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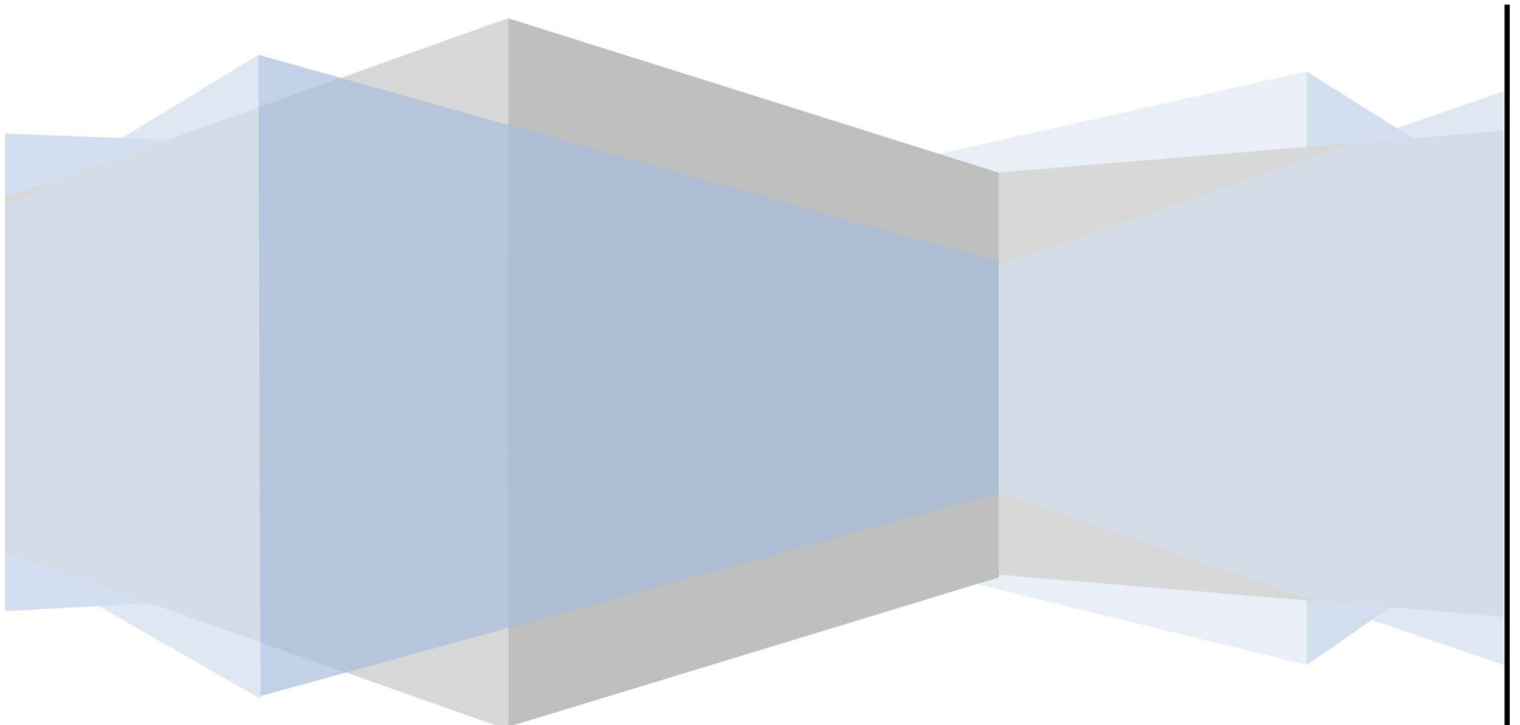
MINISTERIO  
DE AGRICULTURA Y PESCA,  
ALIMENTACIÓN Y MEDIO AMBIENTE



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# **SUPPLEMENTARY DOCUMENTATION TO 2017 ANNUAL REPORT ON THE ACTIVITY OF THE SPANISH FISHING FLEET**

Article 22 of Regulation (EU) No 1380/2013 of the European Parliament and of the Council, on the adjustment and management of fishing capacity.





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## **A. ANNEX I. FLEET** **STRUCTURE**

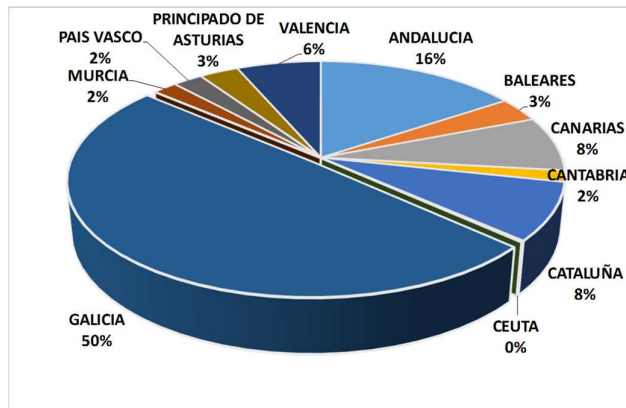
The fishing fleet census is organised according to fishing method and the fishing ground for which the fleet holds its main licence. There are also variations in the activity carried out by each vessel throughout the year, with authorisations, temporary fishing permits and temporary changes in fishing method.

### CHARACTERISATION OF ACTIVE FLEET IN 2017 BY METHOD CENSUS 31/12/2017

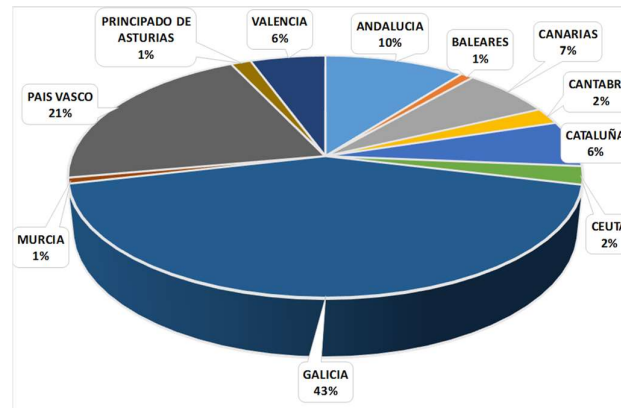
CENSUS OF ACTIVE VESSELS BY FISHING GROUND		VESSELS	TOTAL GT	TOT KW	% VESSELS	% GT	% KW	AVERAGE LENGTH	AVERAGE AGE
SPANISH FISHING GROUND	SMALL-SCALE GEAR IN THE CANARY ISLANDS	559	1 975.56	15 734.48	92.4 %	40.92 %	64.02 %	8.02	39
	TUNA VESSELS CANARY ISLANDS	46	2 852.48	8 841.72	7.6 %	59.08 %	35 985	19.66	23
	SUBTOTAL	605	4 828.04	24 576.20	7.67 %	3.92 %	5.13 %		
	BOTTOM TRAWLING IN THE NW CANTABRIAN SEA	76	17 382.72	27 236.55	1.72 %	30.71 %	13.52 %	28.4	16
	SMALL-SCALE GEAR IN THE NW CANTABRIAN SEA	3 956	11 131.37	95 011.61	89.40 %	19.67 %	47.15 %	6.78	33
	PURSE SEINE IN THE NW CANTABRIAN SEA	260	21 438.57	62 030.04	5.88 %	37.88 %	30.78 %	22.47	20
	BOTTOM-SET LONGLINE IN THE NW CANTABRIAN SEA	64	2 735.17	7 878.46	1.45 %	4.83 %	3.91 %	16.46	18
	ANGLERFISH GILLNET IN THE NW CANTABRIAN SEA	23	1 032.11	2 867.65	0.52 %	1.82 %	1.42 %	16.63	18
	SET GILLNET IN THE NW CANTABRIAN SEA	46	2 883.46	6 493.38	1.04 %	5.09 %	3.22 %	18.32	19
	SUBTOTAL	4 425	56 603.40	201 517.69	56.08 %	45.90 %	42.06 %		
	BOTTOM TRAWL IN THE GULF OF CADIZ	129	5 575.45	20 297.04	18.67 %	52.27 %	41.27 %	18.87	16
	SMALL-SCALE GEAR IN THE GULF OF CADIZ	485	2 814.44	17 992.13	70.19 %	26.39 %	36.59 %	9.45	25
	PURSE SEINE IN THE GULF OF CADIZ	77	2 276.67	10 888.94	11.14 %	21.34 %	22 145	17.25	18
	SUBTOTAL	691	10 666.56	49 178.11	8.76 %	8.65 %	10.26 %		
	BOTTOM TRAWL IN THE MEDITERRANEAN	603	35 597.57	110 032.10	27.80 %	69.50 %	53.97 %	20.41	23
	SMALL-SCALE GEAR IN THE MEDITERRANEAN	1 301	5 647.60	47 964.57	59.98 %	11.03 %	23.53 %	8.76	32
	BLUEFIN TUNA PURSE SEINE IN THE MEDITERRANEAN	6	1 612.36	5 843.38	0.28 %	3.15 %	2.87 %	38.68	15
	PURSE SEINE IN THE MEDITERRANEAN	217	8 014.54	36 856.96	10.00 %	15.65 %	18.08 %	18.13	25
	BOTTOM-SET LONGLINE IN THE MEDITERRANEAN	42	348.95	3 173.65	1.94 %	0.68 %	1.56 %	10.91	28
	SUBTOTAL	2 169	51 221.02	203 870.66	27.49 %	41.54 %	42.55 %		
SPANISH FISHING GROUNDS SUBTOTAL	7 890	123 319.02	479 142.66	95.12 %	37.95 %	63.3 %			
EU FISHING	BOTTOM TRAWLING IN ICES ZONES VB VI VII and VIIIabde.	33	11 638.06	16 920.26	32.04 %	40.99 %	38.34 %	35.73	14
	TRAWLING IN PORTUGUESE WATERS	15	2 340.38	4 631.50	46.60 %	47.25 %	47.14 %	25.45	15
	PASSIVE GEAR IN ICES ZONES VB VI VII and VIIIabde.	48	13 416.65	20 807.63	6.80 %	3.51 %	4.03 %	31.15	15
	BOTTOM-SET LONGLINE UNDER 100 GRT IN VIIIabde.	7	997.16	1 777.94	14.56 %	8.24 %	10.49 %	24.03	23



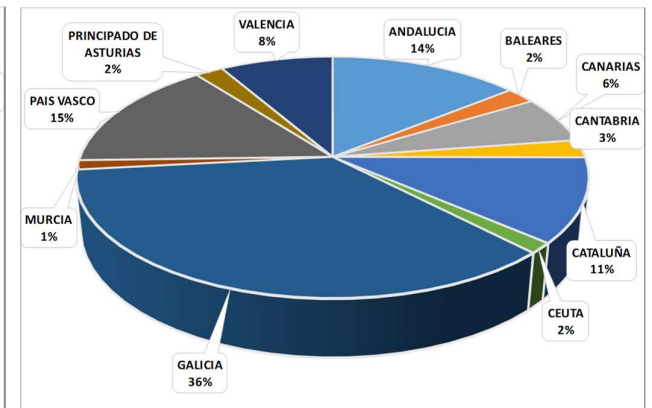
CENSUS OF ACTIVE VESSELS BY FISHING GROUND		VESSELS	TOTAL GT	TOT KW	% VESSELS	% GT	% KW	AVERAGE LENGTH	AVERAGE AGE
EU FISHING GROUNDS SUBTOTAL		103	28 392.25	44 137.33	1.24 %	8.74 %	5.83 %		
INTERNATIONAL FISHING GROUNDS	FREEZER TRAWLERS INTERNATIONAL AND THIRD COUNTRY WATERS	54	30 347.95	41 646.74	50.94 %	23.49 %	24.19 %	41.01	17
	NAFO FREEZER TRAWLERS	19	22 156.40	22 468.09	17.92 %	17.15 %	13.05 %	58.82	22
	FREEZER TUNA SEINERS IN THE ATLANTIC INDIAN AND PACIFIC OCEANS	16	35 652.00	51 495.62	15.09 %	27.59 %	29.91 %	79.46	28
	FREEZER TUNA SEINERS IN THE INDIAN AND PACIFIC OCEANS	10	34 909.88	48 692.21	9.43 %	27.02 %	28.28 %	99.31	11
	COD FISHING BOATS	4	5 757.00	7 263.24	3.77 %	4.46 %	4.22 %	57.99	13
	BOTTOM-SET LONGLINE IN INTERNATIONAL AND THIRD COUNTRY WATERS	3	381.05	600.74	2.83 %	0.29 %	0.35 %	23.6	35
	INTERNATIONAL FISHING GROUND SUBTOTAL	106	129 204.28	172 166.64	1.28 %	39.76 %	22.75 %		
CUP	SURFACE LONGLINE UNIFIED CENSUS	196	44 033.75	61 470.90	2.36 %	13.55 %	8.12 %	26.96	18
<b>TOTAL ACTIVE SPANISH FLEET 2017</b>		<b>8 295</b>	<b>324 949.30</b>	<b>756 917.51</b>	<b>100 %</b>	<b>100 %</b>	<b>100 %</b>	<b>11.28</b>	<b>30</b>



Distribution of vessels by Autonomous Community



Distribution of tonnage by Autonomous Community (GT)



Distribution of power by Autonomous Community (kW)

		ACTIVE	INACTIVE	CURRENT IN THE YEAR	WITHDR AWN END OF 2017	CURRENT END OF 2017	ACTIVE	INACTIVE	CURRENT IN THE YEAR	WITHDR AWN END OF 2017	CURRENT END OF 2017	ACTIVE	INACTIVE	CURRENT IN THE YEAR	WITHDR AWN END OF 2017	CURRENT END OF 2017	
METHOD		VESSELS	VESSELS	VESSELS	VESSELS	VESSELS	GT	GT	GT	GT	GT	KW	KW	KW	KW	KW	
SPANISH FISHING GROUND	NW CANTABRIAN SEA	BOTTOM TRAWLING IN THE NW CANTABRIAN SEA	76	3	79	2	77	17 382.72	614.47	17 997.19	450.81	17 546.38	27 236.55	1 011.03	28 247.58	731.62	27 515.96
		SMALL-SCALE GEAR IN THE NW CANTABRIAN SEA	3 956	452	4 408	83	4 325	11 131.37	674.79	11 806.16	183.12	11 623.04	95 011.61	6 793.89	101 805.50	1 243.38	100 562.12
		PURSE SEINE IN THE NW CANTABRIAN SEA	260	3	263	3	260	21 438.57	418.44	21 857.01	86.70	21 770.31	62 030.04	867.65	62 897.69	352.94	62 544.75
		BOTTOM-SET LONGLINE IN THE NW CANTABRIAN SEA	64	4	68	7	61	2 735.17	191.45	2 926.62	347.71	2 578.91	7 878.46	744.82	8 623.28	1 186.03	7 437.25
		ANGLERFISH GILLNET IN THE NW CANTABRIAN SEA	23	1	24		24	1 032.11	14.00	1 046.11		1 046.11	2 867.65	89.71	2 957.36		2 957.36
		SET GILLNET IN THE NW CANTABRIAN SEA	46		46	3	43	2 883.46		2 883.46	160.67	2 722.79	6 493.38		6 493.38	397.06	6 096.32
		<b>TOTAL</b>	<b>4 425</b>	<b>463</b>	<b>4 888</b>	<b>98</b>	<b>4 790</b>	<b>56 603.40</b>	<b>1 913.15</b>	<b>58 516.55</b>	<b>1 229.01</b>	<b>57 287.54</b>	<b>201 517.69</b>	<b>9 507.10</b>	<b>211 024.79</b>	<b>3 911.03</b>	<b>207 113.76</b>
	GULF OF CADIZ	BOTTOM TRAWL IN THE GULF OF CADIZ	129	7	136	4	132	5 575.45	291.05	5 866.50	239.89	5 626.61	20 297.04	981.62	21 278.66	752.32	20 526.34
		SMALL-SCALE GEAR IN THE GULF OF CADIZ	485	78	563	5	558	2 814.44	197.35	3 011.79	25.05	2 986.74	17 992.13	1 570.97	19 563.10	144.85	19 418.25
		PURSE SEINE IN THE GULF OF CADIZ	77	7	84	1	83	2 276.67	111.37	2 388.04	10.57	2 377.47	10 888.94	669.85	11 558.79	86.76	11 472.03
		<b>TOTAL</b>	<b>691</b>	<b>92</b>	<b>783</b>	<b>10</b>	<b>773</b>	<b>10 666.56</b>	<b>599.77</b>	<b>11 266.33</b>	<b>275.51</b>	<b>10 990.82</b>	<b>49 178.11</b>	<b>3 222.44</b>	<b>52 400.55</b>	<b>983.93</b>	<b>51 416.62</b>
	MEDITERRANEAN	BOTTOM TRAWL IN THE MEDITERRANEAN	603	10	613	14	599	35 597.57	473.66	36 071.23	1 184.30	34 886.93	110 032.10	1 542.65	111 574.75	3 460.29	108 114.46
		SMALL-SCALE GEAR IN THE MEDITERRANEAN	1 301	284	1 585	52	1 533	5 647.60	682.19	6 329.79	169.07	6 160.72	47 964.57	6 619.85	54 584.42	1 414.25	53 170.17
		BLUEFIN TUNA PURSE SEINE IN THE MEDITERRANEAN	6		6		6	1 612.36		1 612.36		1 612.36	5 843.38		5 843.38		5 843.38
		PURSE SEINE IN THE MEDITERRANEAN	217	13	230	10	220	8 014.54	232.22	8 246.76	299.42	7 947.34	36 856.96	1 619.11	38 476.07	1 766.18	36 709.89
		BOTTOM-SET LONGLINE IN THE MEDITERRANEAN	42	19	61	3	58	348.95	218.10	567.05	48.20	518.85	3 173.65	1 779.41	4 953.06	360.29	4 592.77
		<b>TOTAL</b>	<b>2 169</b>	<b>326</b>	<b>2 495</b>	<b>79</b>	<b>2 416</b>	<b>51 221.02</b>	<b>1 606.17</b>	<b>52 827.19</b>	<b>1 700.99</b>	<b>51 126.20</b>	<b>203 870.66</b>	<b>11 561.02</b>	<b>215 431.68</b>	<b>7 001.01</b>	<b>208 430.67</b>
		AC	SMALL-SCALE GEAR IN THE CANARY ISLANDS	559	142	701	11	690	1 975.56	286.43	2 261.99	18.85	2 243.14	15 734.48	2 426.90	18 161.38	144.49
	TUNA VESSELS CANARY ISLANDS		46	2	48		48	2 852.48	61.22	2 913.70		2 913.70	8 841.72	211.76	9 053.48		9 053.48
	<b>TOTAL</b>		<b>605</b>	<b>144</b>	<b>749</b>	<b>11</b>	<b>738</b>	<b>4 828.04</b>	<b>347.65</b>	<b>5 175.69</b>	<b>18.85</b>	<b>5 156.84</b>	<b>24 576.20</b>	<b>2 638.66</b>	<b>27 214.86</b>	<b>144.49</b>	<b>27 070.37</b>
	<b>TOTAL SPANISH FISHING GROUND</b>		<b>7 890</b>	<b>1 025</b>	<b>8 915</b>	<b>198</b>	<b>8 717</b>	<b>123 319.02</b>	<b>4 466.74</b>	<b>127 785.76</b>	<b>3 224.36</b>	<b>124 561.40</b>	<b>479 142.66</b>	<b>26 929.22</b>	<b>506 071.88</b>	<b>12 040.46</b>	<b>494 031.42</b>

		ACTIVE	INACTIVE	CURRENT IN THE YEAR	WITHDRAWN END OF 2017	CURRENT END OF 2017	ACTIVE	INACTIVE	CURRENT IN THE YEAR	WITHDRAWN END OF 2017	CURRENT END OF 2017	ACTIVE	INACTIVE	CURRENT IN THE YEAR	WITHDRAWN END OF 2017	CURRENT END OF 2017	
METHOD		VESSELS	VESSELS	VESSELS	VESSELS	VESSELS	GT	GT	GT	GT	GT	KW	KW	KW	KW	KW	
EU	<b>PORTUGUESE WATERS</b>																
	TRAWLING IN PORTUGUESE WATERS	15	1	16		16	2 340.38	208.00	2 548.38		2 548.38	4 631.50	203.68	4 835.18		4 835.18	
	<b>ICES ZONES Vb VI VII VIIIabde</b>																
	BOTTOM TRAWLING IN ICES ZONES VB VI VII and VIIIabde.	33	3	36	1	35	11 638.06	1 204.00	12 842.06	380.00	12 462.06	16 920.26	1 544.12	18 464.38	441.18	18 023.20	
	PASSIVE GEAR IN ICES ZONES VB VI VII and VIIIabde.	48	1	49	1	48	13 416.65	130.00	13 546.65	158.76	13 387.89	20 807.63	275.74	21 083.37	235.29	20 848.08	
	<b>ZONES VIIIabde</b>																
BOTTOM-SET LONGLINE UNDER 100 GRT IN VIIIabde.	7	1	8	1	7	997.16	278.51	1 275.67	278.51	997.16	1 777.94	301.47	2 079.41	301.47	1 777.94		
<b>TOTAL EU FISHING GROUND</b>		<b>103</b>	<b>6</b>	<b>109</b>	<b>3</b>	<b>106</b>	<b>28 392.25</b>	<b>1 820.51</b>	<b>30 212.76</b>	<b>817.27</b>	<b>29 395.49</b>	<b>44 137.33</b>	<b>2 325.01</b>	<b>46 462.34</b>	<b>977.94</b>	<b>45 484.40</b>	
INTERNATIONAL	<b>INTERNATIONAL AND THIRD COUNTRY WATERS</b>																
	FREEZER TRAWLERS INTERNATIONAL AND THIRD COUNTRY WATERS	54	9	63	2	61	30 347.95	4 120.26	34 468.21	1 395.00	33 073.21	41 646.74	6 117.65	47 764.39	1 822.06	45 942.33	
	BOTTOM-SET LONGLINE IN INTERNATIONAL AND THIRD COUNTRY WATERS	3	1	4	1	3	381.05	344.00	725.05	344.00	381.05	600.74	419.12	1 019.86	419.12	600.74	
	<b>NORTH ATLANTIC</b>																
	COD FISHING BOATS	4		4		4	5 757.00		5 757.00		5 757.00	7 263.24		7 263.24		7 263.24	
	NAFO FREEZER TRAWLERS	19	1	20		20	22 156.40	1 638.00	23 794.40		23 794.40	22 468.09	1 190.44	23 658.53		23 658.53	
	<b>ATLANTIC, INDIAN, PACIFIC OCEANS</b>																
	FREEZER TUNA SEINERS IN THE ATLANTIC INDIAN AND PACIFIC OCEANS	16		16		16	35 652.00		35 652.00		35 652.00	51 495.62		51 495.62		51 495.62	
<b>INDIAN AND PACIFIC OCEANS</b>																	
FREEZER TUNA SEINERS IN THE INDIAN AND PACIFIC OCEANS	10		10		10	34 909.88		34 909.88		34 909.88	48 692.21		48 692.21		48 692.21		
<b>TOTAL INTERNATIONAL</b>	<b>106</b>	<b>11</b>	<b>117</b>	<b>3</b>	<b>114</b>	<b>129 204.28</b>	<b>6 102.26</b>	<b>135 306.54</b>	<b>1 739.00</b>	<b>133 567.54</b>	<b>172 166.64</b>	<b>7 727.21</b>	<b>179 893.85</b>	<b>2 241.18</b>	<b>177 652.67</b>		
<b>SURFACE LONGLINE UNIFIED CENSUS</b>	<b>196</b>	<b>19</b>	<b>215</b>	<b>6</b>	<b>209</b>	<b>44 033.75</b>	<b>3 701.96</b>	<b>47 735.71</b>	<b>1 447.33</b>	<b>46 288.38</b>	<b>61 470.90</b>	<b>5 770.59</b>	<b>67 241.49</b>	<b>1 839.71</b>	<b>65 401.78</b>		
<b>GRAND TOTAL</b>	<b>8 295</b>	<b>1 061</b>	<b>9 356</b>	<b>210</b>	<b>9 146</b>	<b>324 949.30</b>	<b>16 091.47</b>	<b>341 040.77</b>	<b>7 227.96</b>	<b>333 812.81</b>	<b>756 917.53</b>	<b>42 752.03</b>	<b>799 669.56</b>	<b>17 099.29</b>	<b>782 570.27</b>		

## ANNUAL TREND IN CURRENT FLEET THROUGHOUT THE YEAR (ACTIVE PLUS INACTIVE)

	2010	2011	2012	2013	2014	2015	2016	2017	Change 2010-2011	Change 2011-2012	Change 2012-2013	Change 2013-2014	Change 2014-2015	Change 2015-2016	Change 2016-2017
No of VESSELS	10 847	10 505	10 116	9 871	9 635	9 409	9 299	9 146	-3.15 %	-3.70 %	- 2.42 %	-2.39 %	-2.35 %	-1.17 %	-1.65 %
KW	933 396.83	899 973.56	871 956.77	846 718.74	821 611.98	799 011.23	789 574.52	782 570.27	-3.58 %	-3.11 %	- 2.89 %	-2.97 %	-2.75 %	-1.18 %	-0.89 %
GT	414 268.61	398 900.67	384 795.73	372 617.02	357 556.35	342 568.58	337 678.90	333 812.81	-3.71 %	-3.54 %	- 3.16 %	-4.04 %	-4.19 %	-1.43 %	-1.14 %

TREND IN CURRENT VESSELS AT EACH YEAR-END 2010-2017										
FISHING GROUND	METHOD	2009	2010	2011	2012	2013	2014	2015	2016	2017
SPANISH FISHING GROUND	TRAWLING	1 073	1 003	951	921	909	858	834	825	808
	SMALL-SCALE GEAR	8 419	8 307	8 090	7 782	7 602	7 474	7 326	7 216	7 106
	PURSE SEINE	683	660	632	624	612	601	588	617	563
	BLUEFIN TUNA PURSE SEINE	6	6	6	6	6	6	6	6	6
	POLE-AND-LINE TUNA VESSEL									48
	BOTTOM-SET LONGLINE	190	184	166	157	153	143	137	130	119
	SURFACE LONGLINE	164	154	151	148	146	141			
	ANGLERFISH GILLNET	33	33	34	32	31	31	26	24	24
	BOTTOM-SET GILLNET	57	57	54	53	51	50	46	45	43
	SUBTOTAL	10 625	10 404	10 084	9 723	9 510	9 304	8 963	8 863	8 717
EU FISHING GROUNDS	TRAWLING	122	102	86	74	70	58	55	52	51
	PASSIVE GEAR	87	79	72	69	66	62	57	55	55
	SUBTOTAL	209	181	158	143	136	120	112	107	106
INTERNATIONAL FISHING GROUNDS	TRAWLING	136	123	122	108	94	91	89	86	85
	FREEZER TUNA SEINERS	33	33	32	32	32	30	26	26	26
	BOTTOM-SET LONGLINE	5	4	4	3	3	3	3	4	3
	SURFACE LONGLINE	103	94	94	94	92	86			
	SUBTOTAL	277	254	252	237	221	210	118	116	114
NO FISHING GROUND ASSIGNED	NO METHOD ASSIGNED	5	8	11	13	4	1			
SURFACE LONGLINE UNIFIED CENSUS								216	213	209
<b>TOTALS</b>		<b>11 116</b>	<b>10 847</b>	<b>10 505</b>	<b>10 116</b>	<b>9 871</b>	<b>9 635</b>	<b>9 409</b>	<b>9 299</b>	<b>9 146</b>



## **B. ANNEX II: FISHERIES:** **MANAGEMENT OF** **FISHING ACTIVITY**

## 2017 ACTIVITY FISHERIES BY SUPRAREGION AND MAIN GEAR

Vessels by segment, length, gear and supraregion

SUPRA	GEAR	0-10	10-12	12-18	18-24	24-40	>40	TOTAL
NORTH ATLANTIC	GILLNET		115	139	25			279
	DREDGES	1 814	14	84				1 912
	TRAWLING			66	75	108	13	262
	POTS		71	58				129
	HOOKS		63	81	29	25		198
	SURFACE LONGLINE				11	30		41
	PASSIVE MULTIPURPOSE					55		55
	MOBILE AND PASSIVE MULTIPURPOSE GEAR	1 954	60	42				2 056
	PURSE SEINE		18	112	101	81		312
<b>Total NORTH ATLANTIC</b>		<b>3 768</b>	<b>341</b>	<b>582</b>	<b>241</b>	<b>299</b>	<b>13</b>	<b>5 244</b>
MEDITERRANEAN	GILLNET		85	53				138
	DREDGES		39	14				53
	TRAWLING		18	147	303	132		600
	POTS			31				31
	HOOKS		47	23				70
	SURFACE LONGLINE			42	22			64
	MOBILE AND PASSIVE MULTIPURPOSE GEAR	109	913	34				1 056
	PURSE SEINE		18	84	88	26		216
<b>Total MEDITERRANEAN</b>		<b>109</b>	<b>1 120</b>	<b>428</b>	<b>413</b>	<b>158</b>	<b>0</b>	<b>2 228</b>
RFOS	TRAWLING					41	33	74
	HOOKS			19		12		31
	SURFACE LONGLINE					62	25	87
	PURSE SEINE						26	26
<b>Total OTHER FISHING REGIONS</b>		<b>0</b>	<b>0</b>	<b>19</b>	<b>0</b>	<b>115</b>	<b>84</b>	<b>218</b>
CANARY ISLANDS	POTS		12					12
	HOOKS		43	27		22		92
	MOBILE AND PASSIVE MULTIPURPOSE GEAR	465	20					485
	PURSE SEINE			16				16
<b>Total CANARY ISLANDS</b>		<b>465</b>	<b>75</b>	<b>43</b>	<b>0</b>	<b>22</b>	<b>0</b>	<b>605</b>

## MANAGEMENT OF SPANISH FLEET FISHING ACTIVITY

## 1.-North Atlantic (NA)

### 1.1 Management of fishing activities in the waters of the NA Spanish Fishing Ground (FAO 27.8.c-27.9.a)

Spanish CNW fishing ground waters were the main fishing area for 4 425 vessels, more than 53 % of the active fleet, mainly vessels of under 12 metres, operating with multipurpose gear, pots and anglerfish gillnets mainly targeted at molluscs. These were followed by the purse seine fleet with 263 vessels targeting their effort to catch sardines, horse mackerel and anchovy. This fleet changed its methods, mainly to rod and line with live bait and trolling, for tuna fisheries and mackerel in zones VII and VIIIabd. The bottom longline fleets and gillnet fleets directed their effort at hake, anglerfish, mackerel, horse mackerel and pouting. Bottom trawling included about 90 vessels fishing for hake, megrim, anglerfish, horse mackerel, blue whiting and Norway lobster.

In the context of actions aimed at improving the management of fisheries, we continued to distribute quotas between the different segments of the fleet.

The North-West Cantabrian bottom trawl fleet can carry out final quota transfers between ships. This instrument will allow an orderly restructuring of the fleet, paving the way for more competitive shipping companies with higher quotas for species that are more profitable due to vessel characteristics or the habitual area of the fishing grounds in which they operate, also modulating pressure on the resource in order to ensure its sustainability.

In the Gulf of Cadiz, 691 vessels operated (8.3 % of the total), mostly artisanal (gillnets, hook tackle and traps) and dredges primarily aimed at striped venus. Even though they do not provide high catch volumes, all these species have a high socio-economic importance locally. Fishing is also carried out by 130 bottom trawlers (southern hake, white shrimp, Norway lobster and octopus) and 79 purse seiners (sardines, anchovy, mackerel and horse mackerel).

### 1.2 Management of fishing activities in non-Spanish EU waters

ICES EU waters Vb, VI, VII and VIIIabde: 88 vessels participated in the fishery for demersal species (hake, anglerfish and megrim), using bottom trawl and passive gear methods (gillnets and bottom longline). In Zone 27.9a, Portuguese waters, 15 trawlers operated, mainly fishing for southern hake.

In 2017, a new order was drawn up and published for the management of the censuses of the middle-water and deep sea fleets and longline vessels over and under 100 gross registered tonnes operating within the geographical boundaries of the Northeast Atlantic Fisheries Commission: Order APM/920/2017 of 22 September 2017.

The main change in this Order was the abolition of the 5 % quota reservation, meaning that this census receives 100 % of its initial quota at the beginning of the year.

The management of the quota continues to be based on individual transferable quotas known as ITQs, through which individual distributions per vessel and permanent transfer mechanisms are carried out. These have long proven to be a good means of revitalising these fleets.

As a supplement to quota management, vessels have the possibility of carrying out quota exchanges (swaps) in order to tailor the quotas to their interests.

In 2017, a new agreement was reached with Portugal. This regulates the activity of the fleets of both countries in the other's territorial waters. The activities of the vessels in inland waters continue around the mouths of the Minho and Guadiana.

The main changes are that certain restrictions on landing and reciprocal compliance with closed seasons for the trawler fleet in inland waters have been agreed, as well as a term of **five years for the agreement**.

### 1.3. Management of fisheries in non-EU NA waters

In addition to benefiting from agreements with developing countries, the deep water fleet has access to fishing opportunities in three neighbouring Atlantic countries: Norway, Greenland and the Faroe Islands.

In Norway, the fleet comprising four vessels from the cod fishing census had fishing opportunities for Arctic cod and redfish under this Agreement, which changed throughout the year as a result of **intracommunity exchanges**.

Lastly, Spain had three licences to fish for blue whiting in Faroe Island waters under the EU/Faroe Islands Fisheries Agreement and the Agreement on Mutual Access.

Fisheries in the NAFO area: in this area, 12 vessels operate that are dedicated to catching demersal species. 20 vessels form part of the freezer trawler fleet census in 2017; the fishing opportunities are set out by way of Council Regulation (EU) No 2017/127 of 20 January 2017.

[http://www.mapama.gob.es/es/pesca/temas/planes-de-gestion-y-recuperacion-de-especies/reglamentoue2017-127delconsejode20deenerode2017\\_tcm30-428940.pdf](http://www.mapama.gob.es/es/pesca/temas/planes-de-gestion-y-recuperacion-de-especies/reglamentoue2017-127delconsejode20deenerode2017_tcm30-428940.pdf)

#### North East Atlantic Fisheries Commission (NEAFC / CPANE):

Its regulatory area is fished by freezer trawlers targeting deep-sea species, mainly grenadier and pelagic redfish. There is also sporadic activity by vessels in EU waters (Gran Sol) aimed at catching hake and associated species.

The level of quotas for species regulated by this Organisation, assigned to Spain for 1367/2014, was established by the TAC and Quota Regulation and [Regulation \(EU\) No 1367/2014](#) fixing for 2015 and 2016 the fishing opportunities for Union fishing vessels for certain deep-sea fish stocks.

## 2.- Mediterranean

### Mediterranean fishing grounds

The Spanish Mediterranean is characterised by a mixed and multispecies fishery, in which over 50 % of fishing is artisanal for under 90 days/year. Next in importance is the trawler fleet made up of vessels of about 20 metres in average length (603 vessels). These mainly target hake and red mullet, and the purse seine fleet (216 vessels) also catches pelagic species, particularly anchovy, sardines, horse mackerel and round sardinella. This fleet includes 6 larger vessels authorised for bluefin tuna fishing.



### 3.- Other fishing regions

3.1 Spanish Fishing Ground. Canary Islands (FAO 34.1.2): This fleet is the oldest (35 years on average) and smallest, accounting for more than 65 % of active vessels operating for under 90 days/year; in 2017, 605 boats were active, 16 of them purse seining (horse mackerel, chub mackerel, round sardinella and sardines) 485 multipurpose vessels and 92 hooks, with the highest catches represented by tuna and native species. It is important to highlight the marked artisanal nature of fishing activity in the Canary Islands.

#### 3.2 Trawler fleet fishing international and third country waters

This fleet included 73 active vessels in 2017, fishing in international waters or within EEZs of third countries under EU Fishing Agreements with Mauritania and Guinea Bissau, targeting hake, crustaceans and cephalopods or under private licences granted directly to the shipowning companies. The vessels fished in central and south-eastern waters (FAO 34 and 47) and in the Southwest Pacific (FAO area 81).

#### 3.3 Activity in international waters and fisheries not covered by Fishing Agreements and Regional Fishery Organisations

During 2017, Spanish vessels fished in international waters off the shelf off Argentina, where they caught bottom-dwelling species using trawl gear. The main species caught were: southern hake (*Merluccius australis*), blue grenadier (*Macruronus novaezelandiae*), Argentine shortfin squid (*Illex argentinus*), common squid (*Loligo gahi*), longtail southern cod (*Patagonotothen ramsayi*), tadpole codling (*Salilota australis*), southern blue whiting (*Micromesistius australis*), pink cusk-eel (*Genypterus blacodes*), and skate (*Raja spp*).

In the absence of an RFO, Spain has unilaterally established measures to protect vulnerable marine ecosystems with the closure of nine zones for bottom fishing in prospected areas as a result of multidisciplinary seabed prospecting campaigns (Atlantis) developed by Spain between October 2007 and April 2010.

3.4 Bottom longline fishing in international and third country waters and hook-live bait gear (Area 34). Three Atlantic pomfret vessels use bottom longline gear; the remainder is essentially made up of a fleet from different fishing grounds, with authorisations for tuna and sea bream.

#### 3.5 Freezer tuna fleet.

Throughout 2017, this fleet was made up of 26 vessels and continues to operate in international waters regulated by regional fisheries organisations for the Indian and Pacific Atlantic Ocean and in the EEZs of countries with which there is an EU agreement or those for which private licences have been obtained.

### SURFACE LONGLINE FLEET

This fleet operates in national and international waters of the Atlantic, Indian and Pacific Oceans and in the EEZs of countries with which there is EU agreement or those for which private licences have been obtained, and forms the Unified Surface Longline Census. Its main catches include swordfish, pelagic shark



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and tuna. 192 vessels participated in this fishery (including the Mediterranean) in 2017, 5 fewer than in the previous year: 41 fished mainly in North Atlantic waters, 64 in the Mediterranean and 87 in other waters.



## **C. ANNEX III: FLEET AND FISHERY DEVELOPMENT**

## DEVELOPMENT OF LICENCES/AUTHORISATIONS/TEMPORARY FISHING PERMITS

DEVELOPMENT OF LICENCES/AUTHORISATIONS/TEMPORARY FISHING PERMITS (The number of licences may or may not coincide with the number of active vessels, since a vessel may have more than one licence throughout the year).

### SPANISH FISHING GROUND

		LICENCES								
		2009	2010	2011	2012	2013	2014	2015	2016	2017
CANARY ISLANDS	SMALL-SCALE GEAR <sup>1</sup>	901	889	872	805	799	771	751	751	805
	POLE-AND-LINE TUNA VESSELS <sup>2</sup>	14	14	13	13	13	12	12	45	41
	<b>Subtotal</b>	<b>915</b>	<b>903</b>	<b>885</b>	<b>818</b>	<b>812</b>	<b>783</b>	<b>763</b>	<b>796</b>	<b>846</b>
NW CANTABRIAN SEA	BOTTOM TRAWLING	117	111	101	99	99	93	80	81	83
	SMALL-SCALE GEAR	4 948	4 885	4 767	4 627	4 546	4 473	4 400	4 265	4 210
	PURSE SEINE	304	294	284	280	278	272	264	267	266
	BOTTOM-SET LONGLINE	86	84	79	79	79	71	68	67	67
	ANGLERFISH GILLNET	33	33	34	32	31	31	26	24	23
	BOTTOM-SET GILLNET	57	57	54	53	51	50	46	48	47
	<b>Subtotal</b>	<b>5 545</b>	<b>5 464</b>	<b>5 319</b>	<b>5 170</b>	<b>5 084</b>	<b>4 990</b>	<b>4 884</b>	<b>4 752</b>	<b>4 696</b>
GULF OF CADIZ	BOTTOM TRAWLING	159	149	147	142	142	139	127	134	132
	SMALL-SCALE GEAR	546	582	580	572	578	571	563	556	554
	PURSE SEINE	97	92	89	88	87	86	84	86	128
	<b>Subtotal</b>	<b>802</b>	<b>823</b>	<b>816</b>	<b>802</b>	<b>807</b>	<b>796</b>	<b>774</b>	<b>776</b>	<b>814</b>
MEDITERRANEAN	BOTTOM TRAWLING	797	743	703	680	671	626	617	610	611
	SMALL-SCALE GEAR	2 024	1 951	1 871	1 778	1 723	1 658	1 612	1 502	1 780
	PURSE SEINE	268	260	246	243	239	231	222	216	217
	BLUEFIN TUNA PURSE SEINE	6	6	6	6	6	6	6	6	6
	BOTTOM-SET LONGLINE	104	100	87	78	75	71	69	56	73
	<b>Subtotal</b>	<b>3 199</b>	<b>3 060</b>	<b>2 913</b>	<b>2 785</b>	<b>2 714</b>	<b>2 592</b>	<b>2 526</b>	<b>2 390</b>	<b>2 687</b>
<b>TOTALS</b>		<b>10 461</b>	<b>10 250</b>	<b>9 933</b>	<b>9 575</b>	<b>9 417</b>	<b>9 161</b>	<b>8 947</b>	<b>8 714</b>	<b>9 043</b>

<sup>1</sup> THIS INCLUDED PURSE SEINE VESSELS

<sup>2</sup> NEW METHOD CENSUS

## EU FISHING GROUND

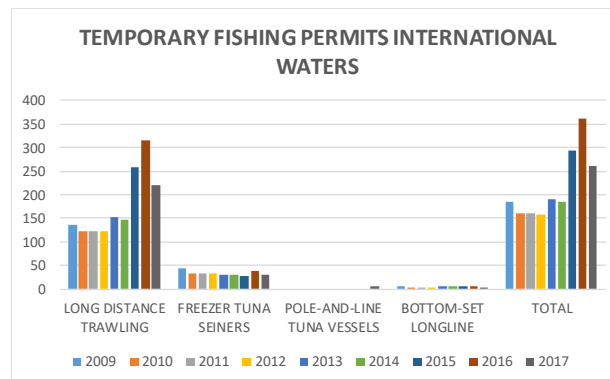
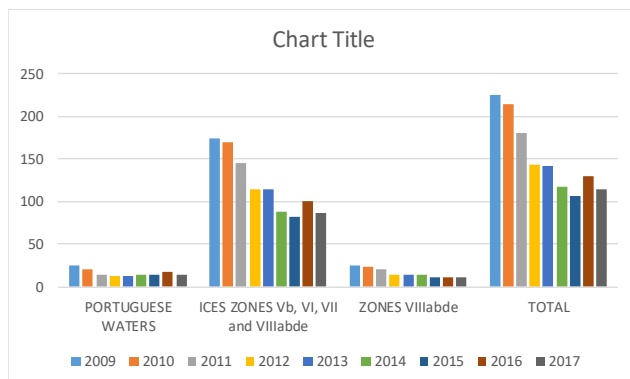
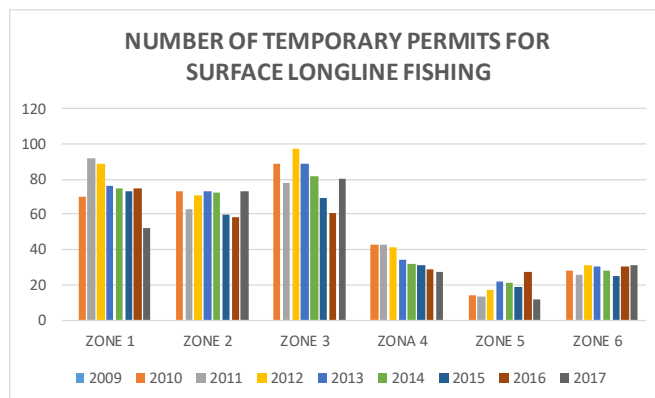
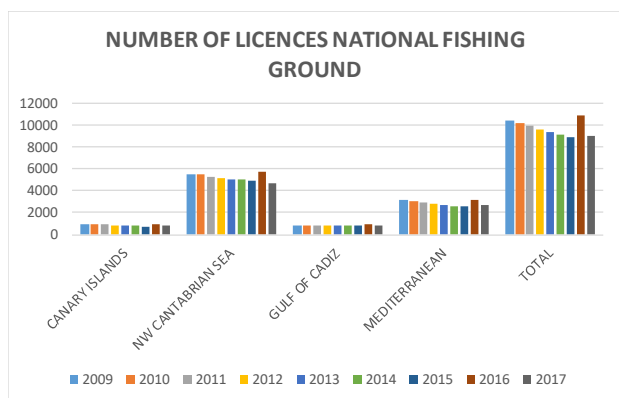
		LICENCES								
		2009	2010	2011	2012	2013	2014	2015	2016	2017
<b>PORTUGUESE WATERS</b>	<i>TRAWLING</i>	25	21	14	13	13	14	14	15	15
<b>ICES ZONES Vb, VI, VII and Villabde</b>	<i>BOTTOM TRAWLING AND PASSIVE GEAR (bottom-set longline and gillnet)</i>	175	170	146	115	114	88	82	87	87
<b>ZONES Villabde</b>	<i>BOTTOM-SET LONGLINE UNDER 100 GRT</i>	25	24	21	15	15	15	11	12	12
<b>TOTALS</b>		<b>225</b>	<b>215</b>	<b>181</b>	<b>143</b>	<b>142</b>	<b>117</b>	<b>107</b>	<b>114</b>	<b>114</b>

## INTERNATIONAL WATERS

		TEMPORARY FISHING PERMITS (PTP)								
		2009	2010	2011	2012	2013	2014	2015	2016	2017
<b>LONG DISTANCE TRAWLING</b>	<i>COD FISHING BOATS</i>	10	10	9	9	4	7	10	11	4
	<i>NAFO</i>	24	22	24	24	14	24	22	11	9
	<i>INTERN. WATERS AND 3 COUNTRIES</i>	102	91	91	89	136	117	227	226	207
<b>FREEZER TUNA SEINERS</b>	<i>ATLANTIC, INDIAN AND PACIFIC OCEANS</i>	33	23	22	22	21	21	18	22	17
	<i>INDIAN, PACIFIC OCEAN</i>	10	10	10	10	10	9	11	16	14
<b>POLE-AND-LINE TUNA VESSELS</b>	<i>ATLANTIC</i>	-	-	-	-	-	-	-	-	7
<b>BOTTOM-SET LONGLINE</b>	<i>INTERNATIONAL AND THIRD COUNTRY WATERS</i>	5	4	4	4	7	6	6	7	3
<b>TOTALS</b>		<b>184</b>	<b>160</b>	<b>160</b>	<b>158</b>	<b>192</b>	<b>184</b>	<b>294</b>	<b>293</b>	<b>261</b>

## SURFACE LONGLINE

	PTP								
	2009	2010	2011	2012	2013	2014	2015	2016	2017
<b>ZONE 1. MEDITERRANEAN</b>	92	70	92	89	76	75	73	75	52
<b>ZONE 2. SPANISH WATERS UP TO 80 MILES</b>	68	73	63	71	73	72	60	58	73
<b>ZONE 3. NATIONAL WATERS OVER 80 MILES AND ATLANTIC NORTH OF THE 5TH PARALLEL NORTH</b>	87	89	78	97	89	82	69	61	80
<b>ZONE 4 ATLANTIC SOUTH OF THE 5TH PARALLEL NORTH</b>	40	43	43	41	34	32	31	29	27
<b>ZONE 5. INDIAN OCEAN</b>	16	14	13	17	22	21	19	27	12
<b>ZONE 6. PACIFIC OCEAN</b>	32	28	26	31	30	28	25	30	31
<b>TOTALS</b>	<b>335</b>	<b>317</b>	<b>315</b>	<b>346</b>	<b>324</b>	<b>310</b>	<b>277</b>	<b>280</b>	<b>275</b>





## **D. ANNEX IV: FISHING** **EFFORT ADJUSTMENT** **REGIMES**

## INDICATION OF EFFORT REGIMES

TYPE OF TEMPORARY WITHDRAWAL	EMFF REGULATION (EU) No 508/2014	Effort decrease in 2017		Effort decrease in 2017	
		GTs	KWs	GTxDays	KWxDays
Gulf of Cadiz Management Plan Trawling	Article 33(1)(a)	829.39	2 796.06	12 440.85	41 940.96
Gulf of Cadiz Management Plan Purse seine	Article 33(1)(a)	280.88	830.72	4 213.20	12 460.74
Management plan for dredge or mechanised dredge fishing off the Mediterranean coast of the Autonomous Community of Andalusia	Article 33(1)(c)	39.25	325.31	902.75	7 482.18
Plan for exploiting eel in the Nalón estuary	Article 33(1)(a)	42.46	510.78	1 273.80	15 323.52
Closed season in the Arousa estuary	Article 33(1)(a)	382.34	6 504.99	15 293.60	260 199.55
Red shrimp management plan Palamós	Article 33(1)(c)	1 013.48	4 229.05	15 202.14	63 435.73
Mediterranean bottom trawling management plan	Article 33(1)(c)	12 595.25	40 340.18	188 928.75	605 102.73
Mediterranean purse seine management plan	Article 33(1)(c)	4 206.75	19 555.52	63 101.25	293 332.80
<b>Grand total</b>		<b>19 389,80</b>	<b>75 092.62</b>	<b>301 356.34</b>	<b>1 299 278.21</b>

Throughout 2017, lines of aid were carried out for definitive withdrawal. These had the immediate effect of the permanent removal of 110 vessels belonging to segments that were not in balance with the above-mentioned action plan, with an effort decrease of 3 886.20 GT and 11 800.5 kW.





# **E. ANNEX V: ENTRY/EXIT** **REGIME**



DEF ADDITIONS AND WITHDRAWALS IN 2017 CENSUS			
WITH DEFINITIVE WITHDRAWAL_DATE IN 2017 CENSUS			
STATUS	VESSELS	GT	KW
AUTOMATIC WITHDRAWAL	2	6.16	64.71
WITHDRAWAL FOR NEW CONSTRUCTION	10	81.3	556.62
CHANGE TO ANOTHER LIST	6	18.55	249.84
SCRAPPED	23	253.02	1 425.00
TEMPORARY EXPORT	5	1 030.87	1 539.71
EXPORTED	7	3 072.32	3 744.85
SUNK ON WATERWAY	8	387.59	915.88
DEFINITIVE CESSATION FOR SCRAPPING	41	2 088.74	6 709.68
WITHDRAWAL FROM FISHING ACTIVITY	102	192.28	1 477.57
ACCIDENT	4	40.69	234.56
	<b>208</b>	<b>7 171.52</b>	<b>16 918.41</b>

ADDITIONS TO THE THIRD LIST CENSUS 2017			
REASON_ADDITION	VESSELS	GT	KW
IMPORT	4	808.46	1 766.15
NEW CONSTRUCTION	39	1 828.79	3 466.22
	<b>43</b>	<b>2 637.25</b>	<b>5 232.37</b>

**FLEET ADDITIONS AND WITHDRAWALS DURING THE LAST SIX YEARS**

YEAR OF WITHDRAWAL	AID	ADDITIONS OF VESSELS TO CENSUS			DEFINITIVE WITHDRAWALS OF CENSUS VESSELS ACCORDING TO DATE OF DEFINITIVE WITHDRAWAL		
		VESSELS	TOTAL GT	TOT KW	VESSELS	TOTAL GT	TOT KW
2013	WITH AID				51	8 480.11	16 361.79
	WITHOUT AID	48	251.06	1 809.17	242	3 814.37	10 818.07
	<b>TOTAL</b>	<b>48</b>	<b>251.06</b>	<b>1 809.17</b>	<b>293</b>	<b>12 294.48</b>	<b>27 179.86</b>
2014	WITH AID				108	10 999.55	24 003.17
	WITHOUT AID	49	5 992.49	12 133.23	183	10 896.05	21 671.66
	<b>TOTAL</b>	<b>49</b>	<b>5 992.49</b>	<b>12 133.23</b>	<b>291</b>	<b>21 895.60</b>	<b>45 674.83</b>
2015	WITH AID				97	10 093.95	19 794.85
	WITHOUT AID	49	8 328.32	12 456.51	186	15 467.35	25 689.65
	<b>TOTAL</b>	<b>49</b>	<b>8 328.32</b>	<b>12 456.51</b>	<b>283</b>	<b>25 561.30</b>	<b>45 484.50</b>
2016	WITH AID				0	0.00	0.00
	WITHOUT AID	51	1 100.45	3 247.46	135	4 832.42	10 563.64
	<b>TOTAL</b>	<b>51</b>	<b>1 100.45</b>	<b>3 247.46</b>	<b>135</b>	<b>4 832.42</b>	<b>10 563.64</b>
2017	WITH AID				0	0.00	0.00
	WITHOUT AID	43	2 637.25	5 232.37	208	7 171.52	16 918.43
	<b>TOTAL</b>	<b>43</b>	<b>2 637.25</b>	<b>5 232.37</b>	<b>208</b>	<b>7 171.52</b>	<b>16 918.43</b>

Aid data approved as of 18 April 2017.



# **F. ANNEX VI:** **ADMINISTRATIVE** **PROCEDURES**

## LEGISLATION

Law 33/2014, of 26 December 2014 amending Law 3/2001 of 26 March 2001 on Spanish sea fishing, with the main aim of acting with a greater degree of deterrence and prevention concerning the activity of vessels on international lists of illegal fishing, with a stronger and more appropriate judicial response to deal with the real beneficiaries of illegal fishing, with a firm commitment to prevent, deter and prosecute any Spanish involvement in or connection with such activities.

### State level

- Directorate General for Fishery Regulation Decision of 27 December 2016 publishing the conversion coefficient to be applied to the Spanish operational fishing fleet.
- General Secretariat for Fisheries Decision of 20 January 2017 laying down the initial quotas for 2017 available by method or census for the different species set out in the management plans for the vessels counted in the National Fishing Grounds of Cantabria and the North-West, the Gulf of Cadiz, and bottom trawl vessels operating in Portuguese waters.
- Order APM/44/2017 of 26 January 2017 establishing a closed season for trawl fishing in a certain coastal area of the Autonomous Community of Catalonia.
- General Secretariat for Fisheries Decision of 26 January 2017 prescribing for 2017 the closed season laid down in Order AAA/923/2013 of 16 May 2013 regulating the fishing of blue and red shrimp (*Aristeus antennatus*) with bottom trawling gear in certain marine areas close to Palamós.
- General Secretariat for Fisheries Decision of 10 February 2017 establishing individual fishing opportunities and individual fishing quotas for 2017 for vessels in the bottom trawl census authorised to fish in Cantabrian and North-West fishing grounds in 2017.
- General Secretariat for Fisheries Decision of 15 February 2017 publishing the allocation of bluefin tuna quotas and quotas for the specific census of the fleet authorised to fish for bluefin tuna.
- General Secretariat for Fisheries Decision of 21 February 2017 amending that of 2 October 2013, amending the sole article of Order APA/874/2003 of 10 April 2003, laying down the ports at which landings over 100 kg of deep water species from sub-areas I to XIV of the International Council for the Exploration of the Sea (ICES) and from European Union waters located within the CECAF zones 34.1.1, 34.1.2, 34.1.3 and 34.2.
- General Secretariat for Fisheries Decision of 28 February 2017 publishing an update of the cod fleet census.
- General Secretariat for Fisheries Decision of 28 February 2017 establishing provisions regulating the fishing ground for Iberian sardine (*Sardina pilchardus*), which is fished in Spanish waters of ICES zones VIIIc and IXa.
- General Secretariat for Fisheries Decision of 28 February 2017 publishing anchovy quotas for Gulf of Cadiz purse seine census vessels in 2017.



- General Secretariat for Fisheries Decision of 28 February 2017 publishing an update of Annexes I, II, III, IV, V, VI, VII, VIII and IX of the Order of 21 December 1999 regulating the fishing activity of the Spanish fleet operating in the North-West Atlantic Fisheries Organisation regulation zone.
- General Secretariat for Fisheries Decision of 28 February 2017 laying down fishery management measures for anchovy (*Engraulis encrasicolus*) in ICES zone VIII in 2017.
- General Secretariat for Fisheries Decision of 3 March 2017 publishing an update of the bottom trawl fleet census in waters of International Council for the Exploration of the Sea Subarea IX subject to Portuguese sovereignty or jurisdiction.
- General Secretariat for Fisheries Decision of 8 March 2017 publishing an individualised distribution of hake quotas for the census of gillnet vessels authorised to fish for hake in the North-West Cantabrian fishing ground during 2017.
- General Secretariat for Fisheries Decision of 9 March 2017 publishing a census of bottom longline vessels authorised to fish for hake in the North-West Cantabrian fishing ground during 2017 as well as the individual hake quota assigned to each one.
- General Secretariat for Fisheries Decision of 14 March 2017 publishing mackerel quotas for North-West Cantabrian purse seine census vessels in 2017.
- Order APM/264/2017 of 23 March 2017 regulating the bluefin tuna fishery in the Eastern Atlantic and the Mediterranean. Order APM/298/2017 of 30 March 2017 correcting errors in Order APM/264/2017 of 23 March 2017 regulating the bluefin tuna fishery in the Eastern Atlantic and the Mediterranean.
- General Secretariat for Fisheries Decision of 27 March 2017 amending Decision of 2 September 2011 publishing a list of designated ports under Order ARM/2017/2011 of 11 July 2011 establishing control of vessels over landings of more than 10 tonnes of herring, mackerel and horse mackerel.
- General Secretariat for Fisheries Decision of 31 March 2017 publishing Norway lobster quotas for purse seine census vessels in the Gulf of Cadiz in 2017.
- General Secretariat for Fisheries Decision of 6 April 2017 updating the census of vessels authorised to carry out professional sea fishing in the Levante de Mallorca - Cala Rajada marine reserve.
- General Secretariat for Fisheries Decision of 6 April 2017 publishing VIIIc and VIIIb horse mackerel quotas for North-West Cantabrian purse seine census vessels in 2017.
- Royal Decree 363/2017 of 8 April 2017 laying down a framework for maritime spatial planning. Related to file cons-4/15.
- Royal Decree 486/2017 of 12 May 2017 amending Royal Decree 1173/2015 of 29 December 2015 developing the European Maritime and Fisheries Fund with regard to aid to permanent and temporary cessation of fishing activity, and Royal Decree 1549/2009 of 9 October 2009 on fishing sector regulation and adaptation to the European Fisheries Fund.
- General Secretariat for Fisheries Decision of 17 March 2017 amending that of 28 February 2017 laying down the provisions regulating the fishing ground for Iberian sardine (*Sardina pilchardus*), which is fished in Spanish waters of ICES zones VIIIc and IXa.

- Order APM/441/2017 of 17 May 2017, amending Order AAA/1136/2016 of 30 June 2016 establishing the regulatory bases for granting aid to the owners and crew of Spanish fishing vessels affected by the permanent cessation of fishing activities. Order APM/740/2017 of 27 July 2017, correcting errors in Order APM/441/2017 of 17 May 2017, amending Order AAA/1136/2016 of 30 June 2016, establishing the regulatory bases for granting aid to the owners and crew of Spanish fishing vessels affected by the permanent cessation of fishing activities.
- Order APM/495/2017 of 31 May 2017 establishing temporary closed seasons for fishing using the trawl method in certain coastal areas of Tarragona and the Autonomous Community of Valencia.
- Order APM/512/2017 of 5 January 2017 establishing a closed season for trawl fishing in the external waters of the Autonomous Community of Murcia.
- Order APM/664/2017 of 12 July 2017 amending, with regard to the catching of octopus, Order AAA/1406/2016 of 18 August 2016 establishing a Management Plan for the census vessels of the National Fishing Ground of the Gulf of Cadiz.
- General Secretariat for Fisheries Decision of 18 July 2017 amending the Decision of 28 February 2017 laying down provisions regulating the fishing ground for Iberian sardine (*Sardina pilchardus*), which is fished in Spanish waters of ICES zones VIIIc and IXa.
- Order APM/763/2017 of 24 July 2017 establishing control of vessels over landings of more than 10 tonnes of certain pelagic species.
- Secretariat General for Fisheries Decision of 27 July 2017 distributing the Spanish quota of blackspot seabream (*Pagellus bogaraveo*), SPR-678, between the fleets of the National Fishing Ground of Cantabria and the North-West and the fleets operating in the NEAFC waters, and laying down measures for fishery management.
- General Secretariat for Fisheries Decision of 21 August 2017 amending the Decision of 28 February 2017 laying down provisions regulating the fishing ground for Iberian sardine (*Sardina pilchardus*), which is fished in Spanish waters of ICES zones VIIIc and IXa.
- General Secretariat for Fisheries Decision of 14 September 2017 publishing the IXa horse mackerel quotas for the North-West Cantabrian purse seine census vessels for 2017 and amending the Decision of 6 April 2017 publishing the VIIIc and VIIIb horse mackerel quotas of the North-West Cantabrian census vessels for 2017.
- General Secretariat for Fisheries Decision of 22 September 2017 laying down additional provisions regulating the fishing ground for Iberian sardine (*Sardina pilchardus*), which is fished in Spanish waters of ICES zones VIIIc and IXa by the Cantabrian and North-West fleet.
- General Secretariat for Fisheries Decision of 27 October 2017 laying down provisions for the management of the IXa horse mackerel fishery for vessels in the Gulf of Cadiz.
- Order APM/1057/2017 of 30 October 2017 amending Order AAA/658/2014 of 22 April 2014, regulating fishing with surface longline gear for catching highly migratory species, and repealing Order ARM/1647/2009 of 15 June 2009 regulating the fishing of highly migratory species.

- General Secretariat for Fisheries Decision of 16 November 2017 updating the census of vessels authorised to carry out professional sea fishing in the Cabo de Palos-Islas Hormigas marine reserve.
- Order APM/1124/2017 of 20 November 2017 establishing temporary closed seasons for purse seine fishing in certain coastal areas of the Autonomous Community of Valencia.
- Decision APM/\_/2017 of 21 November 2017 calling for aid applications for the definitive withdrawal from fishing activities of the fleet with base ports in Catalonia using the sub-method of shellfish production with vessel dredges (chain-side delivery rakes) and for the fishermen and women of the vessels affected by that definitive withdrawal for the year 2017, in accordance with the European Maritime and Fisheries Fund.
- Decision APM/\_/ 2017 of 21 November 2017 calling for aid applications for the temporary withdrawal from fishing activity by vessels fishing for Mediterranean or lesser sandeel (*Gymnammodytes cicerelus*) of the fleet with base ports in Catalonia carried out during the years 2015 and 2016 and for the fishermen of the vessels affected by that temporary withdrawal, in accordance with the European Maritime and Fisheries Fund.
- General Secretariat for Fisheries Decision of 23 November 2017 updating the census of vessels authorised to carry out professional sea fishing using small-scale gear in the Cape Gata - Níjar marine reserve.
- General Secretariat for Fisheries Decision of 23 November 2017 publishing the census of vessels authorised to carry out professional sea fishing using purse seining in the Cape Gata - Níjar marine reserve.
- General Secretariat for Fisheries Decision of 1 December 2017 publishing a list of designated ports under Order ARM/763/2017 of 24 July 2011 establishing control of vessels over landings of more than 10 tonnes of certain pelagic species.
- General Secretariat for Fisheries Decision of 1 December 2017 publishing the list of designated ports in accordance with Order APM/1057/2017 of 30 October 2017 amending Order AAA/658/2014 of 22 April 2017 regulating fishing with surface longline gear for highly migratory species.
- Royal Decree 1035/2017 of 15 December 2017 regulating the establishment and changing of base ports for fishing vessels, and amending Royal Decree 1549/2009 of 9 October 2009 on the regulation of the fishing sector and adaptation to the European Fisheries Fund (related to file 51/15).
- General Secretariat for Fisheries Decision of 19 December 2017 prescribing for 2018 the closed season laid down in Article 7 of Order AAA/923/2013 of 16 May 2013 regulating the fishing of blue and red shrimp (*Aristeus antennatus*) with bottom trawling gear in certain marine areas close to Palamós.

## Autonomous Community level

- DECISION of 21 December 2016 authorising the fishery plan for Henslow's swimming crab (*Polybius henslowii*), harbour crab (*Liocarcinus depurator*) and wrinkled swimming crab (*Liocarcinus corrugatus*) for 2017 in the Autonomous Community of Galicia.

- ORDER ARP/353/2016 of 23 December 2016, approving the regulatory bases for the aid established by the European Maritime and Fisheries Fund. (Catalonia)
- Order of 23 December 2016 making the call for 2017 for the aid provided for in the Order of 14 November 2016 approving the regulatory bases for the granting of aid by competitive tendering for the sustainable development of fishing in Andalusia, within the framework of the European Maritime and Fisheries Fund Operational Programme (2014-2020).
- ORDER of 31 December 2016 establishing the bases and regulating the procedure for the granting by competitive tender of aid for investments that promote sustainable fishing for owners of fishing vessels, co-financed with the European Maritime and Fisheries Fund (EMFF), and making the call for that procedure for 2017, processed as a file of anticipated expenditure. (Galicia)
- ORDER of 31 December 2016 establishing the bases and regulating the procedure for the granting by competitive tender of aid for investments that promote sustainable fishing for crews of fishing vessels, co-financed with the European Maritime and Fisheries Fund (EMFF), and making the call for that procedure for 2017, processed as a file of anticipated expenditure. (Galicia)
- Regional Ministry of Agriculture and the Environment Order 1/2017 of 4 January 2017, setting the working periods and related rules for fishing in waters of the Autonomous Community of Rioja for 2017.
- ORDER ARP/7/2017 of 9 December 2016, calling for applications for the aid established by the European Maritime and Fisheries Fund for 2017. (Catalonia)
- Decision of the Regional Ministry of Rural Development and Natural Resources of 10 January 2017 calling for aid applications for aquaculture and for processing and marketing of the fishing and agricultural products. (Asturias)
- Order MED/1/2017 of 18 January laying down the regulatory bases for aid for investments on board fishing vessels co-financed by the European Maritime and Fisheries Fund (EMFF 2014-2020) (Cantabria).
- DECISION of 24 January 2017 authorising the Plan for the fishing of eel for the fishermen's associations of the Vigo estuary. (Galicia)
- DECISION of 24 January 2017 authorising the Plan for the fishing of eel for the fishermen's associations of the Arousa estuary. (Galicia)
- Order of 25 January 2017 making the call for 2017 for subsidies for professional agricultural organisations, federations of agricultural cooperatives and representative agencies of rural development associations and organisations representing the Andalusian fishing sector, provided for in the Order of 16 February 2011 which is mentioned therein (Andalusia).
- Order of the Regional Minister of the Rural Environment, Fisheries and Food of 31 January 2017 making the call for 2017 for aid applications for investment on board fishing vessels co-financed by the European Maritime and Fisheries Fund (EMFF 2014-2020) (Cantabria)
- Decision of 6 February 2017 of the Regional Ministry of Rural Development and Natural Resources amending closed seasons for the extraction of goose barnacles in the Viavélez working plan. (Asturias)



- ORDER DRS/139/2017 of 8 February 2017 approving the General Plan for Fishing of the Autonomous Community of Aragon for 2017.
- REGIONAL ORDER 67/2017 of 9 February 2017 of the Regional Minister for Rural Development, the Environment and Local Administration approving the regulations which will govern fishing in Navarre during 2017, including certain measures to control populations of invasive exotic species.
- Regional Ministry of Agriculture and Environment Decision 153/2017 of 9 February 2017 proceeding to the call for evidence of entitlement to obtain the fishing permit of the Autonomous Community of Rioja. Year 2017.
- Government of the Autonomous Community of Valencia (Generalitat de Valencia) Law 5/2017 of 10 February 2017 on Sea Fisheries and Aquaculture in the Autonomous Community of Valencia.
- Directorate General for Fisheries and Aquaculture Decision of 13 February 2017 amending the closed season for fishing for the wedge-shell (*Donax trunculus*) on the Atlantic coast of the Autonomous Community of Andalusia during 2017.
- Regional Ministry of Rural Development and Natural Resources Decision of 22 February 2017 approving the General Provision on Closed Seasons for the 2017-2018 season in the territory of Asturias.
- Order of 28 February 2017 establishing a temporary closed period for trawl fishing in the inland waters of Murcia.
- Order of 1 March 2017 amending that of 24 March 2014 laying down a management plan for dredge or mechanised dredge fishing off the Mediterranean coast of Andalusia.
- Regional Ministry of Rural Development and Natural Resources Decision of 8 March 2017 approving a second call for public aid to the Asturian fishing sector aimed at the adaptation of the fishing fleet, for the 2017 financial year. (Asturias)
- Order of 13 March 2017 establishing the regulatory bases for the granting of subsidies by competitive tendering to the temporary withdrawal of the fleet with small-scale gear affected by the management plan for dredge or mechanised dredge fishing off the Mediterranean coast of Andalusia, within the framework of the European Maritime and Fisheries Fund Operational Programme (2014-2020). (Andalusia)
- ORDER of 24 March 2017 amending the Order of 31 December 2016 establishing the bases and regulating the procedure for the granting by competitive tender of aid for investments that promote sustainable fishing for owners of fishing vessels, co-financed with the European Maritime and Fisheries Fund (EMFF), and making the call for that procedure for 2017, processed as a file of anticipated expenditure. (Galicia)
- ORDER of 24 March 2017 amending the Order of 31 December 2016 establishing the bases and regulating the procedure for the granting by competitive tender of aid for investments that promote sustainable fishing for crew members of fishing vessels, co-financed with the European Maritime and Fisheries Fund (EMFF), and making the call for that procedure for 2017, processed as a file of anticipated expenditure. (Galicia)
- DECISION of 24 March 2017 authorising the plan for the fishing of eel for the fishermen's associations of the Ferrol estuary. (Galicia)

- Decision of the Minister for Environment, Agriculture and Fisheries updating the census of vessels authorised for professional marine fishing in waters of the Cabrera Archipelago Maritime-Terrestrial National Park. (Balearic Islands)
- Decision of the Minister for the Environment, Agriculture and Fisheries of 27 March 2017 updating the census of purse seine fishing vessels with base ports on the Balearic Islands.
- Decision of the President of the Balearic Islands Agricultural and Fisheries Guarantee Fund (FOGAIBA) calling for aid applications for 2017 for investments in fishing ports, landing places, auction centres and anchorages. (Balearic Islands)
- Order of 31 March 2017 making the call for 2017 for aid applications provided for in the Order of 13 March 2017 establishing the regulatory bases for the granting of subsidies by competitive tendering to the temporary withdrawal of the fleet with small-scale gear affected by the management plan for dredge or mechanised dredge fishing off the Mediterranean coast of Andalusia, within the framework of the European Maritime and Fisheries Fund Operational Programme (2014-2020). (Andalusia)
- Regional Ministry of Rural Development and Natural Resources Decision of 5 April 2017 establishing a total ban on the extraction of goose barnacles in the Luarca working plan. (Asturias)
- ORDER ARP/59/2017 of 7 April 2017 reducing the number of licences for the fishing of red coral (*Corallium rubrum*) during the 2017 fishing season and establishing the suspension of fisheries from the end of this year's fishing season. (Catalonia)
- Order of 25 April 2017 regulating the catching of octopus (*Octopus vulgaris*) with specific gear in the national fishing grounds of the Gulf of Cadiz and creating the census of vessels authorised for that activity. (Andalusia)
- Decision of the President of the Balearic Islands Agricultural and Fisheries Guarantee Fund (FOGAIBA) calling for aid applications for 2017 for investments in fishing ports, landing places, auction centres and anchorages. (Balearic Islands)
- DECREE 59/2017 of 5 May 2017 of the Regional Ministry, regulating artisanal fishing for octopus. (Valencia).
- Regional Ministry of Rural Development and Natural Resources Decision of 5 May 2017 granting public aid to shellfish fishers of the Villaviciosa estuary in Asturias due to cessation of their extraction activity for the period 1 October 2016 to 31 March 2017 under the *de minimis* regime. (Asturias)
- Order MED/19/2017 of 16 May 2017 regulating closed seasons, minimum sizes and gathering of shellfish and other species of commercial interest during the 2017 season in the Autonomous Community of Cantabria.
- Regional Ministry of Agriculture and the Environment Order 8/2017 of 17 May 2017 amending Regional Ministry of Agriculture and the Environment Order 1/2017 of 4 January 2017 setting the working periods and related rules for fishing in waters of the Autonomous Community of Rioja for 2017. (Rioja)
- Regional Ministry of Agriculture, Environment, Climate Change and Rural Development Decision of 17 May 2017 making the call for 2017 for aid applications to promote sustainable fishing in the Autonomous Community of Valencia.

- DECISION ARP/1163/2017 of 23 May 2017 making the declaration of credit lines actually available from Decision ARP/7/2017 of 9 January 2017 calling for applications for the aid established by the European Maritime and Fisheries Fund for 2017. (Catalonia)
- Director-General for Fisheries and the Marine Environment Decision of 25 September 2017 establishing a census of small-scale professional fishing vessels in the Migjorn de Mallorca marine reserve (Balearic Islands).
- Order of 31 May 2017 amending the Order of 14 June 2016 laying down the regulatory bases for the granting of aid for temporary cessation of fishing activity of the purse seine and/or trawl fleet of Murcia.
- ORDER of 7 June 2017 approving the regulatory bases for the granting of certain subsidies provided for in Regulation (EU) No 508/2014 of the European Parliament and of the Council of 15 May 2014 on the European Maritime and Fisheries Fund (EMFF) for the period 2014-2020. (Canary Islands)
- Directorate-General for Fisheries and Aquaculture Decision of 27 June 2017 publishing the list of vessels temporarily authorised for catching octopus with pots south of the 36th parallel 22.9' N (Island of Sancti Petri) during the year 2017. (Andalusia)
- Order MED/26/2017 of 27 June 2017 amending Order MED/1/2017 of 18 January 2017 laying down the regulatory bases for aid for investments on board fishing vessels - co-financed by the European Maritime and Fisheries Fund (EMFF 2014-2020). (Cantabria)
- Order of 29 June 2017 regulating shellfish production from vessels with hydraulic dredges in the Gulf of Cadiz, laying down technical measures in order to reach the maximum sustainable levels of output. (Andalusia)
- Directorate-General for Fisheries, Aquaculture and Technological Innovation Decision of 29 July 2017 establishing a closed season in the Pontevedra estuary for catching common cuttlefish. (Galicia)
- DECISION of 5 July 2017 of the Director General for Agriculture and Fisheries establishing the closed seasons for artisanal fishing for octopus (*Octopus vulgaris*). (Valencia)
- Regional Ministry of Agriculture and the Environment Decision 880/2017 of 7 May 2017 for the adoption of urgent measures in trout waters in the framework of Regional Ministry of Agriculture and the Environment Order 1/2017 of 4 January 2017 setting the working periods and related rules for fishing in waters of the Autonomous Community of Rioja for 2017. (Rioja)
- Regional Order 0380 LI/2017 of 14 July 2017 regulating the fishing of signal crayfish in Gipuzkoa during 2017. (Basque Country)
- Director-General for Fisheries and the Marine Environment Decision updating the census of small-scale professional fishing vessels in the Levante de Mallorca marine reserve (Balearic Islands).
- Order of 19 July 2017 making the call for 2017 for aid applications for the definitive withdrawal from fishing activity of the small-scale fleet using dredges or mechanised dredges off the Mediterranean coast of Andalusia, and compensation for fishermen affected by the definitive withdrawal from fishing activity of this fleet, provided for in the aforementioned Order. (Andalusia)

- Regional Ministry of Rural Development and Natural Resources Decision of 19 July 2017 granting public aid to the shipowners of fishing vessels or those fishing for elver from vessels belonging to the management plan for the Nalón estuary in the 2016/2017 fishing season for the cessation of their activity. (Asturias)
- Regional Ministry of Rural Development and Natural Resources Decision of 19 July 2017 granting public aid to the Asturian fishing sector aimed at the adaptation of the fishing fleet for investments in fishing vessels and the setting-up of young fishermen, for the 2017 financial year. (Asturias)
- Directorate-General for Fisheries, Aquaculture and Technological Innovation Decision of 24 July 2017 establishing a closed season in the Vigo estuary for catching common cuttlefish. (Galicia)
- Director-General for Fishing and the Marine Environment Decision of 11 September 2017 establishing a census of small-scale professional fishing vessels in the Isla del Toro marine reserve. (Balearic Islands)
- Director-General for Fishing and the Marine Environment Decision of 11 September 2017 establishing a census of small-scale professional fishing vessels in the Islas Malgrats marine reserve. (Balearic Islands)
- Director-General for Fishing and the Marine Environment Decision of 25 September 2017 regulating fishing with traditional boat seines in waters of the Balearic Islands during the 2017-2018 season. (Balearic Islands)
- Director-General for Fishing and the Marine Environment Decision of 25 September 2017 establishing a census of small-scale professional fishing vessels in the Northern Menorca marine reserve. (Balearic Islands)
- Regional Ministry of Rural Development and Natural Resources Decision of 25 September 2017 approving the call for applications for the granting of public aid to shellfish harvesters of the Villaviciosa estuary in Asturias due to cessation.
- ORDER of 27 September 2017 partially amending the Order of 15 September 2016 approving the regulatory bases for the granting of subsidies intended to compensate for the additional costs borne by the operators of certain fishery and aquaculture products of the Canary Islands, included in the Operational Plan for Spain of the European Maritime and Fisheries Fund for the programming period 2014-2020. (Canary Islands)
- Regional Ministry Economic Development and Infrastructure ORDER of 28 September 2017 approving the bases of the call for applications for aid to the fishing and aquaculture sector of the Autonomous Community of the Basque Country for 2017.
- Order of 29 September 2017 amending the Order of 12 May 2016 establishing the regulatory bases for the granting of subsidies by competitive tendering for the temporary withdrawal from fishing activity of the fleet with base ports in Andalusia which operates in Spanish Fishing Grounds, provided for in the European Maritime and Fisheries Fund Operational Plan 2014-2020. (Andalusia)
- Director-General for Fishing and the Marine Environment Decision of 2 October 2017 establishing a census of small-scale professional fishing vessels in the Freus de Ibiza and Formentera marine reserve. (Balearic Islands)

- Order of 7 October 2017 making the 2017 call for applications for aid provided for in the Order of 12 May 2016, amended by the Order of 29 September 2017, establishing the regulatory bases for the granting of subsidies by competitive tendering for the temporary withdrawal from fishing activity of the fleet with base ports in Andalusia which operates in the Spanish Fishing Ground of the Gulf of Cadiz using bottom trawls and purse seines, provided for in the European Maritime and Fisheries Fund Operational Plan 2014-2020. (Andalusia)
- Directorate-General of Fisheries and Aquaculture Decision of 10 October 2017 publishing the census of vessels authorised for the catching of octopus (*Octopus vulgaris*) with specific gear in the Spanish fishing grounds of the Gulf of Cadiz. (Andalusia)
- Director-General for Fishing and the Marine Environment Decision of 18 September 2017 amending the Decision of 25 September 2017 regulating fishing with traditional boat seines in waters of the Balearic Islands during the 2017/2018 season. (Balearic Islands)
- Regional Ministry of Rural Development and Natural Resources Decision of 20 October 2017 regulating the management plan for the fishing of elver in the Tinamayor estuary. (Asturias)
- Regional Ministry of Rural Development and Natural Resources Decision of 20 October 2017 regulating the 2017/2018 fishing season for elver and approving the management plan for the Nalón estuary. (Asturias)
- ORDER ARP/244/2017 of 25 October 2017 approving the regulatory bases for aid for the definitive withdrawal from fishing activity of the fleet with base ports in Catalonia using the sub-method of shellfish production with vessel dredges (chain-side delivery rakes) and for the fishermen and women of the vessels affected by that definitive withdrawal, in accordance with the European Maritime and Fisheries Fund (EMFF). (Catalonia)
- ORDER ARP/242/2017 of 25 October 2017 approving the regulatory bases for aid to the fishing sector in the areas of temporary withdrawal from fishing activity of the fleet with base ports in Catalonia, in accordance with the European Maritime and Fisheries Fund. (Catalonia)
- DECISION of 27 October 2017 authorising the management plan for fishing with Galician artisanal '*bou de vara*' (rod dredge) and '*bou de mano*' (hand dredge) gear. (Galicia)
- Regional Minister for the Rural Environment, Fisheries and Food Decision extending the 2017 closed season for European edible sea urchin (*Paracentrotus lividus*) in the Autonomous Community of Cantabria.
- Regional Ministry of Agriculture, Environment, Climate Change and Rural Development Decision of 3 December 2017 establishing closed seasons for purse seine fishing in certain coastal areas of Valencia.
- Regional Ministry of Water, Agriculture and Fisheries Order of 9 November 2017 establishing a closed season for the recreational marine fishing of octopus (*Octopus vulgaris*) in inland coastal waters of the Autonomous Community of Murcia.
- President of the Balearic Islands Agricultural and Fisheries Guarantee Fund (FOGAIBA) Decision of 24 April 2017 calling for aid applications for 2017 for investments in fishing ports, landing places, auction centres and anchorages. (Balearic Islands)

- DECISION ARP/2709/2017 of 21 November 2017 calling for aid applications for the definitive withdrawal from fishing activity of the fleet with base ports in Catalonia using the sub-method of shellfish production with vessel dredges (chain-side delivery rakes) and for the fishermen and women of the vessels affected by that definitive withdrawal for the year 2017, in accordance with the European Maritime and Fisheries Fund. (Catalonia)
- DECISION ARP/2710/2017 of 21 November 2017 calling for aid applications for the temporary withdrawal from fishing activity of vessels fishing for Mediterranean or lesser sandeel (*Gymnamodytes cicerelus*) of the fleet with base ports in Catalonia carried out during the years 2015 and 2016 and for the fishermen of the vessels affected by that temporary withdrawal, in accordance with the European Maritime and Fisheries Fund. (Catalonia)
- Decision of the President of the Balearic Islands Agricultural and Fisheries Guarantee Fund (FOGAIBA) calling for applications through the anticipated expenditure procedure for subsidies for the temporary withdrawal from fishing activity for 2017 in the Balearic Islands.
- ORDER of 28 November 2017 extending the credit and amending the Order of 31 December 2016 establishing the bases and regulating the procedure for the granting by competitive tender of aid for investments that promote sustainable fishing for owners of fishing vessels, co-financed with the European Maritime and Fisheries Fund (EMFF), and making the call for that procedure for 2017, processed as a file of anticipated expenditure. (Galicia)
- Regional Ministry of Rural Development and Natural Resources Decision of 1 December 2017 regulating the fishing of common octopus (*Octopus vulgaris*) during the 2017/2018 fishing season. (Asturias)
- Order of 11 December 2017 effecting a second call for aid applications for the temporary cessation of activity by the purse seine and/or trawl fleet of Murcia, charged to EMFF funds, corresponding to the years 2016 and 2017.
- Minister for the Environment, Agriculture and Fisheries Decision of 11 December 2017 regulating the temporary stoppages for bottom trawling in the Balearic Islands.
- ORDER FYM/1122/2017 of 14 December 2017 laying down the regulatory standards for fishing in the Autonomous Community of Castile and Leon for 2018.
- Order of 21 December 2017 making the 2018 call for applications for aid provided for in the Order of 12 May 2016, amended by the Order of 29 September 2017, laying down the regulatory bases for the granting of subsidies by competitive tendering for the temporary cessation of fishing activity of the fleet with base ports in Andalusia which operates in the Spanish Fishing Ground of the Mediterranean using surface longlines, provided for in the European Maritime and Fisheries Fund Operational Plan 2014-2020. (Andalusia)
- Director-General for Fisheries and the Marine Environment Decision of 21 December 2017 amending the decisions of the Director-General for the Rural and Marine Environments of 6 October 2012, 8 November 2013 and 12 March 2014 with regard to the Northern Menorca marine reserve. (Balearic Islands)
- Decision of the President of the Balearic Islands Agricultural and Fisheries Guarantee Fund (FOGAIBA) calling for aid applications through the anticipated expenditure procedure to limit the impact of fishing on the marine environment and adapt fishing to the protection of species for 2018-2020. (Balearic Islands)



## **G. ANNEX VII: BALANCE** **INDICATORS BETWEEN** **FLEET CAPACITY AND** **FISHING OPPORTUNITY**



## PROCEDURE FOR ESTABLISHING ACTIVE POPULATIONS BY SUPRAREGION AND MAIN FISHING GEAR; PREPARATION OF INDICATORS

With regard to the **economic indicators**, it should be noted that if only Data Call data are taken into account, we obtain a distorted image of the true situation for the Spanish fleet because, given that the economic data are grouped at supraregion level, the same profitability is considered for a trawler, for example a NAFO trawler, as for a Gulf of Cadiz trawler, which is not correct. We therefore segmented the population in accordance with the fishing grounds (North Atlantic Spanish fishing ground, rest of the North Atlantic, Mediterranean, Canary Islands and other regions) and obtained economic survey data for those segments. In this way it was possible to adjust the economic indicator (see Action Plan).

Conversely, calculation of the **biological indicator SHI**, does not necessarily unequivocally reflect the true situation of the fleet today, where the stock situation may have changed considerably, due to the lack of scientific mortality rates (for example, during 2011-2013, no scientific data are available on the sardine in 27.8c, meaning that there are no biological indicators to warn of stock over-exploitation). It is difficult to find a stock for which scientific data are available for a continuous series of years, which means that a biological indicator is available for one year but not for another. For this reason, like the STECF, we considered the most recent scientific data for each stock and applied it to all the years of the study, aware that by doing this we are not assessing the effort in the capacity decrease. Furthermore, in many cases we are not aware of the mortality rates of stocks amounting to more than 40 % of the catch level, which is necessary to ensure that the indicator is reliable. This means that we do not know whether this segment is exercising high pressure on a vulnerable stock.

Furthermore, the **SAR** is not considered easily calculable because it is necessary to know the SAR stock catch rates for the other fleets (EU, International), with the level of error that this may involve. We only examined the indicator in the sense that one segment catches 10 % of its SAR catch weight.

With regard to the **technical indicator**, there is no clear criterion with regard to the use of maximum days at sea in the segment (220, 260, true maximum, top 10 maximum...). The results are very different; we decided to use the average of the 10 maximum, because this is recommended in the Economic data call, even though this data might not be sufficient either, for example vessels with authorisations to fish in 37.2.2 in the Mediterranean increase the true maximum, making the rest of the fleet appear to be in a situation of technical under-utilisation.

The following studies are carried out for each vessel in order to stratify the active population by supraregion and fishing gear where the greatest activity was mainly exercised using the gear in question:

- For vessels measuring over 10 m in length (or vessels under 10 m with the required data), a detailed study is conducted of the CSP/VMS positions (knowledge of days at sea and vessel position when fishing–sailing) and the catch declaration databases according to the fishing method used for the greatest number of days.
- For vessels under 10 m in length, a supraregion is allocated by the method census. The fishing method is taken from the method census and if the gear is small-scale, PMP is allocated (before 2014, PGP was allocated, but this gear has now been reserved for passive gear used to fish in EU waters with gillnets and bottom longlines). Because the vessels are under 10 m and make one-day trips, one day of fishing is allocated for each sales note day, although this data is minimal because previous



studies have determined that one day of sales notes may correspond to 2.5 days of fishing at sea. The activity considered for the artisanal fleet is therefore minimal compared to the true extent. Vessels that mainly received sales notes with molluscs making up more than 50 % of their weight are allocated DRB (dredges).

From 2014 and with the aim of being able to study the **surface longline** fleet independently and separate it from the rest of the hook gear, all the vessels that mainly fished using surface longlines have been allocated the fishing method **PGO**. This means that we can study the biological, economic and technical indicators of this fleet and separate it from bottom longlines, trolling line, rod and line, etc.

On the other hand, because the Spanish fleet is so dynamic and fishes in such different fishing grounds, the fleet has been segmented in a more detailed manner, differentiating between vessels operating in the North Atlantic, those operating in Spanish fishing grounds (for 2014, vessels operating in the North West Cantabrian Sea have been separated from those fishing in the Gulf of Cadiz) and those operating in EU waters (in this case, vessels operating in ICES waters using passive gear (gillnets and bottom longline) have been allocated the method PGP) and ICES VIIIabde trawlers from NEAFC-NAFO trawlers (essentially by length).

This segmentation, which is increasingly detailed each year, means that there is no continuity throughout the years of study in many segments and it has been observed that **INCONSISTENCIAS** arise in the populations unless a detailed interpretation is carried out.

In order to prepare the indicators, we took into account data available for the Spanish fleet, with certain provisos, which are summarised below:

- During the years 2008-2009-2010, it was not possible to produce error-free calculations of actual activity data (effort, catches) by vessel as required by the Economic data call segmentation. Thus, only socioeconomic indicators achieved through statistical surveys are available (neither technical nor biological data are available for these years).
- Until 2011, the population was segmented on the basis of the licences and permits that each vessel had. From 2012, a detailed analysis was carried out of actual activity for each vessel, based on catch declarations, logbooks, sales notes and VMS positions. Hence the difference between the 2008-2010 populations and the segmentation from subsequent years. In order to obtain 2011 data, we re-segmented the population based on actual activity, not licences. For this reason, the 2011 data were amended.
- Because the Spanish fleet fishes in very different fisheries and in a multitude of fishing grounds, the segmentation into only three supraregions carried out in the Economic Data Call does not provide accurate information in order to establish a balance between capacity and opportunity. Because only three supraregions are established (North Atlantic-Mediterranean and Other Fishing Regions), the economic indicators obtained, for example, for the North Atlantic trawler fleet, include very different fisheries such as the NEAFC cod fishing vessels or the NAFO trawlers that are completely unrelated to the trawlers operating in Spanish fishing grounds. For this reason, more detailed studies were conducted on the Spanish fleet, which are presented and analysed in the Action Plan. This report presents the data by the supraregions established in the Economic data call.

- With the aim of differentiating between the different Spanish fleet fisheries, each year we seek to carry out a segmentation that will allow us to offer data that more closely reflect the true situation and are more detailed, making it possible to differentiate between the different fisheries

From 2013 (and also in 2011, the year when the population was recalculated) the criteria for allocating the gear in accordance with catch declarations were improved. In this way, vessels that in 2012 were categorised under gillnets and hook gear from 24 metres were classified as PGP or PMP in 2011 and 2013, because the number of days spent using the main gear (hok and dfn) was not sufficiently representative for them ultimately to be allocated to this classification and they were transferred to the corresponding multipurpose category.

- In 2014, with the aim of being able to obtain indicators for the surface longline fleet essentially targeted at catches of swordfish and other migratory species, we reserved the PGO method for these surface longline vessels and this made it possible to differentiate them from the other hook gears (HOK: bottom longlines, trolling lines and rod and line...). Due to this, 2014 marked the first appearance of this gear (PGO); and naturally, the number of vessels classified as HOK reduced.

The populations and indicators obtained on the basis of the guidelines for the years 2011-2012-2013-2014-2015-2016 are itemised below.

		2011 LENGTH GROUPS						2012 LENGTH GROUPS						2013 LENGTH GROUPS						2014 LENGTH GROUPS						2015 LENGTH GROUPS						2016 LENGTH GROUPS											
SUPR. GEAR		1	2	3	4	5	6	T 2011	1	2	3	4	5	6	T 2012	1	2	3	4	5	6	T 2013	1	2	3	4	5	6	T 2014	1	2	3	4	5	6	T 2015	1	2	3	4	5	6	T 2016
A	DFN		147	184	29			360		145	168	32	14		359		122	162	30			314		123	159	31			313		117	152	36			305		106	145	23			274
	DRB	1 905	15	83				2 003	1 865	12	83				1 960	1 830	12	83				1 925	1 845	10	81				1 936	1 751	14	81				1 846	1 731	14	84				1 829
	DTS			69	89	188	23	369			64	82	165	19	330			60	82	152	21	315			59	83	140	18	300			61	81	126	18	286			66	74	107	17	264
	FPO		101	68				169		97	75				172		60	49				109		65	56				121		56	49				105		71	56				127
	HOK		72	91	30	26		219	10	73	104	45	106		338		63	76	28	27		194		66	72	30	15		183		62	75	29	9		175		64	74	33	50		221
	PGO																								16	33			49			14	38			52				12	33		45
	PGP	1 993		55	25	76		2 149	2017	45	35				2 097	2 030	87	50	24	71		2 262							63							61							56
	PMP		65					65									30	29				59	1 993	96	64				2 153	2016	95	68				2 179	2 043	70	47				2 160
	PS		24	123	98	97		342		31	130	97	76		334		21	127	97	96		341		20	128	98	89		335		23	122	93	91		329		20	116	99	57		292
	Total Active	3 898	424	673	271	387	23	5 676	3 892	403	659	256	361	19	5 590	3 860	395	636	261	346	21	5 519	3 838	380	619	258	340	18	5 453	3 767	367	608	253	325	18	5 338	3 774	345	588	241	303	17	5 268
Total Inactive	787	18	29	9	22	6	871	687	19	29	9	18	6	768	624	16	29	5	16	5	695	551	17	31	3	23	4	629	590	14	23	4	13	2	646	522	13	27	1	19		582	
Total A	4 685	442	702	280	409	29	6 547	4 579	422	688	265	379	25	6 358	4 484	411	665	266	362	26	6 214	4 389	397	650	261	363	22	6 082	4 357	381	631	257	338	20	5 984	4 296	358	615	242	322	17	5 850	
B	DFN		99	66			165		100	71				171		85	63				148		84	63				147		45	40				85		84	54				138	
	DRB		73	12			85		55	14				69		35	10				45		26	12				38		33					33		18	14				32	
	DTS		25	174	372	160		731		27	164	346	155		692		21	161	332	147		661		21	160	327	146		654		21	152	307	135		615		19	147	301	130		597
	FPO		24					24		19	15				34			17				17			21				21			20				20			24				24
	HOK		77	85	17			179		81	90	30			201		55	70	27			152		55	31				86		42	23				65		52	21				73
	PGO																								41	23			63			45	24			69			44	21			65
	PGP	120	932	17				1 069	121	944	14				1 079	126	977	23				1 126																					
	PMP		46					46							42		29	13				42	118	999	27				1 144	111	1 032	52				1 195	109	951	32				1 092
	PS		22	95	100	26		243		23	92	93	26		234		21	91	91	24		227		20	90	89	25		224		20	90	89	25		224		20	85	86	25		216
	Total Active	120	1 298	449	489	186		2 542	121	1 249	460	469	181		2 480	126	1 223	448	450	171		2 418	118	1 205	445	439	171		2 378	111	1 193	422	420	160		2 306	109	1 144	421	408	155		2 237
Total Inactive	243	310	24	11	4		592	206	284	25	11	3		529	149	250	25	13	10		447	136	209	31	14	5		395	116	195	27	9	6		353	101	204	42	8	3		358	
Total B	363	1 608	473	500	190		3 134	327	1 533	485	480	184		3 009	275	1 473	473	463	181		2 865	254	1 414	476	453	176		2 773	227	1 388	449	429	166		2 659	210	1 348	463	416	158		2 595	
C	DTS				44	31	75					55	35	90					35	29	64				39	30	69						39	33	72				40	30		70	
	FPO			19			19			15				15							15			10				10				16			16			16				16	
	HOK		24	21	17	99	30	191		30	25	12	112	30	209		23	24		96	28	171		37	26		24		87		42	31		21		94		49	43	11	25		128
	PGO																									69	25	94						62	23	85				64	23		87
	PGP	486	28			44		558	481	25					506	498	30	30		20		578																					
	PMP																						494	26	19		10		549	492	19	17		14		542	488	20					508
	PS			23			32	55			16			32	48			13			32	45			20			33	53			18			30	48			14				26
	Total Active	486	52	63	17	187	93	898	481	55	56	12	167	97	868	498	53	67		151	89	858	494	63	75		142	88	862	492	61	82		136	86	857	488	85	57	11	129	79	849
	Total Inactive	263	9	6	7	30	6	321	251	13	11	8	21	5	309	179	7	6	4	28	6	230	159	5	5	4	23	8	204	146	5	3	2	23	7	186	128	6	5	2	18	6	165
	Total C	749	61	69	24	217	99	1 219	732	68	67	20	188	102	1 177	677	60	73	4	179	95	1 088	653	68	80	4	165	96	1 066	638	66	85	2	159	93	1 043	616	91	62	13	147	85	1 014
Total Active	4 504	1 774	1 185	777	760	116	9 116	4 494	1 707	1 175	737	709	116	8 938	4 484	1 671	1 151	711	668	110	8 795	4 450	1 648	1 139	697	653	106	8 693	4 370	1 621	1 112	673	621	104	8 501	4 371	1 574	1 066	660	587	96	8 354	
Total Inactive	1 293	337	59	27	56	12	1 784	1 144	316	65	28	42	11	1 606	952	273	60	22	54	11	1 372	846	231	67	21	51	12	1 228	852	214	53	15	42	9	1 185	751	223	74	11	40	6	1 105	
TOTAL	5 797	2 111	1 244	804	816	128	10 900	5 638	2 023	1 240	765	751	127	10 544	5 436	1 944	1 211	733	722	121	10 167	5 296	1 879	1 206	718	704	118	9 921	5 222	1 835	1 165	688	663	113	9 686	5 122	1 797	1 140	671	627	102	9 459	

## INDICATORS

### 1. -BIOLOGICAL INDICATORS

#### 1. A. SUSTAINABLE HARVEST INDICATOR (SHI)

This measures the extent to which a fleet segment depends for its income on stocks overexploited to levels greater than MSY.

It requires scientific evaluation of stocks (mortality due to fishing and  $F_{msy}$ ). When the stocks evaluated do not amount to more than 40% of the total segment catch value/weight, the indicator is not representative. This is the situation for most of the fleet segments in Spain. In particular, there are no mortality studies for multiple species fished in RFOs, for NAFO, CEFAP species, or at GSA level for the Mediterranean.

Furthermore, no study time series are available, because scientific studies sometimes only last for one year. This means that during the year for which data are not available, we do not know the results of the measures applied, and there is no indicator for years that were not studied. For example, WHB in Mediterranean GSA6 rose from 3.2 in 2011 to 9.5 in 2013 without any studies in 2012; if the indicator (with its yearly values) is applied in this way, the resulting interpretation is impossible. For this reason, we applied the mortality rate using the last available data (this is also the practice followed by the STECF; using the example of WHB, 9.5 was applied to the three years of study). However, we are aware that this is incorrect, since if the stock has been becoming more sustainable, applying the same value every year means this will not be detected.

fao	GSA	Species	Year	Fratio	STATUS
37.1.1	6	<i>Micromesistius poutassou</i> WHB	2011	3.28125	OVEREXPLOITED
37.1.1	6	<i>Micromesistius poutassou</i> WHB	2013	9.50	OVEREXPLOITED

#### CALCULATIONS

We used data from the application [http://sirs.agrocampus-ouest.fr/stecf\\_balance\\_2017/index.php?action=liste.php?&type\\_code=ST&atl\\_version=0&idlang=uk](http://sirs.agrocampus-ouest.fr/stecf_balance_2017/index.php?action=liste.php?&type_code=ST&atl_version=0&idlang=uk) published by the STECF in 2018, updated with new Mediterranean ICES Scientific Advisory Committee (SAC) data, or rather for tuna we used data set out in the International Seafood Sustainability Foundation report (ISSF 2018-02: Status of the World Fisheries for Tuna. Feb. 2018); the data compiled were evaluated by scientists of the Spanish Oceanographic Institute with the aim of validating any divergencies found.

The following pages set out the values used to calculate the indicator value. We used the following traffic light system:

Less than or equal to 1 = green (biological balance)

Greater than 1 and less than 1.2 = amber (slight biological imbalance)

Greater than or equal to 1.2 = red (biological imbalance)

## NORTH ATLANTIC STUDY stock

TYPE	FishStock	F_etoile2	stock_over_exploited	AL3	division
ATL	bli-5b67	0.28	FALSE	bli	27.5.b
ATL	bli-5b67	0.28	FALSE	bli	27.6
ATL	bli-5b67	0.28	FALSE	bli	27.7
ATL	cod.27.1-2	0.83	FALSE	COD	27.1
ATL	cod.27.1-2	0.83	FALSE	COD	27.2
ATL	dgs.27.nea	0.48	FALSE	DGS	27
ATL	ghl.27.561214	1.1	TRUE	GHL	27.5
ATL	ghl.27.561214	1.1	TRUE	GHL	27.6
ATL	ghl.27.561214	1.1	TRUE	GHL	27.12
ATL	ghl.27.561214	1.1	TRUE	GHL	27.14
ATL	had-7b-k	1.69	TRUE	HAD	27.7.b
ATL	had-7b-k	1.69	TRUE	HAD	27.7.c
ATL	had-7b-k	1.69	TRUE	HAD	27.7.e
ATL	had-7b-k	1.69	TRUE	HAD	27.7.f
ATL	had-7b-k	1.69	TRUE	HAD	27.7.g
ATL	had-7b-k	1.69	TRUE	HAD	27.7.h
ATL	had-7b-k	1.69	TRUE	HAD	27.7.i
ATL	had-7b-k	1.69	TRUE	HAD	27.7.j
ATL	had-7b-k	1.69	TRUE	HAD	27.7.k
ATL	had.27.1-2	0.57	FALSE	HAD	27.1
ATL	had.27.1-2	0.57	FALSE	HAD	27.2
ATL	had.27.5b	1	FALSE	HAD	27.5.b
ATL	had.27.46a20	1.49	TRUE	HAD	27.4
ATL	had.27.46a20	1.49	TRUE	HAD	27.6.A
ATL	hke-nrtn	0.96	FALSE	HKE	27.6
ATL	hke-nrtn	0.96	FALSE	HKE	27.7
ATL	hke-nrtn	0.96	FALSE	HKE	27.8.a
ATL	hke-nrtn	0.96	FALSE	HKE	27.8.b
ATL	hke-nrtn	0.96	FALSE	HKE	27.8.d
ATL	hke-soth	2.27	TRUE	HKE	27.8.c
ATL	hke-soth	2.27	TRUE	HKE	27.9.a
ATL	hom-soth	0.4	FALSE	HOM	27.9.a
ATL	hom-west	0.97	FALSE	HOM	27.2.a
ATL	hom-west	0.97	FALSE	HOM	27.5.b
ATL	hom-west	0.97	FALSE	HOM	27.6.a
ATL	hom-west	0.97	FALSE	HOM	27.7.a
ATL	hom-west	0.97	FALSE	HOM	27.7.b
ATL	hom-west	0.97	FALSE	HOM	27.7.j
ATL	hom-west	0.97	FALSE	HOM	27.7.k
ATL	hom-west	0.97	FALSE	HOM	27.8
ATL	hom-west	0.97	FALSE	HOM	27.7.c
ATL	hom-west	0.97	FALSE	HOM	27.7.e
ATL	hom-west	0.97	FALSE	HOM	27.7.f
ATL	hom-west	0.97	FALSE	HOM	27.7.g



ATL	hom-west	0.97	FALSE	HOM	27.7.h
ATL	hom-west	0.97	FALSE	HOM	27.7.i
ATL	lez.27.4a6a	0.35	FALSE	LEZ	27.4.A
ATL	lez.27.4a6a	0.35	FALSE	LEZ	27.6.A
ATL	lin.27.5a	1.17	TRUE	LIN	27.5.A
ATL	mac-nea	1.31	TRUE	MAC	27
ATL	NEP-2324	0.78	FALSE	NEP	27.8.A
ATL	NEP-2324	0.78	FALSE	NEP	27.8.B
ATL	RNG-5B67	0.25	FALSE	RNG	27.12.B
ATL	RNG-5B67	0.25	FALSE	RNG	27.5.B
ATL	RNG-5B67	0.25	FALSE	RNG	27.6
ATL	RNG-5B67	0.25	FALSE	RNG	27.7
ATL	sol.27.8ab	1.1	TRUE	SOL	27.8.a
ATL	sol.27.8ab	1.1	TRUE	SOL	27.8.b
ATL	whb.27.1-91214	1.21	TRUE	WHB	27

### MEDITERRANEAN AND TUNA STUDY stock

TYPE	FishStock	F_etoile2	stock_over_exploited	AL3	division	GSA
MED	ane-gsa06	0.89	FALSE	ane	37.1.1	SA 6
MED	ank-gsa05	7.63	TRUE	ank	37.1.1	SA 5
MED	ank-gsa06	6.49	TRUE	ank	37.1.1	SA 6
MED	ara-gsa01	1.87	TRUE	ara	37.1.1	SA 1
MED	ara-gsa05	1.01	TRUE	ara	37.1.1	SA 5
MED	ara-gsa06	2.43	TRUE	ara	37.1.1	SA 6
MED	ara-gsa09	0.84	FALSE	ara	37.1.3	
med	ars-gsa09-10-11	1.26	TRUE		37.1.3	
MED	bss-gsa07	3.94	TRUE	BSS	37.1.2	SA 7
MED	CTC-GSA05	1.1	TRUE	CTC	37.1.1	SA 5
MED	dps-gsa01	0.9	FALSE	dps	37.1.1	SA 1
MED	hke-gsa01	7.5	TRUE	hke	37.1.1	SA 1
MED	hke-gsa05	8.05	TRUE	hke	37.1.1	SA 5
MED	hke-gsa06	7.71	TRUE	hke	37.1.1	SA 6
MED	hke-gsa07	11.6	TRUE	hke	37.1.2	SA 7
MED	mon-gsa01_05_06_07	2.05	TRUE	MON	37.1.1	SA 1
MED	mon-gsa01_05_06_07	2.05	TRUE	MON	37.1.1	SA 5
MED	dps-gsa06	2.29	TRUE	dps	37.1.1	SA 6
MED	mon-gsa01_05_06_07	2.05	TRUE	MON	37.1.1	SA 6
MED	mon-gsa01_05_06_07	2.05	TRUE	MON	37.1.2	SA 7
MED	mur-gsa05	3.49	TRUE	mur	37.1.1	SA 5
MED	mut-gsa01	4.84	TRUE	mut	37.1.1	SA 1
MED	mut-gsa06	1.56	TRUE	mut	37.1.1	SA 6
MED	mut-gsa07	2.26	TRUE	mut	37.1.2	SA 7
MED	nep-gsa05	1.69	TRUE	nep	37.1.1	SA 5
MED	nep-gsa06	9.49	TRUE	nep	37.1.1	SA 6
MED	occ-gsa05	1.5	TRUE	occ	37.1.1	SA 5
MED	pil-gsa01	1.26	TRUE	pil	37.1.1	SA 1



MED	pil-gsa06	3.71	TRUE	pil	37.1.1	SA 6
med	sbg-gsa07	2.37	TRUE	sbg	37.1.2	SA 7
med	sol-gsa07	7.41	TRUE	SOL	37.1.2	SA 7
MED	swo-med	1.82	TRUE	swo	37	
MED	whb-gsa06	7.88	TRUE	whb	37.1.1	SA 6

TYPE	FishStock	F_etoile2	stock_over_exploited	AL3	division	GSA
TUN	AO-ALB-N	0.54	FALSE	ALB	21	
TUN	AO-ALB-N	0.54	FALSE	ALB	27	
TUN	AO-ALB-N	0.54	FALSE	ALB	31	
TUN	AO-ALB-N	0.54	FALSE	ALB	34	
TUN	AO-ALB-S	0.54	FALSE	ALB	41	
TUN	AO-ALB-S	0.54	FALSE	ALB	47	
TUN	AO-ALB-M	0.83	FALSE	ALB	37	
TUN	IO-ALB	0.85	FALSE	ALB	51	
TUN	IO-ALB	0.85	FALSE	ALB	57	
TUN	PO-ALB-N	0.61	FALSE	ALB	61	
TUN	PO-ALB-N	0.61	FALSE	ALB	67	
TUN	AO-BET	1.28	TRUE	BET	21	
TUN	AO-BET	1.28	TRUE	BET	27	
TUN	AO-BET	1.28	TRUE	BET	31	
TUN	AO-BET	1.28	TRUE	BET	34	
TUN	AO-BET	1.28	TRUE	BET	41	
TUN	AO-BET	1.28	TRUE	BET	47	
TUN	EPO-BET	0.87	FALSE	BET	77	
TUN	EPO-BET	0.87	FALSE	BET	87	
TUN	IO-BET	0.76	FALSE	BET	51	
TUN	IO-BET	0.76	FALSE	BET	57	
TUN	WPO-BET	0.83	FALSE	BET	71	
TUN	WPO-BET	0.83	FALSE	BET	81	
TUN	AO-BFT-E	0.34	FALSE	BFT	27	
TUN	AO-BFT-E	0.34	FALSE	BFT	34	
TUN	AO-BFT-E	0.34	FALSE	BFT	37	
TUN	AO-BFT-W	0.59	FALSE	BFT	21	
TUN	AO-BFT-W	0.59	FALSE	BFT	31	
TUN	AO-BFT-W	0.59	FALSE	BFT	41	
TUN	IO-SKJ	0.81	FALSE	SKJ	51	
TUN	IO-SKJ	0.81	FALSE	SKJ	57	
TUN	WPO-SKJ	0.45	FALSE	SKJ	71	
TUN	swo-io	0.34	FALSE	swo	51	
TUN	swo-io	0.34	FALSE	swo	57	
TUN	AO-YFT	0.77	FALSE	YFT	21	
TUN	AO-YFT	0.77	FALSE	YFT	27	
TUN	AO-YFT	0.77	FALSE	YFT	31	
TUN	AO-YFT	0.77	FALSE	YFT	34	
TUN	AO-YFT	0.77	FALSE	YFT	41	
TUN	AO-YFT	0.77	FALSE	YFT	47	
TUN	EPO-YFT	0.97	FALSE	YFT	77	



TUN	EPO-YFT	0.97	FALSE	YFT	87
TUN	IO-YFT	1.11	TRUE	YFT	51
TUN	IO-YFT	1.11	TRUE	YFT	57
TUN	WPO-YFT	0.74	FALSE	YFT	71
TUN	WPO-YFT	0.74	FALSE	YFT	81

**INDIAN OCEAN STUDY stock**

TYPE	FishStock	F_etoile2	stock_over_exploited	AL3	division
IO	blm-io	2.42	TRUE	BLM	51
IO	blm-io	2.42	TRUE	BLM	57
IO	bum-io	1.18	TRUE	BUM	51
IO	bum-io	1.18	TRUE	BUM	57
IO	mls-io	1.09	TRUE	MLS	51
IO	mls-io	1.09	TRUE	MLS	57

**NORTH ATLANTIC SHI INDICATOR 2016**

FLEET_SEGMENT		capt_assesse d_F_2	capt_t otal	ratio F2	FISHSTOCK _F2	VALOR_STOC K	F_etoil e2	F_ETOILE2XVAL OR	stock_over_ exploited	SHI	
NORTH ATLANTIC	DFN	18-24	4 763 873.57	8 528 480.33	56 %	AO-ALB-N	1 338 218.60	0.54	722 638.04	FALSE	1.67
						AO-BET	37 924.75	1.28	48 543.68	TRUE	
						hke-nrtn	24 751.63	0.96	23 761.56	FALSE	
						hke-soth	2 880 654.24	2.27	6 539 085.12	TRUE	
						mac-nea	453 328.08	1.31	593 859.78	TRUE	
						whb.27.1-91214	28 996.27	1.21	35 085.49	TRUE	
	DTS	24-40	55 901 797.04	135 013 392.77	41 %	AO-BET	240.13	1.28	307.37	TRUE	1.35
						bli-5b67	143 198.03	0.28	40 095.45	FALSE	
						dgs.27.nea	92.54	0.48	44.42	FALSE	
						had-7b-k	23.67	1.69	40.00	TRUE	
						had.27.46a20	30 365.43	1.49	45 244.49	TRUE	
						hke-nrtn	18 037 230.34	0.96	17 315 741.13	FALSE	
						hke-soth	11 407 609.85	2.27	25 895 274.36	TRUE	
						hom-west	20.20	0.97	19.59	FALSE	
						lez.27.4a6a	521 970.53	0.35	182 689.69	FALSE	
						mac-nea	7 244 319.85	1.31	9 490 059.00	TRUE	
		NEP-2324	4 839.44	0.78	3 774.76	FALSE					
		sol.27.8ab	28 239.36	1.1	31 063.30	TRUE					
whb.27.1-91214	18 483 647.67	1.21	22 365 213.68	TRUE							
>40	43 579 714.37	96 336 450.10	45 %	bli-5b67	48 569.09	0.28	13 599.35	FALSE	0.81		
				cod.27.1-2	40 989 053.82	0.83	34 020 914.67	FALSE			
				ghl.27.561214	168 446.11	1.1	185 290.72	TRUE			
				had.27.1-2	589 253.35	0.57	335 874.41	FALSE			
				hke-nrtn	407 821.48	0.96	391 508.62	FALSE			





					mac-nea	31 805.79	1.31	41 665.58	TRUE		
					RNG-5B67	1 326 926.77	0.25	331 731.69	FALSE		
					sol.27.8ab	13 855.54	1.1	15 241.09	TRUE		
					whb.27.1-91214	3 982.42	1.21	4 818.73	TRUE		
<b>HOK</b>	12-18	6 764 246.43	11 277 568.17	60 %	AO-ALB-N	2 526 808.19	0.54	1 364 476.42	FALSE	<b>1.36</b>	
					AO-BET	198 047.08	1.28	253 500.26	TRUE		
					hke-nrtn	30 171.77	0.96	28 964.90	FALSE		
					hke-soth	2 412 749.82	2.27	5 476 942.09	TRUE		
					hom-west	19.56	0.97	18.97	FALSE		
					mac-nea	1 583 153.98	1.31	2 073 931.71	TRUE		
					sol.27.8ab	632.60	1.1	695.86	TRUE		
					whb.27.1-91214	12 663.43	1.21	15 322.75	TRUE		
	18-24	6 876 028.95	9 398 076.31	73 %	AO-ALB-N	3 730 556.28	0.54	2 014 500.39	FALSE	<b>1.11</b>	
					AO-BET	112 441.23	1.28	143 924.77	TRUE		
					AO-BFT-E	1 156.50	0.34	393.21	FALSE		
					AO-YFT	1 758.74	0.77	1 354.23	FALSE		
					hke-nrtn	550.87	0.96	528.84	FALSE		
					hke-soth	1 560 602.71	2.27	3 542 568.15	TRUE		
					mac-nea	1 455 484.64	1.31	1 906 684.88	TRUE		
	24-40	32 256 044.11	45 091 565.75	72 %	AO-ALB-N	23 511 018.67	0.54	12 695 950.08	FALSE	<b>0.63</b>	
					AO-BET	542 125.26	1.28	693 920.33	TRUE		
					AO-BFT-E	4 222 873.46	0.34	1 435 776.98	FALSE		
					hke-soth	317 365.09	2.27	720 418.75	TRUE		
					hom-west	156 972.14	0.97	152 262.98	FALSE		
					mac-nea	3 505 475.91	1.31	4 592 173.44	TRUE		
	PGP	24-40	100 325 451.67	108 216 337.15	93 %	AO-ALB-N	832 961.32	0.54	449 799.11	FALSE	<b>0.96</b>
						AO-BET	13 969.95	1.28	17 881.54	TRUE	
						bli-5b67	50 886.78	0.28	14 248.30	FALSE	
had-7b-k						91.23	1.69	154.18	TRUE		
hke-nrtn						99 426 824.82	0.96	95 449 751.83	FALSE		
sol.27.8ab						717.57	1.1	789.33	TRUE		
PMP	12-18	2 704 406.47	6 681 450.17	40 %	AO-ALB-N	1 295 469.66	0.54	699 553.62	FALSE	<b>1.11</b>	
					AO-BET	118 007.20	1.28	151 049.22	TRUE		
					hke-soth	472 405.05	2.27	1 072 359.46	TRUE		
					mac-nea	815 906.99	1.31	1 068 838.16	TRUE		
					whb.27.1-91214	2 617.57	1.21	3 167.26	TRUE		

**ANALYSIS OF SUSTAINABLE HARVEST INDICATOR IN THE NORTH ATLANTIC**

GEAR	LENGTH	2011	2012	2013	2014	2015	2016	VESSELS 2016
DFN	18-24		1.40	1.64	1.82	1.16	1.64	23
	24-40		1.01					
DTS	24-40					1.38	1.35	107
	>40					0.82	0.81	17
HOK	10-12		1.53		2.04	1.65		
	12-18	1.36	1.32	1.44	2.01	1.32	1.36	74
	18-24		1.02	1.10	1.24	0.84	1.11	33
	24-40	0.82	0.93	0.82	0.92	0.67	0.63	50
PGO	18-24				0.92	0.52		
	24-40				0.83	0.34		
PGP	12-18	1.12						
	18-24	0.90		0.87				
	24-40	0.99		0.99	1.22	0.79	0.96	56
PMP	10-12	0.85						
	12-18				1.25	0.96	1.11	47

In general terms, we see that the Spanish fleet shows a dependence on overexploited stocks that is similar to that of 2015; the greatest dependence on overexploited stocks is seen in the 18-24 m length gillnet, 18-24 m length hooks and 12-18 m length multipurpose strata.

The 10-12 metre length hooks segment accounted for under 40 % of stock catches evaluated, so the biological indicator could not be calculated. We found the same situation with the surface longliners.

**SEGMENTS DEPENDENT ON STOCKS AT RISK:**

- 18-24 m gillnet vessels (gillnet gear) are highly dependent on southern hake stock and their imbalance has worsened compared to 2014. The 24-40 m length accounted for under 40 % of stock catches evaluated.
- 24-40 m trawlers (mainly CNW bottom trawlers) show high dependence on overexploited stocks (blue whiting and southern hake); the >40 m length segment (mainly NAFO freezer trawlers) is not dependent on overexploited stocks, so its biological indicator is in balance.
- Vessels measuring 10-18 m using hook gear, made up primarily of small-scale gear vessels that fish for overexploited stocks (southern hake and mackerel), show increased dependence on those stocks in comparison with 2015; the situation of the 18-24 m segment has worsened in comparison with the previous year, since its dependence on southern hake and blue whiting is increasing. Vessels measuring 24 to 40 m in length using hook gear are not financially dependent overexploited stocks; they are dependent on tuna (ALB, BET), which have an indeterminate mortality rate or are not overexploited, meaning that the segment is not financially dependent on overexploited stocks.
- Fixed-gear PGP 24-40 m vessels (pole-and-line vessels smaller than 100 GRT and gillnet vessels fishing in waters of the ICES zone of the EU) remain in balance; they depend primarily on the northern HKE stock, the evaluation of which shows a stock that is not overexploited (AO-ALB-N).

## SHI INDICATOR IN THE MEDITERRANEAN

FLEET_SEGMENT	capt_asse ssed_F_2	capt_t otal	ratio F2	FISHSTOCK_F 2	VALOR_STOCK	F_etoil e2	F_ETOILE2XVA LOR	stock_over_ex ploited	SHI			
MEDITERRANEAN	DTS	18-24	38 189 680.96	74 790 294.74	51 %	ane-gsa06	70 820.69	0.89	63 030.41	FALSE	3.96	
						ank-gsa05	13 254.23	7.63	101 129.77	TRUE		
						ank-gsa06	110 584.35	6.49	717 692.43	TRUE		
						ara-gsa01	3 617 246.70	1.87	6 764 251.33	TRUE		
						ara-gsa05	3 134 671.64	1.01	3 166 018.36	TRUE		
						ara-gsa06	7 785 607.64	2.43	18 919 026.57	TRUE		
						ara-gsa09	141 445.28	0.84	118 814.04	FALSE		
						bss-gsa07	462.08	3.94	1 820.60	TRUE		
						CTC-GSA05	39 227.39	1.1	43 150.13	TRUE		
						dps-gsa01	1 282 493.90	0.9	1 154 244.51	FALSE		
						dps-gsa06	3 844 982.85	2.29	8 805 010.73	TRUE		
						hke-gsa01	675 994.29	7.5	5 069 957.17	TRUE		
						hke-gsa05	246 511.44	8.05	1 984 417.09	TRUE		
						hke-gsa06	5 421 768.41	7.71	41 801 834.44	TRUE		
						hke-gsa07	337 833.29	11.6	3 918 866.16	TRUE		
						hke-soth	44.14	2.27	100.20	TRUE		
						mon-gsa01_05_06_07	2 466 905.07	2.05	5 057 155.39	TRUE		
						mur-gsa05	250 332.65	3.49	873 660.95	TRUE		
						mut-gsa01	356 628.76	4.84	1 726 083.20	TRUE		
						mut-gsa06	2 610 528.27	1.56	4 072 424.10	TRUE		
						mut-gsa07	94 772.50	2.26	214 185.85	TRUE		
		nep-gsa05	311 238.59	1.69	525 993.22	TRUE						
		nep-gsa06	4 282 922.70	9.49	40 644 936.42	TRUE						
		occ-gsa05	462 513.47	1.5	693 770.21	TRUE						
		pil-gsa01	1 677.00	1.26	2 113.02	TRUE						
		pil-gsa06	31 481.99	3.71	116 798.18	TRUE						
		sbg-gsa07	10 749.03	2.37	25 475.20	TRUE						
		sol-gsa07	1 674.98	7.41	12 411.60	TRUE						
		swo-med	214.57	1.82	390.52	TRUE						
		whb-gsa06	585 093.06	7.88	4 610 533.31	TRUE						
		24-40	27 311 422.39	43 374 652.27	63 %	ane-gsa06	56 364.24	0.89	50 164.17	FALSE		4.12
						ank-gsa05	359.84	7.63	2 745.58	TRUE		
						ank-gsa06	116 067.04	6.49	753 275.09	TRUE		
ara-gsa01	2 050 837.61					1.87	3 835 066.33	TRUE				
ara-gsa05	853 179.62					1.01	861 711.42	TRUE				
ara-gsa06	11 014 139.99					2.43	26 764 360.18	TRUE				
CTC-GSA05	4 738.23					1.1	5 212.05	TRUE				



					dps-gsa01	191 696.05	0.9	172 526.45	FALSE	
					dps-gsa06	1 699 456.36	2.29	3 891 755.06	TRUE	
					hke-gsa01	188 308.48	7.5	1 412 313.60	TRUE	
					hke-gsa05	111 140.63	8.05	894 682.07	TRUE	
					hke-gsa06	4 510 934.68	7.71	34 779 306.38	TRUE	
					hke-gsa07	477 033.99	11.6	5 533 594.28	TRUE	
					mon-gsa01_05_06_07	1 104 868.31	2.05	2 264 980.04	TRUE	
					mur-gsa05	50 025.94	3.49	174 590.53	TRUE	
					mut-gsa01	10 994.16	4.84	53 211.73	TRUE	
					mut-gsa06	1 526 208.69	1.56	2 380 885.56	TRUE	
					mut-gsa07	77 758.83	2.26	175 734.96	TRUE	
					nep-gsa05	137 616.19	1.69	232 571.36	TRUE	
					nep-gsa06	2 440 068.91	9.49	23 156 253.96	TRUE	
					occ-gsa05	19 778.94	1.5	29 668.41	TRUE	
					pil-gsa01	337.61	1.26	425.39	TRUE	
					pil-gsa06	20 238.09	3.71	75 083.31	TRUE	
					sbg-gsa07	144.90	2.37	343.41	TRUE	
					sol-gsa07	195.80	7.41	1 450.88	TRUE	
					whb-gsa06	648 929.26	7.88	5 113 562.57	TRUE	
<b>PGO</b>	12-18	6 546 532.84	6 811 389.09	96 %	AO-ALB-M	193 790.92	0.83	160 846.46	FALSE	1.55
					AO-BET	320.17	1.28	409.82	TRUE	
					AO-BFT-E	1 075 516.71	0.34	365 675.68	FALSE	
					hke-gsa06	225.99	7.71	1 742.38	TRUE	
					mut-gsa01	42.75	4.84	206.91	TRUE	
					swo-med	5 276 636.30	1.82	9 603 478.07	TRUE	
18-24	25 910 375.43	27 420 193.01	94 %	AO-ALB-M	51 363.97	0.83	42 632.10	FALSE	1.66	
				AO-ALB-N	826.85	0.54	446.50	FALSE		
				AO-BET	7 756.34	1.28	9 928.12	TRUE		
				AO-BFT-E	2 716 228.69	0.34	923 517.75	FALSE		
				pil-gsa01	223.34	1.26	281.41	TRUE		
				swo-med	23 133 976.24	1.82	42 103 836.76	TRUE		
<b>PMP</b>	12-18	3 088 246.00	5 707 237.05	54 %	ane-gsa06	1 177 074.16	0.89	1 047 596.00	FALSE	3.21
					ank-gsa06	1 668.07	6.49	10 825.77	TRUE	
					AO-ALB-M	811.70	0.83	673.71	FALSE	
					AO-BFT-E	83 586.76	0.34	28 419.50	FALSE	
					ara-gsa06	76 094.30	2.43	184 909.15	TRUE	
					dps-gsa06	82 893.41	2.29	189 825.91	TRUE	
					hke-gsa06	554 839.25	7.71	4 277 810.62	TRUE	
					mon-gsa01_05_06_07	73 544.23	2.05	150 765.67	TRUE	
					mut-gsa06	86 541.18	1.56	135 004.24	TRUE	
					nep-gsa06	91 549.90	9.49	868 808.55	TRUE	
					pil-gsa01	135 413.41	1.26	170 620.90	TRUE	
pil-gsa06	682 388.97	3.71	2 531 663.08	TRUE						



PS	12-18	14 453 522.47	22 214 146.89	65 %	sw0-med	57.07	1.82	103.87	TRUE	1.74
					whb-gsa06	41 783.59	7.88	329 254.69	TRUE	
PS	12-18	14 453 522.47	22 214 146.89	65 %	ane-gsa06	6 170 054.14	0.89	5 491 348.18	FALSE	1.74
					AO-ALB-M	3 706.73	0.83	3 076.59	FALSE	
					AO-BFT-E	432 465.53	0.34	147 038.28	FALSE	
					CTC-GSA05	2 090.38	1.1	2 299.42	TRUE	
					hke-gsa01	60.90	7.5	456.75	TRUE	
					hke-gsa06	15.14	7.71	116.73	TRUE	
					mac-nea	553.87	1.31	725.57	TRUE	
					mon-gsa01_05_06_07	6 558.04	2.05	13 443.98	TRUE	
					mut-gsa01	544.96	4.84	2 637.61	TRUE	
					mut-gsa06	110.86	1.56	172.94	TRUE	
PS	18-24	25 757 666.13	38 608 984.35	67 %	ane-gsa06	15 755 153.18	0.89	14 022 086.33	FALSE	1.67
					hke-gsa06	35.20	7.71	271.39	TRUE	
					mac-nea	17 195.00	1.31	22 525.45	TRUE	
					pil-gsa01	3 263 364.30	1.26	4 111 839.02	TRUE	
					pil-gsa06	6 719 548.09	3.71	24 929 523.41	TRUE	
whb-gsa06	2 370.36	7.88	18 678.44	TRUE						
PS	24-40	14 118 011.21	14 512 737.79	97 %	ane-gsa06	6 409 258.82	0.89	5 704 240.35	FALSE	0.96
					AO-BFT-E	6 152 116.25	0.34	2 091 719.53	FALSE	
					pil-gsa06	1 556 636.14	3.71	5 775 120.08	TRUE	

### ANALYSIS OF SUSTAINABLE HARVEST INDICATOR IN THE MEDITERRANEAN

GEAR	LENGTH	2011	2012	2013	2014	2015	2016	VESSELS 2016
DTS	18-24	5.47	5.25	5.22	5.30	4.28	3.96	301
	24-40	5.91	5.52	5.58	5.65	3.39	4.12	130
HOK	6-12	2.98	2.30	2.30				
	12-18	2.06	1.84	2.00	3.98			
	18-24	1.79	1.60	1.69				
PGO	12-18				1.71	2.79	1.55	44
	18-24				1.62	2.39	1.66	21
PMP	12-18	1.36					3.21	32
PS	12-18	1.07	1.04	1.25	1.10	1.13	1.74	85
	18-24	1.12	1.08	1.22	1.17	1.20	1.67	86
	24-40	0.75	0.59	0.67	0.65	0.66	0.96	25

Imbalance is observed with financial dependence on overexploited stock:

- Trawlers with a length of 18-24 m and 24-40 m: this fleet has reduced by 11 vessels (6 vessels of 18-24 m length, 5 vessels of 24-40 m length). These are particularly dependent on overexploited species in GSA 06, such as HKE GSA 06, NEP GSA 06, ARA GSA 06, DPS GSA 06, WHB. In terms of GSA 01, the species on which this fleet shows greatest dependence are ARA GSA 01, HKE GSA 01, MON GSA 01 05 06 07.
- Surface longline vessels of 12-24 metre length have reduced their dependence on swordfish (the main species for both segments). However, since their catches are over 80 % of SWO, the indicator remains in imbalance for both segments due to the overexploited status assigned to swordfish by ICCAT.
- The indicators for multipurpose vessels of 12-18 m length (trawlers, small-scale gear vessels, and purse seiners) are in imbalance, since they depend on overexploited stocks, principally HKE GSA 06, PIL GSA 06 and ANE GSA 06.
- 12-24 m purse seiners: we observed a certain improvement in the situation, with a reduction in catches of all the overexploited stocks. Those of 18-24 m length show a clear worsening, due to the increase in catches of sea bream in GSA 01 and blue whiting in GSA 06. The 24-40 m length stratum is made up of 25 vessels, among which are the 6 bluefin tuna purse seiners, which are in a good situation. This segment is highly dependent on BFT-E, which is not an overexploited stock, although it produces high catches of the greatly overexploited PIL GSA06 (although a reduction in the total volume of catches has been observed in comparison with 2014, it continues to be a fleet that is dependent on that stock).

## SHI INDICATOR IN OTHER WATERS

FLEET_SEGMENT			capt_assessed_F_2	capt_total	ratio F2	FISHSTOCK_F2	VALOR_STOCK	F_etoile2	F_ETOILE2XVALOR	stock_over_exploited	SHI	
OTHER FISHING REGIONS	HOK	10-12	2 509 413.57	4 416 547.28	57 %	AO-ALB-N	1 776 719.31	0.54	959 428.43	FALSE	0.63	
						AO-BET	353 140.26	1.28	452 019.53	TRUE		
						AO-BFT-E	279 834.96	0.34	95 143.89	FALSE		
						AO-YFT	99 719.04	0.77	76 783.66	FALSE		
		12-18	4 347 754.49	7 144 114.56	61 %	AO-ALB-N	3 308 094.11	0.54	1 786 370.82	FALSE		0.63
						AO-BET	644 404.01	1.28	824 837.13	TRUE		
						AO-BFT-E	369 230.18	0.34	125 538.26	FALSE		
						AO-YFT	25 389.24	0.77	19 549.71	FALSE		
			mac-nea	636.95	1.31	834.40	TRUE					
		24-40	16.8 71.2 62.5	29.0 17.3	58 %	AO-ALB-N	3 687 755.33	0.54	1 991 387.88	FALSE	0.93	



						AO-BET	7 127 651.21	1.28	9 123 393.55	TRUE	
						AO-BFT-E	44 819.76	0.34	15 238.72	FALSE	
						AO-YFT	6 011 036.21	0.77	4 628 497.88	FALSE	
<b>PMP</b>	10-12	257 719.33	552 420.98	47 %		AO-ALB-N	182 106.24	0.54	98 337.37	FALSE	<b>0.73</b>
						AO-BET	67 209.36	1.28	86 027.98	TRUE	
						AO-BFT-E	7 676.14	0.34	2 609.89	FALSE	
						AO-YFT	727.59	0.77	560.24	FALSE	
<b>PS</b>	>40	525 794 429.03	578 585 351.01	91 %		AO-BET	25 495 734.47	1.28	32 634 540.13	TRUE	<b>0.97</b>
						AO-YFT	97 934 182.62	0.77	75 409 320.62	FALSE	
						blm-io	6 165.32	2.42	14 920.07	TRUE	
						EPO-BET	22 469 340.02	0.87	19 548 325.82	FALSE	
						EPO-YFT	6 318 594.05	0.97	6 129 036.23	FALSE	
						IO-ALB	101 854.51	0.85	86 576.33	FALSE	
						IO-BET	53 105 483,32	0.76	40 360 167.32	FALSE	
						IO-SKJ	62 693 295.59	0.81	50 781 569.43	FALSE	
	IO-YFT	257 669 779.13	1.11	286 013 454.83	TRUE						

## ANALYSIS OF SUSTAINABLE HARVEST INDICATOR IN OTHER WATERS

GEAR	LENGTH	2011	2012	2013	2014	2015	2016	VESSELS 2016
HOK	10-12			0.72		0.61	0.63	49
	12-18		0.75	1.37		0.83	0.63	43
	18-24	1.24				0.97		
	24-40						0.93	25
PMP	10-12						0.73	20
	12-18			0.77	0.78	0.78		
	24-40	0.90		0.88	0.86	0.89		
PS	>40	0.72	0.71	0.68	0.70	0.99	0.97	26

10-24 m vessels using hooks are in biological balance.

Although the situation of large freezer seiners is in balance, a slight improvement has been observed in comparison with 2015, when the catches of stocks at risk had increased considerably, mainly due to the AO-BET, and IO-YFT stocks. These were overexploited in 2015, and remain so 2016.

The Canary Island multipurpose gear vessels are in balance, although their situation has worsened, given that they are dependent on AO-BET which is an overexploited stock.

### 1.B. STOCK AT RISK (SAR) INDICATOR

For this indicator, we considered as high risk species, those included in the

## ANNEX V – SAR STOCK SELECTION

STECF 14-09 Balance indicators all tables\_JRC90403 report, for each study year (2011-2012-2013-2014). We considered that a segment was imbalanced when 10 % of its catches were of a high-risk stock; WE ALSO TOOK INTO ACCOUNT THE OVEREXPLOITATION DETERMINED BY ICES 2014 OF PIL STOCK IN 27.8C and 9A. In 2013, many strata owed 10 % of their catches to MAC in 27-8, which was evaluated as a stock at risk until 2014; however, in 2015, ICES rectified its assessment of this stock and does not consider it high risk;

For the Mediterranean, we considered species that, in our customary catch areas (GSA 1, 5, 6 and 7), have a fish mortality/FMSY >5 to be high risk, in addition to those determined by the STECF and CITES species.

The list of species at risk was corrected with the SAR species that appear in pages 186 to 189 of the 'Assessment of balance indicators for key fleet segments and review of national reports on Member States efforts to achieve balance between fleet capacity and fishing opportunities (STECF-16-18)'

STOCKS AT RISK SAR FOR 2016 AMONG WHICH SPAIN MAKES SOME CATCHES				
AL3	NAME	DIVISION	GSA	STOCK_SHAR
AGN	Angelfish	27		AGN.NEA
ANE	Anchovy	37.1.2	SA 7	ANE-GSA07
ANE	Anchovy	37.2.1	SA 17	ANE-GSA17
BLI	Blue ling	27.8		BLI.NEA
BLI	Blue ling	27.9		BLI.NEA
BSK	BASKING SHARK	37		BSK.37
CCT	SANDTIGER SHARK	37		CCT-37-34
CCT	SANDTIGER SHARK	34.1.1		CCT-37-34
CCT	SANDTIGER SHARK	34.1.2		CCT-37-34
CFB	BLACK DOGFISH	37		CFB-
CYO	Portuguese dogfish	27		CYO.27.NEA
CWO	Gulper sharks nei	37		CWO-GEN
ELE	European eel	27		ELE.2737.NEA
ELE	European eel	37		ELE-MED
GAM	Mouse catshark	37		GAM-ALL_WATERS
GUZ	Guitarfishes nei	27		GUZ-
HAD	Haddock	27.5.b		HAD-27.5b
HER	Atlantic herring	27.6.a		HER.6A7BC
HER	Atlantic herring	27.7.b		HER.6A7BC
HER	Atlantic herring	27.7.c		HER.6A7BC
HKE	European hake	37.1.1	SA 6	HKE-37
HKE	European hake	37.1.2	SA 7	HKE-37
HKE	European hake	37.1.3		HKE-37
HOM	Horse mackerel	27.8		HOM.27.2A4A5B6A7A-CE-K8
JAX	Jack and horse mackerels nei	27.7		HOM.27.2A4A5B6A7A-CE-K8
JAX	Jack and horse mackerels nei	27.8		HOM.27.2A4A5B6A7A-CE-K8
MPO	BULL RAY	27.9		MPO-27-34-37





MPO	BULL RAY	37		MPO-27-34-37
NEP	NORWAY LOBSTER	27.8.C		NEP-2531
NEP	NORWAY LOBSTER	27.9.A		NEP-2627
ORY	Orange roughy	27		ORY.COM
ORY	Orange roughy	47		ORY-SEA
OSC	OCEANIC WHITE TIP	27		OSC-ALL-WATERS
PIL	European sardine	27.8.c		SAR-SOTH
PIL	European sardine	27.9.a		SAR-SOTH
PIL	European sardine	37.1.1	SA 6	PIL-GSA6
POR	Porbeagle	27		POR.NEA-NWA-SEA-SWA-MED
POR	Porbeagle	37		POR.NEA-NWA-SEA-SWA-MED
REB	Beaked redfish	27.2		REB.27.1-2
REB	Beaked redfish	27.1		REB.27.1-2
RED	Atlantic redfishes nei	27.1		REG.27.1-2
RED	Atlantic redfishes nei	27.2		REG.27.1-2
SBL	Bluntnose sixgill shark	27		SBL-
SBL	Bluntnose sixgill shark	37		SBL-
SBR	SEA BREAM	27.6		SBR-678
SBR	SEA BREAM	27.7		SBR-678
SBR	SEA BREAM	27.8		SBR-678
SUA	SAWBACK ANGELSHARK	27.9		SUA-
SAW	Sawfishes	27		SAW-ALL-WATERS
SAW	Sawfishes	37		SAW-ALL-WATERS
SYR	Knifetooth dogfish	37		SYR-

We did not consider whether more than 10 % of the entire stock was fished by fleets from other countries, because we do not actually have this information until the STECF tables evaluating the data for the other Member States are published (and the information would be incomplete, because we do not know the stocks fished by other non-EU countries).

### 2011-2016 SAR RESULTS

	SUPRA	GEAR	LENGTH	FISHSTOCK_SHAR	TOT_WEIGHT	WEIGHT_TOT_STRATUM	PERCENT
2011	N ATLANTIC	PS	10-12	PIL-27.9.a	207 058.50	1 395 580.34	14.84 %
			12-18	PIL-27.9.a	6 027 086.25	20 385 387.42	29.57 %
			18-24	PIL-27.9.a	7 309 375.95	38 371 859.20	19.05 %
	MED	DTS	24-40	HKE-37.1.1-SA 6	1 201 313.53	7 454 258.85	16.12 %
2012	N ATLANTIC	PS	12-18	PIL-27.9.a	5 023 190.61	21 999 621.55	22.83 %
			18-24	PIL-27.8.C	3 766 398.36	35 877 226.03	10.50 %
			18-24	PIL-27.9.a	4 423 488.14	35 877 226.03	12.33 %
2013	N ATLANTIC	DFN	10-12	MAC-27.8	377 535.25	1 970 406.26	19.16 %



			12-18	MAC-27.8	1 380 464.20	6 060 991.12	22.78 %
		FPO	12-18	MAC-27.8	86 939.30	864 103.24	10.06 %
		HOK	10-12	MAC-27.8	540 896.77	1 619 824.24	33.39 %
			12-18	MAC-27.8	910 867.61	3 606 694.90	25.25 %
		PGP	10-12	MAC-27.8	459 122.20	997 428.15	46.03 %
			12-18	MAC-27.8	303 713.02	1 331 069.41	22.82 %
			18-24	MAC-27.8	362 778.31	2 173 063.49	16.69 %
	PS	12-18	PIL-27.9.a	6 309 866.76	23 562 255.00	26.78 %	
		18-24	PIL-27.9.a	4 573 678.83	34 262 041.87	13.35 %	
	MED	DTS	24-40	HKE-37.1.1-SA 6	1 051 521.39	6 524 303.59	16.12 %
		PS	12-18	PIL-37.1.1-SA 6	2 114 120.97	17 418 419.18	12.14 %
			18-24	PIL-37.1.1-SA 6	3 751 962.89	23 656 968.35	15.86 %
			24-40	PIL-37.1.1-SA 6	1 321 386.04	5 883 973.12	22.46 %
	2014	NORTH ATLANTIC	DFN	10-12	MAC-27.8	1 305 284.51	2 760 011.76
12-18				MAC-27.8	2 559 571.82	6 985 928.80	36.64 %
18-24				MAC-27.8	665 168.06	4 192 947.60	15.86 %
DTS			24-40	MAC-27.8	9 761 074.95	75 162 119.01	12.99 %
FPO			12-18	MAC-27.8	158 522.40	943 175.36	16.81 %
HOK			10-12	MAC-27.8	1 324 907.66	2 267 746.37	58.42 %
			12-18	MAC-27.8	1 940 181.35	4 232 491.74	45.84 %
			18-24	MAC-27.8	2 120 428.77	4 451 417.54	47.63 %
			24-40	MAC-27.8	1 484 724.20	3 679 643.61	40.35 %
PMP			00-10	MAC-27.8	1 801 533.66	9 259 929.34	19.46 %
			10-12	MAC-27.8	660 339.70	1 860 990.48	35.48 %
			12-18	MAC-27.8	1 294 830.27	3 201 498.26	40.44 %
PS		12-18	PIL-27.9.a	4 217 748.38	27 810 734.10	15.17 %	
		24-40	MAC-27.8	7 167 460.70	51 822 974.99	13.83 %	
MEDITERRANEAN		DTS	24-40	HKE-37.1.1-SA 6	853 528.27	5 364 565.70	15.91 %
		PS	12-18	PIL-37.1.1-SA 6	2 354 507.49	18 252 661.42	12.90 %
			18-24	PIL-37.1.1-SA 6	3 951 798.35	22 563 771.22	17.51 %
			24-40	PIL-37.1.1-SA 6	1 475 405.51	5 906 032.08	24.98 %
2015	NORTH ATLANTIC	PGO	18-24	BSH-27	2 191 127.68	2 787 149.14	78.62 %
			24-40	BSH-27	8 357 084.60	25 588 902.80	32.66 %
	MEDITERRANEAN	DTS	24-40	HKE-37.1.1-SA 6	655 589.45	5 987 364.34	10.95 %
		PS	12-18	PIL-37.1.1-SA 6	1 817 150.38	15 056 163.81	12.07 %
		PS	18-24	PIL-37.1.1-SA 6	2 884 925.33	21 535 923.50	13.40 %
		PS	24-40	PIL-37.1.1-SA 6	916 405.10	5 973 536.50	15.34 %
2016	NORTH ATLANTIC	PS	10-12	HOM.27.2A4A5B6A7A-CE-K8	481 364.40	2 226 804.27	21.62 %
			24-40	HOM.27.2A4A5B6A7A-CE-K8	5 769 747.14	34 961 229.76	16.50 %
	MEDITERRANEAN	DTS	24-40	HKE-37	708 296.30	5 647 283.31	12.54 %



		PMP	<b>12-18</b>	PIL-GSA6	458 309.20	2 132 473.50	21.49 %
		PS	<b>12-18</b>	PIL-GSA6	2 652 242.67	14 262 216.77	18.60 %
			<b>18-24</b>	PIL-GSA6	4 513 012.71	23 353 172.71	19.33 %
			<b>24-40</b>	PIL-GSA6	1 045 475.15	5 595 168.72	18.69 %

For 2016, we see that in the NORTH ATLANTIC, purse seiners (lengths 10-40 m) fish more than 10 % of the horse mackerel (HOM 27.2A4A5B6A7A-CE-K8) stock at risk. On the other hand, the declining trend in sardine catches continues in 27.91.1, where no stratum achieves 10 %. This is contributing decisively to the recovery of the stock (catches from 7 391 t in 2014 and 4 994 t in 2015 to 2 867 t in 2016).

With regard to the MEDITERRANEAN, we see a slight increase in hake as well as in PIL in GSA 06.

## 2- FLEET OPERABILITY INDICATORS

### 2. A--INACTIVITY INDICATOR

This is calculated using vessels that did not operate for any days during the year. They were classified according to the method census by length segments and the closest supraregion to where they would have carried out their activities if they had fished. Under normal conditions, 20 % of the current fleet may have been expected to be inactive for repairs, conversions, pending sales and so on; if more than 20 % is inactive, this reveals a possible imbalance.

<b>2008</b>		<b>0-10</b>	<b>10-12</b>	<b>12-18</b>	<b>18-24</b>	<b>24-40</b>	<b>&gt; 40</b>	<b>TOTAL</b>	<b>TOTAL GT</b>	<b>TOTAL KW</b>	
NORTH ATLANTIC	subtotal active	3 555	421	718	311	509	42	5 556	199 707.00	435 620.00	
	INACTIVE	2 267	37	47	2	8	1	2 362	5 611.57	26 928.01	
	TOTAL	5 822	458	765	313	517	43	7 918	205 318.57	462 548.01	
	% inactive	38.94	8.08	6.14	0.64	1.55	2.33	29.83	2.73	5.82	
MEDITERRANEA	subtotal active	246	1 506	547	613	209		3 121	78 219.00	302 923.00	
	INACTIVE	383	282	32	20	5		722	3 273.79	18 690.35	
	TOTAL	629	1 788	579	633	214		3 843	81 492.79	321 613.35	
	% inactive	60.89	15.77	5.53	3.16	2.34		18.79	4.02	5.81	
OTHER	subtotal active	697	69	48	18	187	107	1 126	181 171.00	277 354.00	
	INACTIVE	204	10	8	2	3	1	228	2 099.67	6 339.82	
	TOTAL	901	79	56	20	190	108	1 354	183 270.67	283 693.82	
	% inactive	22.64	12.66	14.29	10.00	1.58	0.93	16.84	1.15	2.23	
		INACTIVE	2 854	329	87	24	16	2	3 312	10 985.03	51 958.18
		TOTAL	7 352	2 325	1 400	966	921	151	13 115	470 082.03	1 067 855.18
		% inactive	38.82	14.15	6.21	2.48	1.74	1.32	25.25	2.34	4.87
		Active						9 803	459 097.00	1 015 897.00	
		Inactive						3 312	10 985.03	51 958.18	
		TOTAL						13 115	470 082.03	1 067 855.18	



2009		0-10	10-12	12-18	18-24	24-40	> 40	TOTAL	TOTAL GT	TOTAL KW	
NORTH ATLANTIC	subtotal active	3 532	420	708	351	436	41	5 488	194 639.44	422 867.11	
	INACTIVE	1 238	26	26	1	3	3	1 297	5 014.40	19 801.93	
	TOTAL	4 770	446	734	352	439	44	6 785	199 653.84	442 669.04	
	% inactive	25.95	5.83	3.54	0.28	0.68	6.82	19.12	2.51	4.47	
MEDITERRANEA	subtotal active	236	1 495	539	582	227		3 079	76 746.62	294 562.72	
	INACTIVE	167	205	16	7	2		397	1 478.33	10 052.10	
	TOTAL	403	1 700	555	589	229		3 476	78 224.95	304 614.82	
	% inactive	41.44	12.06	2.88	1.19	0.87		11.42	1.89	3.30	
OTHER	subtotal active	695	61	64	23	177	96	1 116	178 868.87	273 524.58	
	INACTIVE	104	8	4	1	6	1	124	2 717.06	6 445.97	
	TOTAL	799	69	68	24	183	97	1 240	181 585.93	279 970.55	
	% inactive	13.02	11.59	5.88	4.17	3.28	1.03	10.00	1.50	2.30	
		INACTIVE	1 509	239	46	9	11	4	1 818	9 209.79	36 300.00
		TOTAL	5 972	2 215	1 357	965	851	141	11 501	459 464.72	1 027 254.41
		% inactive	25.27	10.79	3.39	0.93	1.29	2.84	15.81	2.00	3.53
								Active	9 683	450 254.93	990 954.41
								Inactive	1 818	9 209.79	36 300.00
								TOTAL	11 501	459 464.72	1 027 254.41
2010		0-10	10-12	12-18	18-24	24-40	> 40	TOTAL	TOTAL GT	TOTAL KW	
NORTH ATLANTIC	subtotal active	4 353	431	712	269	454	34	6 253	176 274.49	402 325.36	
	INACTIVE	400	4	14	4	5	3	430	4 502.83	11 783.10	
	TOTAL	4 753	435	726	273	459	37	6 683	180 777.32	414 108.46	
	% inactive	8.42	0.92	1.93	1.47	1.09	8.11	6.43	2.49	2.85	
MEDITERRANEA	subtotal active	239	1 483	516	532	209		2 979	70 644.03	274 756.67	
	INACTIVE	148	156	8	7	1		320	1 191.66	7 482.28	
	TOTAL	387	1 639	524	539	210		3 299	71 835.69	282 238.95	
	% inactive	38.24	9.52	1.53	1.30	0.48		9.70	1.66	2.65	
OTHER	subtotal active	681	65	64	10	205	98	1 123	184 767.64	281 760.70	
	INACTIVE	89	4	3		1	7	104	2 341.25	5 123.97	
	TOTAL	770	69	67	10	206	105	1 227	187 108.89	286 884.67	
	% inactive	11.56	5.80	4.48	0.00	0.49	6.67	8.48	1.25	1.79	
		INACTIVE	637	164	25	11	7	10	854	8 035.74	24 389.35
		TOTAL	5 910	2 143	1 317	822	875	142	11 209	439 721.90	983 232.08
		% inactive	10.78	7.65	1.90	1.34	0.80	7.04	7.62	1.83	2.48
								Active	10 355	431 686.16	958 842.73
								Inactive	854	8 035.74	24 389.35
								TOTAL	11 209	439 721.90	983 232.08

In 2008, clear inactivity was observed for the artisanal fleet in the 0 to 10 metre length segment, in all regions where this is maintained, with an improvement in 2009 and in 2010. Only the Mediterranean artisanal fleet showed an inactivity index greater than 20 %.

## 2011-2017 INACTIVITY

In 2011 and from this year, the population is the actually active population (the previous years were based on licences and not on activity declared by sales notes, catches or landings).

Starting with 2017, data for the Canary Islands have been obtained separately from those of the 'other waters' supregion.

2011		0-10	10-12	12-18	18-24	24-40	> 40	TOTAL	TOTAL GT	TOTAL KW						
NORTH ATLANTIC	subtotal active	3 898	424	673	271	387	23	5 676	148 992.71	360 300.21						
	INACTIVE	787	18	29	9	22	6	871	13 479.75	28 837.69						
	TOTAL	4 685	442	702	280	409	29	6 547	162 472.46	389 137.90						
	% inactive	16.80	4.07	4.13	3.21	5.38	20.69	13.30	8.30	7.41						
MEDITERRANEA	subtotal active	120	1 298	449	489	186		2 542	63 151.42	247 538.49						
	INACTIVE	243	310	24	11	4		592	2 443.65	15 739.40						
	TOTAL	363	1 608	473	500	190		3 134	65 595.07	263 277.89						
	% inactive	66.94	19.28	5.07	2.20	2.11		18.89	3.73	5.98						
OTHER WATERS	subtotal active	486	52	63	17	187	93	898	173 139.88	258 327.62						
	INACTIVE	263	9	6	7	30	6	321	14 165.02	26 955.04						
	TOTAL	749	61	69	24	217	99	1 219	187 304.90	285 282.66						
	% inactive	35.11	14.75	8.70	29.17	13.82	6.06	26.33	7.56	9.45						
							INACTIVE	1 293	337	59	27	56	12	1 784	30 088.42	71 532.13
							TOTAL	5 797	2 111	1 244	804	816	128	10 900	415 372.43	937 698.45
							% inactive	22.30	15.96	4.74	3.36	6.86	9.38	16.37	7.24	7.63
							Active	9 116	385 284.01	866 166.32						
							Inactive	1 784	30 088.42	71 532.13						
							TOTAL	10 900	415 372.43	937 698.45						
2012		0-10	10-12	12-18	18-24	24-40	> 40	TOTAL	TOTAL GT	TOTAL KW						
NORTH ATLANTIC	subtotal active	3 892	403	659	256	361	19	5 590	136 935.00	338 304.00						
	INACTIVE	687	19	29	9	18	6	768	10 917.19	27 489.98						
	TOTAL	4 579	422	688	265	379	25	6 358	147 852.19	365 793.98						
	% inactive	15.00	4.50	4.22	3.40	4.75	24.00	12.08	7.38	7.52						
MEDITERRANEA	subtotal active	121	1 249	460	469	181		2 480	60 881.00	238 702.00						
	INACTIVE	206	284	25	11	3		529	2 354.06	14 929.54						
	TOTAL	327	1 533	485	480	184		3 009	63 235.06	253 631.54						
	% inactive	63.00	18.53	5.15	2.29	1.63		17.58	3.72	5.89						
OTHER WATERS	subtotal active	481	55	56	12	167	97	868	177 407.00	260 205.00						
	INACTIVE	251	13	11	8	21	5	309	11 646.53	24 015.17						
	TOTAL	732	68	67	20	188	102	1 177	189 053.53	284 220.17						
	% inactive	34.29	19.12	16.42	40.00	11.17	4.90	26.25	6.16	8.45						
							INACTIVE	1 144	316	65	28	42	11	1 606	24 917.78	66 434.69
							TOTAL	5 638	2 023	1 240	765	751	127	10 544	400 140.78	903 645.69
							% inactive	20.29	15.62	5.24	3.66	5.59	8.66	15.23	6.23	7.35
							Active	8 938	375 223.00	837 211.00						
							Inactive	1 606	24 917.78	66 434.69						
							TOTAL	10 544	400 140.78	903 645.69						



<b>2013</b>		<b>0-10</b>	<b>10-12</b>	<b>12-18</b>	<b>18-24</b>	<b>24-40</b>	<b>&gt; 40</b>	<b>TOTAL</b>	<b>TOTAL GT</b>	<b>TOTAL KW</b>	
NORTH ATLANTIC	subtotal active	3 860	395	636	261	346	21	5 519	136 066.58	335 162.37	
	INACTIVE	624	16	29	5	16	5	695	9 352.29	24 747.05	
	TOTAL	4 484	411	665	266	362	26	6 214	145 418.87	359 909.42	
	% inactive	13.92	3.89	4.36	1.88	4.42	19.23	11.18	6.43	6.88	
MEDITERRANEA	subtotal active	126	1 223	448	450	171		2 418	58 287.01	228 215.06	
	INACTIVE	149	250	25	13	10		447	2 785.76	17 336.47	
	TOTAL	275	1 473	473	463	181		2 865	61 072.77	245 551.53	
	% inactive	54.18	16.97	5.29	2.81	5.52		15.60	4.56	7.06	
OTHER	subtotal active	498	53	67		151	89	858	165 142.19	244 159.12	
	INACTIVE	179	7	6	4	28	6	230	13 289.97	24 281.33	
	TOTAL	677	60	73	4	179	95	1 088	178 432.16	268 440.45	
	% inactive	26.44	11.67	8.22	100.00	15.64	6.32	21.14	7.45	9.05	
		INACTIVE	952	273	60	22	54	11	1 372	25 428.02	66 364.85
		TOTAL	5 436	1 944	1 211	733	722	121	10 167	384 923.80	873 901.40
		% inactive	17.51	14.04	4.95	3.00	7.48	9.09	13.49	6.61	7.59
								Active	8 795	359 495.78	807 536.55
								Inactive	1 372	25 428.02	66 364.85
								TOTAL	10 167	384 923.80	873 901.40
<b>2014</b>		<b>0-10</b>	<b>10-12</b>	<b>12-18</b>	<b>18-24</b>	<b>24-40</b>	<b>&gt; 40</b>	<b>TOTAL</b>	<b>TOTAL GT</b>	<b>TOTAL KW</b>	
NORTH ATLANTIC	subtotal active	3 838	380	619	257	341	18	5 453	129 001.80	330 246.41	
	INACTIVE	551	17	31	3	23	4	629	11 040.10	25 463.42	
	TOTAL	4 389	397	650	260	364	22	6 082	140 041.90	355 709.83	
	% inactive	12.55	4.28	4.77	1.15	6.32	18.18	10.34	7.88	7.16	
MEDITERRANEA	subtotal active	118	1 205	445	439	171		2 378	57 855.23	225 218.27	
	INACTIVE	136	209	31	14	5		395	2 389.28	14 376.98	
	TOTAL	254	1 414	476	453	176		2 773	60 244.51	239 595.25	
	% inactive	53.54	14.78	6.51	3.09	2.84		14.24	3.97	6.00	
OTHER	subtotal active	494	63	75		142	88	862	166 253.73	248 922.51	
	INACTIVE	159	5	5	4	23	8	204	12 591.36	22 284.13	
	TOTAL	653	68	80	4	165	96	1 066	178 845.09	271 206.64	
	% inactive	24.35	7.35	6.25	100.00	13.94	8.33	19.14	7.04	8.22	
		INACTIVE	846	231	67	21	51	12	1 228	26 020.74	62 124.53
		TOTAL	5 296	1 879	1 206	717	705	118	9 921	379 131.50	866 511.72
		% inactive	15.97	12.29	5.56	2.93	7.23	10.17	12.38	6.86	7.17
								Active	8 693	353 110.76	804 387.19
								Inactive	1 228	26 020.74	62 124.53
								TOTAL	9 921	379 131.50	866 511.72



2015		0-10	10-12	12-18	18-24	24-40	> 40	TOTAL	TOTAL GT	TOTAL KW	
NORTH ATLANTIC	subtotal active	3 767	367	608	253	325	18	5 338	126 723.09	329 290.47	
	INACTIVE	590	14	23	4	13	2	646	6 349.34	19 269.21	
	TOTAL	4 357	381	631	257	338	20	5 984	133 072.43	348 559.68	
	% inactive	13.54	3.67	3.65	1.56	3.85	10.00	10.80	4.77	5.53	
MEDITERRANEA	subtotal active	111	1 193	422	420	160		2 306	54 624.23	214 790.87	
	INACTIVE	116	195	27	9	6		353	2 089.15	12 970.42	
	TOTAL	227	1 388	449	429	166		2 659	56 713.38	227 761.29	
	% inactive	51.10	14.05	6.01	2.10	3.61		13.28	3.68	5.69	
OTHER	subtotal active	492	61	82		136	86	857	164 291.73	244 956.33	
	INACTIVE	146	5	3	2	23	7	186	12 632.18	20 773.26	
	TOTAL	638	66	85	2	159	93	1 043	176 923.91	265 729.59	
	% inactive	22.88	7.58	3.53	100.00	14.47	7.53	17.83	7.14	7.82	
		INACTIVE	852	214	53	15	42	9	1 185	21 070.67	53 012.89
		TOTAL	5 222	1 835	1 165	688	663	113	9 686	366 709.72	842 050.56
		% inactive	16.32	11.66	4.55	2.18	6.33	7.96	12.23	5.75	6.30
								Active	8 501	345 639.05	789 037.67
								Inactive	1 185	21 070.67	53 012.89
								TOTAL	9 686	366 709.72	842 050.56
2016		0-10	10-12	12-18	18-24	24-40	> 40	TOTAL	TOTAL GT	TOTAL KW	
NORTH ATLANTIC	subtotal active	3 774	345	588	241	303	17	5 268	118 051.00	316 124.28	
	INACTIVE	522	13	27	1	19		582	6 362.89	17 650.40	
	TOTAL	4 296	358	615	242	322	17	5 850	124 413.89	333 774.68	
	% inactive	12.15	3.63	4.39	0.41	5.90	0.00	9.95	5.11	5.29	
MEDITERRANEA	subtotal active	109	1 144	421	408	155		2 237	53 551.04	208 832.66	
	INACTIVE	101	204	42	8	3		358	2 116.11	13 981.21	
	TOTAL	210	1 348	463	416	158		2 595	55 667.15	222 813.87	
	% inactive	48.10	15.13	9.07	1.92	1.90		13.80	3.80	6.27	
OTHER	subtotal active	488	85	57	11	129	79	849	153 875.98	228 711.73	
	INACTIVE	128	6	5	2	18	6	165	9 971.67	17 460.36	
	TOTAL	616	91	62	13	147	85	1 014	163 847.65	246 172.09	
	% inactive	20.78	6.59	8.06	15.38	12.24	7.06	16.27	6.09	7.09	
		INACTIVE	751	223	74	11	40	6	1 105	18 450.67	49 091.97
		TOTAL	5 122	1 797	1 140	671	627	102	9 459	343 928.69	802 760.64
		% inactive	14.66	12.41	6.49	1.64	6.38	5.88	11.68	5.36	6.12
								Active	8 354	325 478.02	753 668.67
								Inactive	1 105	18 450.67	49 091.97
								TOTAL	9 459	343 928.69	802 760.64





2017		0-10	10-12	12-18	18-24	24-40	> 40	TOTAL	TOTAL GT	TOTAL KW	
NORTH ATLANTIC	subtotal active	3 768	341	582	241	299	13	5 244	113 234.68	313 062.11	
	INACTIVE	504	15	26	3	13	1	562	5 971.43	16 244.98	
	TOTAL	4 272	356	608	244	312	14	5 806	119 206.11	329 307.09	
	% inactive	11.80	4.21	4.28	1.23	4.17	7.14	9.68	5.01	4.93	
MEDITERRANEA	subtotal active	109	1 120	428	413	158		2 228	54 100.03	210 248.55	
	INACTIVE	86	202	39	6	2		335	1 812.13	12 252.89	
	TOTAL	195	1 322	467	419	160		2 563	55 912.16	222 501.44	
	% inactive	44.10	15.28	8.35	1.43	1.25		13.07	3.24	5.51	
OTHER WATERS	subtotal active			19		115	84	218	152 826.12	209 278.34	
	INACTIVE				2	11	4	17	6 907.00	9 859.58	
	TOTAL			19	2	126	88	235	159 733.12	219 137.92	
	% inactive			0.00	100.00	8.73	4.55	7.23	4.32	4.50	
CANARY	subtotal active	465	75	43		22		605	4 788.47	24 328.27	
	INACTIVE	134	5	3	2	3		147	1 400.91	4 394.58	
	TOTAL	599	80	46	2	25		752	6 189.38	28 722.85	
	% inactive	22.37	6.25	6.52	100.00	12.00		19.55	22.63	15.30	
INACTIVE		724	222	68	13	29	5	1 061	16 091	42 752	
TOTAL		5 066	1 758	1 140	667	623	102	9 356	341 041	799 669	
% inactive		14.29	12.63	5.96	1.95	4.65	4.90	11.34	4.72	5.35	
								Active	8 295	324 949.30	756 917.27
								Inactive	1 061	16 091.47	42 752.03
								TOTAL	9 356	341 040.77	799 669.30



**TREND % ACTIVE 2011-2017**

	NORTH ATLANTIC						
	2011	2012	2013	2014	2015	2016	2017
0-10	16.80	15.00	13.92	12.55	13.54	12.15	11.80
10-12	4.07	4.50	3.89	4.28	3.67	3.63	4.21
12-18	4.13	4.22	4.36	4.77	3.65	4.39	4.28
18-24	3.21	3.40	1.88	1.15	1.56	0.41	1.23
24-40	5.38	4.75	4.42	6.32	3.85	5.90	4.17
over 40	20.69	24.00	19.23	18.18	10.00	0.00	7.14
<b>TOTAL</b>	<b>13.30</b>	<b>12.08</b>	<b>11.18</b>	<b>10.34</b>	<b>10.80</b>	<b>9.95</b>	<b>9.68</b>

	MEDITERRANEAN						
	2011	2012	2013	2014	2015	2016	2017
0-6	66.94	63.00	54.18	53.54	51.10	48.10	44.10
6-12	19.28	18.53	16.97	14.78	14.05	15.13	15.28
12-18	5.07	5.15	5.29	6.51	6.01	9.07	8.35
18-24	2.20	2.29	2.81	3.09	2.10	1.92	1.43
24-40	2.11	1.63	5.52	2.84	3.61	1.90	1.25
over 40							
<b>TOTAL</b>	<b>18.89</b>	<b>17.58</b>	<b>15.60</b>	<b>14.24</b>	<b>13.28</b>	<b>13.80</b>	<b>13.07</b>

	OTHER REGIONS						
	2011	2012	2013	2014	2015	2016	2017
0-10	35.11	34.29	26.44	24.35	22.88	20.78	
10-12	14.75	19.12	11.67	7.35	7.58	6.59	
12-18	8.70	16.42	8.22	6.25	3.53	8.06	0.00
18-24	29.17	40.00	100.00	100.00	100.00	15.38	100.00
24-40	13.82	11.17	15.64	13.94	14.47	12.24	8.73
over 40	6.06	4.90	6.32	8.33	7.53	7.06	4.55
<b>TOTAL</b>	<b>26.33</b>	<b>26.25</b>	<b>21.14</b>	<b>19.14</b>	<b>17.83</b>	<b>16.27</b>	<b>7.23</b>

CANARY ISLANDS	
2017	
0-10	22.37
10-12	6.25
12-18	6.52
18-24	100.00
24-40	12.00
over 40	
<b>TOTAL</b>	<b>19.55</b>

	TOTAL FLEET						
	2011	2012	2013	2014	2015	2016	2017
0-10	22.30	20.29	17.51	15.97	16.32	14.66	14.29
10-12	15.96	15.62	14.04	12.29	11.66	12.41	12.63
12-18	4.74	5.24	4.95	5.56	4.55	6.49	5.96
18-24	3.36	3.66	3.00	2.93	2.17	1.64	1.95
24-40	6.86	5.59	7.48	7.23	6.35	6.38	4.65
over 40	9.38	8.66	9.09	10.17	7.96	5.88	4.90
<b>TOTAL</b>	<b>16.37</b>	<b>15.23</b>	<b>13.49</b>	<b>12.38</b>	<b>12.23</b>	<b>11.68</b>	<b>11.34</b>

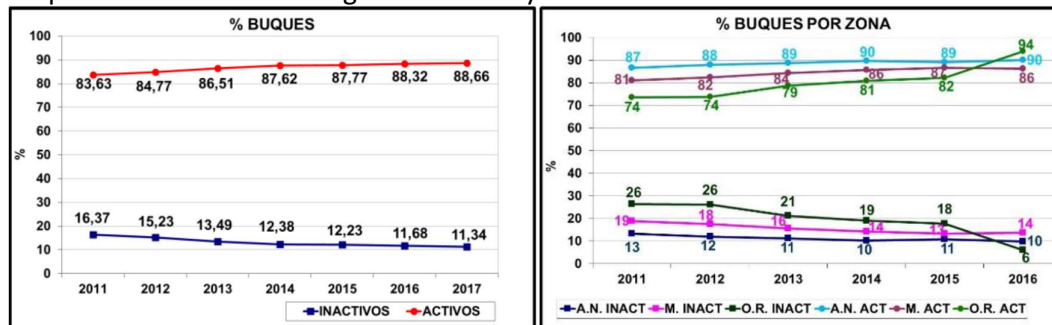
The seven-year trend (2011-17) showed an improvement in fleet operability, including that of the artisanal fleet (0-12 metres), which was slightly imbalanced due to inactivity during 2011/2012. Levels were adjusted during 2013-17. However, if we observe inactivity data by subregion, technical inefficiency is still observed in Mediterranean segment 0-6, even though it improved from 2011.

We also observed slight inactivity in the Canary Islands fleet during the year, which in previous years was associated with the Other Waters supraregion, since it included the Canary Islands fleet. It is because of this disaggregation that the study of the trend for the Other Waters stratum should be performed in two periods: from 2011 to 2016 and from 2017 onwards, since, as can be seen, the activity of the stratum was strongly influenced by the Canary Islands vessels.

**OBSERVATIONS:**

- North Atlantic >40: there were no inactive vessels in 2016, so the result is 0 %. The same occurred in the Other Regions 12-18 m stratum in 2017.
- Other Regions 18-24: during the periods 2011-2015 and 2017 there were no active vessels, so the score was 100 %. In 2015 there were 5 that were moved to the length 5. In 2016 there were 11 that remained in this length stratum. The same was the case in 2017 in the Canary Islands for the 18-24 m length stratum.
- Mediterranean >40 m: there was no active population in any of the years. Consequently there are no data.
- The same is the case with the Canary Islands >40 m and Other Regions 0-12 m in 2017.

Graphs are included showing fleet inactivity.



**2. B- FLEET UTILISATION INDICATOR**

This measures the ratio between the maximum effect that may be exercised by the fleet and the actual effort deployed. It can be used to provide the potential fishing capacity under actual circumstances. If the average activity for a fleet segment is less than 70 %, it expresses technical inefficiency (red). Above 0.9, it demonstrates segment uniformity.

In order to calculate the technical indicator, the Fishing Monitoring Centre (CSP) was required to calculate the days at sea for each vessel 12-15 metres in length, using a 'blue box'. The study therefore took into account the number of days of actual fishing as well as the days from when the vessel left port, because it considers 'fishing activity' as stated in the 2012 guidelines.

For vessels not obliged to keep a blue box, we calculated the days of fishing by days with declared catches when available, or by sales note (most of the vessels in this category are under 10 m in length, in Spanish fishing grounds, with one note per day, because the vessels make trips of under 24 hours). Although this calculation is not accurate because the vessels may spend two or three days fishing that correspond to only one sales note day, it is the most accurate possible method for the artisanal fleet.

Various options are available for obtaining maximum effort. Firstly, the actual maximum effort made by the vessel in each segment that has spent the most days at sea. The ratio between average effort and actual maximum effort is calculated to obtain the **actual maximum technical indicator**.

In Spain, many fleets are subject to a limitation in days of fishing effort, as is the case for most fleets

operating in Spanish fishing grounds (five days/week). Furthermore, these fleets, as for others operating in international waters, are subject to temporary withdrawals and biological closed seasons that make it necessary to moor the fleet for a definite time period, which may or may not coincide with workers' holiday periods. The fleet also remains moored for a variable number of days due to weather conditions, which vary year on year and for different fishing grounds and ports.

When the actual maximum was obtained, it was established that, in most strata, the actual maximum day is not significant because it is an outlier of the strata distribution curve. It does not therefore appear to be an appropriate means of establishing the effort to be made by the fleet.

For these two reasons, we calculated the **maximum technical indicator for the top-ten**, where the distribution of days at sea by stratum is considered to obtain the maximum effort. This theoretical maximum is calculated by following recommendations given by the JRC for calculating the maximum Data Collection day, where it is suggested that this should be obtained by taking the average for the 10 vessels showing the greatest activity.

In this way, we calculated the maximum day for the five-year period 2011-2016. However, this was not the maximum day that we used to calculate the indicator: instead we introduced a variation. To prevent specific foreign data from contaminating the results and given that we already had a time series with a number that represented years of observations, we calculated the maximum day as the average of the six maximums obtained and we used the same day for the whole period.

This made it possible to 'relativise' specific events foreign to the activity that could have arisen. Furthermore, using the same maximum day for the whole period allowed a better time comparison.

We must take into account that the population for the 2008-2010 period was obtained using licences and not based on declared activity. Until 2010, the dredges and trawlers were included within the multipurpose segment. For this reason, we were unable to extract days of effort for these two types of gear during the 2008-2010 period.

In order to analyse the trend, we therefore subdivided to obtain two periods, 2008-2010 and 2011-2016. We also obtained another indicator using 220 as the maximum day, as the STECF does.

We considered that the most representative indicator is the one based on the **'top ten maximum'**, because by taking into account 10 vessels and not merely one vessel, this goes some way to prevent exceptional circumstances that do not reflect the actual situation from giving a distorted view of activity for the stratum.

However, the table included also gives the indicator that uses 220 as the maximum day, which is the one obtained by STECF in previous years.

For the trend, we will consider that **indicator values equal to or greater than 0.9** represent a highly uniform fleet. If this value is **less than 0.7**, the fleet is inefficient because the effort deployed is significantly lower than the maximum effort that could be made. Therefore, values **within the range (0.7 - 0.9)** correspond to a largely uniform fleet, with a level of uniformity directly proportional to the indicator.

Indicators obtained for the period 2008-2016 are shown in the following table:

				MAXIMUM DAY INDICATOR= MAXIMUM AVERAGE									MAXIMUM DAY INDICATOR=220								
	Stratum	Gear	Length	2008	2009	2010	2011	2012	2013	2014	2015	2016	2008	2009	2010	2011	2012	2013	2014	2015	2016
North Atlantic	ADTS	Bottom trawling	3	0.71	0.77	0.93	0.77	0.82	0.86	0.88	0.86	0.88	0.58	0.63	0.76	0.71	0.76	0.79	0.81	0.80	0.82
			4	0.73	0.80	0.88	0.80	0.78	0.83	0.78	0.86	0.88	0.68	0.74	0.81	0.79	0.77	0.82	0.77	0.84	0.88
			5	0.70	0.68	0.76	0.73	0.79	0.80	0.76	0.78	0.82	1.09	1.06	1.18	1.07	1.16	1.18	1.11	1.15	1.19
			6	0.69	0.65	0.74	0.71	0.76	0.68	0.74	0.76	0.71	0.94	0.89	1.01	0.96	1.03	0.92	1.00	1.03	0.95
	APS	Purse seine	2	0.82	0.74	0.72	0.63	0.81	0.78	0.74	0.62	0.78	0.51	0.46	0.45	0.37	0.47	0.46	0.44	0.37	0.45
			3	0.66	0.71	0.70	0.69	0.73	0.73	0.67	0.65	0.72	0.63	0.68	0.67	0.68	0.71	0.72	0.66	0.64	0.71
			4	0.76	0.80	0.82	0.88	0.83	0.84	0.77	0.80	0.85	0.75	0.79	0.81	0.90	0.84	0.86	0.78	0.82	0.87
			5	0.57	0.62	0.66	0.86	0.87	0.81	0.79	0.85	0.84	0.73	0.79	0.84	0.86	0.88	0.82	0.80	0.86	0.84
	ADFN		2	0.81	0.84		0.62	0.71	0.71	0.70	0.71	0.72	0.47	0.49		0.61	0.69	0.69	0.68	0.69	0.71



Mediterranean	AHOK	Gillnets	3	0.77	0.84	0.78	0.65	0.75	0.74	0.74	0.75	0.76	0.74	0.81	0.76	0.72	0.84	0.82	0.83	0.84	0.84			
			4	0.85	0.86	0.89	0.83	0.92	0.86	0.87	0.88	0.90	0.87	0.88	0.90	1.20	1.02	1.05	1.16	0.97	0.98	0.99	1.01	
			5	1.02	0.86	0.89		0.85								1.20	1.02	1.05						
			1	0.49	0.60	0.62		1.12							0.34	0.41	0.43		0.39					
			2	0.62	0.67	0.66	0.57	0.68	0.68	0.66	0.71	0.68	0.50	0.55	0.54	0.42	0.51	0.51	0.49	0.53	0.49	0.53	0.51	0.51
	APGO	Surface longliners	4							0.93	0.91	1.00									0.93	0.90	1.00	
			5							1.08	1.04	0.97									1.40	1.36	1.33	
			2				0.65	0.72	0.68	0.78	0.76	0.83					0.60	0.67	0.63	0.72	0.70	0.77	0.77	
			3				0.72	0.76	0.72	0.76	0.74	0.88					0.63	0.66	0.63	0.66	0.64	0.78	0.78	0.78
			1				0.50	0.50	0.44	0.47	0.44	0.48					0.51	0.52	0.46	0.49	0.46	0.50	0.50	0.50
	AFPO	Pots	2																					
			3																					
			1				0.37	0.91	1.18	1.01	1.08	0.85					0.24	0.59	0.76	0.65	0.70	0.54	0.54	
			2				0.43	0.92	1.02	0.88	1.09	0.77					0.32	0.69	0.77	0.66	0.82	0.57	0.57	
			3																					
	ADRB	Dredges	1	0.44	0.45	0.45	0.41	0.45	0.38	0.39	0.39	0.44	0.46	0.47	0.49	0.48	0.46	0.44	0.46	0.46	0.46	0.50	0.50	
			2	0.56	0.59	0.62	0.86	0.54	0.62	0.62	0.60	0.64	0.61	0.64	0.65	0.71	0.43	0.51	0.51	0.51	0.50	0.52	0.52	
			3	0.64	0.67	0.50	0.77	0.67	0.73	0.78	0.76	0.83	0.67	0.70	0.69	0.75	0.63	0.71	0.75	0.73	0.82	0.82	0.82	
			4	1.03			0.81		0.78				0.77			0.84		0.81						
			5		0.83	1.21	0.95		0.80	0.83	0.83	0.90		1.14	1.27	1.29		1.09	1.13	1.12	1.23	1.23	1.23	
Other regions	BDTS	Bottom trawling	2	0.82	0.84	0.83	0.83	0.78	0.86	0.86	0.87	0.82	0.74	0.76	0.75	0.74	0.68	0.76	0.76	0.77	0.73	0.73		
			3	0.76	0.78	0.81	0.78	0.79	0.80	0.80	0.79	0.81	0.79	0.81	0.84	0.83	0.85	0.86	0.86	0.84	0.86	0.84	0.86	
			4	0.72	0.74	0.76	0.74	0.75	0.74	0.76	0.78	0.77	0.84	0.86	0.88	0.90	0.90	0.89	0.91	0.94	0.92	0.92	0.92	
			5	0.79	0.82	0.81	0.78	0.78	0.81	0.79	0.84	0.83	0.90	0.94	0.92	0.90	0.90	0.93	0.91	0.97	0.95	0.95	0.95	
			2	0.58	0.66	0.80	0.53	0.65	0.86	0.79	0.92	0.80	0.38	0.44	0.53	0.47	0.57	0.76	0.70	0.82	0.72	0.72	0.72	
	BPS	Purse seine	3	0.67	0.73	0.74	0.71	0.75	0.78	0.84	0.81	0.83	0.71	0.78	0.80	0.84	0.88	0.92	0.99	0.96	0.97	0.97		
			4	0.77	0.87	0.88	0.85	0.86	0.87	0.84	0.86	0.89	0.85	0.96	0.97	1.00	1.02	1.03	1.03	1.02	1.06	1.06		
			5	0.48	0.48	0.57	0.55	0.49	0.47	0.49	0.46	0.48	0.47	0.47	0.55	0.59	0.52	0.50	0.52	0.49	0.51	0.51		
			2				0.65	0.71	0.70	0.76	0.69	0.71					0.62	0.68	0.68	0.73	0.66	0.69		
			3				0.79	0.79	0.80	0.84	0.78	0.81					0.77	0.77	0.78	0.82	0.76	0.79		
	BHOK	Hooks	2	0.48	0.64	0.68	0.57	0.56	0.55	0.65	0.67	0.62	0.42	0.57	0.61	0.50	0.49	0.47	0.56	0.58	0.54	0.54		
			3	0.57	0.63	0.60	0.60	0.63	0.69	0.66	0.59	0.68	0.54	0.59	0.56	0.51	0.54	0.59	0.57	0.50	0.58	0.58		
			4	1.01	0.77	0.73	0.85	0.92	0.78				1.11	0.85	0.80	0.81	0.87	0.74						
			3							0.72	0.75	0.71								0.71	0.74	0.68		
			4							0.86	0.86	0.82								0.87	0.87	0.81		
	BPGO	Surface longliners	2																					
			3																					
			2				1.02	0.80									0.82	0.64						
			3					1.28	1.18	1.29	1.28	1.24						1.18	1.09	1.19	1.18	1.14		
			2				0.57	0.71	0.69	0.63	0.83	0.65					0.39	0.48	0.47	0.43	0.56	0.43		
BDRB	Dredges	3				0.93	1.00	0.94	0.96		0.99				0.80	0.85	0.80	0.82		0.88				
		1	0.32	0.32	0.32	0.31	0.33	0.36	0.42	0.38	0.38	0.26	0.26	0.26	0.26	0.28	0.31	0.35	0.32	0.33				
		2	0.48	0.51	0.51	0.47	0.48	0.49	0.52	0.51	0.49	0.49	0.52	0.52	0.49	0.50	0.50	0.54	0.53	0.51				
		3	0.76	0.78	0.84	1.05	0.67	0.77	0.66	0.73	0.90	0.84	0.86	0.93	0.98	0.62	0.72	0.62	0.68	0.86				
		1	0.73	0.73	0.81	0.81	0.58	0.65	0.83	0.84	0.85	1.17	1.17	1.30	1.23	0.88	0.99	1.26	1.27	1.30				
CDTS	Bottom trawling	6	0.80	0.87	0.89	0.86	0.87	0.85	0.88	0.87	0.84	1.13	1.22	1.25	1.27	1.28	1.26	1.30	1.28	1.24				
		3		0.81	1.32	0.53	0.78	0.83	0.89	0.80	0.91		0.76	1.24	0.42	0.62	0.66	0.70	0.63	0.74				
		6	0.94	0.93	0.91	0.94	0.92	0.90	0.81	0.87	0.96	1.43	1.41	1.39	1.43	1.40	1.37	1.23	1.33	1.46				
		2		0.74	0.92	0.57	0.72	0.52	0.66	0.62	0.64		0.39	0.49	0.31	0.40	0.28	0.36	0.34	0.36				
		3		0.85	0.73	0.60	0.92	0.65	0.55	0.67	0.71		0.66	0.56	0.45	0.70	0.49	0.41	0.51	0.54				
CHOK	Hooks	4	0.82	0.84	0.83	0.95	0.94				0.89	0.92	0.94	0.93	1.21	1.21				1.06				
		5	0.87	0.84	0.89	0.98	0.94	0.92	0.68	0.78	0.79	1.37	1.32	1.40	1.42	1.36	1.33	0.98	1.14	1.12				
		6	0.88	0.89	0.90	0.93	0.90	0.92				1.39	1.41	1.43	1.46	1.41	1.43							
		5							0.87	0.89	0.86							1.40	1.43	1.38				
		6							0.91	0.92	0.95							1.45	1.48	1.52				
CPGO	Surface longliners	2									0.82									0.44				
		3				0.69	0.86		0.86	0.83					0.37	0.46		0.46	0.44					
		1	0.25	0.28	0.27	0.28	0.28	0.31	0.32	0.32	0.33	0.27	0.30	0.30	0.30	0.31	0.34	0.35	0.35	0.36				
		2	0.56	0.38	0.56	0.37	0.78	0.61	0.55	0.52	0.61	0.33	0.23	0.33	0.20	0.42	0.33	0.29	0.28	0.32				
		3	0.62	0.63	0.73			0.78	0.74	0.76		0.55	0.55	0.64			0.69	0.66	0.67					
CFPO	Pots	5																						
		6																						
		1	0.91		0.90	0.91		0.89	0.88	0.95		0.95		0.93	0.91		0.89	0.88	0.96					
		2																						
		3																						

### 3- ECONOMIC INDICATORS

#### 3. A- CR/BER

This is a measure of short-term financial profitability. It compares current revenue (CR) with break-even revenue (BER), which is the revenue necessary to cover fixed and variable costs incurred in carrying out the activity.

If the indicator is **greater than one (green indicator)**, sufficient revenue has been generated to cover costs. The higher this is, the more profitable the sector. On the contrary, the stratum is not financially sustainable if the indicator is **less than one (red indicator)**, because the revenue obtained will not be able to cover the costs incurred. In this case, the indicator is classified as dark red. When the result is a negative indicator, this is because the variable costs have exceeded the revenue obtained. Indicator values close to 1 (**[0.9,1.0]**), indicate a degree of financial balance. These are classified as amber.

The indicator for the period 2008-2016 was obtained.

This was calculated as follows:

**CR** = Current revenue = Revenue from fishing activity + Other revenue from use of the vessel

**BER** = Fixed costs / (1- (Variable costs/ Current revenue))

Where:

- **Fixed costs** = Depreciation + Non-variable costs + Opportunity costs

For the calculation, the capital cost opportunity is omitted because if it is included we would be evaluating the long-term profitability, which has already been evaluated in the ROFTA.

- **Variable costs** = Crew wages and salaries + Unremunerated work + Repair and maintenance costs + Energy costs + Other variable costs.

The data necessary for this calculation are:

- Current revenue (not including subsidies) made up of:

- Revenue due to fishing activity
- Other revenue from the use of the boat, such as tourism activities, recreational fishing and so on

- Fixed costs divided into

- Annual depreciation or amortisation
- Non-variable costs, including:
  - Renting of other machinery and equipment
  - Insurance premiums payable

- Repair and maintenance of tangible property on land
  - Water, gas, electricity (land)
  - Commissions (land)
  - Transport and freight (land)
  - Workshop material (land)
  - Communications (land)
  - Legal and accounting advice, computers, advertising (land)
  - Fees for trade organisations and/or associations
  - Travel and subsistence for land staff
  - Other land costs
  - Other taxes on production
  - Total cost of paid land staff
- Variable costs, including:
- Wages and salaries of crew
  - Unpaid labour (Imputed value of unpaid labour)
  - Cost of vessel parts, repairs and maintenance
  - Costs of energy (fuel)
  - Other variable costs, including:
    - Bait, salt, ice, packaging
    - Supplies
    - Fishing tackle
    - Lubricants
    - Communication
    - Transport and freight
    - Travel and subsistence
    - Port expenses
    - Port taxes
    - Fees for trade organisations and/or associations
    - Licences
    - Other vessel expenses

All these variables are obtained directly from the Sea Fishing Economic Survey conducted by the Ministry of Agriculture, Food and Environment, apart from one: **Imputed value of unpaid labour**. This value is calculated by the statistics team by equating hours of unpaid work to the average value of paid hours.

## Special cases

We found some difficulty when calculating the indicators:

- We were unable to calculate the indicator because the stratum did not contain any population. This meant that in some cases it was impossible to analyse the trend in a stratum and we were only able to conclude whether the result obtained for the year was acceptable or not. This was the case, for example, for the stratum APS1, for which we only have an indicator for 2009, for the stratum CPS1 where data are only available for 2009 and 2010, for the stratum BHOK5, for which data are only available for 2009 and 2010, etc. For this reason, these strata were removed from the analysis, also taking into account that the year in which this stratum appears is not the latest in the series.
- The presence of strata in which some data were missing, which distorted the value obtained and even made the calculation impossible. These data were depreciation and non-variable costs. In order not to eliminate these strata from the study, we imputed this value by taking the average for other years. The strata for which we made this imputation were:
  - 2008: we obtained the depreciation from BPS2, BHOK2 and CPMP2. In the case of BHOK2, we also had to calculate the non-variable costs.
  - 2009: we imputed the depreciation in strata ADTS3 and AHOK1.
  - 2010: in strata APS2, APS4, AHOK1, AHOK3, APMP3, BHOK3, CHOK2, CPMP1, CPMP2 and CPMP3, it was necessary to impute the depreciation. Furthermore, for stratum CPS1 we also obtained the non-variable costs.
  - 2011: it was necessary to calculate the depreciation in strata AFPO2, BDTS2, BPS2, BHOK2, BPGP3, BDRB2, CPGP2 and CFPO3. For strata ADRB2, BPGP3 and BDRB2, we imputed non-variable costs.
  - 2012: because depreciation data were not completed for strata ADTS3, ADFN2, ADFN3, AHOK2, BPS2, BDFN3, BPGP1, BFPO2, CPS3, CHOK2, CPGP1, CPGP2, CFPO3, we imputed them. Non-variable costs were also calculated for strata CPS3 and CPGP2.
  - 2013: we imputed the depreciation for strata ADFN2, APMP2, BPS2, BDFN2, BPGP1, BFPO3, BDRB2 and CPGP2. We also imputed the non-variable costs for strata APMP2 and BPGP1.
  - 2014: we imputed the depreciation in strata ADTS3, AHOK5, APMP2, AFPO2, AFOP3, BDTS2, BPS2, BPMP1, BDRB2 and CPMP2. For stratum BDRB2, we also imputed non-variable costs. In this case, it was not possible to obtain the indicator because both data (fixed costs and depreciation) were missing.
  - 2015: for this year it was necessary to impute depreciation in 6 strata: AHOK5, BHOK2, BPMP1, CPS3, CPMP1 and CPMP2.
  - 2016: we imputed the depreciation in the following strata: APS2, ADFN4, APMP1, APMP2, BPS2, BDFN2, BDFN3, BPMP1, BDRB2 and CFPO2. In addition, for the last stratum it was necessary to impute variable costs. In this last case the lack of fixed costs (non-variable costs + depreciation) made calculation of the indicator impossible.



- Staff costs were not available for various strata. This particularly concerned the unpaid staff value. In these cases, we did not enter any value because we established that there was great variability with regard to staff for these strata throughout other years, both with regard to the number of people and type (paid and unpaid), as well as with regard to costs. There were also only a few cases, and the missing data did not prevent us from calculating the indicator. For this reason, we considered it appropriate to continue not entering this variable. This has not occurred since 2015.
- Negative results arose when the variable costs exceeded current revenue. This can arise when current revenue is excessively low or when some of the variable cost components are too high.

After carrying out an analysis of the data, it was established that in our case these negative data were mainly due to low revenue and high unpaid labour values. This year, the indicator was negative in just one stratum: CFPO2. We were able to verify that the fact that the pots in this region have a negative indicator is always due to low revenue.

- In the fleet report for last year we detected one stratum where both indicators underwent an exponential increase compared to 2013. The stratum in question was CDT5. We established that this was due to a significant increase in revenue. The revenue has decreased this year, and while greater than that of 2013, it follows a more reasonable trend. This appears to indicate that either the data for 2014 were incorrect, or something extraordinary occurred in that year which resulted in the increased revenue.  
This stratum will remain under study. The data for next year will help to verify the real trend.
- In 2015, the stratum BDRB3 did not present an indicator for the first time since 2011. This is because the population of that stratum was less than 10 vessels in 2015, and for reasons of statistical confidentiality it was joined to the cluster BDRB2.
- Since 2011, when they began to be studied separately, we have seen how in other regions pots have always appeared in length 3, while this year they are in length 2. This is because this year, unlike the other years, the greatest number of vessels is in this length, in which all the vessels have been grouped for statistical confidentiality. However, we have confirmed that it is the same population.

Indicators obtained for the period 2008-2016 are:

				CR/BER								
Stratum	Gear	Length	2008	2009	2010	2011	2012	2013	2014	2015	2016	
North Atlantic	ADTS	Bottom trawling	3	-0.65	0.61	0.43	1.87	4.45	-0.25	0.58	5.44	2.81
			4	1.40	1.55	0.74	0.96	0.44	1.29	1.12	1.42	4.01
			5	0.21	0.57	0.94	1.04	1.54	0.44	1.42	1.61	3.42
			6	0.78	0.87	1.62	1.04	1.45	1.79	1.87	3.48	3.56
	APS	Purse seine	2	-0.54	2.05	-3.69	1.62	0.16	1.81	6.15	4.59	5.08
			3	0.91	3.56	7.87	1.38	2.64	1.36	2.39	3.15	7.23
			4	0.82	1.39	1.08	1.31	1.49	0.54	0.86	1.53	5.40
			5	-0.37	0.27	3.08	1.55	2.96	4.26	3.97	1.87	9.75
	ADFN	Gillnets	2	0.60	-0.66		1.37	-1.27	0.64	-4.94	2.85	16.01
			3	0.39	0.82	1.42	3.25	-0.70	-0.82	1.00	0.37	3.89
			4	1.57	1.26	0.81	2.12	0.99	3.32	2.35	1.02	0.79
			5	0.22	0.65	-0.24		1.47				
	AHOK	Hooks	1	0.49	3.66	-22.77		2.62				
			2	-1.69	-1.09	-2.36	1.04	-2.95	-2.59	2.34	3.27	3.74
			3	1.70	0.66	-0.83	-0.44	0.88	1.56	2.61	2.63	4.12
			4	1.45	1.11	1.21	0.66	1.05	0.84	1.86	2.07	1.71
			5	0.83	1.86	1.68	0.82	2.40	0.92	0.83	0.86	13.14
	APGO	Surface longliners	4							1.17	2.66	8.75
			5							2.19	2.39	3.95
	AFPO	Pots	2				0.98	-1.47	-2.21	-0.81	2.16	7.35
3						0.08	-0.19	-0.05	0.00	1.66	5.43	
ADRB	Dredges	1				8.15	-7.80	0.87	-6.42	9.25	11.56	
		2				0.47	0.68	3.47	4.47	0.20	14.45	
		3				-0.04	2.52	1.31	0.65	1.93	4.12	
Multipurpose		1	0.10	1.08	-0.75	-0.42	1.80	-1.18	-1.74	3.19	2.52	
		2	0.18	1.27	1.30	0.04	0.50	-0.09	7.28	1.79	1.97	
		3	0.45	9.11	1.43	12.67	0.02	3.16	0.87	1.56	6.44	
		4	1.76			4.89		0.83				
		5		0.30	1.31	3.56		2.93	2.10	2.83	3.35	
Mediterranean	BDTS	Bottom trawling	2	0.29	0.91	2.51	2.58	2.60	2.35	3.16	3.13	9.14
			3	0.76	1.16	0.12	0.23	1.43	0.78	1.59	1.97	5.38
			4	0.02	0.62	0.45	0.88	0.94	2.05	1.32	1.37	3.75
			5	0.43	0.33	0.37	0.14	0.82	-0.47	1.26	1.38	3.19
	BPS	Purse seine	2	3.99	1.62	7.15	11.34	7.23	20.64	13.31	6.28	9.11
			3	1.14	4.11	1.27	3.75	3.70	6.93	6.43	3.65	3.65
			4	0.74	0.69	0.73	1.46	1.63	6.53	3.19	2.68	4.02
			5	1.16	0.30	1.25	1.38	2.90	1.98	1.36	2.11	2.56
	BDFN	Gillnets	2				3.13	4.92	6.87	-2.12	6.66	3.54
			3				0.18	0.85	1.31	0.62	-1.06	1.41
	BHOK	Hooks	2	0.21	2.71	1.16	0.02	0.15	0.94	-2.72	1.06	13.17
			3	0.16	0.77	-1.57	0.07	5.45	0.65	0.35	1.31	3.52

Other regions	BPGO	Surface longliners	4	0.65	0.33	0.59	1.19	1.04	3.44			
			3							1.86	-0.60	5.26
		4								1.48	1.52	2.67
	BFPO	Pots	2				6.49	0.35				
			3					0.61	0.65	2.13	2.37	6.16
	BDRB	Dredges	2				0.35	-1.38	-0.66	0.61	1.88	1.11
			3				3.26	3.24	4.64	9.38		3.01
	Multipurpose		1	-11.76	-10.65		0.54	-1.20	6.10	7.98	0.91	3.31
			2	-1.30	1.01	2.43	0.10	0.20	0.87	0.76	5.61	8.69
			3	1.29	0.13	-0.92	3.12	2.51	0.65	0.65	3.98	3.22
	CDTS	Bottom trawling	5	0.02	0.19	0.18	4.26	0.80	0.53	11.74	2.71	2.87
			6	0.26	1.17	1.50	2.26	0.67	1.23	3.78	2.15	1.89
	CPS	Purse seine	3		0.43	0.40	3.50	-0.40	1.04	1.73	1.47	19.14
			6	1.47	0.59	1.82	2.47	3.97	3.26	2.28	0.99	2.30
	CHOK	Hooks	2		5.93	2.24	2.05	0.19	0.19	3.69	2.34	4.73
3				-0.55	-0.79	0.59	2.55	0.10	0.42	2.28	0.28	
4			-0.62	0.24	-0.51	3.99	-0.62				3.89	
5			0.36	0.93	1.32	1.69	0.53	3.43	0.89	1.26	3.03	
6			0.72	1.04	1.15	1.58	0.74	0.10				
CPGO	Surface longliners	5							1.79	3.54	2.83	
		6							2.32	1.95	1.88	
CFPO	Pots	2									-2.27	
		3				-1.88	12.57		-4.35	-17.94		
Multipurpose		1	-1.18	-10.47	-0.96	-17.40	-6.26	-23.06	-0.08	2.62	5.33	
		2	0.51	-0.79	1.09	-1.59	-1.54	-0.97	1.92	-0.87	0.45	
		3	-1.17	2.76	-4.23			1.88	6.63	-0.04		
		5	-0.54		0.00	0.52		0.65	0.17	0.72		

## B- ROFTA (%)

This measures the long-term financial profitability of the sector. It compares the profits obtained through investment made with benefits that would have been obtained if the investment had been made at a rate of interest free of long-term risk (TRP). As a comparison, we used 10-year government bonds with a convergence criterion, obtained from the Statistical Bulletin of the Bank of Spain. To avoid fluctuations, due mainly to the economic crisis, instead of using the bond value for a given year, we used the average for the five years preceding the year of study. The TRP obtained for the five-year study is:

	2008	2009	2010	2011	2012	2013	2014	2015	2016
TRP	3.94	3.99	3.97	4.14	4.47	4.78	4.82	4.56	4.06

The sector is considered to be profitable (green indicator) when the ROFTA is higher than this interest. This indicates that extra benefits are obtained through the fishing activity that would not have been obtained by investing the capital.

The ROFTA is red when the result was negative. This occurs when the net profit is negative because revenue is less than total costs.

In some cases (amber indicator), even though the ROFTA is positive, it is less than the TRP. These strata achieve profits but they are not as profitable as the TRP.

As a new development this year, the ROFTA was calculated for the series 2008-2015. In the previous report, the ROFTA was obtained only for the years following 2011-2014, because we did not have the 'value of capital' variable for previous years. For these years, we calculated Net Profit (%). For the submission of data performed this year we had this variable for the whole period 2008-2015.

This was calculated as follows:

$$\text{ROFTA (\%)} = (\text{Net profit} / \text{Value of capital}) * 100$$

$$\text{Net Profit (\%)} = (\text{Net profit} / \text{Current revenue}) * 100$$

Where:

- **Net profit** = (Revenue from fishing activity + Other revenue from using the vessel) - (Crew wages and salaries + Unpaid work + Energy costs + Repair and maintenance costs + Other variable costs + Non-variable costs + Depreciation)
- **Current revenue** (net of subsidies) = Revenue from fishing activity + Other revenue from use of the vessel

All the variables used to calculate both indicators are obtained directly from the Sea Fishing Economic Survey conducted by the Ministry of Agriculture, Food and Environment, apart from one: **Capital value**. This value is calculated by the statistics team using the permanent inventory method (PIM) proposed in the capital valuation report of Study No FISH/2005/03.

### Special cases:

Given that we use the same data as a basis for calculating both economic indicators, the strata with missing data are the same as those described for the CR/BER indicator. This also applies to imputation. In this case, although the missing data do not prevent the indicator from being calculated, they make it unreliable and produce a result higher than the actual value.

The following data show indicators obtained for the period 2008-2016:

				ROFTA (%)								
Stratum	Gear	Length	2008	2009	2010	2011	2012	2013	2014	2015	2016	
North Atlantic	ADTS	Bottom trawling	3	-24.73	-16.40	-48.57	51.86	133.95	-24.23	-21.42	31.88	165.50
			4	10.59	14.95	-12.79	-3.66	-35.85	15.13	3.76	16.52	303.37
			5	-30.54	-25.50	-2.05	1.67	28.63	-34.70	23.74	33.23	72.24
			6	-5.45	-8.29	74.21	4.12	40.79	60.61	133.67	456.00	625.05
	APS	Purse seine	2	-58.59	37.88	-222.45	62.09	-53.68	37.04	89.12	41.85	129.58
			3	-0.47	87.13	122.48	24.66	64.29	28.58	39.58	77.17	132.38
			4	-4.79	12.36	3.66	26.84	23.01	-22.60	-6.72	38.77	82.08
			5	-45.68	-18.93	78.86	59.29	72.19	35.62	85.25	60.11	146.08
	ADFN	Gillnets	2	-10.37	-62.08		15.95	-77.55	-11.06	-87.46	70.90	169.75
			3	-27.90	-13.56	18.52	64.41	-53.77	-52.68	0.00	-21.42	54.88
			4	38.67	18.71	-12.60	83.11	-0.92	78.32	55.66	0.81	-10.36
			5	-27.77	-35.99	-41.52		57.07				
	AHOK	Hooks	1	-3.12	45.78	-679.53		49.24				
			2	-24.11	-33.63	-131.05	4.45	-140.70	-66.54	77.18	73.72	145.65
			3	40.34	-6.05	-50.47	-78.75	-7.90	16.13	25.94	41.64	41.19
			4	21.88	3.72	9.06	-22.71	2.30	-4.43	23.28	70.06	15.31
			5	-7.10	37.43	32.11	-22.66	76.22	-2.82	-14.88	-11.15	253.80
	APGO	Surface longliners	4							12.41	99.91	292.50
			5							31.17	33.24	60.58
	AFPO	Pots	2				-0.30	-30.26	-102.45	-71.39	28.41	51.40
3						-96.39	-50.65	-15.09	-49.37	16.75	26.14	
ADRB	Dredges	1				77.29	-168.25	-1.46	-120.80	143.24	93.28	
		2				-59.85	-97.55	417.46	285.74	-79.92	89.83	
		3				-42.43	27.47	32.87	-19.52	22.92	42.87	
Multipurpose		1	-14.82	1.69	-26.55	-90.34	26.01	-77.41	-46.73	55.40	32.57	
		2	-15.65	6.33	12.63	-6.38	-8.32	-41.46	131.87	23.24	18.56	
		3	-11.61	98.74	-1.38	102.56	-55.07	96.99	-2.20	10.46	51.37	
		4	92.51			167.29		-8.18				
		5		-37.43	4.88	29.38		75.43	73.07	134.06	164.86	
Mediterranean	BDTS	Bottom trawling	2	-82.02	-9.28	88.19	94.91	229.15	91.43	72.53	91.46	62.63
			3	-7.37	6.66	-39.88	-34.15	18.29	-11.06	19.23	33.44	73.14
			4	-37.72	-18.07	-20.92	-5.48	-3.79	12.82	13.15	16.34	47.81
			5	-11.93	-17.21	-8.21	-34.27	-4.26	-35.57	7.74	14.66	45.30
	BPS	Purse seine	2	135.78	37.75	55.16	155.78	483.00	395.60	36.82	74.28	107.68
			3	4.31	74.71	10.88	46.33	54.50	156.66	142.33	80.41	70.70
			4	-6.47	-11.57	-14.38	5.65	38.23	99.91	85.67	29.31	49.02
			5	2.09	-9.26	4.42	16.45	132.49	62.12	21.94	67.12	100.25
	BDFN	Gillnets	2				110.22	106.46	177.41	-191.21	100.01	64.24
			3				-60.48	-7.98	11.43	-26.31	-95.26	21.20
	BHOK	Hooks	2	-91.55	111.21	13.01	-180.80	-94.66	-9.24	-43.42	6.92	221.16
			3	-41.08	-9.76	-151.08	-51.14	45.17	-11.70	-126.00	6.43	12.79
			4	-5.02	-27.09	-12.19	7.65	1.20	95.90			
BPGO		3						27.55	-30.56	87.83		

Other regions		Surface longline	4							17.69	28.44	42.13
	BFPO	Pots	2				192.57	-33.41				
			3					-24.25	-19.32	49.83	27.75	318.41
	BDRB	Dredges	2				-21.75	-122.51	-73.36	-20.13	17.69	3.19
			3				54.84	39.88	31.39	144.71		22.93
	Multipurpose		1	-27.95	-1 373.46		-10.78	-111.84	152.83	834.35	-6.65	32.64
			2	-62.31	0.52	343.51	-30.90	-18.65	-6.11	-12.11	152.16	126.67
			3	9.97	-456.94	-53.85	42.80	29.59	-18.64	-6.43	162.07	52.49
	CDTS	Bottom trawling	5	-78.69	-69.30	-381.93	72.30	-36.54	-34.50	1 538.84	193.20	112.40
			6	-25.79	8.54	34.09	97.63	-17.32	14.61	262.47	242.72	160.97
	CPS	Purse seine	3		-27.78	-153.91	90.26	-95.52	4.93	45.11	14.59	625.42
			6	406.54	-14.69	4 134.32	77.09	138.72	163.35	52.51	-0.63	61.78
	CHOK	Hooks	2		117.24	10.77	169.29	-43.13	-22.77	119.83	23.68	36.45
			3		-60.04	-12.78	-79.19	66.41	-22.10	-41.47	39.96	-7.61
			4	-3.37	-101.03	-229.79	238.24	-134.72				376.89
			5	-17.52	-3.96	376.36	42.02	-25.11	59.63	-4.45	19.64	79.86
			6	-86.07	1.65	7.34	28.76	-24.60	-36.73			
	CPGO	Surface longliners	5							27.30	142.74	96.66
			6							74.86	86.07	90.02
CFPO	Pots	2									-55.20	
		3					-22.95	115.94		-82.13	-93.67	
Multipurpose		1	-201.56	-100.24	-9.63	-804.17	-46.23	-236.02	-46.73	42.39	45.10	
		2	-9.85	-56.44	1.86	-171.05	-91.29	-128.42	54.81	-118.50	-62.12	
		3	-32.73	96.62	-415.84			27.70	206.64	-749.73		
		5	-0.32		-100.47	-70.28			-30.75	-51.01	-19.13	

When the analysis is carried out throughout the period (2012, 2013 and 2016) for vessels from length segments 1, 2 and 3 (0-10, 10-12 and 12-18 m in the case of the Atlantic and Other Fishing Regions, 0-6, 6-12 and 12-18 m for vessels operating in the Mediterranean), and gear DRB, FPO, PGP and PMP, it may be seen that these strata are particularly dependent on the sample taken because the results are very dependent on activity. Therefore, when the selected sample contains a high percentage of vessels active for under 90 days, the indicators are particularly affected.

We are carrying out a detailed study of these strata with the aim of being able to analyse the data obtained correctly.

		2012			2013			2014			2015			2016											
		LENGTHS			LENGTHS			LENGTHS			LENGTHS			LENGTHS											
SUPRA	GEAR	ACTIV_90	1 (1 865)	2 (12)	3 (83)	GEAR	ACTIV_90	1 (1 830)	2 (12)	3 (83)	GEAR	ACTIV_90	1 (1 845)	2 (10)	3 (81)	GEAR	ACTIV_90	1 (1 751)	2 (14)	3 (81)	GEAR	ACTIV_90	1 (1 731)	2 (14)	3 (84)
A	DRB	NO	14	2		DRB	NO	13			DRB	NO	27			DRB	NO	19			DRB	NO	23		
		YES	23	2	4		YES	24	4	4		YES	32	5	4		YES	20	5	3		YES	29	3	9
		Total DRB	37	4	4		Total DRB	37	4	4		Total DRB	59	5	4		Total DRB	39	5	4		Total DRB	52	4	6
	INDICATORS	CR/BER	-7.8	0.68	2.52	INDICATORS	CR/BER	0.87	3.47	1.31	INDICATORS	CR/BER	-6.42	4.47	0.65	INDICATORS	CR/BER	9.25	0.2	1.93	INDICATORS	CR/BER	11.56	14.45	4.12
		ROFTA (%)	-168.25	-97.55	27.47	INDICATORS	ROFTA (%)	-1.46	417.46	32.87	INDICATORS	ROFTA (%)	-120.8	285.74	-19.52	INDICATORS	ROFTA (%)	143.24	-79.92	22.92	INDICATORS	ROFTA (%)	93.28	89.83	42.87
	GEAR	ACTIV_90		2 (97)	3 (75)	GEAR	ACTIV_90		2 (60)	3 (49)	GEAR	ACTIV_90		2 (65)	3 (56)	GEAR	ACTIV_90		2 (56)	3 (49)	GEAR	ACTIV_90		2 (71)	3 (56)
	FPO	NO		1		FPO	NO		1	2	FPO	NO		4		FPO	NO		4		FPO	NO		2	
		YES		3	4		YES		3	2		YES		6	9		YES		3	6		YES		5	9
		Total FPO		4	4		Total FPO		4	4		Total FPO		10	10		Total FPO		7	7		Total FPO		7	7
	INDICATORS	CR/BER		-1.47	-0.19	INDICATORS	CR/BER		-2.21	-0.05	INDICATORS	CR/BER		-0.81	0	INDICATORS	CR/BER		2.16	1.66	INDICATORS	CR/BER		7.35	5.43
		ROFTA (%)		-30.26	-50.65	INDICATORS	ROFTA (%)		-102.45	-15.09	INDICATORS	ROFTA (%)		-71.39	-49.37	INDICATORS	ROFTA (%)		28.41	16.75	INDICATORS	ROFTA (%)		51.40	26.14
	GEAR	ACTIV_90	1 (2 017)	2 (45)	3 (35)	GEAR	ACTIV_90	1 (2 030)	2 (87)	3 (50)	GEAR	ACTIV_90	1 (1 993)	2 (96)	3 (64)	GEAR	ACTIV_90	1 (2 016)	2 (95)	3 (68)	GEAR	ACTIV_90	1 (2 043)	2 (70)	3 (47)
	PGP	NO	15	3	1	PGP	NO	20	2		PGP	NO				PGP	NO				PGP	NO			
		YES	25	1	5		YES	21	2	4		YES					YES					YES			
	Total PGP	40	4	6		Total PGP	41	4	4		Total PGP					Total PGP					Total PGP				
INDICATORS	CR/BER	1.8	0.5	0.02	INDICATORS	CR/BER	-1.18	-0.11	-0.41	INDICATORS	CR/BER				INDICATORS	CR/BER				INDICATORS	CR/BER				
	ROFTA (%)	26.01	-8.32	-55.07	INDICATORS	ROFTA (%)	-77.41	-53.33	-83.42	INDICATORS	ROFTA (%)				INDICATORS	ROFTA (%)				INDICATORS	ROFTA (%)				
GEAR	ACTIV_90				GEAR	ACTIV_90		2 (30)	3 (29)	GEAR	ACTIV_90	1 (1 993)	2 (96)	3 (64)	GEAR	ACTIV_90	1 (2 016)	2 (95)	3 (68)	GEAR	ACTIV_90	1 (2 043)	2 (70)	3 (47)	
PMP	NO				PMP	NO			1	PMP	NO	30	4	3	PMP	NO	29	2	2	PMP	NO	45	3	3	
	YES					YES		4	3		YES	30	6	18		YES	32	4	5		YES	58	4	9	
	Total PMP					Total PMP		4	4		Total PMP	60	10	21		Total PMP	61	6	7		Total PMP	103	7	12	
INDICATORS	CR/BER				INDICATORS	CR/BER		0.11	7.8	INDICATORS	CR/BER	-1.74	7.28	0.87	INDICATORS	CR/BER	3.19	1.79	1.56	INDICATORS	CR/BER	2.52	1.97	6.44	
	ROFTA (%)				INDICATORS	ROFTA (%)		-23.77	232.31	INDICATORS	ROFTA (%)	-46.73	131.87	-2.2	INDICATORS	ROFTA (%)	55.4	23.24	10.46	INDICATORS	ROFTA (%)	32.57	18.56	51.37	
Total A			77	12	14			78	16	16			115	25	36			100	18	18			155	11	29

		2012			2013			2014			2015			2016													
		LENGTHS			LENGTHS			LENGTHS			LENGTHS			LENGTHS													
GEAR	ACTIV_90	2 (55)	3 (14)		GEAR	ACTIV_90	2 (35)	3 (10)		GEAR	ACTIV_90	1 (26)	3 (12)		GEAR	ACTIV_90	2 (33)		GEAR	ACTIV_90	2 (18)	3 (14)					
B	DRB	NO		3	DRB	NO		2		DRB	NO		3		DRB	NO		3		DRB	NO		2				
	YES		1	4	YES		2	4		YES		2	5		YES		4			YES		1	3				
	Total DRB			4	4	Total DRB			4	4	Total DRB			5	5	Total DRB			7		Total DRB			3			
	INDICATORS	CR/BER		-1.38	3.24	INDICATORS	CR/BER		-0.66	4.64	INDICATORS	CR/BER		0.61	9.38	INDICATORS	CR/BER		1.88		INDICATORS	CR/BER		1.11	3.01		
		ROFTA (%)		-122.51	39.88		ROFTA (%)		-73.36	31.39		ROFTA (%)		-20.13	144.71		ROFTA (%)		17.69			ROFTA (%)		3.19	22.93		
	GEAR	ACTIV_90	2 (19)	3 (15)		GEAR	ACTIV_90	1 (126)	3 (17)		GEAR	ACTIV_90	1 (118)	3 (21)		GEAR	ACTIV_90	1 (111)	3 (20)		GEAR	ACTIV_90	1 (109)	3 (24)			
	FPO	NO		1	1	FPO	NO		1	1	FPO	NO		2	2	FPO	NO		2	2	FPO	NO		1	1		
		YES		3	4		YES		4	4			YES		10		10		YES			6	6		YES		10
	Total FPO			4	5	Total FPO			5	5	Total FPO			12	12	Total FPO			8	8	Total FPO			11			
	INDICATORS	CR/BER		0.35	0.61	INDICATORS	CR/BER		0.65		INDICATORS	CR/BER		2.13		INDICATORS	CR/BER		2.37		INDICATORS	CR/BER		6.16			
		ROFTA (%)		-33.41	-24.25		ROFTA (%)		-19.32			ROFTA (%)		49.83			ROFTA (%)		27.75			ROFTA (%)		318.41			
	GEAR	ACTIV_90	1 (121)	2 (944)	3 (14)	GEAR	ACTIV_90	1 (126)	2 (977)	3 (23)	GEAR	ACTIV_90	1 (118)	2 (999)	3 (27)	GEAR	ACTIV_90	1 (111)	2 (1 032)	3 (52)	GEAR	ACTIV_90	1 (109)	2 (951)	3 (32)		
	PGP	NO		3	9	PGP	NO		3	7	PGP	NO				PGP	NO				PGP	NO					
		YES		1	10		4	YES		1		13	4	YES					YES					YES			
	Total PGP			4	19	4	Total PGP			4	20	4	Total PGP				Total PGP				Total PGP						
	INDICATORS	CR/BER		-1.2	0.2	2.51	INDICATORS	CR/BER		6.1	1	-1.5	INDICATORS	CR/BER			INDICATORS	CR/BER			INDICATORS	CR/BER					
		ROFTA (%)		-111.84	-18.65	29.59		ROFTA (%)		152.83	0.03	-71.17		ROFTA (%)					ROFTA (%)					ROFTA (%)			
	GEAR	ACTIV_90				GEAR	ACTIV_90		2 (29)	3 (13)	GEAR	ACTIV_90	1 (118)	2 (999)	3 (27)	GEAR	ACTIV_90	1 (111)	2 (1 032)	3 (52)	GEAR	ACTIV_90	1 (109)	2 (951)	3 (32)		
	PMP	NO				PMP	NO		1	2	PMP	NO		3	11	2	PMP	NO		2	8	1	PMP	NO		3	15
		YES					YES		3	2			YES		2	19		4	YES		1	14		2	YES		2
Total PMP					Total PMP			4	4	Total PMP			5	30	6	Total PMP			3	22	3	Total PMP			36		
INDICATORS	CR/BER				INDICATORS	CR/BER		-1.63	1.87	INDICATORS	CR/BER		7.98	0.76	0.65	INDICATORS	CR/BER		0.91	5.61	3.98	INDICATORS	CR/BER		3.31	8.69	3.22
	ROFTA (%)					ROFTA (%)		-121.83	92.9		ROFTA (%)		834.35	-12.11	-6.43		ROFTA (%)		-6.65	152.16	162.07		ROFTA (%)		32.64	126.67	52.49
Total B			4	27	13	Total B		4	28	17	Total B		5	35	23	Total B		3	29	11	Total B		5	36	17		



		2012			2013			2014			2015			2016														
		LENGTHS			LENGTHS			LENGTHS			LENGTHS			LENGTHS														
GEAR	ACTIV_90			3 (15)	GEAR	ACTIV_90				3 (10)	GEAR	ACTIV_90			3 (16)	GEAR	ACTIV_90			2 (16)								
C	FPO	NO			2	FPO	NO				FPO	NO			2	FPO	NO			2								
		YES			2		YES			3		YES			7		YES			1								
	Total FPO				4	Total FPO				8	Total FPO				9	Total FPO				3								
	INDICATORS	CR/BER			12.57	INDICATORS	CR/BER				INDICATORS	CR/BER			-17.94	INDICATORS	CR/BER				INDICATORS	CR/BER			-2.27			
		ROFTA (%)			115.94		ROFTA (%)					-82.13	ROFTA (%)					-93.67	ROFTA (%)					-55.20				
	GEAR	ACTIV_90	1 (481)	2 (25)		GEAR	ACTIV_90	1 (498)	2 (30)	3 (30)	GEAR	ACTIV_90	1 (494)	2 (26)	3 (19)	GEAR	ACTIV_90	1 (492)	2 (19)	3 (17)	GEAR	ACTIV_90	1 (488)	2 (20)				
	PGP	NO		7	3	PGP	NO		7	5	3	PGP	NO			PGP	NO				PGP	NO						
		YES		3	1		YES		4	2	4		YES					YES					YES					
	Total PGP			10	4	Total PGP			11	7	7	Total PGP				Total PGP					Total PGP							
	INDICATORS	CR/BER		-6.26	-1.54	INDICATORS	CR/BER		6.1	1	-1.5	INDICATORS	CR/BER			INDICATORS	CR/BER				INDICATORS	CR/BER						
		ROFTA (%)		-46.23	-91.29		ROFTA (%)		152.83	0.03	-71.17		ROFTA (%)					ROFTA (%)										
	GEAR	ACTIV_90				GEAR	ACTIV_90				GEAR	ACTIV_90	1 (494)	2 (26)	3 (19)	GEAR	ACTIV_90	1 (492)	2 (19)	3 (17)	GEAR	ACTIV_90	1 (488)	2 (20)				
PMP	NO				PMP	NO				10	3	2	PMP	NO		8	2	1	PMP	NO		11	2					
	YES					YES				5	2	3		YES			3	1		2	YES			6	1			
Total PMP					Total PMP					15	5	5	Total PMP			11	3	3	Total PMP			17	3					
INDICATORS	CR/BER				INDICATORS	CR/BER				INDICATORS	CR/BER		-0.08	1.92	6.63	INDICATORS	CR/BER		2.62	-0.87	-0.04	INDICATORS	CR/BER		5.33	0.45		
	ROFTA (%)					ROFTA (%)						ROFTA (%)			-46.73		54.81	206.64	ROFTA (%)				42.39	-118.5	-749.73	ROFTA (%)		
Total C			10	4	4	Total C			11	7	7	Total C			15	5	13	Total C			11	3	12	Total C			17	6

[1] The population corresponding to each stratum/length segment by year is shown in brackets.

## C- NVA/ FTE

Represents the net added value or unit produced per worker, in other words the approximate contribution to the sector by a full-time employee. It is therefore a measure of the competitiveness of the sector. It may also be seen as an indicator of the worker's standard of living or social welfare if it is established that an increase in productivity is accompanied by wage increases.

An increase in value may be due to two main circumstances, or a combination of both:

- Maintaining the number of FTE workers, an increase takes place in revenue and/or a drop in production costs.
- The number of workers falls while both revenue and costs remain stable.

From a financial viewpoint, both options are considered valid. However, from a social viewpoint, the fact that a company increases its profits at the cost of reducing the number of employees implies an increase in labour pressure on employees, who have to expend a greater effort (due to a decrease in the hired staff) in order to obtain the same profit. This indicator and its trend must therefore be studied with caution, analysing the FTE value in parallel.

The calculation is carried out as follows.

**NVA** = (Revenue from fishing activity + Other revenue from using the vessel) – (Energy costs + Repair and maintenance costs + Other variable costs + Non-variable costs + Depreciation)

**FTE** is the unit of work performed by a full-time employee throughout one year (=UTA).

### Special cases:

Given that we use the same data as a basis for calculating both economic indicators, the strata with missing data are the same, as is the imputation. In this case, although the missing data do not prevent the indicator from being calculated, they make it unreliable and produce a result higher than the actual value.

Indicators obtained for the period 2008-2016 are:

				NVA/FTE								
	Stratum	Gear	Length	2008	2009	2010	2011	2012	2013	2014	2015	2016
North Atlantic	ADTS	Bottom trawling	3	6 107	16 445	6 074	12 668	19 905	13 718	23 329	18 274	42 227
			4	17 382	28 470	12 832	13 183	3 675	14 294	21 906	15 863	50 571
			5	10 339	19 527	24 014	30 600	38 461	22 847	36 449	39 028	63 466
			6	15 313	32 049	62 045	38 138	67 209	66 761	85 010	119 677	115 513
	APS	Purse seine	2	15 398	12 246	12 217	22 663	6 731	12 518	23 320	14 149	14 760
			3	4 012	29 427	34 994	8 649	23 608	20 222	28 027	20 761	26 389
			4	13 824	16 973	24 863	27 289	10 359	16 528	20 163	24 822	28 601
			5	4 168	14 366	21 808	22 320	35 299	25 100	32 609	30 925	50 251
	ADFN	Gillnets	2	9 553	8 359		13 214	5 728	12 490	9 643	19 069	20 933
			3	10 640	22 335	16 147	24 685	2 363	12 642	10 176	10 277	20 313
			4	19 986	23 114	8 930	40 087	21 623	31 582	29 593	18 312	18 095
			5	10 667	14 788	29 454		36 742				



Mediterranean	AHOK	Hooks	1	6 948	21 060	17 140		14 646				
			2	3 450	7 980	11 756	15 801	12 954	22 055	18 063	25 500	24 113
			3	10 393	15 828	7 042	11 737	14 556	22 491	25 262	17 646	18 364
			4	31 507	27 763	28 429	15 409	23 755	16 973	18 890	27 156	20 456
			5	13 254	20 660	24 146	32 947	40 309	15 434	18 329	10 701	35 696
	APGO	Surface longliners	4							19 346	32 867	50 410
			5							30 419	36 486	37 763
	AFPO	Pots	2				7 823	8 207	1 701	18 391	11 752	18 457
			3				6 924	8 698	12 730	7 460	11 222	17 009
	ADRB	Dredges	1				19 384	11 837	10 646	12 135	20 621	12 813
			2				-5 218	20 915	38 478	39 977	17 163	41 097
			3				-7 474	19 928	27 569	35 253	29 931	17 483
	Multipurpose	1	10 038	14 644	13 233	10 149	12 617	12 379	10 189	15 306	16 181	
		2	8 667	11 684	15 983	6 526	14 790	7 086	16 473	13 983	12 863	
		3	8 788	28 944	16 221	22 112	13 307	26 422	18 293	23 963	21 730	
		4	21 946			39 274		19 850				
		5		16 907	44 504	23 519		58 757	48 202	61 235	68 603	
	BDTS	Bottom trawling	2	11 283	31 213	22 151	24 239	22 580	24 910	20 891	17 650	31 567
			3	12 152	25 092	14 369	10 130	29 698	17 020	17 468	23 946	34 593
			4	6 805	16 934	10 159	16 032	12 200	20 019	20 956	21 148	29 068
5			13 874	18 499	31 753	7 983	19 222	5 238	23 022	23 702	38 761	
BPS	Purse seine	2	6 306	19 847	4 580	21 158	19 690	23 791	17 210	11 032	15 141	
		3	8 810	17 941	18 857	14 762	14 281	26 615	28 345	21 469	18 869	
		4	15 501	20 665	8 796	17 140	16 361	29 866	33 803	20 049	19 322	
		5	72 622	29 401	30 468	37 761	64 662	96 752	54 235	52 022	67 629	
BDFN	Gillnets	2				19 297	24 554	13 000	36 199	15 174	23 468	
		3				9 670	21 524	24 325	22 870	-987	16 942	
BHOK	Hooks	2	-1 102	29 615	15 553	12 604	7 147	21 516	19 860	13 446	39 146	
		3	10 539	27 159	-4 130	10 564	21 936	8 584	8 775	21 081	28 640	
		4	10 459	8 736	18 046	23 559	12 618	33 059				
BPGO	Surface longliners	3							18 459	16 501	24 102	
		4							17 892	17 937	25 459	
BFPO	Pots	2				15 824	9 027					
		3					16 690	11 206	22 467	25 542	40 038	
BDRB	Dredges	2				5 698	3 874	6 839	7 025	18 152	22 166	
		3				16 807	16 772	20 412	38 176		29 110	
Multipurpose	1	5 720	41 241		5 556	22 259	10 481	32 043	21 018	19 071		
	2	9 238	19 593	17 444	16 626	16 054	13 473	18 601	26 885	22 353		
	3	12 058	-44 957	21 945	12 484	31 562	16 802	10 494	31 727	32 863		
Other regions	CDTS	Bottom trawling	5	-3 288	6 093	2 908	21 023	13 922	11 391	120 008	24 388	21 133
			6	11 536	29 114	30 703	64 333	30 422	48 837	101 012	60 324	43 052
	CPS	Purse seine	3		8 037	5 474	15 305	5 413	29 001	18 300	21 827	39 887
			6	39 338	10 408	41 825	80 963	117 689	166 200	72 468	30 075	94 305
	CHOK	Hooks	2		12 270	4 471	25 051	12 191	17 311	23 870	20 518	22 423
			3		9 858	2 520	12 299	42 665	12 312	16 565	23 510	22 880



			4	5 647	4 936	-2 579	38 483	8 602				49 426
			5	6 737	12 770	23 580	21 539	13 918	22 826	10 409	18 307	43 818
			6	10 959	9 930	18 137	20 434	6 245	-336			
	CPGO	Surface longliners	5							19 384	35 597	31 746
			6							33 910	30 783	26 553
	CFPO	Pots	2									15 038
			3				810	18 542		17 100	4 143	
	Multipurpose		1	4 192	4 287	-4 957	-1 715	8 499	15 527	16 372	16 481	17 792
			2	6 256	1 348	10 645	845	-121	7 595	16 813	11 297	8 410
			3	4 208	28 744	-10 166			20 889	48 835	-39 629	
			5	3 733		3 789	13 972		21 630	11 063	18 897	



# FINAL INDICATOR 2016

	Stratum	Gear	Length	CR/BER	ROFTA (%)	NVA/FTE	TECHNICAL INDICATOR	SHI	SAR	OVERALL INDICATOR	No of vessels 2016
North Atlantic	ADTS	Bottom trawling	3	2.81	165.50	42 226.94	0.88			3	66
			4	4.01	303.37	50 571.49	0.88			3	74
			5	3.42	72.24	63 465.60	0.82	1.35		2	107
			6	3.56	625.05	115 513.31	0.71	0.81		3	17
	APS	Purse seine	2	5.08	129.58	14 759.89	0.78		HOM 27	3	20
			3	7.23	132.38	26 389.45	0.72			3	116
			4	5.40	82.08	28 601.50	0.85			3	99
			5	9.75	146.08	50 250.83	0.84		HOM 27	3	57
	ADFN	Gillnets	2	16.01	169.75	20 932.61	0.72			3	106
			3	3.89	54.88	20 313.13	0.76			3	145
			4	0.79	-10.36	18 095.26	0.90	1.64		1	23
	AHOK	Hooks	2	3.74	145.65	24 113.07	0.68			2	64
			3	4.12	41.19	18 363.53	0.70	1.36		2	74
			4	1.71	15.31	20 455.63	0.77	1.11		2	33
			5	13.14	253.80	35 695.97	0.69	0.63		2	50
	APGO	Surface longliners	4	8.75	292.50	50 410.41	1.00			3	12
			5	3.95	60.58	37 763.11	0.97			3	33
	APGP	Passive multipurpose	5	3.35	164.86	68 603.42	0.90	0.96		3	56
	APMP	Mobile and passive multipurpose gear	1	2.52	32.57	16 180.82	0.49			2	2 043
			2	1.97	18.56	12 862.90	0.64			2	70
3			6.44	51.37	21 730.38	0.84	1.11		2	47	
AFPO	Pots	2	7.35	51.40	18 456.77	0.83			3	71	
		3	5.43	26.14	17 008.60	0.88			3	56	
ADRB	Dredges	1	11.56	93.28	12 812.53	0.48			2	1 731	
		2	14.45	89.83	41 097.18	0.85			3	14	
		3	4.12	42.87	17 483.14	0.77			3	84	
Mediterranean	BDTS	Bottom trawling	2	9.14	62.63	31 566.58	0.82			3	19
			3	5.38	73.14	34 592.70	0.81			3	147
			4	3.75	47.81	29 067.84	0.77	3.96		2	301
			5	3.19	45.30	38 761.40	0.83	4.12	HKE-37	2	130
	BPS	Purse seine	2	9.11	107.68	15 140.96	0.80			3	20
			3	3.65	70.70	18 868.95	0.83	1.74	PIL-GSA6	2	85
			4	4.02	49.02	19 322.38	0.89	1.67	PIL-GSA6	2	86
			5	2.56	100.25	67 629.47	0.48	0.96	PIL-GSA6	2	25
	BDFN	Gillnets	2	3.54	64.24	23 468.36	0.71			3	84
			3	1.41	21.20	16 941.65	0.81			3	54
BHOK	Hooks	2	13.17	221.16	39 145.80	0.62			2	52	



Other regions	BPGO	Surface longliners	3	3.52	12.79	28 639.96	0.68			2	21
			3	5.26	87.83	24 102.40	0.71	1.55		2	44
			4	2.67	42.13	25 459.07	0.82	1.66		2	21
	BPMP	Mobile and passive multipurpose gear	1	3.31	32.64	19 071.32	0.37		PIL-GSA6	2	109
			2	8.69	126.67	22 352.93	0.53			2	951
			3	3.22	52.49	32 862.50	0.91	3.21		2	32
	BFPO	Pots	3	6.16	318.41	40 037.69	1.24			3	24
	BDRB	Dredges	2	1.11	3.19	22 166.39	0.65			2	18
			3	3.01	22.93	29 109.55	0.99			3	14
	CDTS	Bottom trawling	5	2.87	112.40	21 133.38	0.85			3	40
			6	1.89	160.97	43 052.36	0.84			3	30
	CPS	Purse seine	3	19.14	625.42	39 886.68	0.91			3	14
			6	2.30	61.78	94 305.26	0.96	0.97		3	26
	CHOK	Hooks	2	4.73	36.45	22 422.86	0.64	0.63		2	49
3			0.28	-7.61	22 880.05	0.71	0.63		2	43	
4			3.89	376.89	49 425.51	0.89			3	11	
5			3.03	79.86	43 818.02	0.79	0.93		3	25	
CPGO	Surface longliners	5	2.83	96.66	31 746.22	0.86			3	64	
		6	1.88	90.02	26 553.45	0.95			3	23	
CPMP	Mobile and passive multipurpose gear	1	5.33	45.10	17 791.92	0.31			2	488	
		2	0.45	-62.12	8 410.02	0.67	0.73		1	20	
CFPO	Pots	2	-2.27	-55.20	15 038.14	0.82			1	16	



# **H. ANNEX VIII: SUMMARY** **OF 2011-2016** **INDICATORS. OVERALL** **INDICATORS**

## OVERALL INDICATOR

To obtain an overview, we calculated a single indicator as a combination of the four main indicators: CR/BER, ROFTA (%), SHI and technical indicator.

Because these are not measured on the same scale, the first thing we did was to standardise them. To do this, we allocated the same value to all four, based on whether the indicator was green, amber or red:

- we assigned a value of 1 to red indicators
- we assigned a value of 2 to amber indicators
- we assigned a value of 3 to green indicators

And lastly, we calculated the average of these values in order to obtain a final indicator. Instead of using the arithmetic average, we calculated an adjusted average. This made it possible to allow for the extent to which the indicator was green, amber or red.

We used a box plot to carry out the adjustment. This graph plots the different values of a distribution along an actual straight line. This reveals the combined dispersion of the entire distribution and the status of specific values in relation to a central point.

We calculated the parameters necessary to draw the plot: median (Me), first quartile (Q1), third quartile (Q3) and inter-quartile range (Q3 – Q1). In this way, all the values were divided into three segments:

- $[Q_1 - 1.5*IC, Q_3 + 1.5*IC]$  values concentrated around the central value of the distribution are located in this range. In our case, we assigned them a value of 3.
- $[Q_3 + 1.5*IC, Q_3 + 3*IC]$  and  $[Q_1 - 3*IC, Q_1 - 1.5*IC]$ . The average outliers are located in these ranges. These are the values that lie far away from the central point of the distribution but are taken into account in the study. In our case, we assigned them a value of 2.
- $> Q_3 + 3*IC$  and  $< Q_1 - 3*IC$ . The extreme outliers (which are the values that are a significant distance from the centre of the distribution and must be thoroughly analysed and if necessary removed from the study) are located in these segments of the actual straight-line plot. In our case, we assigned them a value of 1. However, few indicators are located at these extremes because we previously analysed them and eliminated most of them because they made the results unreliable.

We carried out this process three times for each indicator: for strata that were red, for those that were green and for those that were amber.

We repeated this process for the four indicators to be used to make up the final indicator.

Once we had obtained the adjustments, the overall indicator was obtained by multiplying the value allocated to each indicator according to its previous classification by colour by the corresponding adjustment factor. We added the four values obtained and divided by the sum of the adjustment factors:

$$\text{Final indicator} = \frac{\text{IndCR/BER} * \text{PondCR/BER} + \text{IndROFTA} * \text{PondROFTA} + \text{IndTecn} * \text{PondTecn} + \text{IndBiol} * \text{PondBiol}}{\text{PondCR/BER} + \text{PondROFTA} + \text{PondTecn} + \text{PondBiol}}$$



We therefore obtained a single indicator for evaluation, which we also classified according to the value obtained: Green if the result was 3, amber if it was 2, red if it was 1.

®Taking into account the different indicators and their trends and taking into account the STECF reports, which have been reiterating a low occupation of the fishing grounds (technical imbalance) in the artisanal fleet since 2015, we cannot attribute an imbalance between capacity and opportunities to the segments '2' marked in green, so they have been considered to be in balance. The 00-18 metre Mediterranean hooks segment shows a good economic indicator for 2016 following the unprofitable years 2014-2015, but since the long-term profitability is good and there is no biological risk, we have considered its situation to be balanced.

We calculated the indicator from the year 2011, which was when we began to study dredges and pots separately.

Indicators obtained for the period 2011-2016 are:

				OVERALL INDICATOR					
	Stratum	Gear	Length	2011	2012	2013	2014	2015	2016
North Atlantic	ADTS	Bottom trawling	3	3	3	1	1	3	3
			4	2	1	3	2	3	3
			5	2	3	1	3	2	2
			6	2	3	2	3	3	3
	APS	Purse seine	2	2	1	3	3	2	3
			3	2	2	2	2	2	3
			4	2	2	1	1	3	3
			5	3	3	3	3	3	3
	ADFN	Gillnets	2	2	1	1	1	3	3
			3	2	1	1	2	1	3
			4	3	2	2	2	2	1
			5		3				
	AHOK	Hooks	1		3				
			2	2	1	1	2	2	2
			3	1	1	2	2	2	2
			4	1	2	2	2	3	2
			5	2	3	2	1	1	2
	APGO	Surface longliners	4				3	3	3
			5				3	3	3
	AFPO	Pots	2	1	1	1	1	3	3
3			1	1	1	1	3	3	
ADRB	Dredges	1	2	1	1	1	2	2	
		2	1	2	3	3	2	3	
		3	1	3	3	1	3	3	
Multipurpose		1	1	2	1	1	2	2	
		2	2	1	1	2	2	2	



		3	2	1	3	1	3	2	
		4	3		2				
		5	3		3	2	3	3	
Mediterranean	BDTS	Bottom trawling	2	3	3	3	3	3	3
			3	1	3	1	3	3	3
			4	1	2	2	2	2	2
			5	1	1	1	2	2	2
	BPS	Purse seine	2	2	2	2	3	3	3
			3	2	2	1	2	2	2
			4	2	2	1	2	2	2
			5	3	3	2	2	2	2
	BDFN	Gillnets	2	2	3	3	1	2	3
			3	1	1	3	1	1	3
	BHOK	Hooks	2	1	1	1	1	2	2
			3	1	2	1	1	2	2
			4	2	2	2			
	BPGO	Surface longliners	3				2	1	2
			4				2	2	2
	BFPO	Pots	2	3	1				
			3		1	1	3	3	3
	BDRB	Dredges	2	1	1	1	1	3	2
			3	3	3	3	3		3
		Multipurpose	1	1	1	3	2	1	2
2			1	1	1	1	2	2	
3			1	2	1	1	3	2	
Other regions	CDTS	Bottom trawling	5	3	1	1	3	3	3
			6	3	1	3	3	3	3
	CPS	Purse seine	3	2	1	3	3	3	3
			6	3	3	3	3	2	3
	CHOK	Hooks	2	2	1	2	2	2	2
			3	1	3	1	1	2	2
			4	2	2				3
			5	3	2	3	1	3	3
			6	3	2	2			
	CPGO	Surface longliners	5				3	3	3
			6				3	3	3
	CFPO	Pots	2						1
			3	1	3		1	1	
		Multipurpose	1	1	1	1	1	2	2
			2	1	1	1	2	1	1
			3			3	3	2	
5			2		2	1	2		

## SUMMARY OF INDICATORS BY YEAR

2011

	Stratum	Gear	Length	CR/BER	ROFTA (%)	NVA/FTE	TECHNICAL INDICATOR	SHI	SAR	OVERALL INDICATOR
North Atlantic	ADTS	Bottom trawling	3	1.87	51.86	12 668.12	0.77			3
			4	0.96	-3.66	13 182.87	0.80			2
			5	1.04	1.67	30 599.73	0.73			2
			6	1.04	4.12	38 137.51	0.71			2
	APS	Purse seine	2	1.62	62.09	22 662.90	0.63		PIL-27.9.a	2
			3	1.38	24.66	8 649.18	0.69		PIL-27.9.a	2
			4	1.31	26.84	27 288.71	0.88		PIL-27.9.a	2
			5	1.55	59.29	22 320.42	0.86			3
	ADFN	Gillnets	2	1.37	15.95	13 213.55	0.62			2
			3	3.25	64.41	24 684.65	0.65			2
			4	2.12	83.11	40 087.44	0.83			3
	AHOK	Hooks	2	1.04	4.45	15 801.27	0.57			2
			3	-0.44	-78.75	11 736.56	0.65	1.36		1
			4	0.66	-22.71	15 409.01	0.85			1
			5	0.82	-22.66	32 947.12	0.90	0.82		2
	AFPO	Pots	2	0.98	-0.30	7 822.55	0.65			1
			3	0.08	-96.39	6 924.21	0.72			1
	ADRB	Dredges	1	8.15	77.29	19 384.17	0.50			2
			2	0.47	-59.85	-5 218.31	0.37			1
			3	-0.04	-42.43	7 473.76	0.43			1
Multipurpose		1	-0.42	-90.34	10 148.75	0.41			1	
		2	0.04	-6.38	6 526.17	0.86	0.85		2	
		3	12.67	102.56	22 111.61	0.77	1.12		2	
		4	4.89	167.29	39 274.06	0.81	0.90		3	
		5	3.56	29.38	23 519.10	0.95	0.99		3	
Mediterranean	BDTS	Bottom trawling	2	2.58	94.91	24 239.41	0.83			3
			3	0.23	-34.15	10 130.10	0.78			1
			4	0.88	-5.48	16 032.02	0.74	5.47		1
			5	0.14	-34.27	7 983.12	0.78	5.91	HKE-37.1.1-SA 6	1
	BPS	Purse seine	2	11.34	155.78	21 157.79	0.53			2
			3	3.75	46.33	14 762.41	0.71	1.07		2
			4	1.46	5.65	17 140.28	0.85	1.12		2
			5	1.38	16.45	37 761.17	0.55	0.75		3
	BDFN	Gillnets	2	3.13	110.22	19 297.02	0.65			2
			3	0.18	-60.48	9 670.36	0.79			1
	BHOK	Hooks	2	0.02	-180.80	12 604.10	0.57	2.98		1



			3	0.07	-51.14	10 563.51	0.60	2.06		1	
			4	1.19	7.65	23 559.38	0.85	1.79		2	
	BFPO	Pots	2	6.49	192.57	15 823.71	1.02			3	
	BDRB	Dredges	2	0.35	-21.75	5 697.62	0.57			1	
			3	3.26	54.84	16 806.58	0.93			3	
	Multipurpose		1	0.54	-10.78	5 556.17	0.31			1	
			2	0.10	-30.90	16 626.48	0.47			1	
			3	0.53	-56.09	-16 359.20	1.05	1.36		1	
	Other	CDTS	Bottom trawling	5	4.26	72.30	21 022.58	0.81			3
				6	2.26	97.63	64 332.55	0.86			3
CPS		Purse seine	3	3.50	90.26	15 304.96	0.53			2	
			6	2.47	77.09	80 962.58	0.94	0.72		3	
CHOK		Hooks	2	2.05	169.29	25 051.13	0.57			2	
			3	0.59	-79.19	12 298.69	0.60			1	
			4	3.99	238.24	38 482.69	0.95	1.24		2	
			5	1.69	42.02	21 538.65	0.98			3	
			6	1.58	28.76	20 434.30	0.93			3	
CFPO		Pots	3	-1.88	-22.95	810.32	0.69			1	
Multipurpose			1	-17.40	-804.17	-1 714.94	0.28			1	
			2	-1.59	-171.05	844.71	0.37			1	
			5	0.52	-70.28	13 971.75	0.91	0.9		2	

## 2012

	Stratum	Gear	Length	CR/BER	ROFTA (%)	NVA/FTE	TECHNICAL INDICATOR	SHI	SAR	OVERALL INDICATOR
North Atlantic	ADTS	Bottom trawling	3	4.45	133.95	19 905.18	0.82			3
			4	0.44	-35.85	3 674.51	0.78			1
			5	1.54	28.63	38 461.13	0.79			3
			6	1.45	40.79	67 208.55	0.76			3
	APS	Purse seine	2	0.16	-53.68	6 730.82	0.81			1
			3	2.64	64.29	23 607.52	0.73		PIL-27.9.a	2
			4	1.49	23.01	10 359.16	0.83		PIL-27.8.C PIL-27.9.A	2
			5	2.96	72.19	35 299.25	0.87			3
	ADFN	Gillnets	2	-1.27	-77.55	5 728.27	0.71			1
			3	-0.70	-53.77	2 362.63	0.75			1
			4	0.99	-0.92	21 622.58	0.92	1.40		2
			5	1.47	57.07	36 742.16	0.85	1.01		3
	AHOK	Hooks	1	2.62	49.24	14 646.36	1.12			3
			2	-2.95	-140.70	12 954.36	0.68	1.53		1
			3	0.88	-7.90	14 556.47	0.70	1.32		1
			4	1.05	2.30	23 754.51	0.81	1.02		2
			5	2.40	76.22	40 309.06	0.93	0.93		3
AFPO	Pots	2	-1.47	-30.26	8 207.47	0.72			1	



Mediterranean	ADRB	Dredges	3	-0.19	-50.65	8 698.26	0.76			1	
			1	-7.80	-168.25	11 836.68	0.50			1	
			2	0.68	-97.55	20 914.91	0.91			2	
				3	2.52	27.47	19 928.29	0.92			3
		Multipurpose		1	1.80	26.01	12 616.76	0.45			2
			2	0.50	-8.32	14 790.32	0.54			1	
			3	0.02	-55.07	13 307.24	0.67			1	
		BDTS	Bottom trawling	2	2.60	229.15	22 580.07	0.78			3
				3	1.43	18.29	29 698.18	0.79			3
				4	0.94	-3.79	12 200.00	0.75	5.25		2
				5	0.82	-4.26	19 222.36	0.78	5.52		1
		BPS	Purse seine	2	7.23	483.00	19 689.90	0.65			2
	3			3.70	54.50	14 280.99	0.75	1.04		2	
	4			1.63	38.23	16 361.29	0.86	1.08		2	
	5			2.90	132.49	64 661.57	0.49	0.59		3	
	BDFN	Gillnets	2	4.92	106.46	24 554.23	0.71			3	
			3	0.85	-7.98	21 523.71	0.79			1	
	BHOK	Hooks	2	0.15	-94.66	7 147.07	0.56	2.30		1	
			3	5.45	45.17	21 935.78	0.63	1.84		2	
			4	1.04	1.20	12 617.62	0.92	1.60		2	
	BFPO	Pots	2	0.35	-33.41	9 026.96	0.80			1	
			3	0.61	-24.25	16 689.88	1.28			1	
	BDRB	Dredges	2	-1.38	-122.51	3 873.92	0.71			1	
			3	3.24	39.88	16 772.04	1.00			3	
	Multipurpose		1	-0.52	-177.82	19 697.86	0.33			1	
		2	0.20	-18.65	16 054.15	0.48			1		
		3	2.51	29.59	31 561.90	0.67			2		
Other regions	CDTS	Bottom trawling	5	0.80	-36.54	13 921.73	0.58			1	
			6	0.67	-17.32	30 422.36	0.87			1	
	CPS	Purse seine	3	-0.40	-95.52	5 412.81	0.78			1	
			6	3.97	138.72	117 689.43	0.92	0.71		3	
	CHOK	Hooks	2	0.19	-43.13	12 191.21	0.72			1	
			3	2.55	66.41	42 664.74	0.92	0.75		3	
			4	-0.62	-134.72	8 602.24	0.94			2	
			5	0.53	-25.11	13 918.26	0.94			2	
			6	0.74	-24.60	6 244.67	0.90			2	
	CFPO	Pots	3	12.57	115.94	18 542.12	0.86			3	
	Multipurpose		1	-3.38	-51.65	8 322.35	0.28			1	
2		-1.62	-89.48	107.58	0.78			1			



2013

	Stratum	Gear	Length	CR/BER	ROFTA (%)	NVA/FTE	TECHNICAL INDICATOR	SHI	SAR	OVERALL INDICATOR
North Atlantic	ADTS	Bottom trawling	3	-0.25	-24.23	13 717.72	0.86			1
			4	1.29	15.13	14 294.03	0.83			3
			5	0.44	-34.70	22 847.03	0.80			1
			6	1.79	60.61	66 760.64	0.68			2
	APS	Purse seine	2	1.81	37.04	12 518.32	0.78			3
			3	1.36	28.58	20 221.66	0.73		PIL-27.9.a	2
			4	0.54	-22.60	16 527.57	0.84		PIL-27.9.a	1
			5	4.26	35.62	25 099.54	0.81			3
	ADFN	Gillnets	2	0.64	-11.06	12 490.38	0.71			1
			3	-0.82	-52.68	12 641.76	0.74			1
			4	3.32	78.32	31 581.85	0.86	1.64		2
	AHOK	Hooks	2	-2.59	-66.54	22 054.66	0.68			1
			3	1.56	16.13	22 491.30	0.71	1.44		2
			4	0.84	-4.43	16 972.90	0.80	1.1		2
			5	0.92	-2.82	15 434.04	1.08	0.82		2
	AFPO	Pots	2	-2.21	-102.45	1 701.31	0.68			1
			3	-0.05	-15.09	12 730.10	0.72			1
	ADRB	Dredges	1	0.87	-1.46	10 645.54	0.44			1
			2	3.47	417.46	38 478.11	1.18			3
			3	1.31	32.87	27 568.75	1.02			3
Multipurpose		1	-1.18	-77.41	12 378.89	0.38			1	
		2	-0.09	-41.46	7 085.64	0.62			1	
		3	3.16	96.99	26 421.98	0.73			3	
		4	0.83	-8.18	19 850.36	0.78	0.87		2	
		5	2.93	75.43	58 756.59	0.80	0.99		3	
Mediterranean	BDTS	Bottom trawling	2	2.35	91.43	24 910.11	0.86			3
			3	0.78	-11.06	17 020.18	0.80			1
			4	2.05	12.82	20 019.38	0.74	5.22		2
			5	-0.47	-35.57	5 238.27	0.81	5.58	HKE-37.1.1-SA6	1
	BPS	Purse seine	2	20.64	395.60	23 791.33	0.86			2
			3	6.93	156.66	26 614.86	0.78	1.25	PIL-37.1.1-SA6	1
			4	6.53	99.91	29 865.71	0.87	1.22	PIL-37.1.1-SA6	1
			5	1.98	62.12	96 752.31	0.47	0.67	PIL-37.1.1-SA6	2
	BDFN	Gillnets	2	6.87	177.41	13 000.45	0.70			3
			3	1.31	11.43	24 325.12	0.80			3
	BHOK	Hooks	2	0.94	-9.24	21 516.00	0.55	2.30		1
			3	0.65	-11.70	8 583.68	0.69	2.00		1



Other regions			4	3.44	95.90	33 059.33	0.78	1.69		2
	BFPO	Pots	3	0.65	-19.32	11 206.49	1.18			1
	BDRB	Dredges	2	-0.66	-73.36	6 839.14	0.69			1
			3	4.64	31.39	20 411.64	0.94			3
	Multipurpose		1	2.01	91.77	6 293.43	0.36			3
			2	0.87	-6.11	13 472.67	0.49			1
			3	0.65	-18.64	16 802.38	0.77			1
	CDTS	Bottom trawling	5	0.53	-34.50	11 391.17	0.65			1
			6	1.23	14.61	48 837.27	0.85			3
	CPS	Purse seine	3	1.04	4.93	29 001.04	0.83			3
			6	3.26	163.35	166 199.64	0.90	0.68		3
	CHOK	Hooks	2	0.19	-22.77	17 311.43	0.52	0.72		2
			3	0.10	-22.10	12 312.45	0.65	1.37		1
5			3.43	59.63	22 826.12	0.92			3	
6			0.10	-36.73	-336.20	0.92			2	
Multipurpose		1	-23.06	-236.02	15 527.25	0.31			1	
		2	-0.97	-128.42	7 595.39	0.61			1	
		3	1.88	27.70	20 889.45	0.78	0.77		3	
		5	0.65	-30.75	21 630.44	0.89	0.88		2	

## 2014

	Stratum	Gear	Length	CR/BER	ROFTA (%)	NVA/FTE	TECHNICAL INDICATOR	SHI	SAR	OVERALL INDICATOR
North Atlantic	ADTS	Bottom trawling	3	0.58	-21.42	23 328.94	0.88			1
			4	1.12	3.76	21 906.36	0.78			2
			5	1.42	23.74	36 448.86	0.76			3
			6	1.87	133.67	85 010.43	0.74			3
	APS	Purse seine	2	6.15	89.12	23 319.89	0.74			3
			3	2.39	39.58	28 027.36	0.67		PIL-27.9.a	2
			4	0.86	-6.72	20 162.73	0.77			1
			5	3.97	85.25	32 608.63	0.79			3
	ADFN	Gillnets	2	-4.94	-87.46	9 642.67	0.70			1
			3	1.00	0.00	10 175.67	0.74			2
			4	2.35	55.66	29 593.11	0.87	1.82		2
	AHOK	Hooks	2	2.34	77.18	18 062.58	0.66	2.04		2
			3	2.61	25.94	25 261.84	0.68	2.01		2
			4	1.86	23.28	18 889.66	0.68	1.24		2
			5	0.83	-14.88	18 329.28	0.59	0.92		1
	APGO	Surface longliners	4	1.17	12.41	19 345.64	0.93	0.92		3
			5	2.19	31.17	30 418.85	1.08	0.83		3
	AFPO	Pots	2	-0.81	-71.39	18 391.33	0.78			1
			3	0.00	-49.37	7 459.62	0.76			1
ADRB	Dredges	1	-6.42	-120.80	12 135.40	0.47			1	



Mediterranean	Multipurpose	2	4.47	285.74	39 976.69	1.01			3	
		3	0.65	-19.52	35 253.28	0.88			1	
		1	-1.74	-46.73	10 188.61	0.39			1	
		2	7.28	131.87	16 292.00	0.62			2	
		3	0.87	-2.20	18 293.15	0.78	1.25		1	
		5	2.10	73.07	48 202.22	0.83	1.22		2	
	BDS	Bottom trawling	2	3.16	72.53	20 890.71	0.86			3
			3	1.59	19.23	17 468.27	0.80			3
			4	1.32	13.15	20 955.76	0.76	5.30		2
			5	1.26	7.74	23 021.62	0.79	5.65	HKE-37.1.1-SA 6	2
BPS	Purse seine	2	13.31	36.82	17 209.83	0.79			3	
		3	6.43	142.33	28 344.59	0.84	1.1	PIL-37.1.1-SA 6	2	
		4	3.19	85.67	33 802.62	0.87	1.17	PIL-37.1.1-SA 6	2	
		5	1.36	21.94	54 235.30	0.49	0.65	PIL-37.1.1-SA 6	2	
BDFN	Gillnets	2	-2.12	-191.21	36 199.45	0.76			1	
		3	0.62	-26.31	22 870.19	0.84			1	
BHOK	Hooks	2	-2.72	-43.42	19 860.44	0.65			1	
		3	0.35	-126.00	8 774.63	0.66	3.98		1	
BPGO	Surface longliners	3	1.86	27.55	18 459.21	0.72	1.71		2	
		4	1.48	17.69	17 892.25	0.86	1.62		2	
BFPO	Pots	3	2.13	49.83	22 466.60	1.29			3	
BDRB	Dredges	2	0.61	-20.13	7 025.31	0.63			1	
		3	9.38	144.71	38 176.23	0.96			3	
Multipurpose		1	7.98	834.35	33 208.85	0.42			2	
		2	0.76	-12.11	18 601.41	0.52			1	
		3	0.65	-6.43	10 493.59	0.66			1	
Other regions	CDTS	Bottom trawling	5	11.74	1 538.84	120 007.69	0.83			3
			6	3.78	262.47	101 012.31	0.88			3
	CPS	Purse seine	3	1.73	45.11	18 299.68	0.89			3
			6	2.28	52.51	72 468.44	0.81	0.7		3
	CHOK	Hooks	2	3.69	119.83	23 870.40	0.66			2
			3	0.42	-41.47	16 564.96	0.55			1
			5	0.89	-4.45	10 408.57	0.68			1
	CPGO	Surface longliners	5	1.79	27.30	19 384.13	0.87			3
			6	2.32	74.86	33 910.26	0.91			3
	CFPO	Pots	3	-4.35	-82.13	17 099.76	0.86			1
	Multipurpose		1	-0.08	-46.73	16 371.97	0.32			1
			2	1.92	54.81	16 812.82	0.55	0.78		2
			3	6.63	206.64	48 835.19	0.74	0.86		3
		5	0.17	-51.01	11 062.56	0.88			1	





## 2015

	Stratum	Gear	Length	CR/BER	ROFTA (%)	NVA/FTE	TECHNICAL INDICATOR	SHI	SAR	OVERALL INDICATOR	
North Atlantic	ADTS	Bottom trawling	3	5.44	31.88	18 274.38	0.86			3	
			4	1.42	16.52	15 862.92	0.86			3	
			5	1.61	33.23	39 028.06	0.78	1.38		2	
			6	3.48	456.00	119 676.63	0.76	0.82		3	
	APS	Purse seine	2	4.59	41.85	14 148.53	0.62			2	
			3	3.15	77.17	20 760.64	0.65			2	
			4	1.53	38.77	24 821.66	0.80			3	
			5	1.87	60.11	30 924.67	0.85			3	
	ADFN	Gillnets	2	2.85	70.90	19 069.10	0.71			3	
			3	0.37	-21.42	10 276.61	0.75			1	
			4	1.02	0.81	18 312.08	0.88	1.16		2	
	AHOK	Hooks	2	3.27	73.72	25 499.94	0.71	1.65		2	
			3	2.63	41.64	17 646.39	0.73	1.32		2	
			4	2.07	70.06	27 156.12	0.74	0.84		3	
			5	0.86	-11.15	10 700.85	0.69	0.67		1	
	APGO	Surface longliners	4	2.66	99.91	32 867.37	0.91	0.52	BSH-27	3	
			5	2.39	33.24	36 486.31	1.04	0.34	BSH-27	3	
	AFPO	Pots	2	2.16	28.41	11 752.50	0.76			3	
			3	1.66	16.75	11 221.79	0.74			3	
	ADRB	Dredges	1	9.25	143.24	20 621.23	0.44			2	
2			0.20	-79.92	17 163.24	1.08			2		
3			1.93	22.92	29 930.75	1.09			3		
Multipurpose		1	3.19	55.40	15 305.58	0.45			2		
		2	1.79	23.24	13 983.12	0.61			2		
		3	1.56	10.46	23 963.27	0.77	0.96		3		
		5	2.83	134.06	61 234.61	0.83	0.79		3		
Mediterranean	BDTS	Bottom trawling	2	3.13	91.46	17 649.70	0.87			3	
			3	1.97	33.44	23 946.09	0.79			3	
			4	1.37	16.34	21 147.51	0.78	4.28		2	
			5	1.38	14.66	23 702.20	0.84	3.39	HKE-37.1.1-SA 6	2	
	BPS	Purse seine	2	6.28	74.28	11 031.99	0.92			3	
			3	3.65	80.41	21 468.81	0.81	1.13	PIL-37.1.1-SA 6	2	
			4	2.68	29.31	20 048.59	0.86	1.20	PIL-37.1.1-SA 6	2	
			5	2.11	67.12	52 021.54	0.46	0.66	PIL-37.1.1-SA 6	2	
	BDFN	Gillnets	2	6.66	100.01	15 174.20	0.69			2	
			3	-1.06	-95.26	-987.46	0.78			1	
	BHOK	Hooks	2	1.06	6.92	13 445.79	0.67			2	
			3	1.31	6.43	21 080.73	0.59			2	
	BPGO			3	-0.60	-30.56	16 500.53	0.75	2.79		1



Other regions		Surface longline	4	1.52	28.44	17 937.09	0.86	2.39		2
	BFPO	Pots	3	2.37	27.75	25 542.19	1.28			3
	BDRB	Dredges	2	1.88	17.69	18 152.45	0.83			3
	Multipurpose		1	0.91	-6.65	21 018.30	0.37			1
			2	5.61	152.16	26 884.56	0.56			2
			3	3.98	162.07	31 727.11	0.76			3
	CDTS	Bottom trawling	5	2.71	193.20	24 387.75	0.84			3
			6	2.15	242.72	60 324.33	0.87			3
	CPS	Purse seine	3	1.47	14.59	21 827.33	0.80			3
			6	0.99	-0.63	30 075.43	0.87	0.99		2
	CHOK	Hooks	2	2.34	23.68	20 517.74	0.62	0.61		2
			3	2.28	39.96	23 509.53	0.67	0.83		2
			5	1.26	19.64	18 307.30	0.78	0.97		3
	CPGO	Surface longliners	5	3.54	142.74	35 597.33	0.89			3
			6	1.95	86.07	30 783.14	0.92			3
	CFPO	Pots	3	-17.94	-93.67	4 143.24	0.83			1
Multipurpose		1	2.62	42.39	16 480.91	0.30			2	
		2	-0.87	-118.50	11 296.86	0.57			1	
		3	-0.04	-749.73	39 629.02	0.80	0.78		2	
		5	0.72	-19.13	18 897.43	1.00	0.89		2	

2016

	Stratum	Gear	Length	CR/BER	ROFTA (%)	NVA/FTE	TECHNICAL INDICATOR	SHI	SAR	OVERALL INDICATOR	
North Atlantic	ADTS	Bottom trawling	3	2.81	165.50	42 226.94	0.88			3	
			4	4.01	303.37	50 571.49	0.88			3	
			5	3.42	72.24	63 465.60	0.82	1.35		2	
			6	3.56	625.05	115 513.31	0.71	0.81		3	
	APS	Purse seine	2	5.08	129.58	14 759.89	0.78			HOM 27	3
			3	7.23	132.38	26 389.45	0.72				3
			4	5.40	82.08	28 601.50	0.85				3
			5	9.75	146.08	50 250.83	0.84			HOM 27	3
	ADFN	Gillnets	2	16.01	169.75	20 932.61	0.72				3
			3	3.89	54.88	20 313.13	0.76				3
			4	0.79	-10.36	18 095.26	0.90	1.64			1
	AHOK	Hooks	2	3.74	145.65	24 113.07	0.68				2
			3	4.12	41.19	18 363.53	0.70	1.36			2
			4	1.71	15.31	20 455.63	0.77	1.11			2
			5	13.14	253.80	35 695.97	0.69	0.63			2
	APGO	Surface longliners	4	8.75	292.50	50 410.41	1.00				3
			5	3.95	60.58	37 763.11	0.97				3
	APGP	Passive multipurpose	5	3.35	164.86	68 603.42	0.90	0.96			3
APMP	Mobile and passive multipurpose gear	1	2.52	32.57	16 180.82	0.49				2	
		2	1.97	18.56	12 862.90	0.64				2	



Mediterranean	AFPO	Pots	3	6.44	51.37	21 730.38	0.84	1.11		2
			2	7.35	51.40	18 456.77	0.83			3
			3	5.43	26.14	17 008.60	0.88			3
	ADRB	Dredges	1	11.56	93.28	12 812.53	0.48			2
			2	14.45	89.83	41 097.18	0.85			3
			3	4.12	42.87	17 483.14	0.77			3
	BDS	Bottom trawling	2	9.14	62.63	31 566.58	0.82			3
			3	5.38	73.14	34 592.70	0.81			3
			4	3.75	47.81	29 067.84	0.77	3.96		2
			5	3.19	45.30	38 761.40	0.83	4.12	HKE-37	2
BPS	Purse seine	2	9.11	107.68	15 140.96	0.80			3	
		3	3.65	70.70	18 868.95	0.83	1.74	PIL-GSA6	2	
		4	4.02	49.02	19 322.38	0.89	1.67	PIL-GSA6	2	
		5	2.56	100.25	67 629.47	0.48	0.96	PIL-GSA6	2	
BDFN	Gillnets	2	3.54	64.24	23 468.36	0.71			3	
		3	1.41	21.20	16 941.65	0.81			3	
BHOK	Hooks	2	13.17	221.16	39 145.80	0.62			2	
		3	3.52	12.79	28 639.96	0.68			2	
BPGO	Surface longliners	3	5.26	87.83	24 102.40	0.71	1.55		2	
		4	2.67	42.13	25 459.07	0.82	1.66		2	
BPMP	Mobile and passive multipurpose gear	1	3.31	32.64	19 071.32	0.37			2	
		2	8.69	126.67	22 352.93	0.53			2	
		3	3.22	52.49	32 862.50	0.91	3.21	PIL-GSA6	2	
BFPO	Pots	3	6.16	318.41	40 037.69	1.24			3	
BDRB	Dredges	2	1.11	3.19	22 166.39	0.65			2	
		3	3.01	22.93	29 109.55	0.99			3	
Other regions	CDTS	Bottom trawling	5	2.87	112.40	21 133.38	0.85			3
			6	1.89	160.97	43 052.36	0.84			3
	CPS	Purse seine	3	19.14	625.42	39 886.68	0.91			3
			6	2.30	61.78	94 305.26	0.96	0.97		3
	CHOK	Hooks	2	4.73	36.45	22 422.86	0.64	0.63		2
			3	0.28	-7.61	22 880.05	0.71	0.63		2
			4	3.89	376.89	49 425.51	0.89			3
			5	3.03	79.86	43 818.02	0.79	0.93		3
	CPGO	Surface longliners	5	2.83	96.66	31 746.22	0.86			3
			6	1.88	90.02	26 553.45	0.95			3
	CPMP	Mobile and passive multipurpose gear	1	5.33	45.10	17 791.92	0.31			2
			2	0.45	-62.12	8 410.02	0.67	0.73		1
	CFPO	Pots	2	-2.27	-55.20	15 038.14	0.82			1