

RDBFIS – fleet analysis tool

Fleet Analysis: An Open Access Tool¹ has been developed and integrated within the RDBFIS to illustrate the evolution of fleet dynamics in Europe, with potential links to landings, discards, and value variables (FDI Table A).

Data from the professional fishing fleet, spanning the period from 1991 to 2024, was downloaded from the official EU Fleet Register portal². GIS techniques were employed to spatially join the fishing ports with various geographical entities, including NUTS2 and NUTS3³, FDI subregions⁴, Geographical areas (GFCM, ICES). The fishing ports were match to LOCODE from the CIRCAMB Master Data Register⁵. The accuracy of the fishing port locations was validated using information available from the IFREMER Sextant portal⁶.

The main interface of the RDBFIS web-based application is divided into two sections. The left panel hosts the primary navigation menu and the remaining screen area is dedicated to tabular data visualization, processing/analysis. The EU fleet is accessible through the "EU Fleet/Fishing Fleet Vessels" module. This module is organized into two main tabs, each supporting different stages of data exploration and analysis.

In the first tab, users can view the raw fleet open data exactly as provided by the official EU Fleet Register portal. The interface supports data filtering, enabling users to refine the dataset by year, country, vessel identifiers, event types, and other key attributes. All displayed data can be exported in CSV format, allowing users to conduct further offline analysis or integrate the data into external workflows (Figure 1).

The second tab provides an advanced analysis and reporting environment. Here, users can define fleet-related queries by selecting the relevant fleet segment, time period, and optional filters on vessel characteristics or geographical criteria. The tool enables the execution of standardized analyses based on predefined coding system used in EU (e.g. gears, vessel length, geographical areas). Results are generated automatically and may include aggregated statistics, vessel segmentation outputs, or comparative analyses across years or regions (Figure 2). This functionality supports the production of consistent and reproducible fleet reports, facilitating scientific evaluations and policy-driven decision-making within the EU fisheries context.

Together, these two components offer a complete workflow—from data retrieval and filtering to analytical processing—integrated seamlessly within the RDBFIS platform.

The automatic generation of a comprehensive report, including maps, graphs, and tabular information, is currently under development. The system is updated annually, when the complete data series is downloaded each March or April. The reference year corresponds to

¹ Accessible on <https://medbs-rdbfis.hcmr.gr/> with credentials: **user** as username, **RDBF1\$** as password

² https://webgate.ec.europa.eu/fleet-europa/index_en

³ <https://ec.europa.eu/eurostat/web/gisco/geodata/statistical-units/territorial-units-statistics>

⁴ https://dcf.ec.europa.eu/data-calls/fdi_en

⁵ <https://circabc.europa.eu/ui/group/3cc8c417-0f2a-4eb4-8ff7-10d60638446a/library/7133c5c8-305d-4a5b-9956-ae83f0e1a4f1>

⁶ <https://sextant.ifremer.fr/>

the end of that year. Therefore, if you select 2024, the system will return the fleet status (i.e., the data) as it was on 31/12/2024.

Year	Country	CIR	Unit	Event	Event Start Date	Event End Date	Registration Number
2024	FIN	FIN000020722		MOD	01/01/2011 00:00:00	31/12/2100 00:00:00	FIN-3567-T
2024	FIN	FIN000020723		MOD	01/01/2011 00:00:00	31/12/2100 00:00:00	FIN-3568-T
2024	FIN	FIN000020724		MOD	01/01/2011 00:00:00	31/12/2100 00:00:00	FIN-3569-T
2024	FIN	FIN000020729		MOD	01/01/2011 00:00:00	31/12/2100 00:00:00	FIN-3573-T
2024	FIN	FIN000020731		MOD	01/01/2011 00:00:00	31/12/2100 00:00:00	FIN-3575-T
2024	FIN	FIN000020732		MOD	01/01/2011 00:00:00	31/12/2100 00:00:00	FIN-3576-T
2024	FIN	FIN000020738		MOD	29/11/2023 00:00:00	31/12/2100 00:00:00	FIN-3576-T
2024	FIN	FIN000020739		MOD	01/01/2011 00:00:00	31/12/2100 00:00:00	FIN-3582-T
2024	FIN	FIN000020740		MOD	01/01/2011 00:00:00	31/12/2100 00:00:00	FIN-3584-T
2024	FIN	FIN000020721		MOD	01/01/2011 00:00:00	31/12/2100 00:00:00	FIN-3566-T

Figure 1. Tabular Visualization of the EU Fishing Fleet

Query on: Active Fleet

Vessel Length Segmentation: ☒ Med&BS ☐ GFCM ☐ Baltic Sea ☐ Other waters

Type of Query: ☒ By Year ☐ Between

By Year: Year: 2023

Between: Start: 2020 End: 2023

Filter on vessel characteristics: ☐ Yes ☒ No

Filter Results Geographically: ☐ Yes ☒ No

Group Results: ☐ Yes ☒ No

Execute Fleet Analysis

RDBFIS: Financed by EMFF (2021-2022) and CINEA/EMFAF (2023-2025)

Figure 2. EU Fishing Fleet tool

Reports can be generated based on user-defined queries about active or decommissioned fishing fleets.

1 Fleet Analysis - Query Parameters

Active Fleet

Decommissioned Fleet

Four vessel length segmentations are available according to the code list provided in Appendix 2 of the FDI Annex 1 (Med&BS, Baltic Sea, Other waters) and in Appendix B of the GFCM/DCRF manual.

Vessel Length Segmentation: ☒ Med&BS ☐ GFCM ☐ Baltic Sea ☐ Other waters

The queries can retrieve information for a specific year or a range of years (starting from the year 1991 up to current year-1).

Type of Query:

☒ By Year:

Year2024

☐ Between:

Start1991

End2024

The requested information can be filtered:
(i) on vessel technical characteristics (GT, kW, age, length)

Filter on vessel characteristics: ☒ Yes ☐ No

Number of Vessels

any

GT

any

Power (kw)

any

Age

any

Length

any

Filter on vessel characteristics: ☒ Yes ☐ No

Number of Vessels

any

equals to

greater than

less than

between

Length

any

(ii) Geographically

Filter Results Geographically: ☒ Yes ☐ No

Country

Fishing Port

Region (NUTS2)

Prefecture (NUTS3)

FDI Subregion

Fishing Areas

Geographical Areas

Group Results: ☐ Yes ☒ No

Execute Fleet Analysis

☐ Aalborg

☐ Abbekeås

☐ Åbenrå

☐ Aberdeen

☐ Aberystwyth

☐ Acciaroli

☐ Abruzzo

☐ Alentejo

☐ Algarve

☐ Anatoliki Makedonia, Thraki

☐ Andalucía

☐ Aquitaine

☐ Aberdeen City and Aberdeenshire

☐ Achaia

☐ A Coruña

☐ Agglomeratie Leiden en Bollenstreek

☐ Agglomeratie 's-Gravenhage

☐ Agrigento

☐ 27.8.c

☐ 27.9.a

☐ 31

☐ 34.1.2

☐ GSA 1

☐ GSA 10

☐ Atlantic, western central

☐ Baltic Sea

☐ CECAF

☐ GFCM

☐ North Sea, Eastern Arctic, Skagerrak, Kattegat

☐ North Western Waters, Eastern Arctic, North Sea

The results can be grouped:

Group Results: ☒ Yes ☐ No

☐ By Country

☐ By Fishing Port

☐ By Region (NUTS2)

☐ By Prefecture (NUTS3)

☐ By FDI Subregion

☐ By Fishing Area

☐ By Geographical Area

☐ By Gear Type

☐ By Length Class

☐ By Age Class

Execute Fleet Analysis

Below are example queries that extract information for the period 1991–2024.

1. The query ...

Tabular Visualization

Fleet Analysis

1 Fleet Analysis - Query Parameters

2 Fleet Analysis Results

Query on

Active Fleet

Vessel Length Segmentation:

☒ Med&BS

☐ GFCM

☐ Baltic Sea

☐ Other waters

Type of Query:

☐ By Year:

Year

2024

☒ Between:

Start

1991

End

2024

Filter on vessel characteristics:

☐ Yes

☒ No

Filter Results Geographically:

☐ Yes

☒ No

Group Results:

☐ Yes

☒ No

Execute Fleet Analysis

.. and the results (this query takes approximately 20 seconds to retrieve the data)

1 Fleet Analysis - Query Parameters

2 Fleet Analysis Results

Results Table

Year	Number Of Vessels	Sum GT	Sum Power (kw)	Average Vessel Age	Average Vessel Length
Filter by	Filter by	Filter by	Filter by	Filter by	Filter by
1991	94609	1346461	7319338	53	9.19
1992	92016	1371418	7138141	53	9.22
1993	89261	1391551	6900394	52	9.23
1994	95891	1508265	7253461	51	9.09
1995	93773	1536787	7002633	51	9.06
1996	92621	1573239	6934202	50	9.08
1997	93610	1545686	6920999	50	9.02
1998	91710	1568744	6782556	49	9.06
1999	89426	1644835	6694190	49	9.13
2000	87174	1700317	6612112	48	9.18

34 total

<<

<

1

2

3

4

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>>

Export to CSV

Back

Click the “Back” button to navigate back to the query form.

2. The query ...

1 Fleet Analysis - Query Parameters

Fleet Analysis Results

Query on

Active Fleet

Vessel Length Segmentation:

☒ Med&BS

☐ GFCM

☐ Baltic Sea

☐ Other waters

Type of Query:

☐ By Year:

2024

☒ Between:

1991

2024

Filter on vessel characteristics:

☐ Yes

☒ No

Filter Results Geographically:

☐ Yes

☒ No

Group Results:

☒ Yes

☐ No

☒ By Country

☐ By Fishing Port

☐ By Region (NUTS2)

☐ By Prefecture (NUTS3)

☐ By FDI Subregion

☐ By Fishing Area

☐ By Geographical Area

☐ By Gear Type

☐ By Length Class

☐ By Age Class

Execute Fleet Analysis

.. and the results (this query takes approximately 20 seconds to retrieve the data)

1 Fleet Analysis - Query Parameters

2 Fleet Analysis Results

Results Table

Country	Year	Number Of Vessels	Sum GT	Sum Power (kw)	Average Vessel Age	Average Vessel Length
<div>Filter by</div>	<div>Filter by</div>	<div>Filter by</div>	<div>Filter by</div>	<div>Filter by</div>	<div>Filter by</div>	<div>Filter by</div>
BEL	1991	211	23651	80312	52	25.98
DEU	1991	2707	75858	195014	51	9.51
DNK	1991	3697	89481	516023	55	13.14
ESP	1991	19462	537634	1924966	56	9.43
FRA	1991	7753	246	1093364	44	10.83
GRC	1991	22235	97735	729463	50	7.16
IRL	1991	2103	60624	201672	53	11.1
ITA	1991	20553	211013	1525370	54	10.07
NLD	1991	1489	138192	548574	59	19.91
PRT	1991	14399	112028	504580	54	7.18
599 total		<div><div>1</div><div>2</div><div>3</div><div>4</div><div>5</div></div>				

Export to CSV

Back

3. The query (Active fleet evolution 1991-2024 for Greece) ..

1

Fleet Analysis - Query Parameters

2

Fleet Analysis Results

Query on

Active Fleet

Vessel Length Segmentation:

☒ Med&BS

☐ GFCM

☐ Baltic Sea

☐ Other waters

Type of Query:

☐ By Year:

Year

2024

☒ Between:

Start

1991

End

2024

Filter on vessel characteristics:

☐ Yes

☒ No

Filter Results Geographically:

☒ Yes

☐ No

Country

Greece

Fishing Port

Region (NUTS2)

Prefecture (NUTS3)

FDI Subregion

Fishing Areas

Geographical Areas

.. and the results (this query takes approximately 5 seconds to retrieve the data)

Tabular Visualization

Fleet Analysis

1

Fleet Analysis - Query Parameters

2

Fleet Analysis Results

Results Table

Year	Number Of Vessels	Sum GT	Sum Power (kw)	Average Vessel Age	Average Vessel Length
1991	22235	97735	729463	50	7.16
1992	21542	101490	717516	50	7.22
1993	20728	103501	687245	49	7.25
1994	20754	105331	684645	49	7.29
1995	20578	105448	668815	48	7.3
1996	20500	107751	667996	48	7.35
1997	20462	109456	665582	47	7.39
1998	20389	109223	655491	47	7.4
1999	19694	107070	626669	46	7.4
2000	19543	106698	616379	46	7.41

34 total

Export to CSV

Back

4. The query (Active fleet evolution 1991-2024 by country and length class)..

Tabular Visualization

Fleet Analysis

1 Fleet Analysis - Query Parameters

2 Fleet Analysis Results

Query on

Active Fleet

Vessel Length Segmentation:

☒ Med&BS

☐ GFCM

☐ Baltic Sea

☐ Other waters

Type of Query:

☐ By Year:

Year

2024

☒ Between:

Start

1991

End

2024

Filter on vessel characteristics:

☐ Yes

☒ No

Filter Results Geographically:

☐ Yes

☒ No

Group Results:

☒ Yes

☐ No

☒ By Country

☐ By Fishing Port

☐ By Region (NUTS2)

☐ By Prefecture (NUTS3)

☐ By FDI Subregion

☐ By Fishing Area

☐ By Geographical Area

☐ By Gear Type

☒ By Length Class

☐ By Age Class

Execute Fleet Analysis

.. and the results

Tabular Visualization

Fleet Analysis

1 Fleet Analysis - Query Parameters

2 Fleet Analysis Results

Results Table

Country	Length Class	Year	Number Of Vessels	Sum GT	Sum Power (kw)	Average Vessel Age	Average Vess
Filter by	Filter by	Filter by	Filter by	Filter by	Filter by	Filter by	Filter by
BEL	VL0612	1991	1	13	114	38	11.13
BEL	VL1218	1991	27	613	4313	57	15.98
BEL	VL1824	1991	69	3901	14135	54	21.53
BEL	VL2440	1991	109	17731	58116	50	30.74
BEL	VL40XX	1991	5	1393	3634	50	40.59
DEU	VL0006	1991	1050	882	4564	48	4.87
DEU	VL0612	1991	1084	3181	26317	52	7.89
DEU	VL1218	1991	350	8207	49743	57	15.55
DEU	VL1824	1991	89	5086	17997	52	20.41
DEU	VL2440	1991	111	14930	43761	50	28.93

3,398 total

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Export to CSV

Back

5. The query (requested information for 2024 by country, fishing port, gear type, length class) ...

Tabular Visualization

Fleet Analysis

1 Fleet Analysis - Query Parameters

Fleet Analysis Results

Query on

Active Fleet

Vessel Length Segmentation:

☒ Med&BS

☐ GFCM

☐ Baltic Sea

☐ Other waters

Type of Query:

☒ By Year:

Year

2024

☐ Between:

Start

1991

End

2024

Filter on vessel characteristics:

☐ Yes

☒ No

Filter Results Geographically:

☐ Yes

☒ No

Group Results:

☒ Yes

☐ No

☒ By Country

☒ By Fishing Port

☐ By Region (NUTS2)

☐ By Prefecture (NUTS3)

☐ By FDI Subregion

☐ By Fishing Area

☐ By Geographical Area

☒ By Gear Type

☒ By Length Class

☐ By Age Class

Execute Fleet Analysis

.. and the results (this query takes approximately 3 seconds to retrieve the data)

Tabular Visualization

Fleet Analysis

1 Fleet Analysis - Query Parameters

2 Fleet Analysis Results

Results Table

Country	Port Name	Gear Type	Length Class	Year	Number Of Vessels	Sum GT	Sum Power (kW)
Filter by	Filter by	Filter by	Filter by	Filter by	Filter by	Filter by	Filter by
BEL	Blankenberge	Beam trawl (TBB)	VL1824	2024	1	84	221
BEL	Nieuwpoort	Beam trawl (TBB)	VL1824	2024	4	286	884
BEL	Nieuwpoort	Set gillnets (anchored)	VL1824	2024	1	67	220
BEL	Oostende (Ostend)	Beam trawl (TBB)	VL1218	2024	1	42	221
BEL	Oostende (Ostend)	Beam trawl (TBB)	VL1824	2024	5	312	1105
BEL	Oostende (Ostend)	Beam trawl (TBB)	VL2440	2024	4	1006	3740
BEL	Oostende (Ostend)	Bottom otter trawl (OT)	VL1824	2024	1	93	221
BEL	Oostende (Ostend)	Bottom otter trawl (OT)	VL2440	2024	2	543	1905
BEL	Zeebrugge	Beam trawl (TBB)	VL1824	2024	13	1352	2851
BEL	Zeebrugge	Beam trawl (TBB)	VL2440	2024	28	9907	32806

10,348 total

Export to CSV

Back

6. the query (requested information for 2024 by country) ...

Fleet Analysis - Query Parameters

Fleet Analysis Results

Query on

Active Fleet

Vessel Length Segmentation:

☒ Med&BS

☐ GFCM

☐ Baltic Sea

☐ Other waters

Type of Query:

☒ By Year:

Year

2024

☐ Between:

Start

1991

End

2024

Filter on vessel characteristics:

☐ Yes

☒ No

Filter Results Geographically:

☐ Yes

☒ No

Group Results:

☒ Yes

☐ No

☒ By Country

☐ By Fishing Port

☐ By Region (NUTS2)

☐ By Prefecture (NUTS3)

☐ By FDI Subregion

☐ By Fishing Area

☐ By Geographical Area

☐ By Gear Type

☐ By Length Class

☐ By Age Class

Execute Fleet Analysis

.. and the results (this query takes approximately 1 second to retrieve the data)

Fleet Analysis - Query Parameters

Fleet Analysis Results

Results Table

Country	Year	Number Of Vessels	Sum GT	Sum Power (kw)	Average Vessel Age	Average Vessel Length
<input type="text" value="Filter by"/>	<input type="text" value="Filter by"/>	<input type="text" value="Filter by"/>	<input type="text" value="Filter by"/>	<input type="text" value="Filter by"/>	<input type="text" value="Filter by"/>	<input type="text" value="Filter by"/>
BEL	2024	61	13957	45374	31	29.88
BGR	2024	1793	5829	52922	26	6.71
CYP	2024	821	3792	40156		7.31
DEU	2024	1109	59184	128224	38	9.84
DNK	2024	1767	63554	196081	38	9.07
ESP	2024	8431	307310	739883	38	10.93
EST	2024	2070	16230	49098	26	5.81
FIN	2024	3244	14652	171882	32	6.47
FRA	2024	5976	152461	915689	31	9.81
GRC	2024	11452	60123	344612	35	7.73
22 total						

Export to CSV

Back