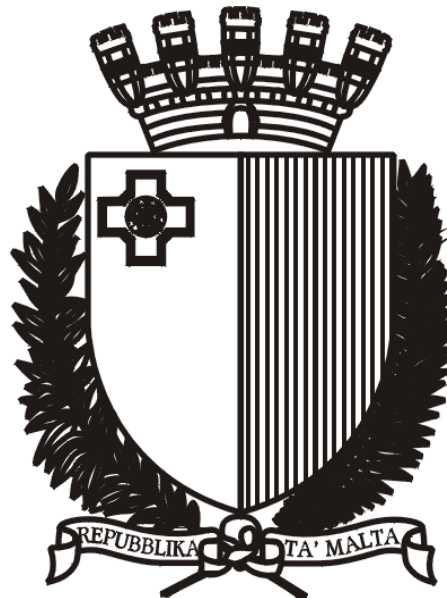


**MINISTRY FOR THE ENVIRONMENT,
SUSTAINABLE DEVELOPMENT AND CLIMATE CHANGE**



MALTA

**Annual Report on efforts to achieve a sustainable balance between fishing
capacity and fishing opportunities for the year 2018**

In accordance with
Article 22 of Regulation (EU) No 1380/2013 on the Common Fisheries Policy

Malta

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List of Acronyms

AWL	Automated Weighing and Labelling system
BER	Break Even Revenue
DFA	Department of Fisheries and Aquaculture
DFN	Drift and/or fixed netters
DTS	Demersal trawlers and/or demersal seiners
FAD	Fishery Aggregating Devices
FIS	Fisheries Information System
FMZ	Fisheries Management Zone
FPO	Vessels using pots and/or traps
FT	Full-time fishers
FVR	Fishing Vessel Registry
GFCM	General Fisheries Commission for the Mediterranean
HOK	Vessels using hooks
ICCAT	International Commission for the Conservation of Atlantic Tunas
ICES	International Council for the Exploration of the Sea
LOA	Length overall
MGO	Vessel using other active gears
MSE	Management Strategy Evaluation
PGP	Vessels using polyvalent passive gears only
PMP	Vessels using active and passive gears
PS	Purse seiners
PT	Part-time fishers
ROFTA	Return on Fixed Tangible Assets
ROI	Return on Investment
SAC	Scientific Advisory Committee on Fisheries
SHI	Sustainable Harvest Indicator
STECF	Scientific, Technical and Economic Committee for Fisheries
TM	Pelagic trawlers
VUR	Vessel Utilisation Ratio

Summary of Report

The Maltese fishery is a relatively small industry of a typically Mediterranean artisanal type, and is frequently described as a multi-species and multi-gear fishery. The fleet during 2018 consisted of 938 professional (commercial) vessels with a total gross tonnage and (main engine) power of 6,530 GT and 73,237 kW respectively. The majority of the professional vessels (93%) are less than 12m in length and operate mainly in coastal waters. Larger vessels, those over 12m in length, mainly consist of trawlers, long-liners and netters, which operate mainly in off-shore waters all year round. The lengths of the registered vessels range from 3.0 to 35.0 metres.

The main exploited species include swordfish, dolphinfish, bluefin tuna (*Thunnus thynnus*), demersal and small-pelagic species – particularly mackerel, and a number of additional species, some of which have a high commercial value, for example the red shrimp, despite being caught in smaller quantities. The total amount of fish landed in 2018 was 2,725 tonnes. The commercial part of the Maltese Fishing Vessel Register did not open for additional registrations during 2018. No vessels left the fleet through effort reduction schemes.

It should be noted that in 2018, the only stocks for which the Maltese fleet has been allocated fishing opportunities for is bluefin tuna and swordfish. The indicator results for fleet segments targeting other species should therefore be considered as indicative. The vessel use indicators were based on 2018 data whilst the biological indicators and economic indicators were based on 2017 data.

The Sustainable Harvest Indicator was only applicable to a limited number of fleet segments since the percentage of stocks assessed was very low. The most recent regional stock assessments were used to give an indication of the impact of trawling on the exploited ecosystem; the results suggest that regionally, the stock of hake is in overexploitation with relative high biomass and deep water rose shrimp was found to be in overexploitation with relative intermediate biomass. A management plan to address this issue was devised at GFCM level, including Malta, Sicily and Tunisia, which all exploit the same stock (Recommendation GFCM/40/2016/4). It should be noted that Malta's percentage catch for these stocks is less than 0.04% (and thus negligible) and that Malta already reduced its trawling fleet by approximately 30% since 2011. The stock of red mullet in the Strait of Sicily (GSA15) was found to be in low overexploitation with relative low biomass.

The Inactive Fleet Indicator shows that there is the possibility that the professional Maltese fleet might be operating in a technically inefficient manner. However, this can be explained since Maltese fishers regularly own more than one vessel, which are not used simultaneously; most of the times, the Maltese fisher and his/her crew are all on one vessel whilst the other vessel is in port, unused. On the other hand, the Vessel Utilisation Indicator shows that overall (6 out of 10 segments), the professional Maltese fleet is in balance.

Two economic indicators were calculated. The first indicator (Return on Investment [ROI]) was selected over the Return on Fixed Tangible Assets (ROFTA) since data on intangible assets and tangible assets are both available. For reference year 2017, the fleet segments, gears using hooks (HOK) VL1218 and VL1824; other active gears (MGO) VL1824; and purse seiners (PS) VL1824 had a positive ROI greater than the low risk long term interest rate. On the other hand the segments other active gears (MGO) VL0612, polyvalent passive gears only (PGP) VL0006 and VL0612, combined mobile and passive gears (PMP) VL0006 and VL0612 did not have a positive ROI.

The Current Revenue against Break-Even Revenue Economic Indicator was calculated for the year 2017. For the year 2017, the fleet segments Gears Using Hooks (HOK) VL1218 and VL1824; Other Active Gears (MGO) VL1824, and Purse Seinners (PS) VL1824 had a ratio greater than 1. For reference year 2017, the fleet

segment polyvalent passive gears only (PGP) VL0612 had a ratio less than 1. This means that these fleet segments generated insufficient income to cover variable, fixed and capital costs. Hence this fleet segment is unprofitable, with potential over-capitalisation. The other segments had a negative CR/BER result which means that variable costs alone exceed current revenue and hence they are in a loss making position.

Although, the year 2017 resulted as being economically insufficient since the ratio for most of the fleet segments was less than one, it is important to mention that a number of unprofitable segments have made improvements in this indicator from the previous year.

When looking into the economic development trends of the fleet segments, two segments out of 10 has deteriorated during the years analyzed. This deterioration were recorded for fleet segment MGO VL0612 and clustered segment PMP VL 0612. Out of the remaining fleet segments, two were balanced with an improving economic performance trend, and the remaining two showed an improving trend in their economic performance. With respect to the remaining four clustered segments, two were in balance and two were not.

Statement of Malta’s opinion on balance of fleet capacity and fishing opportunity

Table 1 Traffic light system; grey colour: non-applicable value, green colour: satisfactory value, yellow colour: somewhat unsatisfactory value, red colour: very unsatisfactory value as per STECF-11-17.

Indicator	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Inactive Fleet Indicator	Grey	Grey	Grey	Grey	Grey	Yellow	Yellow	Yellow	Yellow	Green	Green
Vessel Utilisation Indicator	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Sustainable Harvest Indicator	Grey	Grey	Grey	Grey	*	*	*	Yellow	Red	Grey	Green
Stocks at Risk Indicator	Grey	Grey	Grey	Grey	Green	Green	Green	Yellow	Red	Grey	Grey
ROI vs Next Best Alternative	Green	Green	Red	Red	Red	Green	Red	Yellow	Red	Yellow	Grey
CR vs BeR Indicator	Green	Green	Red	Red	Red	Green	Red	Yellow	Red	Yellow	Grey

*** Indicator could not be calculated, although MS contribution to F is considerably below $F_{0.1}$ for the shared stocks that have been assessed.**

A.1. Description of the fleet

The Maltese fishery is a relatively small industry of a typically Mediterranean artisanal type. It is frequently described as a multi-species and multi-gear fishery, with the majority of the fishers switching from one gear to another several times throughout the year.

The fleet in 2018 consisted of 938 professional vessels of which 380 (~41%) were professional full-time and 558 (~59%) were professional part-time vessels. The fleet, as of 31 December 2018, consisted of 2,037 vessels holding the recreational fishing license. The recreational category operated recreational fishing gear only and fish caught by such vessels are not commercialised.

In 2018, a total of 15 trawlers were registered on a full-time basis, with a total power and tonnage of 5,561.51 kW and 2,007.42 GT respectively. These ranged between 19.08 to 35 m in overall length.

The absolute majority (93%) of the professional vessels are less than 12 m in length overall and more than half of them are of a traditional design, mainly 'luzzu' and 'kajjik', and these operate mainly in coastal waters. Larger vessels, those over 12 m in length, amount to 64 vessels and mainly consist of trawlers, long-liners and netters which operate mainly in off-shore waters all year round. The lengths of the registered fishing vessels range from 3 to 35 m.

Data Source and Coverage

The data used to compile the various indicators were collected under the Data Collection Framework (DCF), cf. Council Regulation (European Commission (EC) No 199/2008 of 25th February 2008), amended by the multiannual Union programme for the collection, management and use of data in the fisheries and aquaculture sectors for the period 2017-2019 (Commission Implementing Decision (EU) 2016/1251 of 12 July 2016 and the Council Regulation (EC) No 199/2008 on a framework for the collection of data in the fisheries sector). For confidentiality reasons, to provide sensitive economic data, Malta aggregated the economic and social datasets for 2017 and 2018 fleet segments into clusters, as described in Annex II.

All indicators provided and used in this report were calculated according to the 2014 Balance Indicator Guidelines (COM (2014) 545 final).¹ Technical and economic balance indicators were calculated using data submitted under the 2019 Data call for economic and social datasets on the EU fishing fleets issued by DG MARE in February 2019. The two biological indicators (SHI and SAR indicator) were calculated based on DC MAP transversal (landings) data submitted under the same data call. Additional information needed to calculate the biological indicators was obtained from other sources as explained in each section.

Table 1 shows the total number of vessels, gross tonnage (GT) and primary engine power (kW) of the professional Maltese fishing fleet in 2018. The fleet with the highest level of inactivity in terms of number of vessels and engine power is the part-time group. This is as expected, since fishing is not the main source of income for part-time fishers.

¹ Communication from the Commission to the European Parliament and the Council – Guidelines for the analysis of the balance between fishing capacity and fishing opportunities according to Art 22 of Regulation (EU) No 1380/2013 of the European Parliament and the Council on the Common Fisheries Policy COM(2014) 545 final.

Table 1 Total number of vessels, gross tonnage (GT) and primary engine power (kW) of the professional Maltese fishing fleet in 2018.

Activity Status	Professional Status	Fishing technique	Number	GT	kW
Active	Full-time	DTS	12	1660.42	4294.21
	Full-time	HOK	23	1094.73	5860.54
	Full-time	MGO	16	157.38	2896.41
	Full-time	PGP	170	515.01	11685.53
	Full-time	PMP	105	595.75	10793.71
	Full-time	PS	4	221.21	1140.56
	Part-time	PGP	338	515.93	15442.34
	Part-time	PMP	60	168.83	4602.71
Inactive	Full-time		50	1277.24	7781.49
	Part-time		160	323.73	8759.88

A.2. Development in Fleets

The professional part of the Maltese Fishing Vessel Register (FVR) did not open for new registrations during 2018, though registrations were accepted for recreational vessels. Table 7 and Table 8 show the replaced and new vessels respectively, with details on each vessel. Requests for replacements are submitted by the vessel owner for departmental approval. The plan may only be altered following an approval by the Department of Fisheries and Aquaculture (DFA).

Table 7 List of vessels replaced in 2018.

FVR Number	Vessel Name	Vessel Type	Retirement Date	Length	GT	kW	Construction Year
MFA0084	N/A	Luzzu	02/02/2018	4.88	0.91	23.87	1965
MFA8306	Sapphire	Multipurpose Vessel	01/02/2018	5.52	1.73	93.25	2001
MFA8277	Dielja	Luzzu	16/02/2018	9.95	6.02	89.48	1936
MFB8264	Qawsalla	Multipurpose Vessel	16/02/2018	9.14	5.67	59.68	1982
MFB8307	Lady Yanica	Multipurpose vessel	02/02/2018	6.44	1.76	55.95	1997
MFB8018	Anna Laura	Multipurpose vessel	02/02/2018	7	2.60	96.98	1992
MFB7374	Santa Rita	Kajjik	02/02/2018	4.57	1.29	30.90	1992
MFB0582	Ta Ronnie	Kajjik	28/03/18	5.20	1.00	23.13	1991
MFB1363	Justine	Multipurpose vessel	05/04/2018	6.01	2.31	73.11	2000
MFA0299	Sunfish	Trawler	30/06/2016	32.64	319	895.20	1976
MFA0237	SeaHeart	Multipurpose vessel	01/08/2017	13.95	13.94	96.98	2003
MFB1018	Anna Laura	Multipurpose vessel	05/02/2018	7.00	2.60	96.98	1992
MFB0579	N/A	Other	06/09/2018	3.82	0.42	8.21	1955

Table 8 Details of new vessels which replaced vessels listed in Table 7.

FVR Number	Vessel Name	Vessel Type	Registration Date	Length	GT	kW	Construction Year
MFA7084	Il-Bonann	Multipurpose vessel	02/02/2018	5.10	0.87	20.89	1998
MFA7306	Ave Maria III	Multipurpose Vessel	01/02/2018	5.50	1.65	74	2008
MFA7264	Nickneil	Multipurpose Vessel	19/02/2018	10.85	10.03	85.79	2002
MFB7307	Ta' Luke	Multipurpose Vessel	12/10/2017	9.65	4.08	85	1987
MFB7375	Perla	Frejgatina	02/02/2018	4.80	1.30	21.62	1993
MFB7582	San Guzepp III	Multipurpose vessel	28/03/2018	4.30	1.00	22.19	1998
MFB7363	Gabdoll	Kajjik	10/04/2018	4.88	1.08	26.00	1990

FVR Number	Vessel Name	Vessel Type	Registration Date	Length	GT	kW	Construction Year
MFA7299	Orka III	Trawler	17/04/2018	20.6	97	316.26	1998
MFA7307	Claire I	Multipurpose Vessel	25/05/2018	7.90	3.80	95	2004
MFA7580	Tal-Majna	Frejgatina	06/09/2018	3.48	0.40	6.60	1988

A.3. Fisheries Covered by Multiannual Management or Recovery Plans

Currently there are three management plans in place within the 25nM Maltese Fisheries Management Zone (FMZ). These were developed in line with Article 19 of Council Regulation (EC) No 1967/2006 of 21 December 2006 concerning management measures for the sustainable exploitation of fishery resources in the Mediterranean Sea and include: lampara purse seine fishery, bottom otter trawler fishery and lampuki FAD fisheries. The two main objectives of management plans are to ensure the sustainability of stocks through better monitoring and to ensure financial stability for fishers.

Lampara fishery targets mainly small pelagic species, including chub mackerel (*Scomber japonicus*) and round sardinella (*Sardinella aurita*). The stocks targeted by the Maltese lampara fishery are stocks shared with Sicily. The objectives of the lampara fishery management plan are to ensure that stocks are fished at sustainable levels, to ensure financial stability for fishers and to safeguard artisanal fishing activity. Following this management plan, the lampara vessel activities are monitored by a tracking system and catch logbooks, whilst the fishing capacity in terms of GT and dimensions of the gear is frozen. In addition, the lampara management plan indicated a 20% reduction (in line with the precautionary approach) of the assessed lampara capacity in terms of number of vessels to be reached by the end of 2015.

The bottom otter trawl fishery targets mainly shared stocks including red shrimps (*Aristaeomorpha foliacea*), red mullet (*Mullus* spp.) and deep water rose shrimp (*Parapenaeus longirostris*). The status of the latter stock together with that of European hake (*Merluccius merluccius*) is monitored annually at a regional level. The statuses of both stocks are in overfishing. This management plan serves to aid in the recovery of the stocks whilst ensuring financial stability of fishers. The plan indicates that a 20% capacity reduction was to be concluded by end of 2016, together with a temporal reduction of 10% which had to be implemented as from 2014 for a period of three years.

The lampuki fish aggregating device (FAD) fishery targets juvenile species of *Coryphaena hippurus*. Lampuki is a highly migratory species and stocks are shared between diverse Mediterranean countries. The management plan for this fishery affects Maltese fishing fleet licensed to fish for the lampuki using FADs inside and outside the 25nM FMZ. As per Article 27(2) of Council Regulation (EC) No 1967/2006, the number of fishing vessels authorised to fish in the FAD fishery are frozen (130 vessels). Following this management plan, the activities of these vessels are monitored by means of tracking system and catch logbook. Moreover, the management plan stated that the DFA will continue to enhance data collection and research on the stock.

A.4. Statement of Effort Reduction Schemes

There were no exits from the fleet by effort reduction schemes during 2018.

A.5. Impact on Fishing Capacity of Effort Reduction Schemes

Not applicable since there were no exists from the fleet by effort reduction schemes during 2018.

A.6. Statement of Compliance with Entry/Exit Scheme and with Level of Reference

Malta's ceiling for fishing capacity is 14,545 GT and 93,121 kW. The total capacity of the fleet expressed in terms of either tonnage or power cannot, and for 2018 did not exceed the reference levels. The levels for 2018 were 6,356 GT and 71,144 kW respectively.

Malta bases its entry/exit mechanism on Commission Implementation Regulation (EU) 2017/218 on the Union fishing fleet register. In fact, it strictly ensures that the fishing capacity is kept within the limits as set by the European Union. Malta has complied with Commission Implementation Regulation (EU) 2017/218 and has successfully uploaded fleet register data into the FIDES – FRONT system in line with the same Regulation. As illustrated in the Fleet Register on the NeT website, the GT and power of the Maltese Fishing Fleet in 2018 have been kept below the respective ceilings. Correction of data in tonnage and power is an ongoing exercise. The Maltese authorities are screening each registered vessel to ensure that the reported capacity data is in fact authentic. Following this, random control checks shall continue to ensure the correctness and integrity of the reported data.

A.7. Summary of Weaknesses and Strengths of Fleet Management System

Strengths:

- Fishing vessel licences are issued on an annual basis from the Fishing Vessel Register Office which maintains an electronic database including also electronic data on all registered vessels. Therefore licences are updated on an annual basis;
- Snapshots of the fleet register submitted to the European Commission every quarter are generated from the said database in an automatic manner. In addition, prior to issuing an operative licence, registration in the national Maritime Register (applicable to vessels of 6m and over) is ensured;
- Fishing vessel owners are obliged to request the approval of the DFA prior to making any structural changes to the vessel in order to control the GT and power levels within the Maltese fishing fleet register;
- Monitoring of the landings of individual vessels is conducted in order to ensure that the catch value thresholds specified for each category and length class as detailed in the Fishing Vessels Regulations (Subsidiary Legislation 425.07) are followed. These regulations aim to maximise utilisation of fishing capacity. As the greater part of the fishing fleet are below the length required to have a logbook (i.e. below 10m LOA), the DFA, as part of a pilot project, has installed an Automated Weighing and Labelling (AWL) system in the major of homeports. Apart from meeting the statutory traceability requirements that all catches placed on the market are to be labelled, the system automatically generates the necessary landing and takeover declarations. Consequently, through this system, the DFA is now receiving the data of catches that are landed, thus providing a clearer picture for the eventual evaluation of the sustainability of the fleet.

Weaknesses:

- Entries into the professional part of the fleet are restricted as openings of the Maltese Register are uncommon;
- Data on the activities of the Maltese fleet has only been recorded since 2005, while detailed records are available in electronic format as from 2013 onwards;
- The existing FIS database does not perform automatic cross-validation of data. Presently this is still being tackled manually but it is planned to be developed in the forthcoming short term.
- Most of the small scale vessels (<12m LOA) are not being monitored. These may result in being inactive since there is no data on their activity.

A.8. Plan for Improvements in Fleet Management System

The FIS has been implemented according to the specifications originally drawn up, with all the modules being fully operational.

As automated data entry validations were included but in a somewhat limited way; presently enhancements are being implemented on the e-logbook to render the workflow more in line with the fishing practices and to have a better quality of the data.

A.9. Information on General Level of Compliance with Fleet Policy Instruments

The DFA ensures that the fleet policy is complied with. In view of this, the vessel marking requirements and vessel engine specifications falling under the remit of Council Regulations (EC) 1224/2009 and (EU) No 1380/2013 are complied with, as well as the standards for the Vessel Registry established by Commission Implementing Regulation (EU) 2017/218 of 6 February 2017 on the Union fishing fleet register.

The fleet register provides information on all vessels along with the description of changes that have occurred in their lifetimes since the creation of the Fleet Register. All this information is kept even after the vessel stops fishing.

In view of this, the data contained in the Fleet Register consists of:

- Administrative identifications: such as name, port, external marking and International Radio Call Signs (IRCS).
- Technical characteristics: such as length, tonnage, power and fishing gear.
- Historical events: entry into and exit from the fleet, modifications of characteristics.
- Information about the owner: agent and owner's name and address.

A.10. Information on changes of the administrative procedures relevant to fleet management

In the recent years the Maltese authorities have embarked on a very important plan involving the development of an Electronic and Reporting System. The main aim has been to improve on the existing components that were operating in isolation, by creating a single integrated structure that caters for all the fisheries control operations. Essentially, the system as being projected signifies greatly to fleet management as it has been custom built around the rules of the Common Fisheries Policy. In fact, it will include data validation systems, including systems of cross-checks of vessel monitoring systems, catch,

effort and market data and data related to the Community fishing fleet register as well as the accurate issuing of licences and fishing authorisations. Other than this it has also permitted the expansion on certain fleet management items which could not be built in the previous limited system. These include a new format of the fishing licence which now includes more details on the vessel and the fishing gears that can be used. Of comparable importance is the generation and issuing of special authorisations which was not possible under the previous system. Furthermore, the present system can be easily expanded or modified by the developer on request of the authority, in order to take into account new needs and requirements. In fact, now that the system has been set up, users are identifying improvements and additions, so that the system incorporates the entire business process.

A.11. Vessel use indicator(s)

The 'Vessel Use Indicators' describe how intensively the ships in a fleet segment are being utilised. The vessel use indicators were calculated following guidelines stipulated the 2014 Balance Indicator Guidelines (COM 2014, 545 Final).

A.11.1. Inactive Fleet Indicator

The inactive fleet indicator is a measurement of the proportion of vessels that did not show any activity in 2018. Table 9 shows the proportion of inactive vessels of the total fleet with respect to number of vessels, GT and kW, for the Maltese fleet in 2018.

Table 9 Inactive fleet indicator by number of vessels, GT and kW in 2018.

Length Segment	% inactive vessels	% of inactive GT	% inactive kW
VL0006	1.76	4.44	11.41
VL0612	4.96	10.66	9.17
VL1218	1.06	1.03	0.43
VL1824	9.29	3.62	0.96
VL2440	7.44	2.83	0.43
% inactive from total	24.5	22.6	22.39

In 2018, five vessel length segments had inactive vessels (VL0006, VL0612, VL1218, VL1824, and VL2440). The total inactive Maltese vessels account for 24% of the total number of vessels, 23% of the total GT and 22% of the total kW.

The fleet segments with the highest levels of inactivity are the VL1824 group at around 9% in vessel numbers (1% kW) and the VL2440 group at 7% in vessel numbers (0.5% in kW). Maltese fishers frequently own more than a single vessel, and in several cases one boat may be used during a given year whilst the other is kept inactive.

As repeatedly stressed by the STECF EWG, including EWG 18-14, especially in fleet segments with under 10m vessels (small-scale coastal fleets), many vessels are only used part time and fishing is often not the only source of income. Therefore, this indicator needs to be treated with care and does not necessarily indicate that these fleet segments are not in balance.

Table 10, Table 11 and Table 12 show the inactive fleet indicator computed by STECF-17-18, based on the data submitted by Malta under the 2017 DCF Economic data call from 2009-2016.

Table 10 Analysis of the inactive fleet indicator (% no. of vessels) as per STECF-18-14.

Length Class	% of inactive vessels									Status 2015 according to guidelines
	2009	2010	2011	2012	2013	2014	2015	2016	Trend (5%)	
VL0612	11.25	9.08	15.36	10	9.13	13.21	9.91	11.54	decreasing	in balance
VL1218	1.44	1.53	1.01	1.04	0.38	0.96	0.96	0.49	decreasing	in balance
VL0006	16.74	12.86	24.66	14.43	15.19	16.65	12.7	14.99	decreasing	in balance
VL2440	0.36	0.36	0.28	0.47	0.29	0.57	0.58	0.49	no trend	in balance
VL1824	0.72	0.36	0.28	0.28	0.58	0.77	0.67	0.39	increasing	in balance
VL40XX		0.09	0.09						-	
	30.51	24.28	41.68	26.22	25.57	32.16	24.82	27.9	decreasing	out of balance

Table 11 Analysis of the inactive fleet indicator (% GT) as per STECF-18-14.

Length Class	% of inactive GT									Status 2015 according to guidelines
	2009	2010	2011	2012	2013	2014	2015	2016	Trend (5%)	
VL0612	5.38	2.9	4.61	5.21	4.84	6.65	5.29	5.71	increasing	in balance
VL1218	4.07	2.63	1.82	3.25	0.97	2.68	2.54	1.31	decreasing	in balance
VL0006	2.25	1.17	2.21	1.98	1.86	2.3	1.84	2.18	no trend	in balance
VL2440	10.24	6.17	3.99	11.16	5.89	12.03	13.49	12.45	increasing	in balance
VL1824	9.22	2.82	2.26	3.2	6.14	9.83	8.56	5.63	increasing	in balance
VL40XX		31.39	31.9						-	
	31.16	47.08	46.79	24.8	19.7	33.49	31.72	27.28	decreasing	out of balance

Table 12 Analysis of the inactive fleet indicator (% kW) as per STECF-18-14.

Length Class	% of inactive kW									Status 2015 according to guidelines
	2009	2010	2011	2012	2013	2014	2015	2016	Trend (5%)	
VL0612	13.23	9.17	16.07	11.38	10.13	15.21	10.92	13.19	decreasing	in balance
VL1218	2.82	3.07	2.01	2.05	1.18	2.25	2.27	1.18	decreasing	in balance
VL0006	5.95	3.89	9.08	4.54	5.36	5.96	4.19	4.96	decreasing	in balance
VL2440	1.98	2.88	1.6	2.56	1.45	3.11	3.9	3.73	increasing	in balance
VL1824	4.58	1.76	1.18	1.53	2.88	3.4	2.9	1.92	increasing	in balance
VL40XX		3.8	3.89						-	
	28.56	24.57	33.83	22.06	21	29.93	24.18	24.98	decreasing	out of balance

STECF-17-18 considers the status 2015 as specified in the EC Guidelines (COM 2014, 545 Final) to be out of balance.

A.11.2. Vessel Utilisation Indicator

The Vessel Utilisation Indicator, also known as the Vessel Utilisation Ratio (VUR) concerns the average activity levels of vessels that did fish least once in the year, taking account of the seasonality of the fishery and other restrictions. The VUR is calculated as average days at sea divided by the maximum number of days at sea per fleet segment. The maximum number of days at sea was provided in the 2019 data call for economic and social datasets on the EU fishing fleet.

Table 13 shows the technical indicator per fleet segment for 2014-2018.

Table 13 Summary of the observed technical indicator for the Maltese fishing fleet for 2014-2017.

Fishing Technique	Length Class	2014	2015	2016	2017	2018
DFN	VL0006	0.4	0.65	0.6		
DFN	VL0612	0.75	1	1		
DTS	VL1824	0.4	0.5	0.6		
DTS	VL2440	0.7	0.7	0.6	1	1
FPO	VL0006	1	1	1		
FPO	VL0612	1				
HOK	VL0006	0.5	0.5	0.4		
HOK	VL0612	0.3	0.35	0.35		
HOK	VL1218	0.8	0.6	0.6	1	1
HOK	VL1824	0.4	0.6	0.5	1	1
MGO	VL0612	0.5	0.4	0.3	1	1
MGO	VL1218	0.7	0.8	0.7		
MGO	VL1824	1	0.6	1	1	1
PGP	VL0006	0.2	0.1	0.05	0.2	0.2
PGP	VL0612	0.2	0.1	0.1	0.6	0.4
PMP	VL0006	0.3	0.3	0.2	0.2	0.2
PMP	VL0612	0.3	0.15	0.1	0.1	0.2
PMP	VL1824			1		
PS	VL0612		1			
PS	VL1218	1	0.9	0.4		
PS	VL1824	1	1	1	1	1
PS	VL2440	0.7	0.6	0.6		
TM	VL2440	1				

In 2018, the results show that there is a possibility that the professional Maltese fleet is overall in balance. Nonetheless, there are 4 segments out of 10 which may be operating in a technically inefficient manner. The imbalanced sectors consisted of PMP and PGP. It is important to highlight that less segments are present in 2017 & 2018 compared to previous years due to the fact that clustering was introduced when analysing the data as described in Annex II.

This can be explained however that for most segments, there is no homogeneity between the effort exerted within the segment (e.g some vessels have a high number of fishing days compared to other vessels within the same segment). Furthermore, Maltese fishers regularly own more than one single vessel, which are not used simultaneously.

STECF EWG 18-14 stated that for the VUR indicator, the small-scale fleet should be treated differently due to the fact that many fishers are only working part-time or fishing is only one source of income.

Table 14 shows the vessel utilisation ratio calculated by STECF-18-14. The results indicate that the status 2015 according to the guidelines (COM (2014) 545 Final) are in balance.

Table 14 Summary of the Vessel Utilisation Ratio as per STECF-18-14.

Fishing Technique	Length Class	Vessel Utilisation Ratio					Trend (5%)	Status 2015 according to guidelines
		2013	2014	2015	2016			
DFN	VL0006	1.00	1.00	1.00	0.97	no trend	in balance	
DFN	VL0612	1.00	1.00	1.00	1.00	flat/null	in balance	
FPO	VL0006	1.00	1.00	1.00	1.00	flat/null	in balance	
FPO	VL0612	1.00	1.00			-		
HOK	VL0006	1.00	1.00	1.00	0.99	no trend	in balance	
HOK	VL0612	1.00	1.00	1.00	0.58	decreasing	out of balance	
HOK	VL1218	1.05	0.97	1.00	1.00	no trend	in balance	
HOK	VL1824	0.93	0.90	1.00	1.00	no trend	in balance	
MGO	VL0006					-		
MGO	VL0612	1.00	1.00	1.00	1.00	flat/null	in balance	
DFN	VL1218					-		
DTS	VL1824	0.80	0.98	1.00	1.00	increasing	in balance	
DTS	VL2440	1.00	0.86	1.33	1.00	no trend	in balance	
HOK	VL2440					-		
MGO	VL1218		1.17	1.00	1.00	decreasing	in balance	
MGO	VL1824		0.18	1.00	1.00	increasing	in balance	
PGP	VL0006	1.00	1.00	1.00	1.00	no trend	in balance	
PMP	VL0006	1.00	1.00	1.00	1.01	no trend	in balance	
PGP	VL0612	1.00	1.00	1.01	1.00	no trend	in balance	
PMP	VL1218				1.00	-	in balance	
PMP	VL1824	0.67			1.00	-	in balance	
PS	VL0612			1.00		-		
PGP	VL1218					-		
PGP	VL1824					-		
PS	VL1218		1.67	1.00	1.00	decreasing	in balance	
PS	VL1824		1.34	1.00	1.00	decreasing	in balance	
PMP	VL0612	1.00	1.00	1.02	0.30	decreasing	out of balance	
PS	VL2440	1.00	1.22	1.00	1.00	no trend	in balance	
PMP	VL2440					-		
TM	VL2440	1.00				-		

A.12. Biological indicators

A.12.3. Sustainable Harvest Indicator

Malta referred to stock assessments carried out by ICCAT, STECF and GFCM based on data from 2012-2016 for the calculation of percentage of catches for which stock assessments are available. Out of the 21 active fleet segments in 2016, the SHI was available for four fleet segments. According to the criteria in the 2014 balance indicator guidelines, the SHI indicator values for 17 fleet segments cannot be used meaningfully to assess the balance or imbalance because the indicator values are based on stocks for which available values of F and $F_{M_{SY}}$ or $F_{0.1}$ comprise less than 40% of the value of catch (vide Table 15 below).

Table 15 Percentage (%) of the fleet segment catch for which stock assessments were unavailable.

Fishing Technique	Length Class	Percentage (%) of the catch for which stock assessments were unavailable					
		2012	2013	2014	2015	2016	2017
DFN	VL0006	99.2			~100	100	97.3
	VL0612	95.4	84.5		99.8	98.7	86.2
DTS	VL1824	40	80.7	76.1	86.1	82.8	90.1
	VL2440	48.4	89.6	86	68.7	76.5	66.2
FPO	VL0006					99.6	
HOK	VL0006			93.4	~100	100	100
	VL0612	98.6	47.7	99.9	99.9	26	27.6
	VL1218	99.9	44.3	99.4	99.7	32.2	46.5
	VL1824	99.8	30.3	99.5	99.5	41.3	35.8
MGO	VL0612	99.9	78.9	99.9	99.9	83	80.1
	VL1218	99.9	97.2	99.9	~100	71.8	75
	VL1824					100	100
PGP	VL0006	93.1	96.6	99	97.6	96.8	96.8
	VL0612	94.1	82.5	99.6	99.7	82.6	90.9
PMP	VL0006	97.8	99.4	-	~100	99.4	97.1
	VL0612	97.2	73.6	99.5	99.3	79.1	69.5
	VL1218		58.1			32.4	
	VL1824		84.1			73.6	
PS	VL1218					99.9	100
	VL1824					100	98.5
	VL2440		85.4			100	8.8
TM	VL2440		99.8				

STECF-18-14 notes that the four fleet segments for which the 2017 SHI indicator may be considered meaningful to assess balance or imbalance indicate that four fleet segments appear to be out of balance with their fishing opportunities (HOK VL0612, VL1218, and VL1824 and PSVL2440). Additionally, in 2016 STEFC presented the SHI indicator for three segments (HOK VL0612, VL1218, and VL1824), as shown in Table 16.

Table 16 The results of the SHI biological indicator as per STECF-18-14.

Fishing Technique	Length Class	SHI									Status 2016 according to guidelines
		2009	2010	2011	2012	2013	2014	2015	2016	Trend (5%)	
HOK	VL0612	1.1	1.5	1.6	1.5	1.6	1.5	1.6	1.5	no trend	out of balance
HOK	VL1218	1.1	1.3	1.3	1.2	1.5	1.3	1.5	1.3	no trend	out of balance
HOK	VL1824	1.4	1.4	1.7	1.5	1.7	1.5	1.6	1.6	no trend	out of balance

In 2018 the joint stock assessments for European hake (*Merluccius merluccius*), deep-water rose shrimp (*Parapenaeus longirostris*) in GSAs 12-16, and red mullet (*Mullus barbatus*) in GSAs 15 were updated by Maltese, Tunisian and Sicilian scientists, combining data collected by these countries (Table 17). The stock assessments were conducted under the auspices of the MedSudMed project, and finalised at the 2018 GFCM Working Group on Stock Assessment of Demersal Species (WGSAD). The biological reference points used were $F_{current}/F_{0.1}$.

Table 17 The overfishing index ($F_{current}/F_{0.1}$) of hake and deep water rose shrimp in the Strait of Sicily, including data from Malta, Sicily and Tunisia for the period 2011-2017.

Species	Area	2011	2012	2013	2014	2015	2016	2017
Hake	12-16	Overfishing (3.6)	Overfishing (5.8)	Overfishing (4.5)	Overfishing (4.9)	Overfishing (1.66)	Overfishing (3.7)	Overfishing (4.6)
Deep-water rose shrimp	12-16	Overfishing (1.3)	Overfishing (1.8)	Overfishing (1.3)	Overfishing (1.3)	Overfishing (1.44)	Overfishing (1.63)	Overfishing (1.4)
Red mullet	15	N/A	N/A	N/A	N/A	N/A)	N/A	Overfishing (1.22)

The assessments showed that hake was in high overfishing with relative low biomass. Deep-water rose shrimp was considered to be in intermediate overfishing status with relative low biomass. Red mullet was considered to be in low overexploitation with relative intermediate biomass. The results of these assessments will be presented during SAC 2019.

Using the annual catches data from countries exploiting the assessed shared stocks in the MedSudMed area, the contribution of the different operational units to the total catches are as follows (based on GFCM SAC Stock Assessment Form 2018):

P. longirostris: 66.2% Italy; 33.6% Tunisia; 0.3% Malta

M. merluccius: 34.1% Italy; 65.4% Tunisia; 0.4% Malta

It is important to note that Malta's contributions to the catches of these stocks is insignificant and even if trawling by the Maltese fleet had to be banned, this would be to no benefit to the stock.

Furthermore, the Maltese fleet in terms of number of vessels has been reduced since 2011 as indicated in Table 18.

Table 18 The reduction in capacity of the Maltese bottom otter trawling fleet from 2011 to 2018.

	Number of vessels	kW	GT
Fleet at 2011	23	9501	3351
Permanent reduction	7	2518	779
Temporary reduction	2	779	292
Fleet at 2018	14	6203	2281
Reduction from 2011	39%	35%	32%

Since a reduction of 20% in fishing mortality to approach F_{MSY} for shrimps, when the overfishing index was 1.3 in 2014, the same reduction would have been suggested with regards to earlier years (e.g. 2011 and 2013), since the overfishing index remained constant. This reduction applied earlier, would not have only the same effects, but should have better results as it would have been applied during earlier years. Thus, Malta's reduction in fleet capacity since 2014 should be taken into consideration.

A.12.4. Stocks-At-Risk Indicator

The Maltese fleet, in the period 2012-2017, did not exploit any stocks at high biological risk as defined by the guidelines (COM (2014) 545 Final). This is because:

- For the limited number of assessed stocks harvested by the Maltese fleet, B_{lim} is not available;
- No stocks harvested by the Maltese fleet are subject to an advice to close the fishery, to prohibit directed fisheries, to reduce the fishery to the lowest possible level, or similar advice from an international advisory body, even where such advice is given on a data-limited basis;
- No stock is subject to fishing opportunities regulation which stipulates that the fish should be returned to the sea unharmed or that landings are prohibited; and
- The Maltese fleet does not harvest stocks which are on the IUCN “red list” or is listed by ICES.

STECF-18-14 also concluded that SAR is unavailable for Malta for the period 2009-2017.

A.13. Economic indicators

A.13.1. Return on Investment (ROI) vs Next Best Alternative

For the purpose of evaluating whether the fleet segments are economically sustainable in the long term and in the short term, two indicators are evaluated. To calculate these two indicators, the fleet was segmented by fishing technique. This is due to the fact that the same data which was made available for the EU Data Collection Programme (Commission Regulation (EC) 1639/2001, Commission Regulation (EC) 1581/2004 and Commission Decision (EU) 93/2010) was reused for the purpose of this exercise.

The first indicator (Return on Investment [ROI]) was selected over the Return on Fixed Tangible Assets (ROFTA) since data on intangible assets and tangible assets are both available. Data on direct income subsidies was excluded in order to be in line with the latest guidelines. ROI was compared to the low risk long term investment. For the purpose of the calculation of this indicator, net profit is considered to be equal to the sum of income from landings and other income; less crew costs, unpaid labour, energy costs, repair and maintenance costs, other variable costs, non-variable costs, and depreciation. Capital asset value is equal to the sum of the vessel replacement value, which was obtained using the Perpetual Inventory Method (PIM), and estimated value of fishing rights. Digressive depreciation was used for the purpose of the calculation of this indicator in order to be in line with the recent advise from PGECON (16th- 19th April 2012, Salerno, Italy). The ROI for the previous years was also calculated in line with the latest guidelines.

Table 19: Return on Investment (ROI) vs next best alternative

Low risk long term interest rate of 4.57% was used for the year 2008

Low risk long term interest rate of 4.62% was used for the year 2009

Low risk long term interest rate of 4.59% was used for the year 2010

Low risk long term interest rate of 4.52% was used for the year 2011

Low risk long term interest rate of 4.55% was used for the year 2012

Low risk long term interest rate of 4.43% was used for the year 2013

Low risk long term interest rate of 4.14% was used for the year 2014

Low risk long term interest rate of 3.76% was used for the year 2015

Low risk long term interest rate of 3.22% was used for the year 2016

Low risk long term interest rate of 2.49% was used for the year 2017

Fishing Technique	Vessel Length	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Fixed Netters (DFN)	VL0006	-23.85%	-66.72%	-43.04%		-103.38%	-21.26%	-65.37%	-42.55%	-19.25%	
Fixed Netters (DFN)	VL0612	-8.26%	-33.23%	-5.25%		-40.18%	8.28%	-24.56%	-23.51%	-11.80%	
Fixed Netters (DFN)	VL1218				-23.31%	-16.93%					
Demersal Trawlers (DTS)	VL1824	-16.28%	-9.21%	-17.58%	-1.48%	-6.40%	-6.59%	-3.90%	-2.76%	-5.73%	
Demersal Trawlers (DTS)	VL2440	-23.94%	-9.00%	-12.92%	-10.68%	-11.53%	-16.23%	-15.00%	-9.69%	-16.55%	-10.97%
Pots and Traps	VL0006		-		-86.86%		-10.72%	-71.28%	60.02%	-4.57%	

Fishing Technique	Vessel Length	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
(FPO)											
Pots and Traps (FPO)	VL0612	-16.80%	-71.15%				-28.26%	-47.55%			
Gears using Hooks (Gears using Hooks (HOK))	VL0006	-49.76%	-90.82%	-51.57%	-56.92%	-423.19%	-4.92%	-24.89%	-13.66%	-25.20%	
Gears using Hooks (Gears using Hooks (HOK))	VL0612	-25.58%	-42.89%	-29.11%	-33.83%	3.65%	9.14%	-30.34%	-4.13%	-21.32%	
Gears using Hooks (Gears using Hooks (HOK))	VL1218	-2.55%	-8.17%	-14.80%	-17.85%	-0.57%	8.01%	4.35%	4.87%	14.87%	1.07%
Gears using Hooks (Gears using Hooks (HOK))	VL1824	-8.79%	-21.36%	-13.84%	-15.05%	-2.20%	-4.58%	2.51%	-4.19%	-11.09%	27.76%
Gears using Hooks (Gears using Hooks (HOK))	VL2440	-8.27%	-4.29%	-38.39%	-23.12%	-10.13%					
Other active gears (MGO)	VL0006		-67.61%		-64.89%						
Other active gears (MGO)	VL0612	-4.44%	-42.89%	-30.80%	-34.17%	-9.07%	-2.24%	-18.50%	-12.77%	0.36%	-22.82%
Other active gears (MGO)	VL1218	-8.39%	-1.95%	-9.30%	-14.44%	-1.05%	10.54%	-19.54%	-1.07%	12.31%	
Other active gears (MGO)	VL1824			10.99%	17.57%	-51.79%		-22.10%	3.01%	28.01%	13.66%
Polyvalen	VL0006	-44.38%	-103.47%	-57.15%	-18.65%	-11.32%	-5.14%	-31.67%	-13.27%	-21.47%	-14.12%

Fishing Technique	Vessel Length	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
t Passive Gears Only (PGP)											
Polyvalen t Passive Gears Only (PGP)	VL0612	-34.77%	-53.84%	-29.51%	-30.74%	-12.00%	10.46%	-13.19%	-17.11%	-26.50%	-10.31%
Combined mobile and passive gears (PMP)	VL0006	610.18%	1128.84 %	-32.47%		-55.42%	-1.07%	-54.76%	-19.28%	-49.24%	-25.41%
Combined mobile and passive gears (PMP)	VL0612	39.28%	-35.62%	-31.26%	-61.00%	-10.87%	-10.02%	-43.31%	-19.72%	-24.22%	-17.06%
Combined mobile and passive gears (PMP)	VL1218	-11.83%			-22.12%		31.68%			-52.04%	
Combined mobile and passive gears (PMP)	VL1824	-10.85%	-8.70%				8.04%			-10.90%	
Combined mobile and passive gears (PMP)	VL2440										
Purse Seiners (PS)	VL0612		-47.06%						-118.19%		
Purse Seiners (PS)	VL1218		-9.28%	12.05%	16.17%		31.08%	17.67%	6.15%	11.98%	
Purse Seiners (PS)	VL1824					0.66%		-5.20%	-5.40%	54.18%	72.21%
Purse Seiners (PS)	VL2440	-162.02%	-57.79%			11.11%	46.84%	10.79%	122.66%	-2.57%	
Pelagic Trawlers (TM)	VL2440						-23.93%				

For reference year 2017, the fleet segments, gears using hooks (HOK) VL1218 and VL1824; other active gears (MGO) VL1824; and purse seiners (PS) VL1824 had a positive ROI greater than the low risk long term interest rate. This indicator is showing that for these four fleet segments, extra ordinary profits are being generated and it could also be a possibility of under-capitalisation.

The other segments had a negative ROI which indicate an economic over-capitalisation. However, it is important to note that the clustered segment polyvalent passive gears only (PGP) VL0612, had enough income to cover all the operating costs since they generated a gross profit but did not generate enough income to cover the non operating costs and hence they reported a net loss. The other fleet segments had a negative gross profit and net profit during the reference year in subject.

During 2017, the best performing fleet segments were vessels classified as Purse Seiners (PS) VL1824 and vessels using hooks (HOK) VL1218, followed by other active gears (MGO) VL1824, and vessels using hooks (HOK) VL1218. While the worst performing segment were vessels using combined mobile and passive gears (PMP) VL0006.

Overall, in 2017 the ROI trend of the entire fleet showed signs of improvements when compared to the trend.

A.13.2. Current Revenue against Break-even Revenue Economic Indicator

For the second indicator, the Current Revenue against Break-Even Revenue Economic Indicator was calculated for the years 2008-2017. For the purpose of the calculation of this indicator, fixed costs is considered to be equal to depreciation, non variable costs and opportunity cost of capital while current revenue is equal to the income from landings, income from the lease of fishing right and other income. Direct income subsidies were excluded from this calculation. Variable costs included crew wages, unpaid labour, energy costs, repair and maintenance costs, expenditure from the leasing of fishing rights and other variable costs. The calculation of the ratio that indicates the long term view of financial viability was selected over the calculation that gives the short term view of financial viability. The reason being that all data for this calculation is available under the Data Collection Framework while the opportunity cost is calculated in the previous indicator. Income and expenditure from lease of fishing rights, is included in the calculation as stated above.

Table 20: Current Revenue against Break-even Revenue Economic Indicator for 2008-2017.

Indicators worked for reference year 2017 below the threshold indicated in the EC's guidelines are highlighted in bold.

Fishing Technique	Vessel Length	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Fixed Netters (DFN)	VL0006	-0.6	-4.1	-2		-9	-0.9	-3.4	-1.8	-1	
Fixed Netters (DFN)	VL0612	0.3	-1.7	0.6		-2	1.4	-1.2	-1.7	0	
Fixed Netters (DFN)	VL1218				-1.4	-0.3					
Demersal Trawlers (DTS)	VL1824	-0.5	0.3	-0.6	0.9	0.4	0.4	0.6	0.7	0.5	
Demersal Trawlers(DTS)	VL2440	-1.7	0.1	-0.1	0.1	-0.1	-0.7	-0.4	0.1	-0.4	-0.11
Pots and Traps (FPO)	VL0006		-10.1		-7		0	-5.5	8.3	0.6	

Fishing Technique	Vessel Length	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Pots and Traps (FPO)	VL0612	-0.5	-5				-1.4	-3.4			
Gears using Hooks (Gears using Hooks (HOK))	VL0006	-2.9	-6.6	-3.5	-3.8	-74.5	0.6	-1.3	-1.4	-1.1	
Gears using Hooks (Gears using Hooks (HOK))	VL0612	-1.2	-2.8	-1.6	-2.2	-0.6	1.8	-1.8	0.9	-0.9	
Gears using Hooks (Gears using Hooks (HOK))	VL1218	0.8	0.2	-0.6	-0.7	0.9	1.9	1.6	2.3	2.6	1.13
Gears using Hooks (Gears using Hooks (HOK))	VL1824	0.2	-0.9	-0.3	-0.4	0.7	0.9	1.5	1	-0.1	3.81
Gears using Hooks (Gears using Hooks (HOK))	VL2440	0.1	0.6	-2.2	-1.3	0.1					
Other active gears (MGO)	VL0006		-5		-6.2						
Other active gears (MGO)	VL0612	0.7	-2.6	-1.8	-2.1	0.2	1	-0.8	0.2	1	-1.19
Other active gears (MGO)	VL1218	0.2	0.9	0.2	-0.5	0.9	2.5	-0.8	2.2	2.1	
Other active gears (MGO)	VL1824			2.1	3	-4.3		-1.8	1.7	3.9	2.54
Polyvalent Passive Gears Only (PGP)	VL0006	-2.7	-8.1	-3.9	-0.6	0.1	0.6	-1.8	-0.1	-0.9	-0.32
Polyvalent Passive Gears Only (PGP)	VL0612	-2	-3.8	-1.5	-1.7	0	2	-0.1	-0.5	-1.5	0.05
Combined mobile and passive gears (PMP)	VL0006	54.6	94.7	-1.7		-3.8	1	-4.2	-0.6	-3.7	-1.75
Combined mobile and passive gears (PMP)	VL0612	4.6	-2.1	-1.7	-4.1	0.1	0.1	-2.8	-0.6	-1.3	-0.77
Combined mobile and passive gears (PMP)	VL1218	0			-1.3		4.1			-3.6	
Combined mobile and passive gears (PMP)	VL1824	0.2	0.3				1.7			0	
Combined mobile and passive gears (PMP)	VL2440				1.9						
Purse Seiners	VL0612		-4						-12.5		

Fishing Technique	Vessel Length	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
(PS)											
Purse Seiners (PS)	VL1218		0.2	2.7	2.5		5.3	3.8	2.3	2.1	
Purse Seiners (PS)	VL1824					1.2		0.6	0.6	7.1	
Purse Seiners (PS)	VL2440	-2.9	-3			2	5.3	0.4	1.6	0.8	9.27
Pelagic Trawlers (TM)	VL2440						-1.5				

For the year 2017, the fleet segments Gears Using Hooks (HOK) VL1218 and VL1824; Other Active Gears (MGO) VL1824, and Purse Seiners (PS) VL1824 had a ratio greater than 1. This result shows that these fleet segments generated enough income to cover the variable, fixed and capital costs and hence these fleet segments are profitable, with potential undercapitalisation.

For reference year 2017, the fleet segment polyvalent passive gears only (PGP) VL0612; had a ratio less than 1. This means that this fleet segment generated insufficient income to cover variable, fixed and capital costs. Hence these fleet segments are unprofitable, with a potential over-capitalisation. The other segments had a negative CR/BER result which means that variable costs alone exceed current revenue and hence they are in a loss making position.

For the year 2017, the best performing fleet segment was purse seiners VL1824, amounting to 9.72. The worst performing fleet segment for 2017 is vessels using combined mobile and passive gears (PMP) VL0006 amounting to -1.75.

Although the year 2017 has shown an economically insufficient fleet, as the majority of the segments have shown an indicator less than one, it is important to mention that the majority of unprofitable segments have made improvements in this indicator from the previous year. In 2017, out of 10 fleet segments 4 were balanced, 1 was unprofitable and the remaining 5 were in a loss making position.

A.14. Action Plan

A.14.1. Background

The Maltese authorities have made an analysis of the biological, technical and economical parameters for 2017 using data collected through a census of the entire fleet and information collected through landing declarations and sales notes. The results lead the Maltese authorities to the conclusion that the only meaningful indicator for the Maltese fleet is that for the Return on Investment (ROI) and Current Revenue vs Break Even Revenue (BER) given the absence of reliable information on the biological situations of stocks. In the current report the only segment that shows a negative trend and is considered as imbalanced is the entire PMP segment.

Based on this report, the Maltese authorities acknowledge that the segments which show a trend of being imbalanced over time may benefit from the application of an Action Plan as explained below.

Malta acknowledges that no vessel in the imbalanced fleet segments is eligible for replacement or modernization of main or ancillary engines with support from the EMFF.

A.14.2. Analysis of Trends

Since Article 22 of the Common Fisheries Policy refers to balance (and imbalance) over time, it is appropriate to consider several years rather than a single year (COM (2014) 545 Final). To complement these indicators, an analysis of trends in economic indicators is being presented in this report (Annex I) to have a meaningful picture of the fleet.

It should be noted that this year, Malta has adopted cluster within its fleet segmentation (Annex II). Consequently, the time-series trend analysis for these cluster groups is not possible. For the fleet segments which have not been clustered, a trend analysis was still carried out.

Although, the above economic indicators show that in the year 2017 the majority of the clustered fleet segments are showing imbalanced economic indicators, the Maltese fleet has shown signs of improvement over the previous years. These trends are summarized to the fleet segment level in table 19 below. Conversely when looking into the economic development trends of the fleet segments, only 1 segment out of 5 non-clustered fleet segments has deteriorated during the years analyzed. This deterioration was recorded for MGO VL0612. Out of the remaining segments, two segments were balanced with an improving economic performance trend, while the other two fleet segments showed an improving trend in their economic performance. Out of the 5 clustered segments, 2 clustered segments were deemed as balanced.

The same analysis indicated above could not be followed for the technical indicator since the technical indicators are not directly applicable to Malta since most fishers have more than one vessel, all operated by the same crew.

Table 21 Analysis of trends for all segments. A traffic light approach; green for balanced and improving fleet segments, yellow for fleet segments showing an improving trend and red for fleet segments which showed an overall deteriorating trend.

Fleet Segment	Vessel Length	Population following fleet segmentation	No of licenses according to the FVR as at 31.12.2016	Economic development trend (2008-2017)	ROI trend analysis- R	BER trend analysis- R	Conclusions
HOK	VL1218	11		Improved	Balanced indicator	Balanced indicator	Balanced
HOK	VL1824	17		Improved	Balanced indicator	Balanced indicator	Balanced
PMP	VL0006	21		Improved	weak improvement	weak improvement	Improvements in economic development trend, and weak improvements in BER and ROI indicators.
PMP	VL0612	130		Improved	weak improvement	improvement	Improvements in economic development trend and BER indicator, and weak improvements in ROI indicator.
MGO	VL0612	11		Deteriorated	Deteriorated	Deteriorated	Deteriorated
DTS*	VL2440	11					No trend is available for this cluster group. For 2017, this cluster was imbalanced .
MGO*	VL1824	6					No trend is available for this cluster group. For 2017, this cluster was balanced .

Fleet Segment	Vessel Length	Population following fleet segmentation	No of licenses according to the FVR as at 31.12.2016	Economic development trend (2008-2017)	ROI trend analysis- R	BER trend analysis- R	Conclusions
PGP*	VL0006	303					No trend is available for this cluster group. For 2017, this cluster was imbalanced .
PGP*	VL0612	124					No trend is available for this cluster group. For 2017, this cluster was imbalanced .
PS*	VL1824	10					No trend is available for this cluster group. For 2017, this cluster was balanced .

A.14.3. Fishing Opportunities

It is pertinent to note that the only fishing opportunities allocated to Malta in 2018 was for bluefin tuna and swordfish. These fishing opportunities are fixed through a Council Regulation issued every year in line with the Treaty on the Functioning of the European Union.

A.14.4. Context

In summary, depreciation costs are deemed “normal” whilst the replacement value, even for old hulls, is high. To overcome these values a higher income value needs to be inputted in the formula in order to obtain positive values for the ROI.

A negative ROI vs next best alternative indicator infers that the investment being made in the fishing enterprise would have been more profitable if invested elsewhere. This could be due to low activity of the vessel especially in the case of license holders who work in the fishing sector on a part-time basis and therefore do not depend entirely on their fishing activities to sustain them. Another possibility linked to a negative value is that the marine biological resources available are not able to sustain the fleet. This could either be due to the necessary biomass not being harvested at sustainable levels or that the market is not providing adequate returns requiring some type of intervention. With regard to the available biomass this could be addressed through closed areas and/or closed seasons which would have a positive impact on the stocks exploited especially if targeted to improve their spawning potential. Interventions on the market to improve the returns of the sector could include promotion of the fishery products or to incentivize the better organization of the sector to access more profitable markets.

Management measures under the Mediterranean Regulation, General Fisheries Commission for the Mediterranean (GFCM) and International Commission for the Conservation of Atlantic Tuna (ICCAT) also contribute to achieving sustainable exploitation of stocks. In particular, the bluefin tuna fleet is in balance with the fishing opportunities allocated to it, whilst the fleets targeting swordfish fall within the segments having a positive ROI.

A.14.5. Link to Previous Actions and Rationale for a New Action Plan

The new action plan was compiled by taking into consideration the trend analysis of the economic performance of the Maltese fishing fleet and the trend analysis of the two economic indicators for the years 2008-2017 (Table 22). This consideration is suggested in the 2014 guidelines (COM (2014) 545 Final), whereby it states that the Common Fisheries Policy refers to balance (and imbalance) *over time* rather than one single year. Hence Malta considered several years rather than a single year when compiled the action plan in Annex II of this report.

Table 23 Summary table illustrating the difference between the status obtained for fleet segments and clustered fleet segments with regard to reference years 2016 and 2017 as well as well the overall historical trend, based on the two economic indicators. ✓ indicates balance, ✗ indicates imbalance, ↑ shows an improving trend, while ↓ indicates a deteriorating trend. Rows shaded in grey indicate fleet segments showing imbalance during both 2016 and 2017 as well as a deteriorating historical trend.

Fleet Segment	Vessel Length	2016	2017	Historical trend	Requirement for further actions
HOK	VL1218	✓	✓	↑	
HOK	VL1824	✗	✓	↑	
PMP	VL0006	✗	✗	↑	
PMP	VL0612	✗	✗	↑	
MGO	VL0612	✗	✗	↓	
PS VL1824*		n/a	n/a	n/a	
MGO VL1824*		n/a	n/a	n/a	
DTS VL2440*		n/a	n/a	n/a	
PGP VL0612*		n/a	n/a	n/a	
PGPVL0006*		n/a	n/a	n/a	

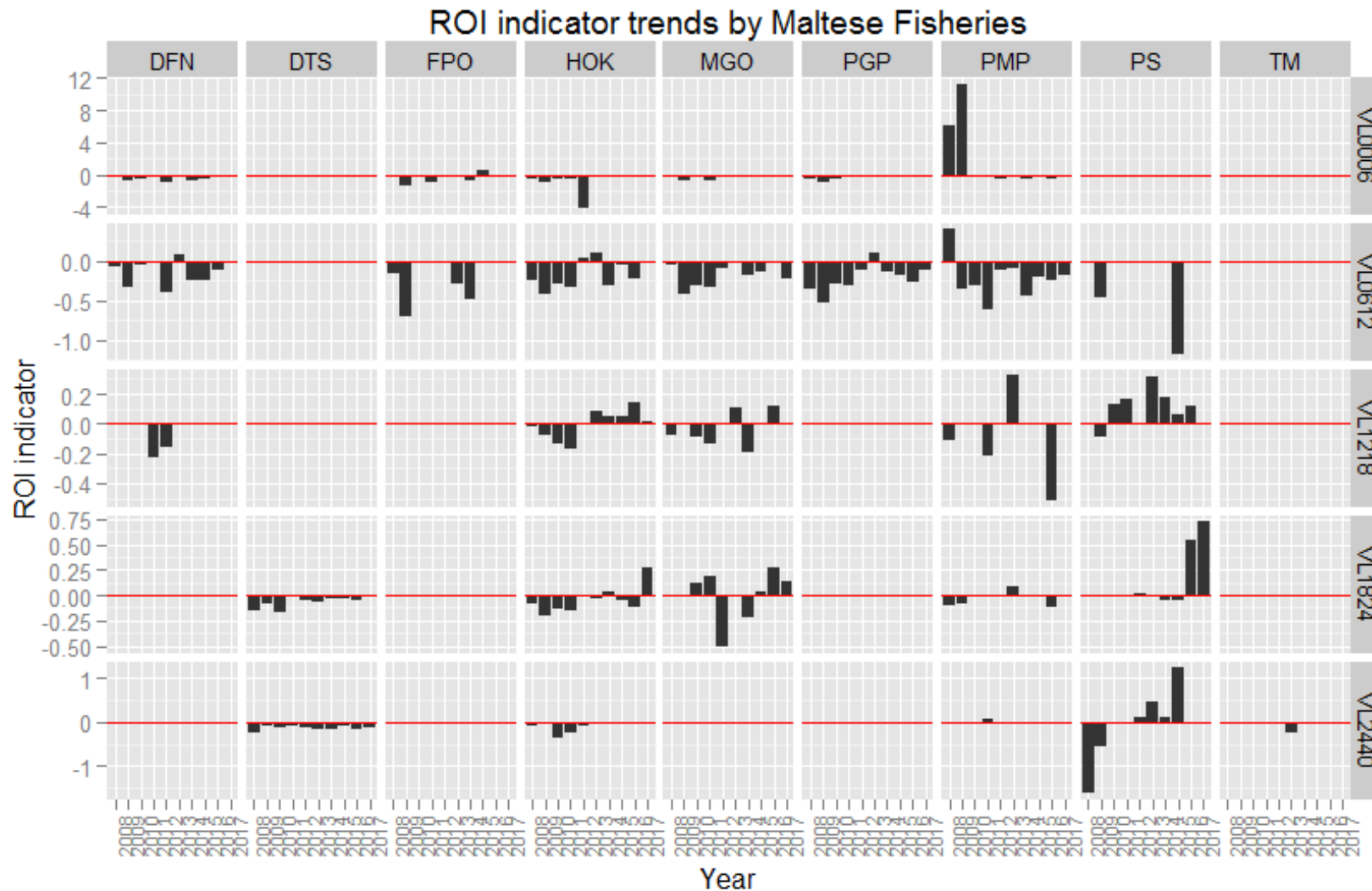


Figure 1 Trend analysis for the economic indicator Return on Investment (ROI) vs next best alternative.

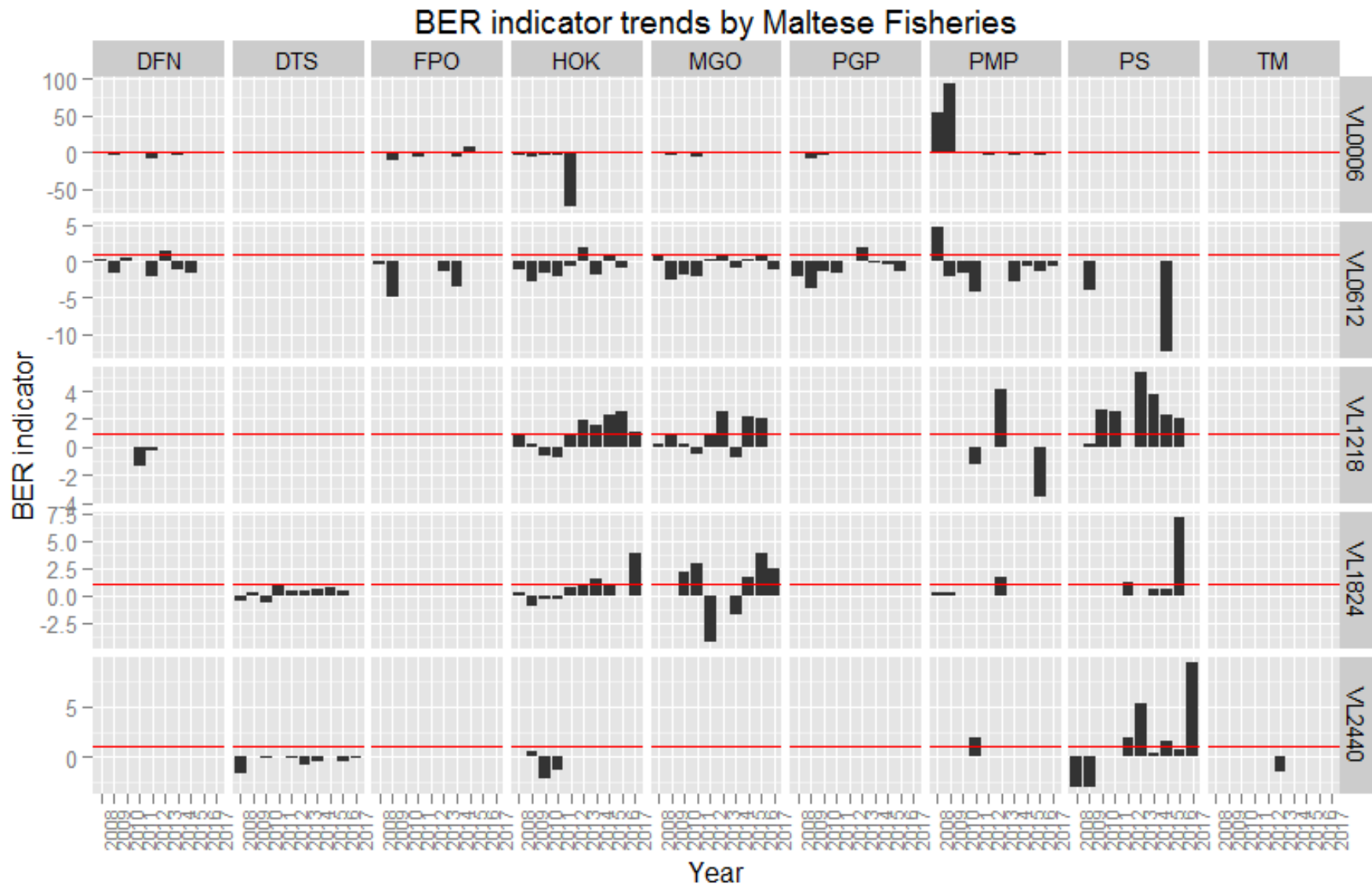


Figure 2 Trend analysis for the economic indicator Current Revenue against Break-even Revenue.

Annex I – Action Plan

Timeframe	Segments addressed	Measure	Action	Indicator
2017-2020	All vessels <12m	Monitoring of landings	Weighing of fishery products on the Automatic weighing and Labelling machines	All catches recorded
	All vessels <10m	Monitoring of activity	Sampling plan	All landings of vessels <10m monitored through sampling and sales notes
	Vessels ≥ 6m and <12m	Monitoring of activity	The vessels will be equipped with a monitoring system to detect fishing activity leading to better monitoring.	All fishing activity
	DFN	Conservation	Prohibition of fishing in bays and creeks from 15 February to 30 August with all types of nets.	Increase in biomass by 2020
	FPO	Conservation	Closed season for the months of April and May	Increase in biomass by 2020
Ongoing	Entire fleet	Analysis of the market to identify any structural deficiencies or market forces resulting in a low average price at first sale for fishery products	This analysis will be assisted by the implementation of an innovative traceability system being implemented at national level and co-funded by the EU covering primary production up to the first sale as it is expected to yield better information on the fishery products caught and marketed for the first time	Identification of measures to achieve better prices at first sale to help generate more income for the fishers

Annex II

Clustering, or “fleet segment aggregation”, may be required when compiling the Fleet Economic Data Call. This methodology is recommended by several STECF working groups (e.g. EWG 13-28). The fact that indicator values are based on clustered fleet segments one year and un-clustered fleet segments another year creates inconsistencies. Clustering is currently based on thresholds that define which fleet segments are clustered. The number of vessels in a fleet segment can vary from year to year. If time-specific analyses are done, then ideally the fleet segment clusters should be consistent over time. In order to achieve consistent clustering of segments in future, it would be necessary for MS to present fleet segments clustered in the same groups for all years (even if the threshold is not reached for some years).

COMMISSION DECISION of 18 December 2009 (adopting a multiannual Community programme for the collection, management and use of data in the fisheries sector for the period 2011-2013) CHAPTER III – 4. In cases where a fleet segment is in the risk of breaching data confidentiality:

- (a) clustering may be necessary in order to design the sampling plan and to report economic variables;
- (b) Member States shall report which fleet segments have been grouped at the national level and shall justify the clustering on the basis of statistical analysis;
- (c) in their annual report, Member States shall report the number of sampled vessels for each fleet segment regardless of any clustering made to collect or provide the data;
- (d) Regional Coordination Meetings shall define homogeneous clustering methodology at the level of supra regions so that economic variables are comparable.

Approach taken by Malta for the reference years 2017 and 2018

Clustering was carried out according to the available guidelines, for confidentiality reasons only. Sampling is performed as per previous years, in line with Malta’s Work Plan for data collection in the fisheries and aquaculture sectors 2019 (Work Plan 2019). A probability sampling survey is carried out on vessels < 10m LOA, whilst logbooks are used to collect data for vessels > 10m LOA, in line with the [Control Regulation](#) (Council Regulation (EC) No 1224/2009). In case of a very low number of vessels in fleet segments HOK, FPO and DFN, data will be clustered together with the fishing technique PGP. Therefore, as STECF categorise vessels according to the 12m LOA threshold, the rules set for clustering is firstly dependent on the length class, whether it is under or over 12m LOA. As a precautionary approach, fleet segments will be clustered for confidentiality reasons, when the number of vessels (totves) is 3 or less, in line with the Eurostat definition of “confidential”.

Documentation on Clustering

- “CLUSTERING OF FLEET SEGMENTS FOR THE ECONOMIC DATA CALL ON THE EU FISHING FLEET” is accessible from: https://datacollection.jrc.ec.europa.eu/documents/10213/1235778/Clustering_2014.pdf
- *Approach to clustering as recommended by SGECA 09-02 (Sub-group on research needs report 09-02 is available from: <https://publications.europa.eu/en/publication-detail/-/publication/bda55143-6cea-4f23-b5b0-be0e90282428/language-en>*