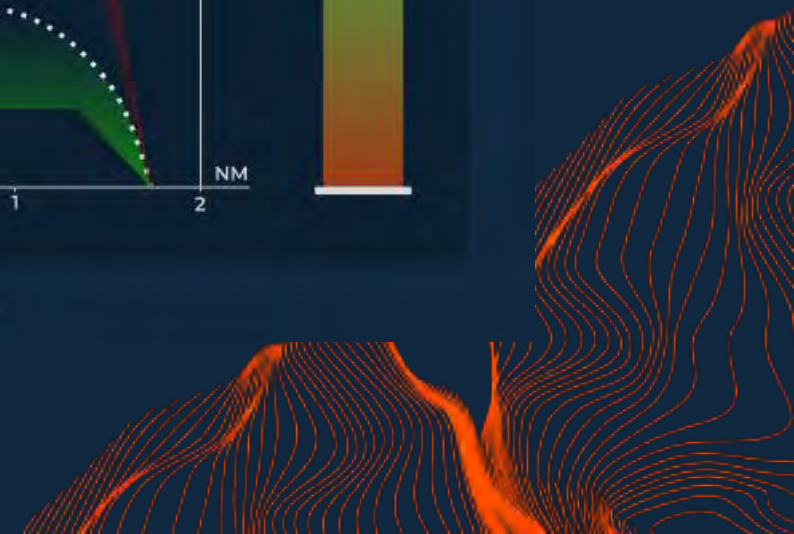
Operating Hours

Fuel Consumption/Distance

L/M



62%





Dest. Brännö
O.M. F.W.
T.T. 15 : 42 +12
E.T.A. 15 : 54

holmen



13 M/s

Navigation Menu ^

15:17:59

L/M



12.4

L/M



9.4

L/M



8.6

78 °C

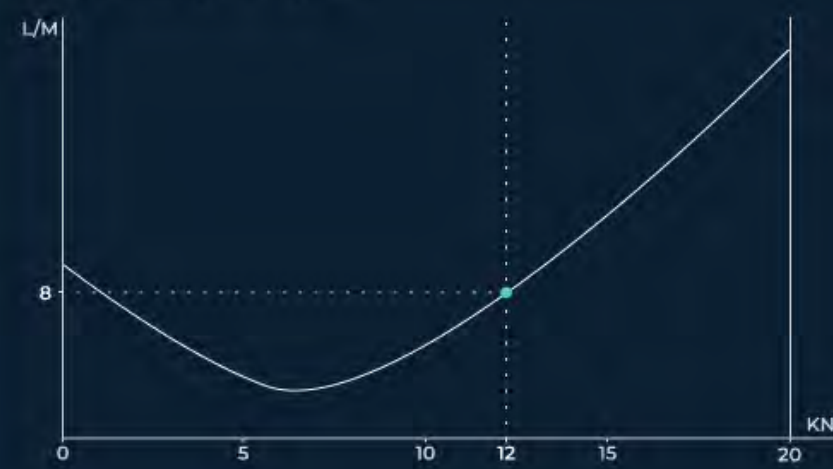
Operating Temp.

7.5

Operating Hours

Fuel Consumption/Speed

L/M



62%



Cloud app



Real-time view

Vessel



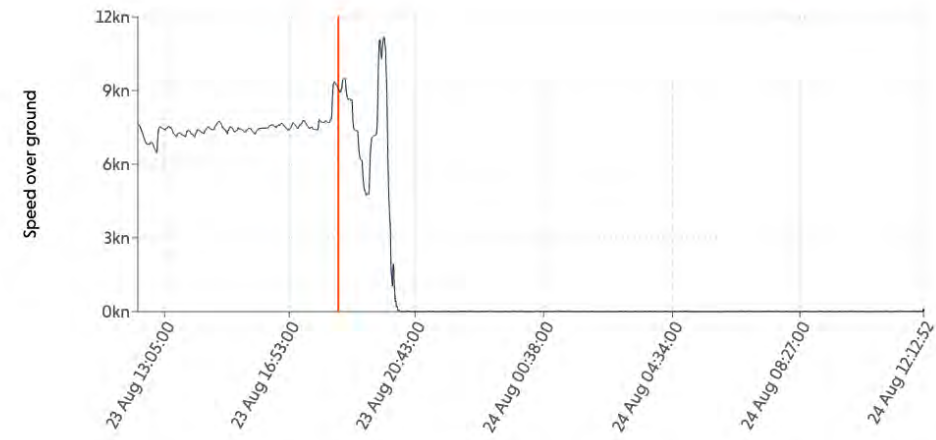
Signal

Speed over ground (kn)

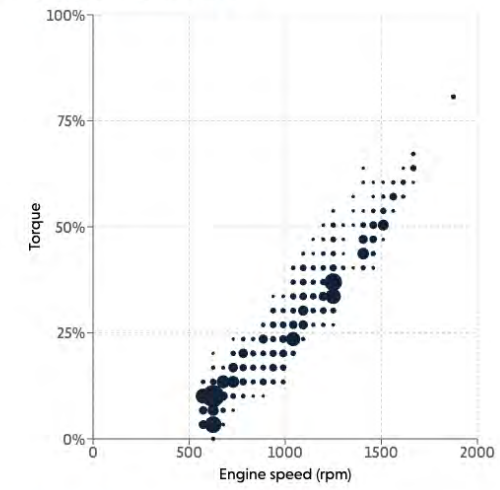
23 Aug 18:22:48

☐ Track latest

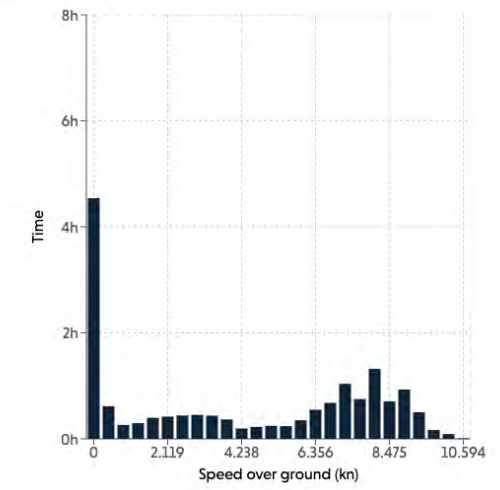
(All dates & times in UTC)



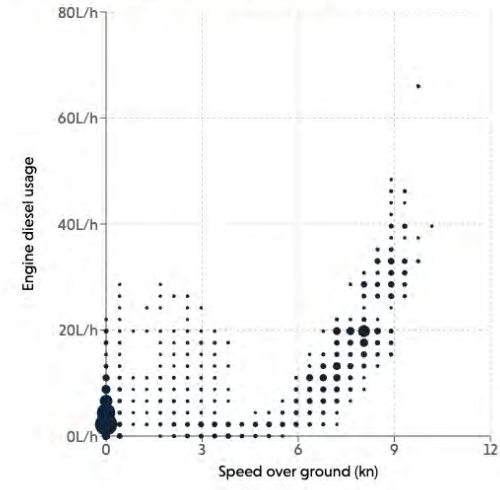
Torque-Engine speed map



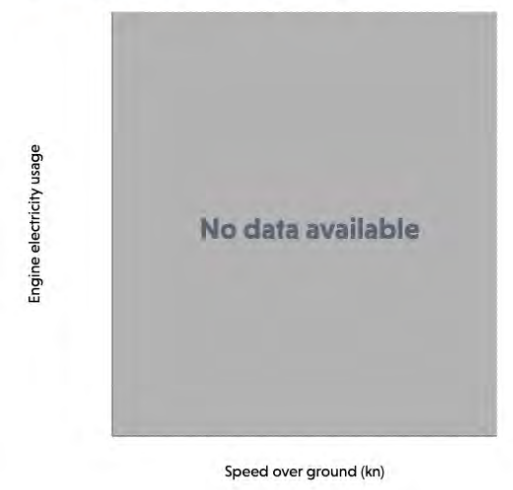
Speed over ground distribution



Diesel usage-Speed over ground map



Electricity usage-Speed over ground map



Reports

Vessel

Report type

Basic

Weekly		Date generated
PDF	M-	II-2023-W33-report.pdf 2023-08-20
PDF	M-	II-2023-W32-report.pdf 2023-08-13
PDF	M-	II-2023-W31-report.pdf 2023-08-06
PDF	M-	II-2023-W30-report.pdf 2023-07-30

Load more reports

Monthly		Date generated
PDF	M	-II-2022-November.pdf 2022-11-30
PDF	M	-II-2022-October.pdf 2022-10-31
PDF	M	-II-2022-September.pdf 2022-09-30
PDF	M	-II-2022-August.pdf 2022-08-31

Load more reports

Yearly		Date generated
-		-

Custom		Date generated
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Energy use

Overall Operators

Vessel

Metric

Fuel volume (L)

Activity

Total

Timescale

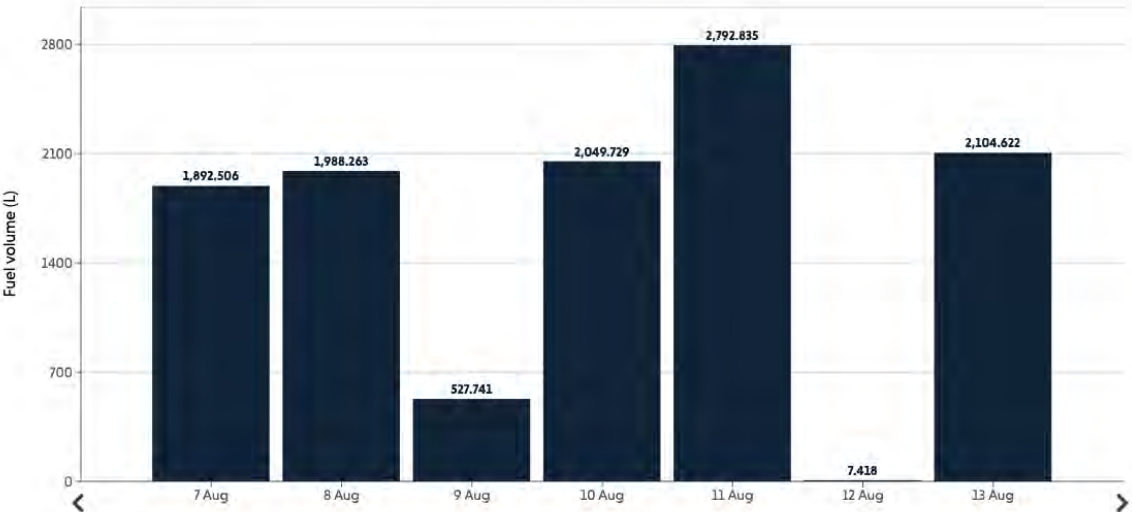
Week

1 day week

2023-W32

Fuel volume, Eken, week 32 of 2023 (7 Aug - 13 Aug)

The fuel volume (L) for Eken, each day during week 32 of 2023 (7 August - 13 August)



(All dates & times in UTC)

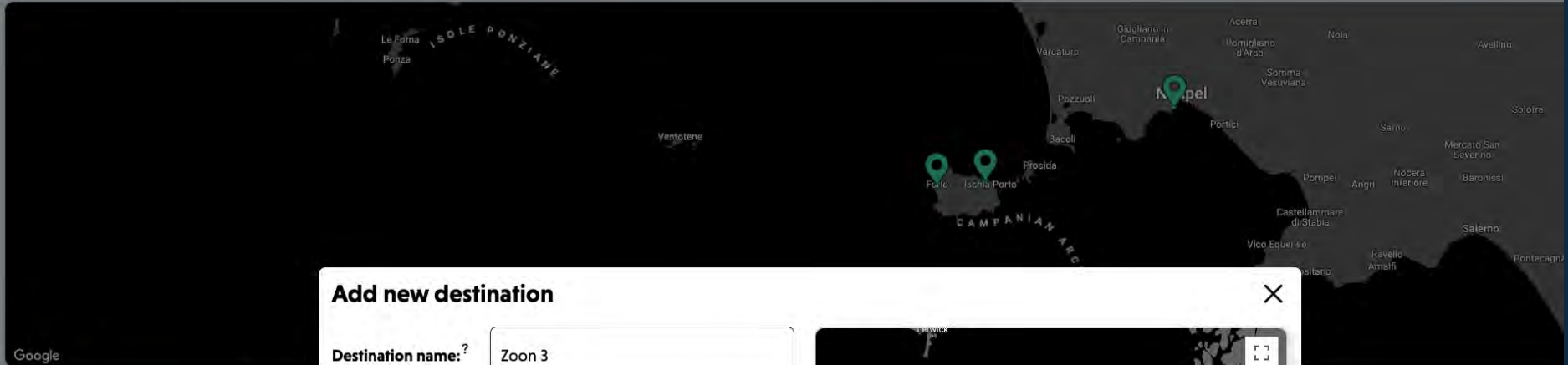
Administration

Destinations

Members

Vessels

Billing



Google

+ Add new destination

All destinations (64)

Name	Coordinates
Forio	40.738945° N, 15.151515° E
Ischia	40.744206° N, 14.744206° E
Naples	40.837235° N, 14.837235° E
Sadama tee	59.558576° N, 24.558576° E
Tallinn Bay	59.493141° N, 24.493141° E
Tallinn Harbour	59.45984° N, 24.45984° E
Aarhus	56.152811° N, 10.253058° E

Add new destination

Destination name: ?

Zoon 3

Coordinates (lat, long): ?

57.09027

1.291547

Set

Radius: ? 68024 meters

Organisation: ?

Organisation

Destination state: ?

State

Active

Submit



Google

Kartdata ©2023 GeoBasis-DE/BKG (©2009), Google | 100 km | Viikori



Logbook

Tags

Trips

+ Apply tag

Tags (0)  (All dates & times in UTC)

Vessel Start date End date
All vessels 11 Oct 2023 17 Oct 2023

Vessel Date & time Tag type Value User organisation category Manage

No data available

Apply tag



Organisation: ? Choose one in the menubar

Vessel: ? 

User: ? No user 

Date & time: ? 17 Oct 2023 - 07:39 
(All dates & times in UTC)

Tag type: ? 

 Submit

Logbook

Tags

Trips

Trips (9)  (All dates & times in UTC)

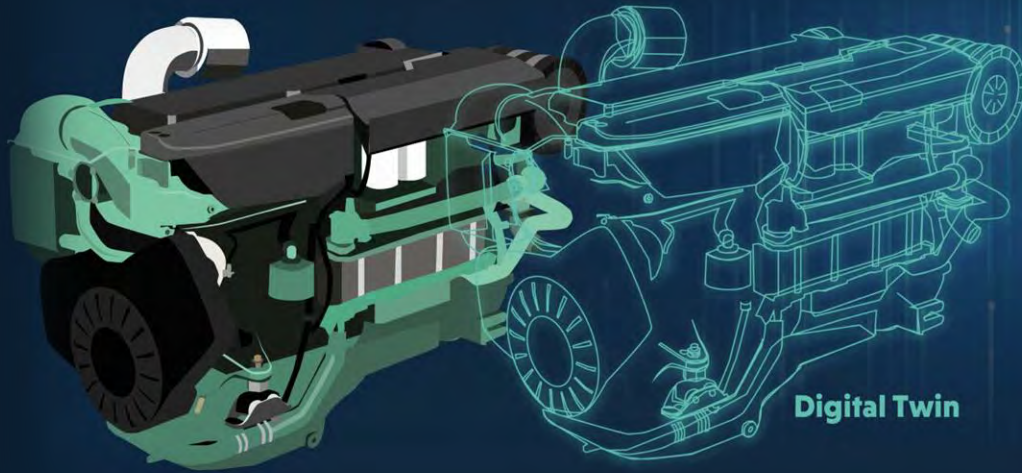
Vessel Start date End date
All vessels 02 Oct 2023 17 Oct 2023

Vessel	Start time	End time	Duration	Distance	Operator(s)	Applied tags	Fuel usage (Average)	Fuel used	Electricity usage (Average)	Electricity used
	3 Oct 13:58:03	3 Oct 17:42:56	3 h 44 min 53 s	44.987 NM	N/A	N/A	285.163 L/h	1,068.785 L	N/A	N/A
	10 Oct 14:08:39	10 Oct 22:47:37	8 h 38 min 58 s	105.445 NM	N/A	N/A	297.051 L/h	2,569.322 L	N/A	N/A
	11 Oct 00:00:46	11 Oct 22:57:04	22 h 56 min 18 s	237.305 NM	N/A	N/A	272.000 L/h	6,239.173 L	N/A	N/A
	12 Oct 00:00:45	12 Oct 04:13:28	4 h 12 min 43 s	39.597 NM	N/A	N/A	229.678 L/h	967.410 L	N/A	N/A
	12 Oct 13:33:29	12 Oct 23:51:39	10 h 18 min 10 s	95.526 NM	N/A	N/A	282.329 L/h	2,908.768 L	N/A	N/A
	13 Oct 00:00:47	13 Oct 23:41:54	23 h 50 min 15 s	198.402 NM	N/A	N/A	274.101 L/h	6,492.184 L	N/A	N/A
	14 Oct 00:00:49	14 Oct 23:01:57	23 h 1 min 8 s	189.038 NM	N/A	N/A	283.736 L/h	6,531.532 L	N/A	N/A
	15 Oct 00:00:47	15 Oct 05:30:58	5 h 30 min 11 s	54.294 NM	N/A	N/A	234.748 L/h	1,291.826 L	N/A	N/A
	15 Oct 21:36:19	15 Oct 22:13:09	36 min 51 s	2.118 NM	N/A	N/A	139.829 L/h	85.852 L	N/A	N/A

Patents



CetaFuel (Virtual fuel reader)



For vessels without a fuel reader

Cetasol patent.

No physical flow meter.

97-99.5% accuracy.

Connecting all engines.



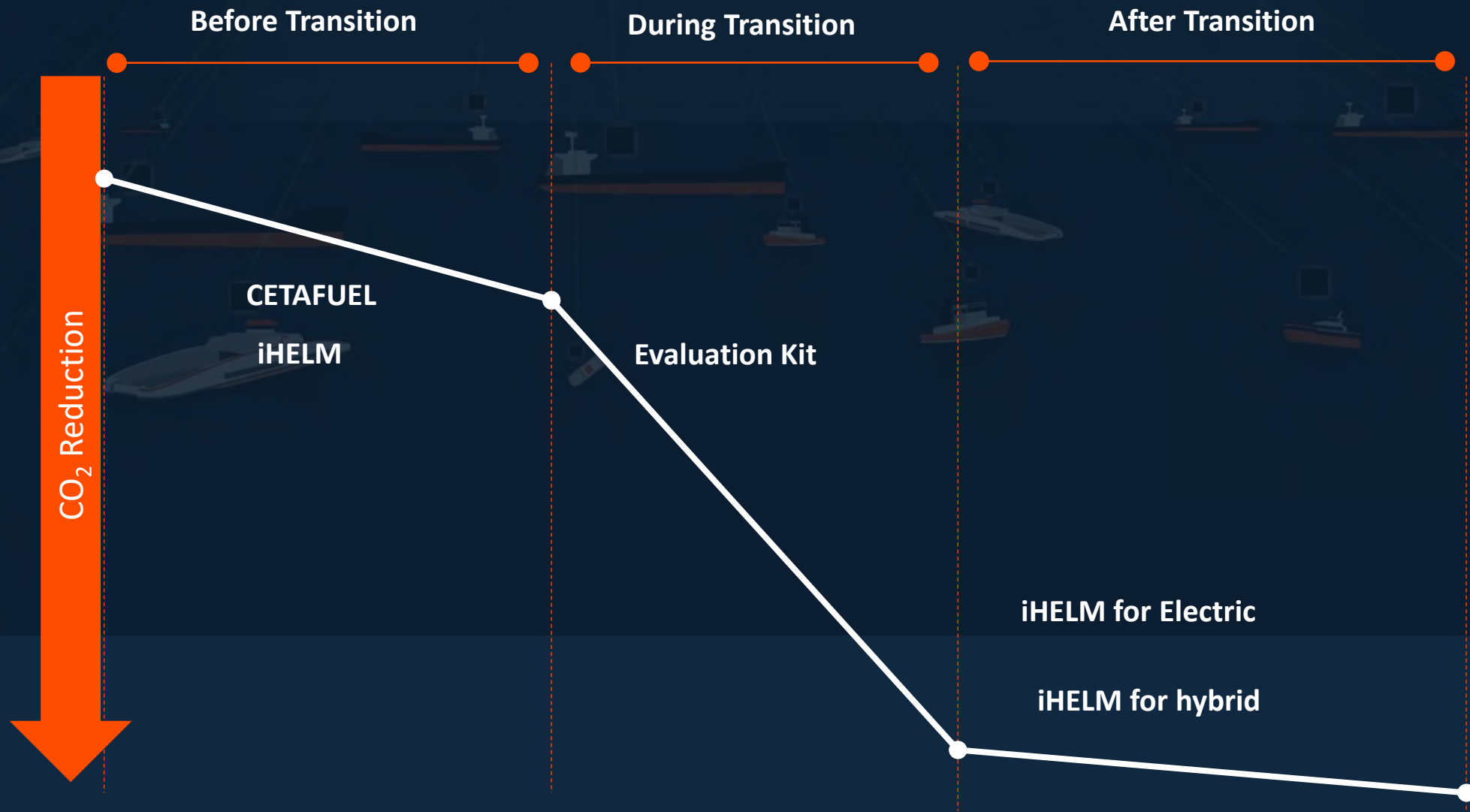
Electric or hybrid?

Patent.

Optimize.

Prolong.





Comparison table

	iHelm (Cetasol)	Other solutions
Business Model	Only cost of hardware, Flexible Subscription	Initial high Cost, lower end subscription
Return of Investment	<3 months	>6 months
Features	energy optimization, predictive maintenance, connection to shipyard, operational insights	Data visualization, Energy Guidance
Data Handling	Data Insights	Tracking Data
Predictive vs Passive	Predictive	History
Technology Improvement	Improves over time	Will be outdated (needs a new installation)
User Connection	Adaptable/user focused	Fixed/ tech focus





So... interested in iHelm or CetaFuel?

For more information
visit us on or website:

www.cetasol.com

Or follow us on LinkedIn:

[Cetasol - Marine Sustainability](#)



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For more information visit us on or website:

www.fastmarine.net

sales@fastmarine.net