SOCIO-ECONOMIC ASPECTS OF <u>FRENCH</u> SCALLOP FISHERIES IN THE CHANNEL: AN INTRODUCTION

Ifremer

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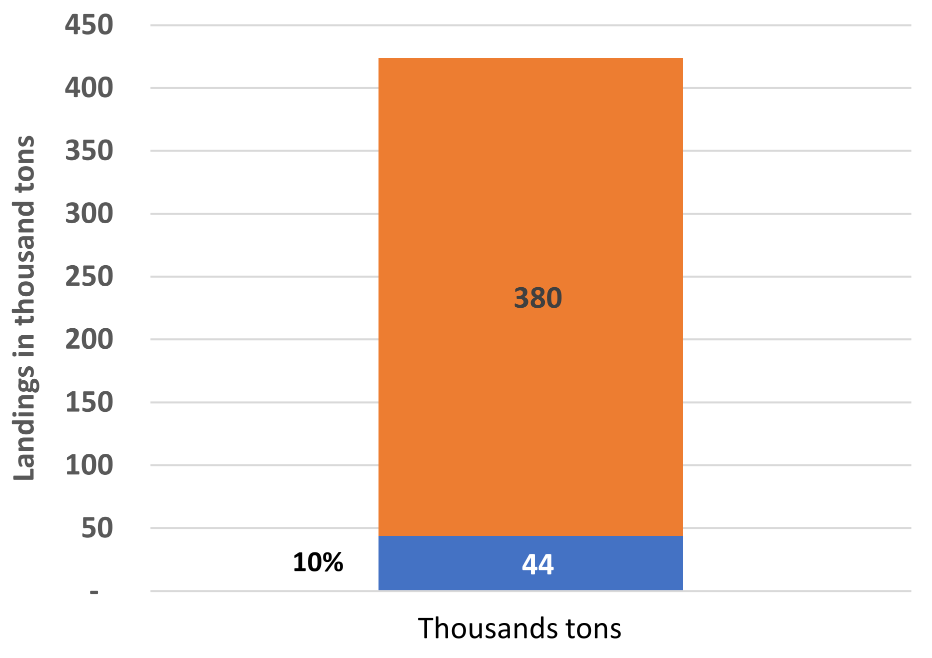
SCALLOP MANAGEMENT IN THE CHANNEL

NORTH WESTERN WATERS ADVISORY COUNCIL 19 JUNE 2024

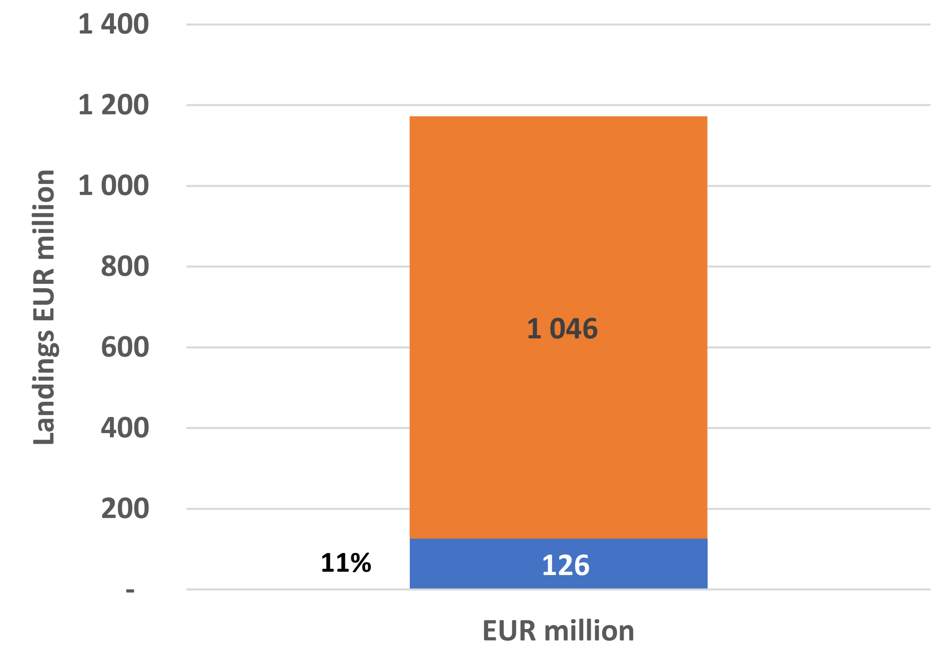
AMURE
CENTRE DE DROIT ET D'ÉCONOMIE DE LA MER

King scallops and French landings in the North Atlantic area

North Atlantic landings in tons in 2022
(King scallop and other species)



North Atlantic landings in EUR million in 2022
(King scallop and other species)



King scallops and French landings in the North Atlantic area

North Atlantic landings in tons (2022)
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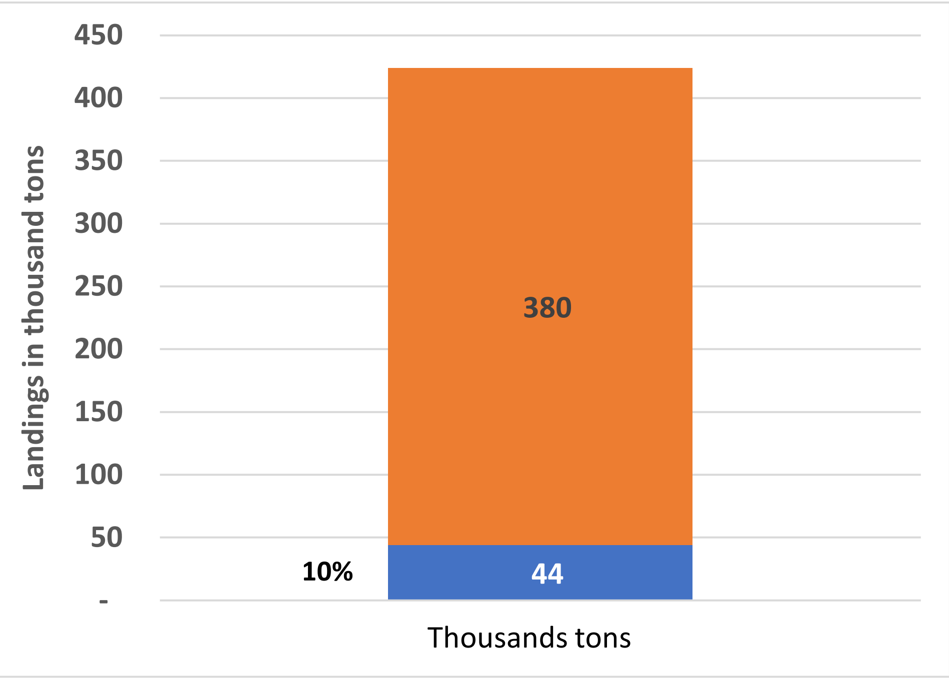

North Atlantic landings in EUR million (2022)
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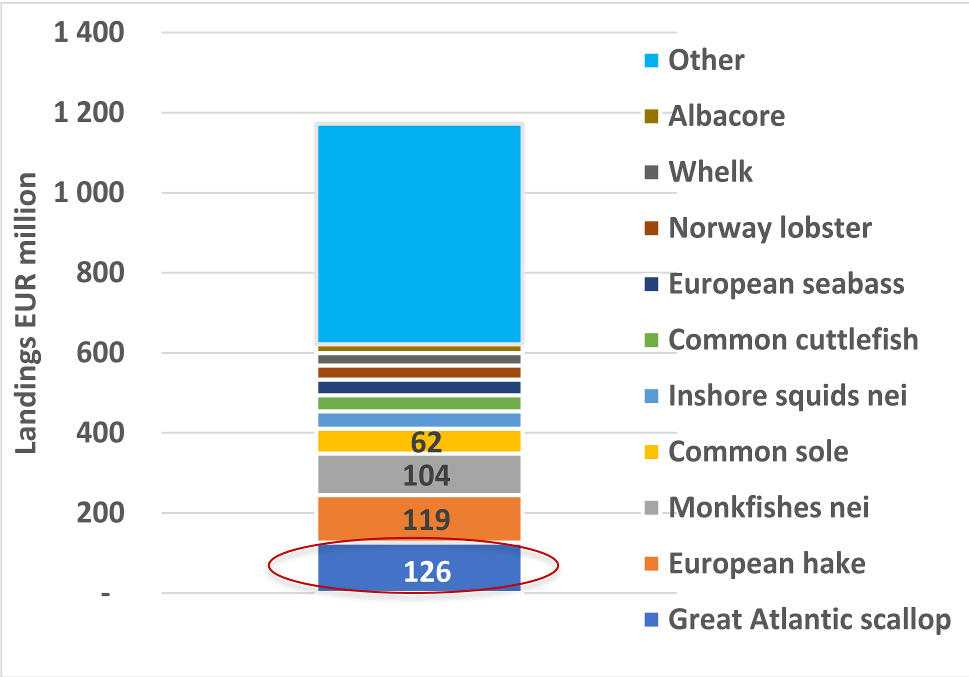
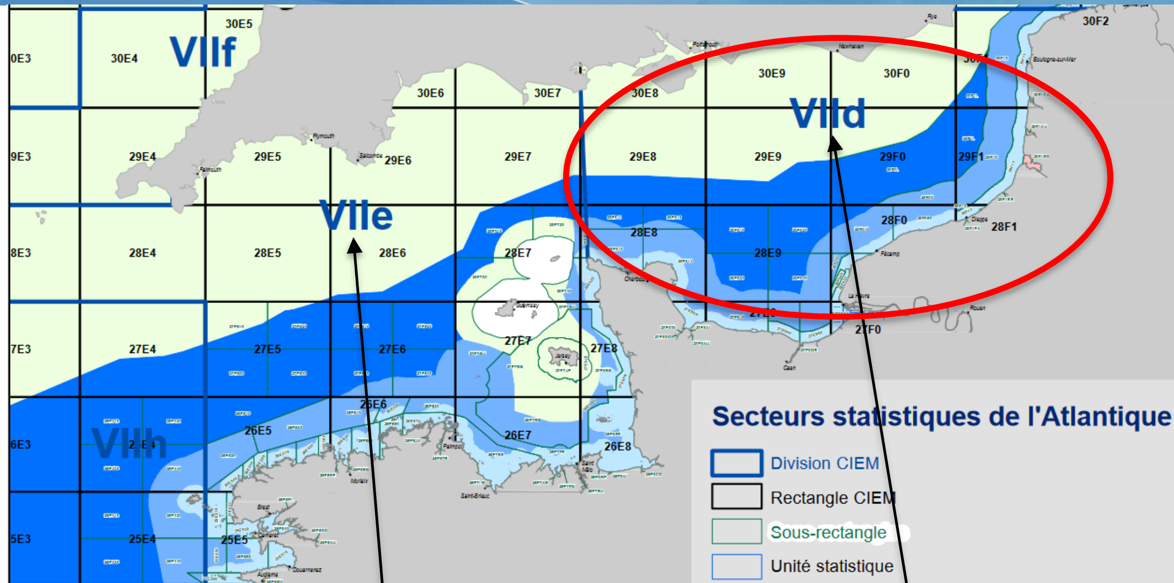


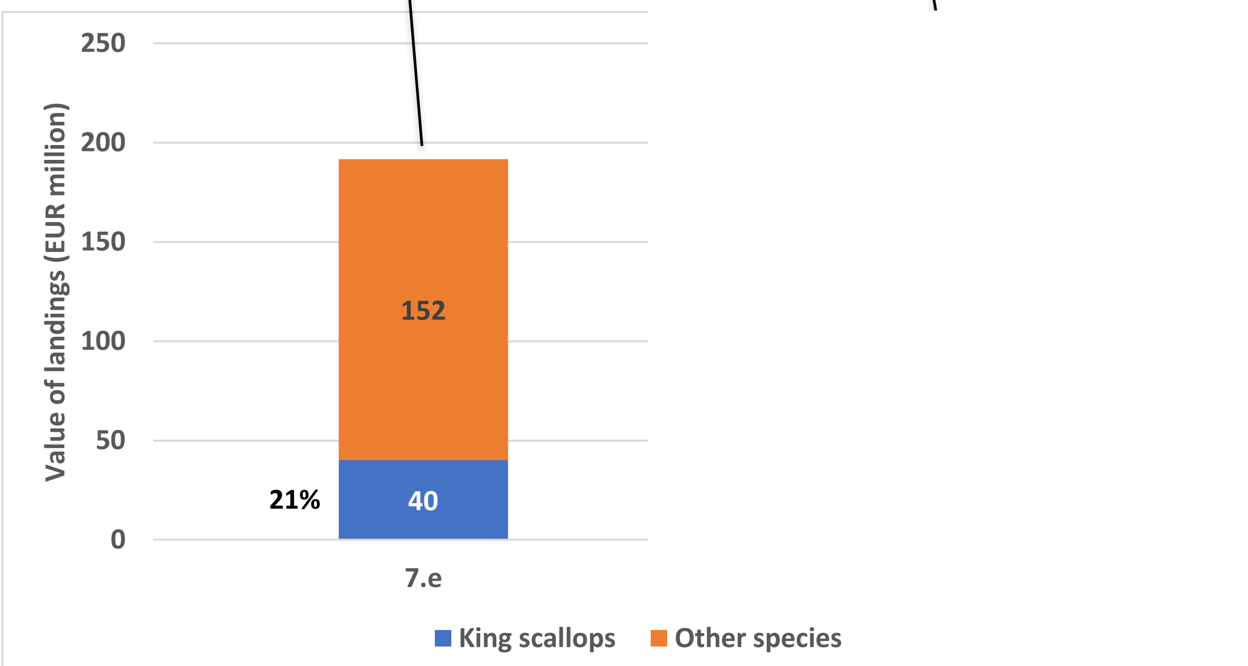
Most important species in landings value and weight in France for the North Atlantic area

King scallop and French landings in value per area in the Channel

Total landings in weight & value:
44 000 tons
EUR 126 million in 2022



Landings in EUR million in Channel areas 7.e, 7.b in 2022
(King scallop and other species)



Capacity, effort & economic indicators: methodology

By fleet or segment:

group of vessels having the "same strategy":
Main gear or comb. of gears,
Vessel size category,
Other criteria, …

→ Derived indicators and
[2]ratios used in STECF groups

Fishing effort

Vessel
Crew

Stocks biomass

Landings (weight & value) per species

Other income

Oper. subsidies

Revenues

Intermediary costs
(Energy, gears, repair &
maintenance, …)

Gross Value Added

Opportunity cost of labor

Crew costs

Crew wages

PCU (gross price) & VCU (net value)

Value of Physical capital

Gross Profit

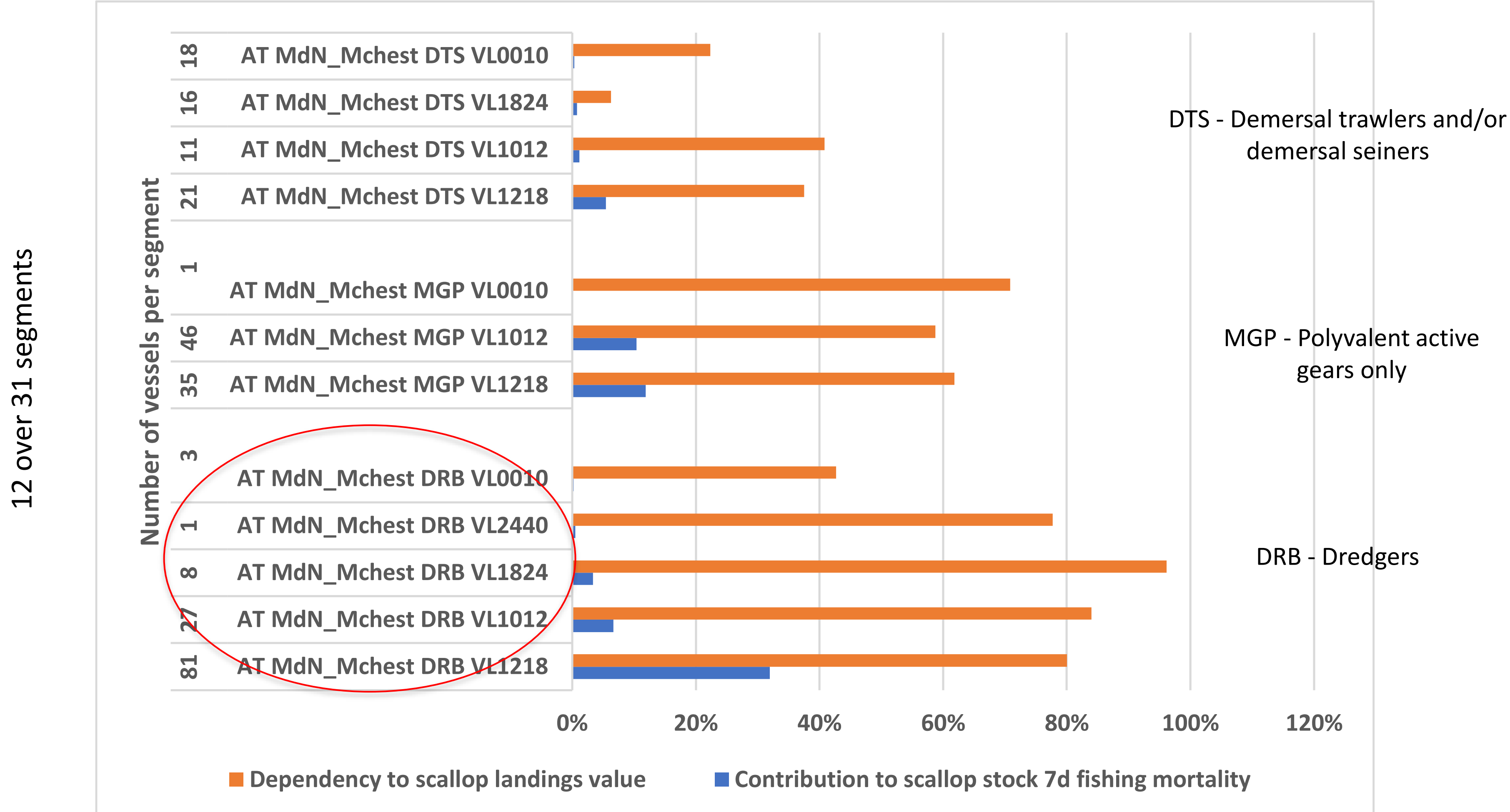
Consumption of fixed capital – economic depreciation

Opportunity cost of capital

Net Profit

Vessel viability
and profitabilty

Selection of the main segments operating on scallops stocks in area 7d in 2022:
Number of vessels, contribution to scallop stock mortality and economic dependence (preliminary data to be revised)



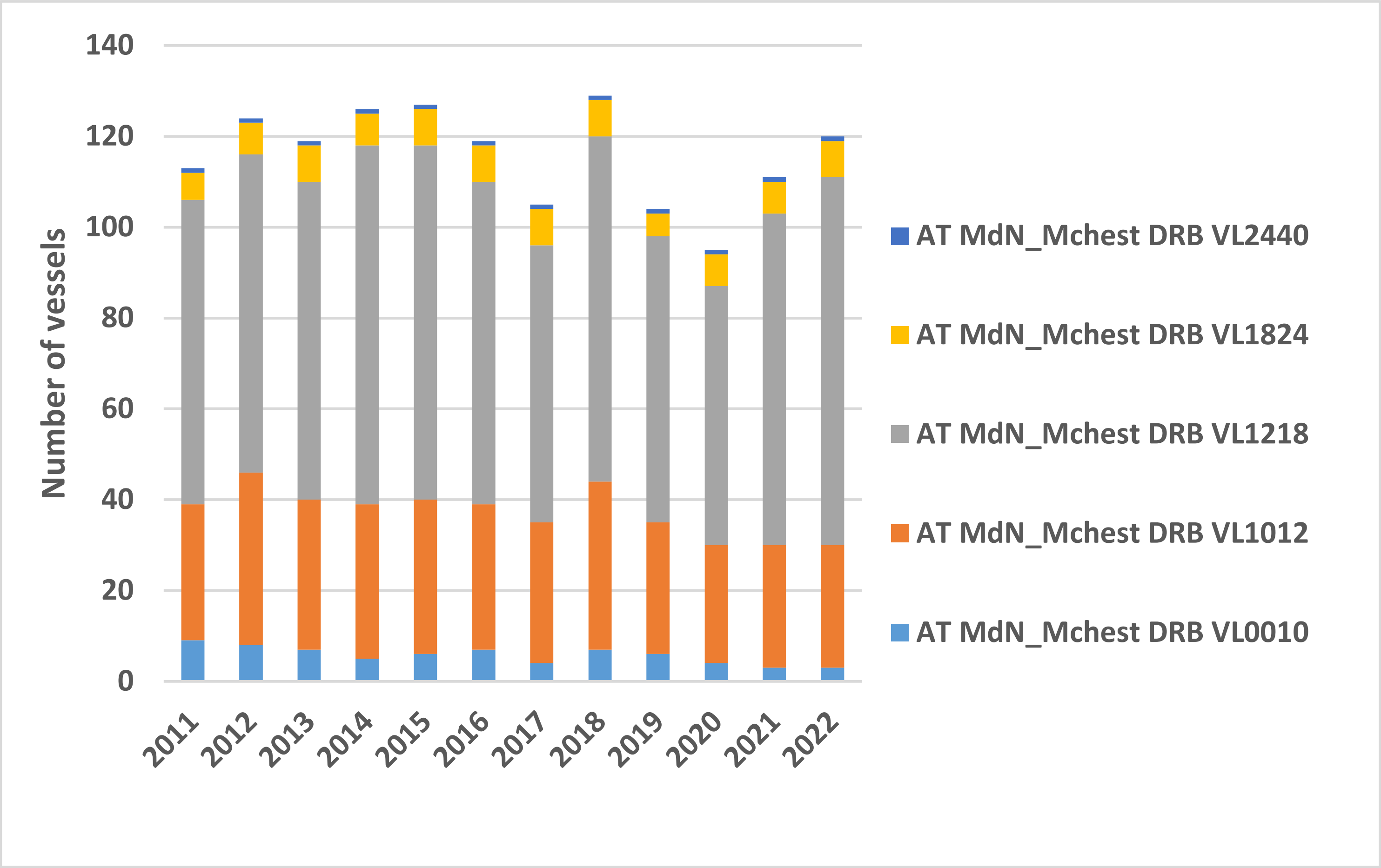
- **Segments based on EU DCF classification : Main gear used and length category**
- **Additional information based on vessels main area of operation (7d)**

N.B. Histories of vessels scallop licenses would be useful

Source: AER/Capacity data set: DGAMPA-Ifremer

Preliminary data: subject to revision

Evolution of the number of active vessels for the selected DRB (Dredge) segments

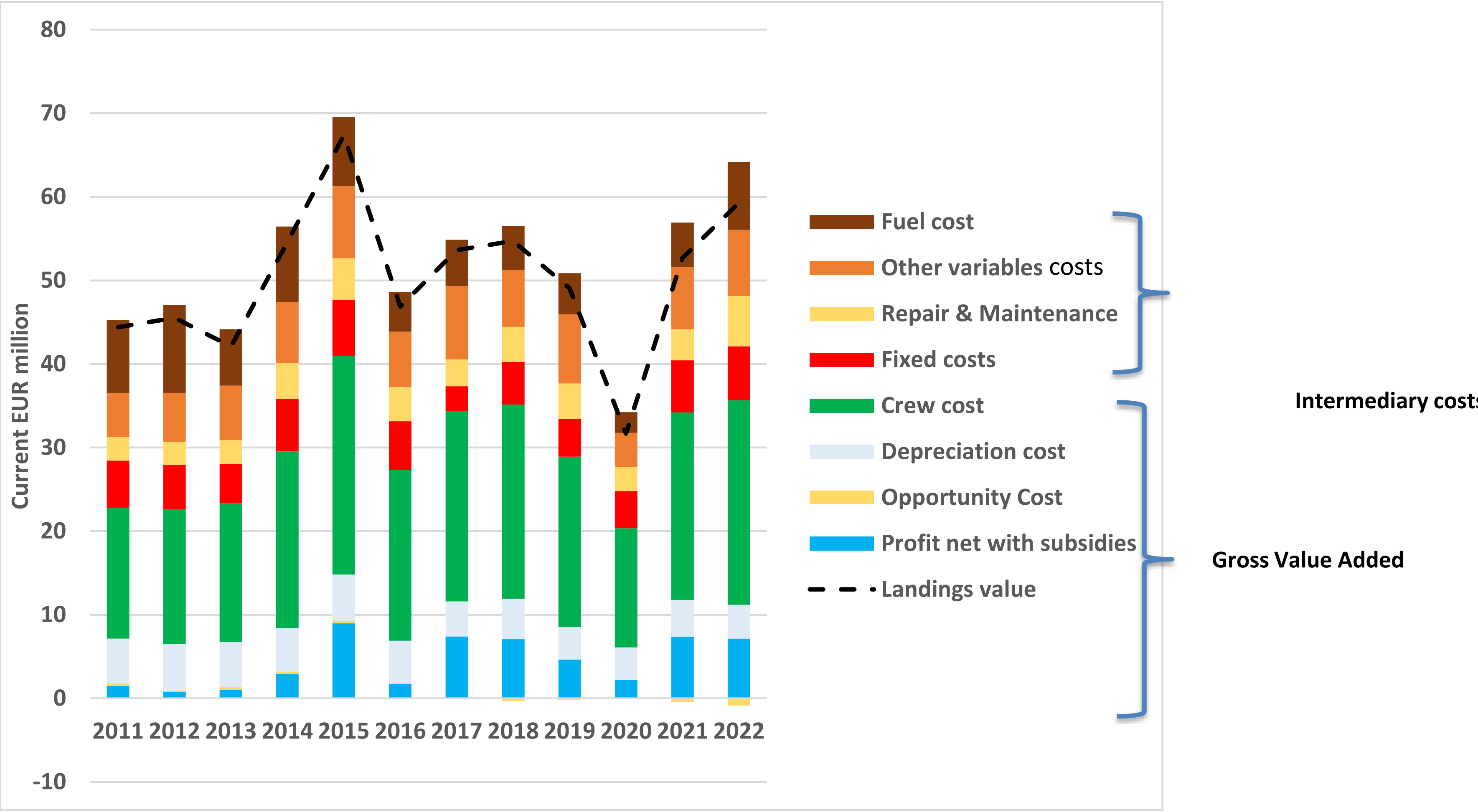


- Relative stability with however recent new vessels

Days at sea, CPUE, VPUE, price per species, ….

Preliminary data: subject to revision

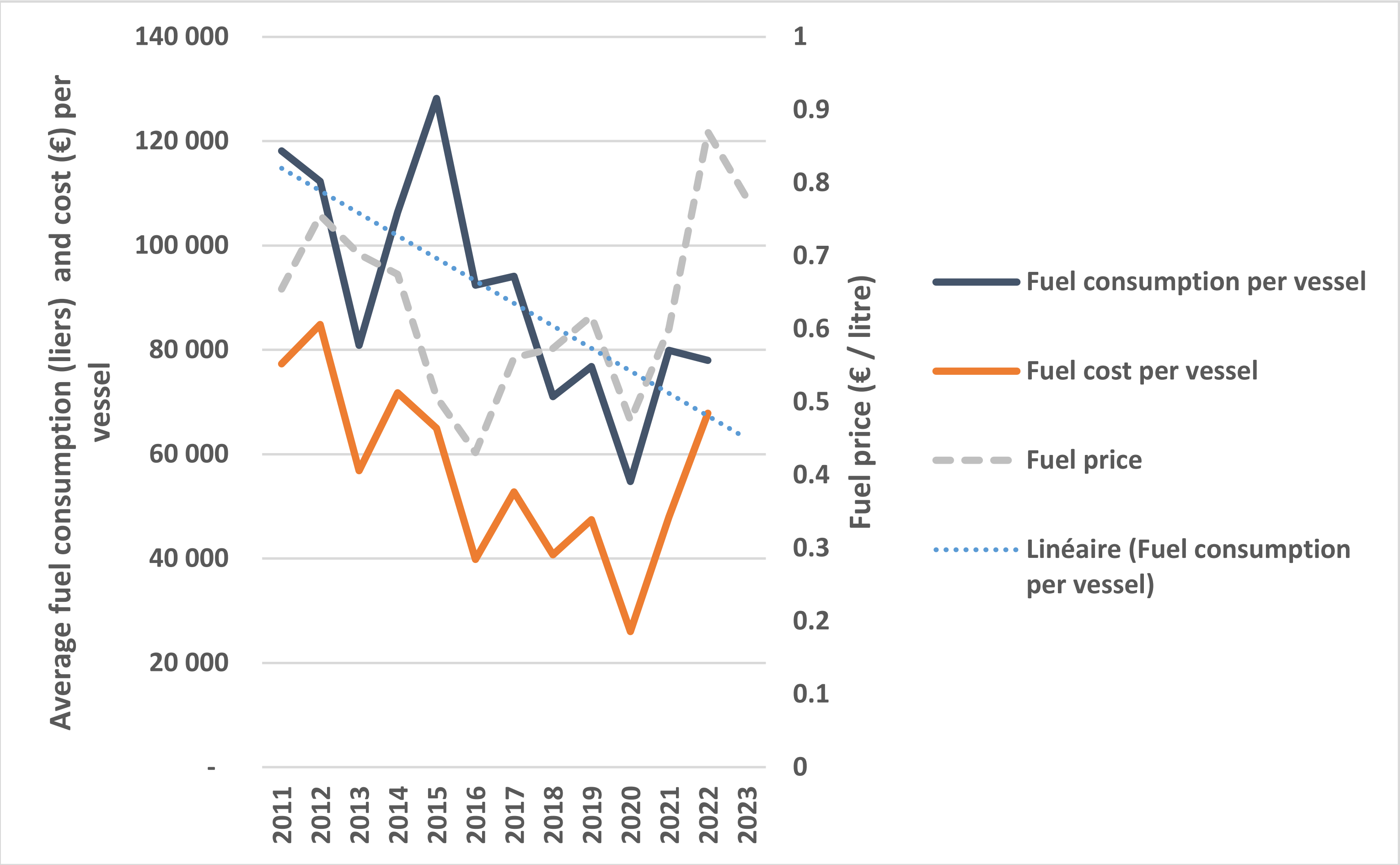
Total landings, revenues, operation costs and profits for DRB (dredge) segments over the 2011-2022 period



- Increase in GVA and GVA/Revenue, profits

Preliminary data: subject to revision

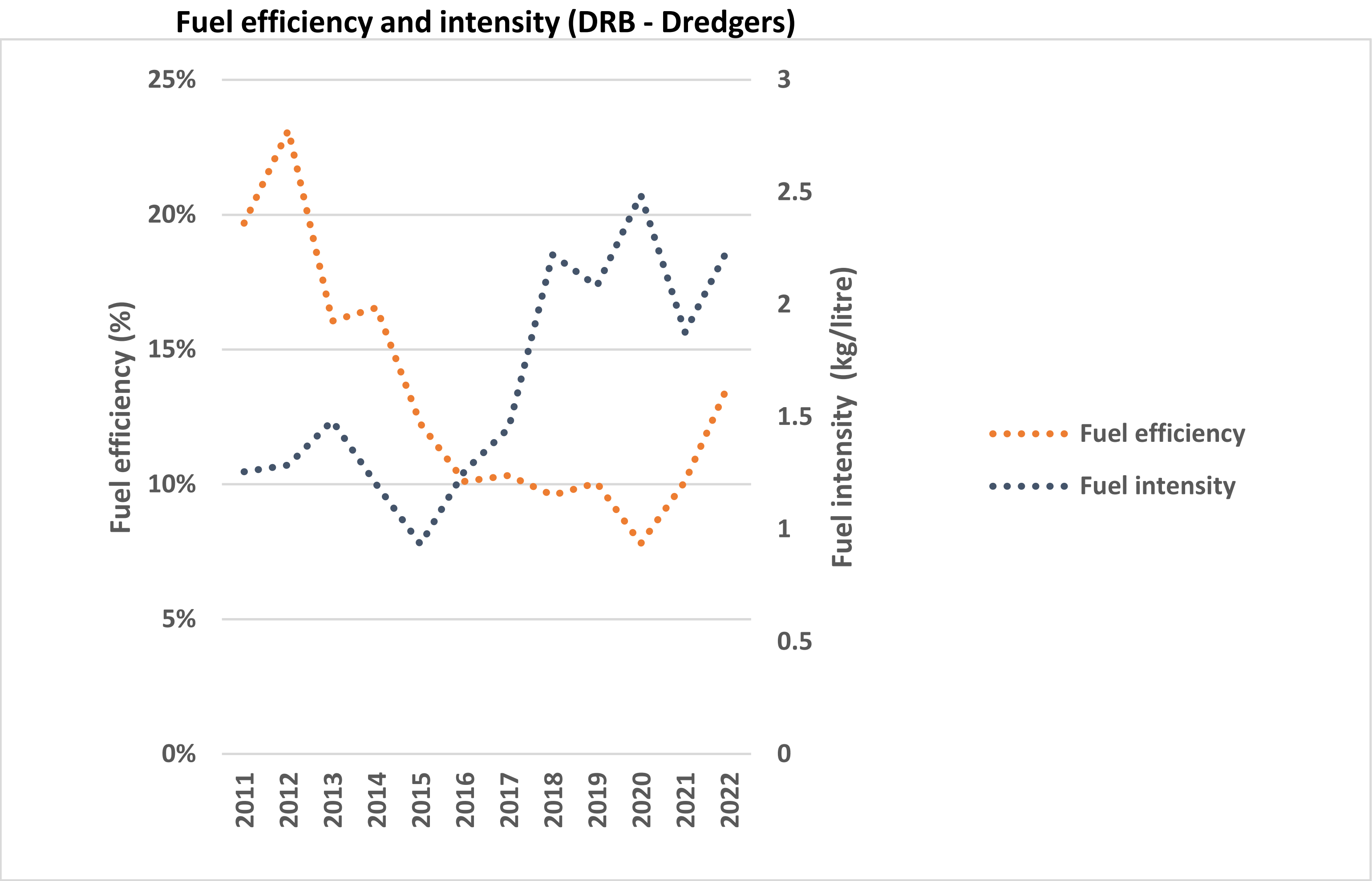
Energy used by DRB - dredgers : Average fuel consumption, unit price and cost per vessel (DRB)



- Decreased fuel consumption in relation to reduced fishing activity and better stock status (?)

Preliminary data: subject to revision

Capacity, effort & economic indicators



Fuel efficiency = *ratio between fuel costs and the income from landings expressed as a percentage (%)*

Fuel intensity = *quantity of fish landed per quantity of fuel consumed (kg/litre) or could be also expressed as (litre/tonne)*

Preliminary data: subject to revision

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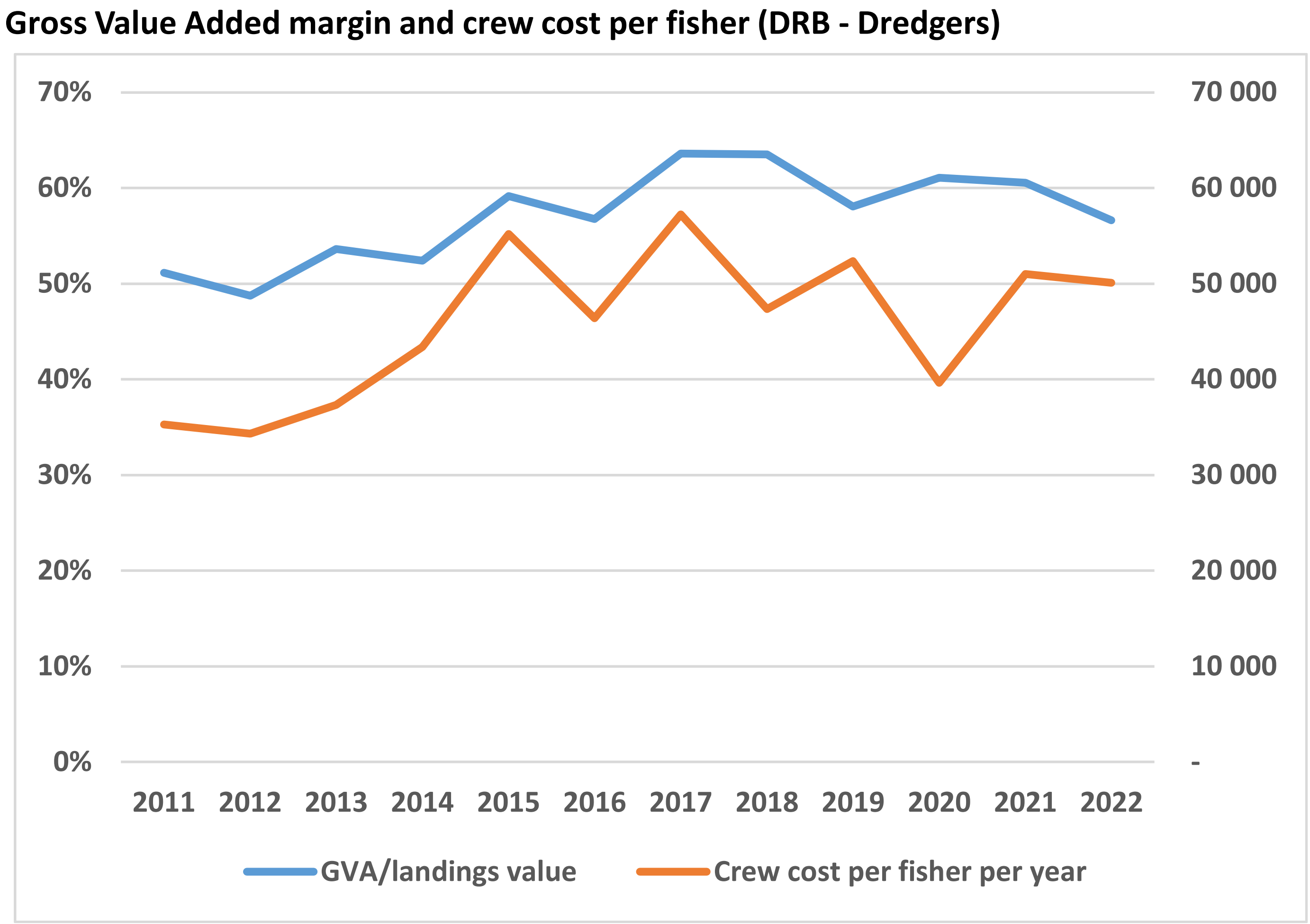

- Increased attractivity of the scallop fisheries

Preliminary data: subject to revision

Socio-demographic dimensions of crew members

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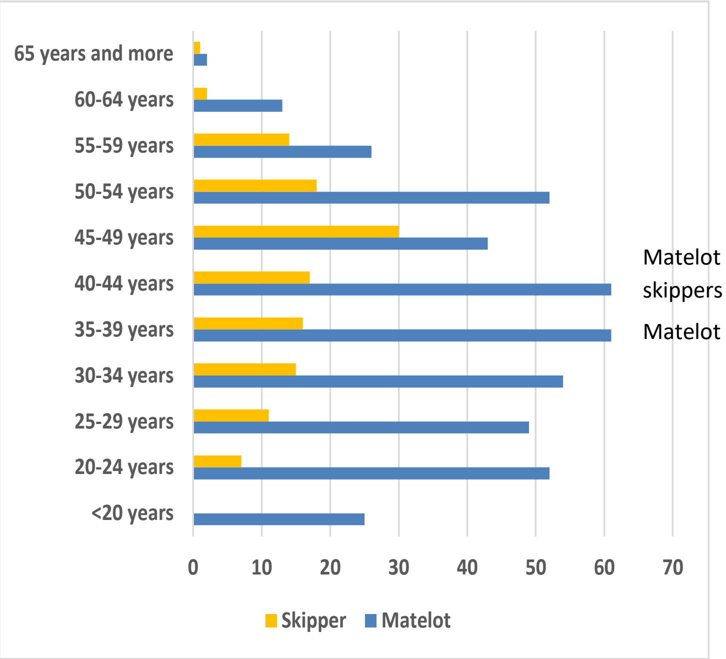
DRB - Dredgers

Age structure of crew members (2022)

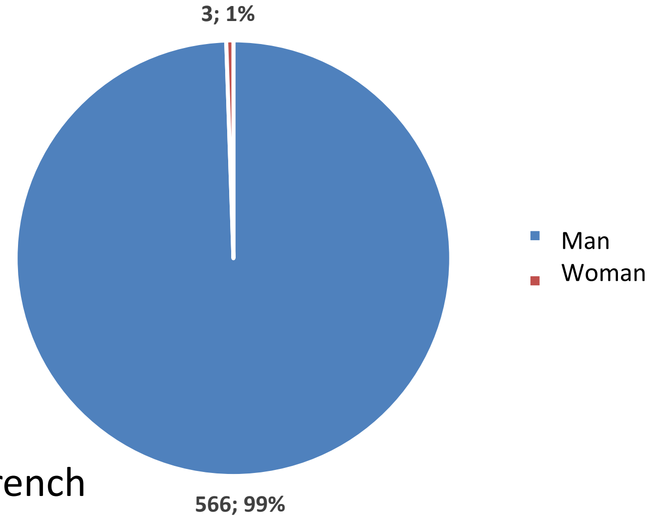


Matelot or equivalent foreign: 43.7 years old
skippers or equivalent 42.5 years old

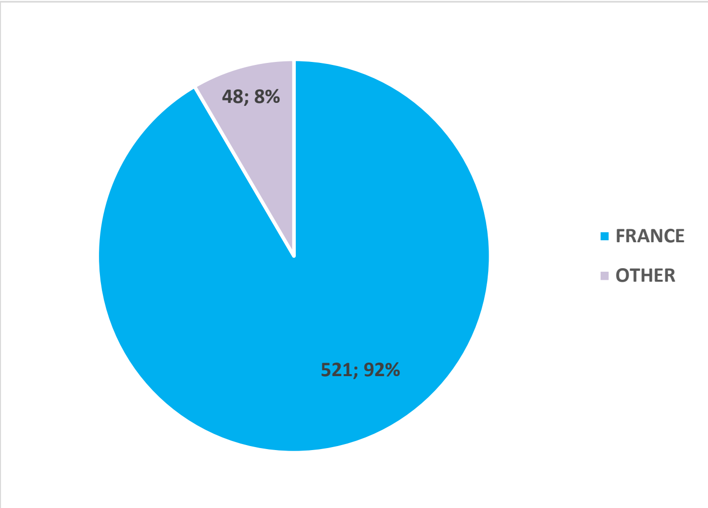
Matelot or equivalent : 37.8 years old

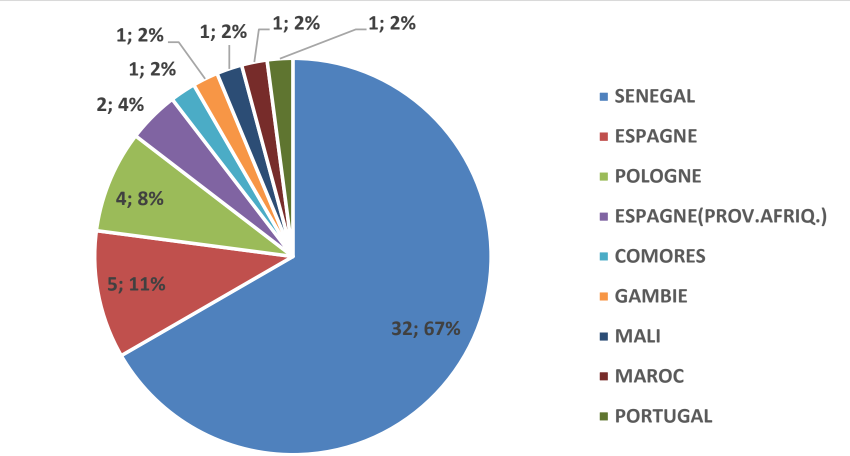
- Quite young fishers compared to other french fleets

Sex of crew members (2022)



Nationality

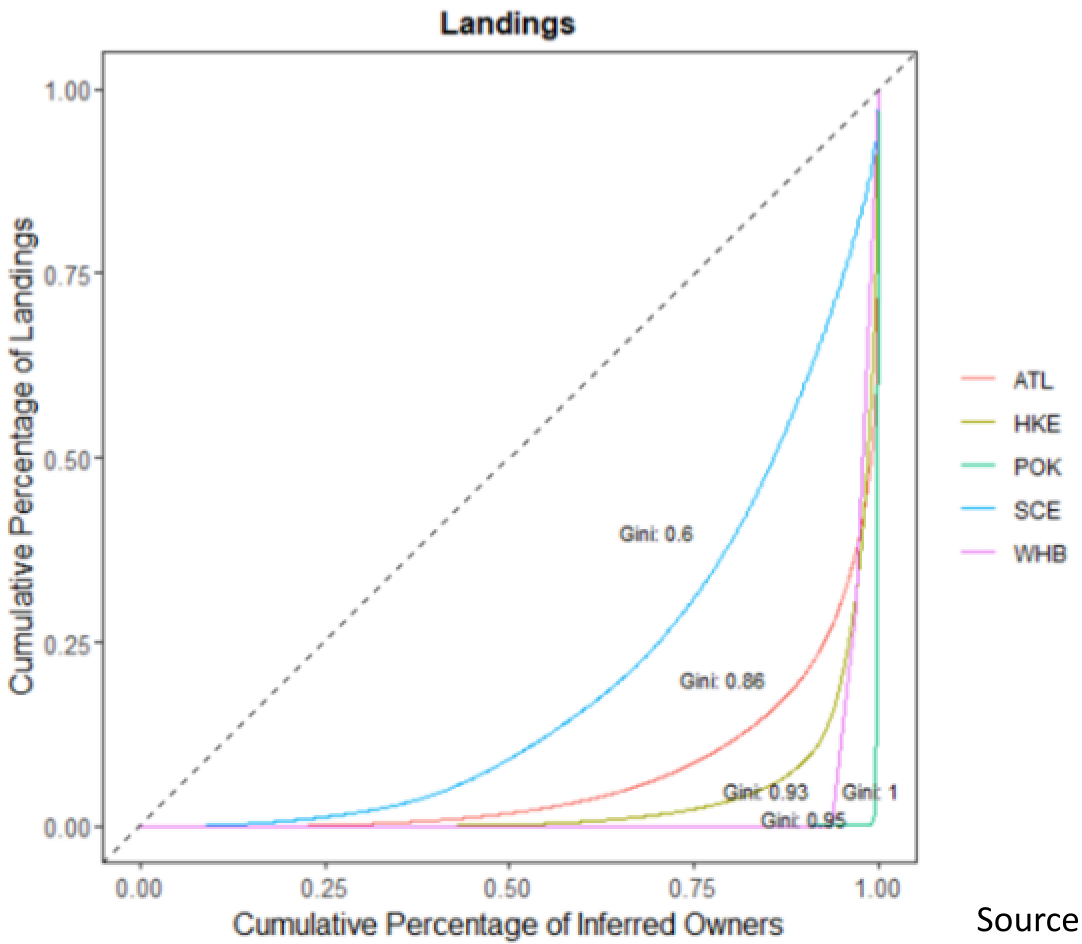




Preliminary data: subject to revision

Equity considerations : sharing of fishing possibilities between vessel owners in relation to fisheries management

Concentration of landings per infered owner : Lorenz curbe and gini Index



Source: Kinds, A. 2019

- Less concentration in French scallop species than other species in North Atlantic

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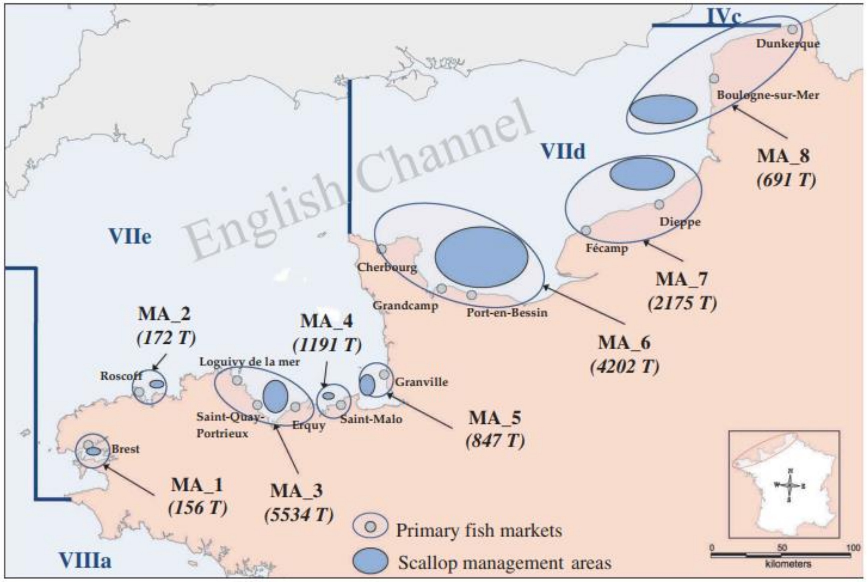


Figure 1. Scallop management areas and primary fish markets locations. *Source*: Authors based on the map of French Scallop Fisheries (http://aquaculture-aquablog.blogspot.fr) and IFREMER-SIH data.*Note*: Data in brackets indicate the tonnage of scallops produced in each management area (MA) in 2012.

Mechanisms of price formation at <u>first sale</u> at auction halls by management areas

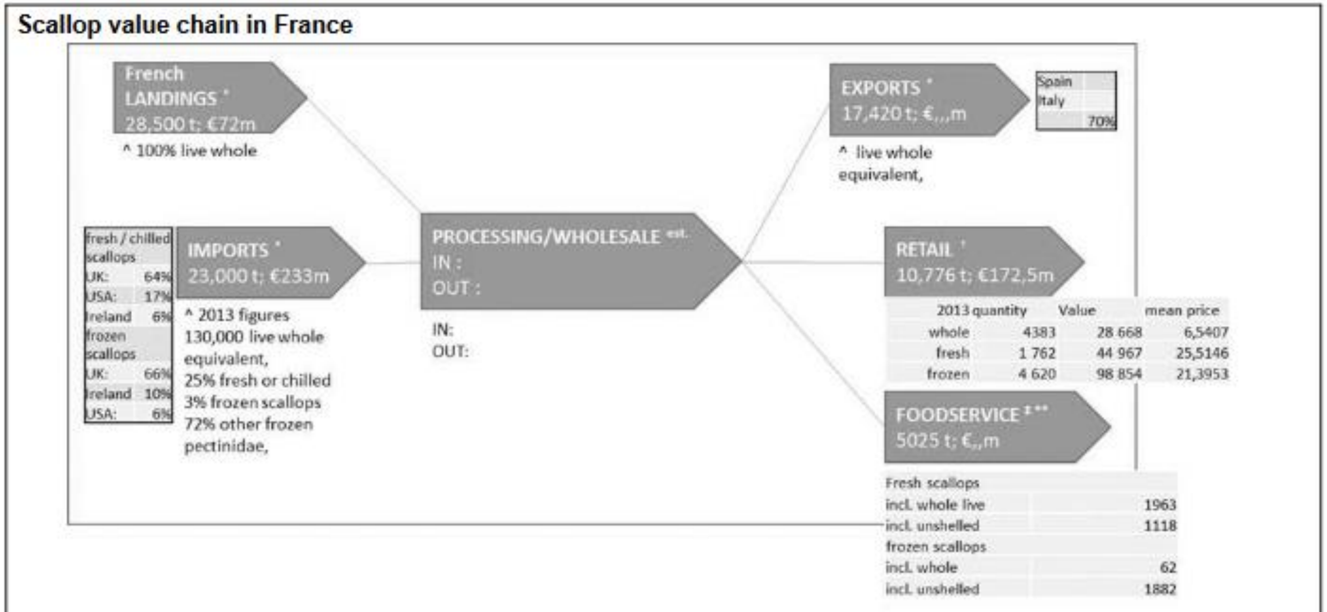
			MA_1	MA_2	MA_3	MA_4	MA_5	MA_6	MA_7	MA_8
Annual production (tons)			156	172	5534	1191	847	4200	2180	691
Average price (€/kg)			3.9	2.7	2.1	2.2	2.3	2.4	2.5	2.9
Number of sellers[a]			63	18	199	38	27	126	64	26
Vessels length (average)			9	12	11	12	14	14	16	17
Vessels engine power (average)			87	143	132	157	215	225	260	310
Nb of days with transactions			87	61	133	135	145	154	164	149
Nb of buyers			44	54	191	19	56	70	59	69
Type of buyers	Fishmongers	Nb. (%)	64.1	69.2	43.5	57.9	45.3	53.0	40.7	45.6
		% an. vol	76.6	66.5	54.3	45.2	46.6	68.3	74.4	62.5
	Fish merchants	Nb. (%)	25.6	9.6	43.5	21.1	37.7	34.8	39.0	45.6
		% an. vol	6.9	12.0	5.2	16.6	27.5	10.5	7.4	20.4
	Processors	Nb. (%)	2.6	11.5	4.3	–	9.4	6.1	8.5	4.4
		% an. vol	0.4	5.3	40.0	–	23.6	16.3	14.0	8.8
	Other	Nb. (%)	2.6	3.8	2.2	15.8	3.8	3.0	5.1	4.4
		% an. vol	14.1	3.9	0.0	35.3	0.9	0.3	3.7	8.3
	Supermarkets	Nb. (%)	2.6	5.8	6.5	5.3	–	–	6.8	–
		% an. vol	0.7	12.3	0.4	2.9	–	–	0.5	–
	Nonspecialized wholesalers	Nb. (%)	2.6	–	–	–	3.8	3.0	–	–
		% an. vol	1.2	–	–	–	1.5	4.7	–	–

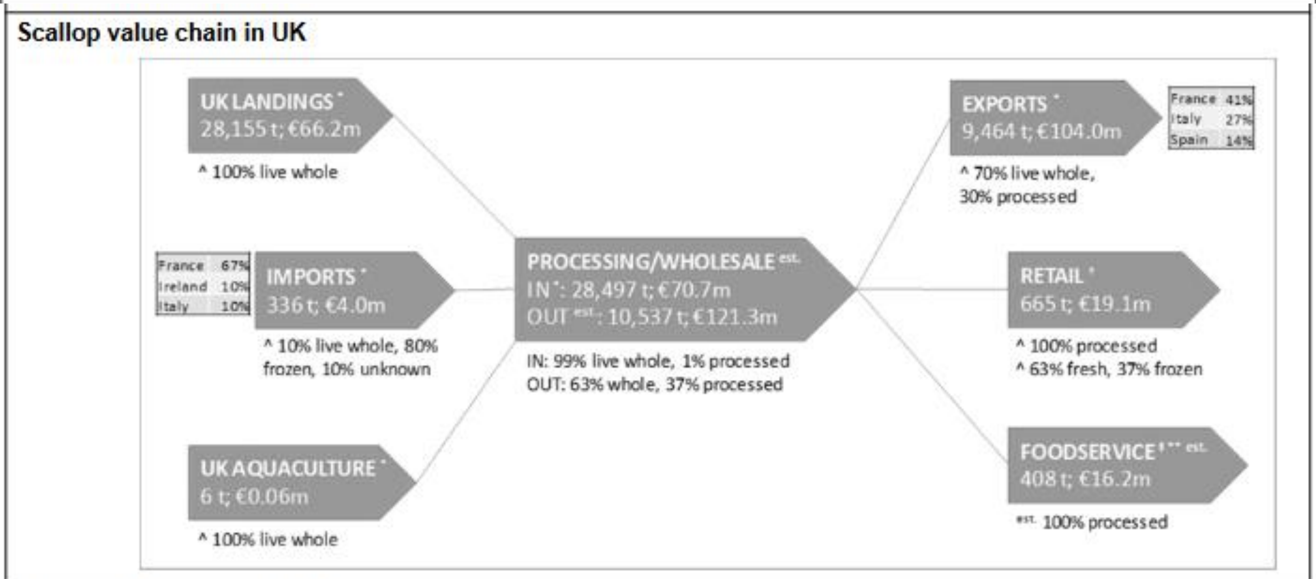
Note: [a] We refer also to the vessel or to the fisher to designate 'seller'.

- Processing and direct sales probably underestimated
- Interconnexion between auctions auctions

Source : G. Lesur-Irichabeau, O. Guyader, M. Frésard, C. Leroy, K. Latouche & L. Le Grel (2015): Information on sellers and buyers characteristics: added value to explain price formation at primary fish markets in managed French scallop fisheries, Applied Economics, DOI: 10.1080/00036846.2015.1114576

Markets and supply chains: France & UK in 2013



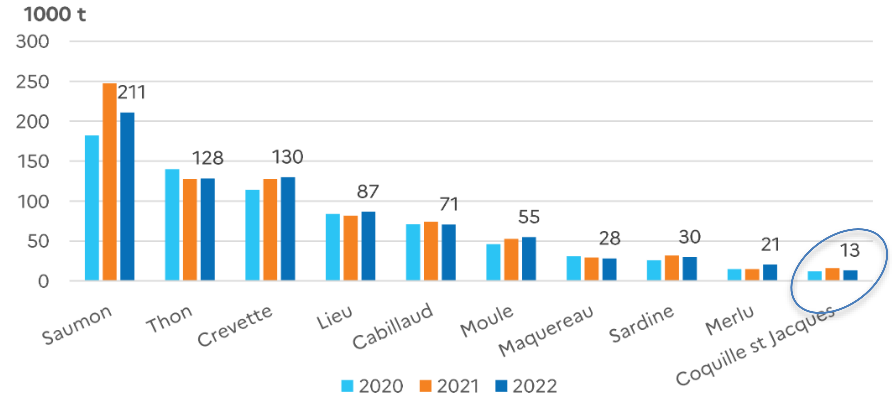


- 130-180 tonnes consummed per year in live weight equivalent
- Different species

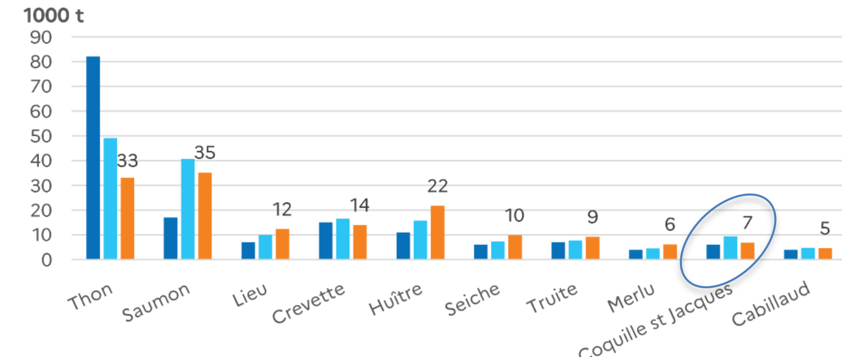
Source: Odriozola & al. 2017 Scallop value chain in France, UK and Spain. Success project

Markets and supply chains : Imports & Exports

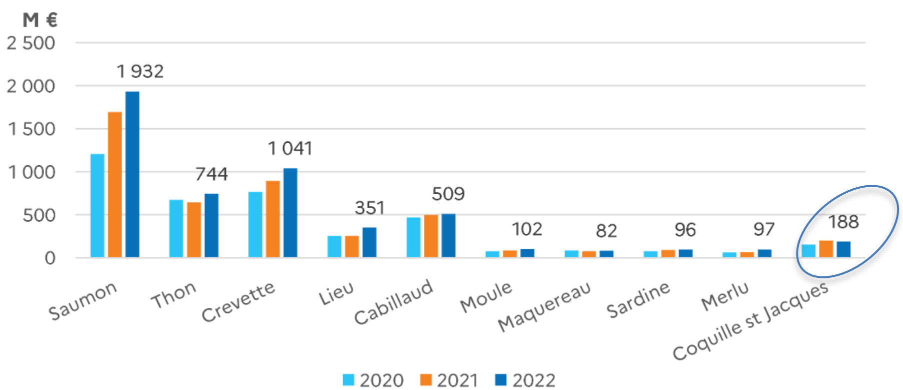
Imports in thousand tonnes



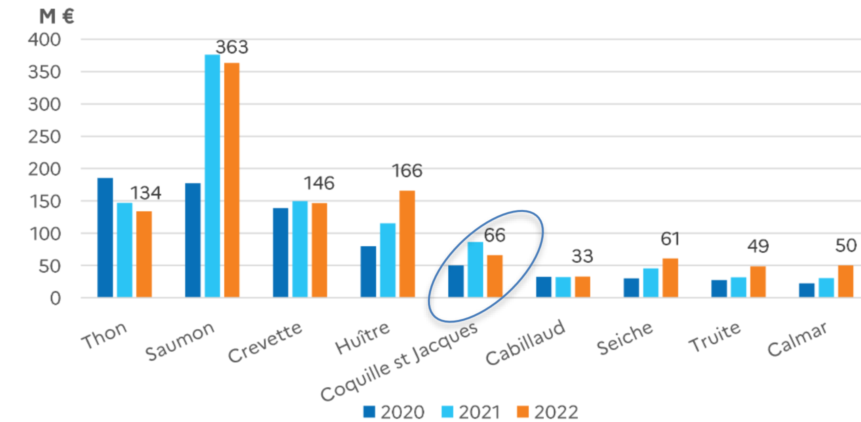
Exports in thousand tonnes



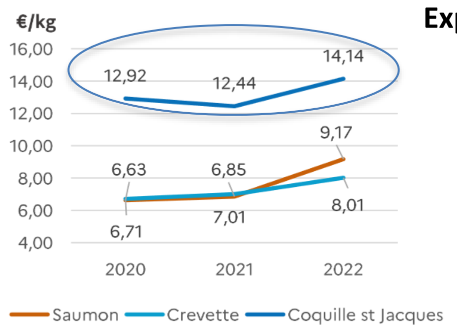
Imports in EUR million



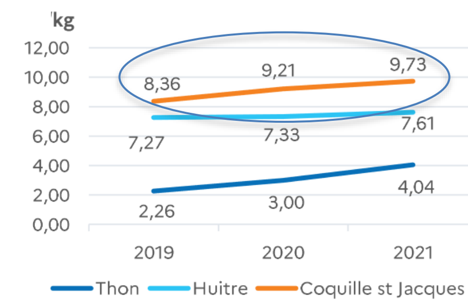
Exports in EUR million



Imports average price (€/kg)



Export average price (€/kg)



Source: France Agrimer 2022

Thanks for your attention