OVERCAPACITY – WHAT OVERCAPACITY?

AN EVALUATION OF MEMBER STATES REPORTING ON EFFORTS TO ACHIEVE A SUSTAINABLE BALANCE BETWEEN CAPACITY AND FISHING OPPORTUNITIES IN 2007

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LIST OF ACCRONYMS

ACFM	Advisory Committee on Fisheries Management
CFP	Common Fisheries Policy
CFR	Community Fleet Register
COFI	Committee on Fisheries
CPUE	Catch per Unit Effort
DCR	Data Collection Regulation
DG MARE	DG Fisheries and Maritime Affairs
EAFE	European Association of Fisheries Economists
EC	European Community
EEZ	Exclusive Economic Zone
EU	European Union
F	Estimated fishing mortality
F_t	Targeted fishing mortality
FAO	Food and Agriculture Organization
FIFG	Financial Instrument for Fisheries Guidance
FTE	Full-time equivalent
FVR	Fishing Vessel Register
GT	Gross tonnage
GVA	Gross value added
IEEP	Institute for European Environmental Policy
IPOA-Capacity	International Plan of Action for the Management of Fishing Capacity
kW	Kilowatt
MAGP	Multi-annual Guidance Programme
ROI	Return on Investment
SDS	Sustainable Development Strategy
STECF	Scientific, Technical and Economic Committee for Fisheries
TAC	Total Allowable Catch
UN	United Nations
UN FAO	United Nations Food and Agriculture Organization
UNFSA	United Nations Fish Stocks Agreement
UNCLOS	United Nations Convention on the Law of the Sea
UK	United Kingdom
WSSD	World Summit on Sustainable Development
WTO	World Trade Organisation

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INTRODUCTION

In European Union (EU) waters, it is estimated that on average 88 percent of assessed fish stocks are overfished, compared with 25 percent globally[1]. This is due to a number of different factors, one of which is the over-capacity of the European fleet. The most recent estimate is that there is more than 40 percent over-capacity in the fleet. However, this estimation is based on a report from 1995[2] and it is suspected that this is no longer valid.

Fleet management is an area of the Common Fisheries Policy (CFP) that changed substantially during its last 2002 reform in response to the need to achieve a balance between fishing capacity and available resources, and the recommendations of the widely cited 'Lassen report'[3] on EU fleet capacity. Since 2002, the task of drawing up capacity management plans was given back to Member States[4]. Furthermore, Member States are obliged to report annually to the European Commission on their efforts to achieve a sustainable balance between fishing capacity and fishing opportunities[5]. On the basis of this information, the European Commission produces a summary report for the European Parliament and the Council that serves two functions. First, it reports on the extent to which Member States have complied with their obligation to forward data in relation to matching fishing capacity to fishing opportunities. Second, it allows the Commission to comment, based on the national assessments of over-capacity, on the overall capacity of the EU fleet on an annual basis. Such an assessment is essential for any further attempts to address over-capacity. To date, there have been five annual reports produced by the Commission covering the period 2003–2008.

In January 2009, the Member State reports for 2007 were published. At the same time, the Commission summary report was also made available[6]. The Institute for European Environmental Policy (IEEP) undertook an independent evaluation of the 2007 Member State reports with three objectives in mind: 1) to highlight the amount of information provided; 2) to assess the quality of the information provided by Member States on capacity in relation to available opportunities; and 3) to assess the usefulness of this information in determining the level of national over-capacity. The results of this evaluation are presented in section 5 of this report. Finally, some conclusions are presented in section 6.

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[1] http://europa.eu/rapid/pressReleasesAction.do?reference=IP/08/828&format=HTML&aged=0&language=EN&guiLanguage=en.

[2] European Commission, 1995. Report of the Group of Independent Experts to Advise the European Commission on the Fourth Generation of Multi-annual Guidance Programmes (the 'Lassen report').

[3] *Ibid.*

[4] Council Regulation (EC) No. 2371/2002 of 20 December 2002 on the Conservation and Sustainable Exploitation of Fisheries Resources under the Common Fisheries Policy, OJ L 358 (31.12.2002) Article 11 (1).

[5] *Ibid*., Article 14.

[6] COM(2008) 902 final, Annual Report from the Commission to the European Parliament and the Council on Member States' Efforts During 2007 to Achieve a Sustainable Balance Between Fishing Capacity and Fishing Opportunities.

1 WHY IS MEMBER STATE REPORTING ESSENTIAL?

The need to manage fishing capacity is growing in importance due to increasing concerns over the current levels of over-capacity and resulting overfishing of EU fisheries. This section defines over-capacity and reviews the EU fleet management policy in an attempt to emphasise why Member States reporting on their national efforts to balance fishing capacity with fishing opportunities is essential to future management of the problem.

1.1 WHAT IS OVER-CAPACITY?

Fishing capacity, as defined by the United Nations Food and Agriculture Organization (UN FAO), is the amount of fish (or fishing effort) that can be produced within a period of time (*e.g.* a year or a fishing season) by a vessel or a fleet if fully utilised and for a given resource condition. As a result, the economic term "over-capacity" can also be described in two ways. In input terms, over-capacity means there is more than the minimum fleet and effort required to produce a given output (*e.g.* harvested catch) level. Alternatively, in output terms, over-capacity means that the maximum harvest level that a fisher could produce with given levels of inputs, such as fuel, amount of fishing gear, ice, bait, engine horsepower and vessel size, would exceed the desired level of harvesting[7].

In the EU context, excessive subsidisation, ineffective controls, technological development and ineffective instruments to adjust fishing capacity has led to sizable over-capacity. The European Commission recently stated[8] that the EU fishing fleets can in most cases exert a fishing pressure on the stocks that is two to three times the sustainable level. At the same time, EU fish stocks have been showing signs of decline and the long history of overfishing has led to smaller stock size and reduced harvesting opportunities.

1.2 EU FLEET MANAGEMENT SCHEMES

Since 1983, a comprehensive structural policy to manage the EU fleet has been in force. A series of structural adjustment measures were implemented under the Multi-annual Guidance Programme (MAGP) framework over the twenty-year period (1983–2006). The overall objective of these programmes was clearly defined as: "To achieve in respect of the fishing sector a satisfactory balance between fishing capacity to be deployed by the production facilities covered by the programs and the stocks which are expected to be available during the period of the validity of the program"[9].

MAGPs represented a 'hands on' approach to the management of the sector through which the EU sought to limit the growth of fishing capacity. First at the EU and then at the national level, fleet capacity and fishing effort targets were set for different segments of the fleet. Financial incentives were made available under the Financial Instrument for Fisheries Guidance (FIFG) to support the necessary adjustments. Apart from MAGP I, when it was felt

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7 Pascoe, S., Greboval, D., Kirkley, J. and E. Lindebo, 2004. Measuring and appraising capacity in fisheries. Framework, analytical tools and data aggregation. FAO Fisheries Circular 994.

8 Commission Working Paper: Reflections on further reform of the Common Fisheries Policy. September 2008. Available at: http://ec.europa.eu/fisheries/press_corner/press_releases/2008/com08_60_en.htm.

9 Council Regulation (EEC) No. 2908/83 of 4 October 1983 on a Common Measure for Restructuring, Modernising and Developing the Fishing Industry and for Developing Aquaculture, Article 3 (a), OJ L 290 (22.10.1983) p. 1.

that there was no urgency to reduce the capacity of the fishing fleets, reduction targets for each MAGP were set by the European Commission while Member States were required to implement these programmes and report on their attempts to meet national targets.

MAGPs have been heavily criticised for setting unrealistically low reduction targets and for failing to rationalise the EU fleets. In addition, there have been criticisms that the programmes were too bureaucratic and were undermined by the aid programme supporting vessel construction and modernisation[10]. Technological creep has also had the effect of cancelling out any fishing capacity reductions (Box 1)[11].

Box 1: Technological progress

Technological progress leads to excessive harvest capacity unless the fleet size is reduced proportionally. An average 'state of the art' vessel catches considerably more than a vessel of equivalent tonnage did 30 years ago. Some studies indicate yearly increases in productivity due to technological advances of between one and three percent[12] and, according to the European Commission, increases are in the range of two to four percent in many fisheries[13]. Some examples of technological improvements contributing to an increase in real fishing capacity are:[14]

- The use of controllable pitch propellers allows a vessel to produce a higher pull when trawling
- Electronic fish-finding equipment and devices controlling gear position improve vessel efficiency
- The use of satellite data to determine the location of fish aggregations increases catches
- More-powerful deck equipment allows a vessel to haul and pull the net more times per day
- The improved design of trawls and the use of stronger materials reduce resistance, which allows a bigger trawl.

During the 2002 CFP reform, the EU fleet management system changed substantially, and responsibility for fleet management was handed back to the Member States. Since 2002, Member States have been responsible for drawing up their own management plans to deal with over-capacity, while the Commission's intervention is now limited to the setting of a 'ceiling' on the Member States' fleet, which is expressed in reference levels[15]. The new fleet-management scheme imposed more rigorous monitoring requirements on the Member States and the Commission. These requirements include annual Member State and Commission reporting on implementation, based on improvements to the Community Fleet Register

10 Brown, J. and I. Lutchman, 2007. The European Fisheries Management Policy Framework. Deliverable 5.5. European Lifestyles and Marine Ecosystems project. ELME 505576.

11 "'Fishing effort' means the product of the capacity and the activity of a fishing vessel; for a group of vessels it is the sum of the fishing effort of all vessels in the group." Regulation 2371/2002, *supra* note 4, Article 3 (h).

12 ICES, 2004. Report on Efficiency and Productivity in Fish Capture Operations. ICES Working Group on Fish Technology and Fish Behaviour.

13 Commission Working Paper: Reflections on further reform of the Common Fisheries Policy. September 2008. Available at: http://ec.europa.eu/fisheries/press_corner/press_releases/2008/com08_60_en.htm.

14 COM(2007) 39 final, Communication from the Commission to the Council and the European Parliament on Improving Fishing Capacity and Effort Indicators under the Common Fisheries Policy (05.02.2007).

15 As laid out in Regulation 2371/2002, Chapter III, and Regulation 1438/2003.

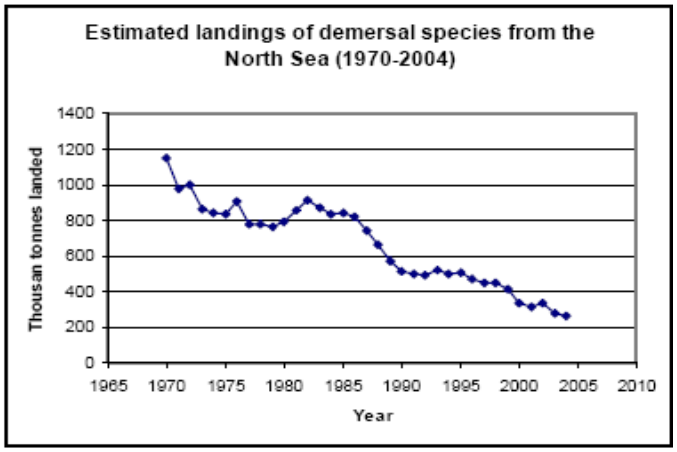
(CFR). The register, together with the statistical bulletin on the Community fishing fleet, are both available on the Commission website[16] [17].

While imposing stricter reporting requirements on Member States (see section 3.2.) in relation to their efforts to address over-capacity, there are no specific targets for Member States to reduce their fleet. So far, the new approach to fleet management adopted in 2002 has not resulted in any significant reduction of fishing capacity. The expected impact – of the reference level and entry/exit scheme leading to a cutting down of fleet capacity – has not been realised. The European Commission concluded in 2008 that: "the fishing capacity of the European Community (EC) fleet had continued its slow but steady reduction at an annual rate of between two percent and three percent and that this had been the trend for the last 16 years"[18]. It also concluded that: "this reduction appears to be insufficient given the big reductions in fishing effort required for some major fish stocks…"[19].

1.3 IMPACTS OF OVER-CAPACITY

Over-capacity contributes substantially to over-exploitation[20]. Recently, the European Commission highlighted that 88 percent of assessed EU fish stocks are overfished and more than 30 percent are outside safe biological limits.

Figure 1: Estimated landings of demersal species from the North Sea (1970–2004)



Source: ICES (2008)

In addition to the pressure on target stocks, the significant pressure on non-targeted species and habitats can result in severe degradation of marine ecosystems[21].

16 http://ec.europa.eu/fisheries/fleet/index.cfm.

17 http://ec.europa.eu/fisheries/fleetstatistics/index.cfm?lng=en.

18 Commission Working Paper: Reflections on further reform of the Common Fisheries Policy. September 2008. Available at: http://ec.europa.eu/fisheries/press_corner/press_releases/2008/com08_60_en.htm.

19 COM(2007) 828 final, Annual Report from the Commission to the European Parliament and the Council on Member States' Efforts During 2006 to Achieve a Sustainable Balance Between Fishing Capacity and Fishing Opportunities (19.12.2007).

20 Court of Auditors Special Report No. 7/2007 on the Control, Inspection and Sanction Systems Relating to the Rules on Conservation of Community Fisheries Resources, OJ C 317 (28.12.2007). This was recently acknowledged by the Commission. See: COM(2008) 453 final, Communication from the Commission to the European Parliament and the Council on Promoting the Adaptation of the European Union Fishing Fleets to the Economic Consequences of High Fuel Prices (08.07. 2008).

The UN FAO has underlined that over-capacity is a significant – if not the primary – reason for overfishing and related socio-economic crises in domestic and global fisheries[22]. According to a recent communication from the European Commission, "[t]he EU fisheries sector has long suffered from a vicious circle of poor economic profitability and over-exploitation of stocks due to a significant over-capacity"[23] and "[o]vercapacity and excessive fishing effort remains an issue for many segments of the EC fleet and continues to jeopardise the economic viability of the sector"[24]. Over-capacity is thus clearly contributing to economic under-performance, given the depletion of many fish stocks[25] .

21 OSPAR Commission, Quality Status Report 2000, Region II – Greater North Sea 112 (2000); Swedish Commission on the Marine Environment, The Sea – Time for a New Strategy, 72 Statens Offentliga Utredningar 29–30 (2003).

22 FAO Topic Fact Sheets. Assessing fishing capacity and over-capacity, In FAO Fisheries and Aquaculture Department (27 May 2005, cited January 2009). Available at: http://www.fao.org/fishery/topic/14858/en.

23 COM(2008) 453 final, *supra* note20.

24 *Ibid*. Catches have steadily declined since 1993 at an average of 2 percent per year, leading to constantly declining revenues (-25% since the early '90s).

25 COM(2006) 103 final, Communication from the Commission to the Council and the European Parliament on Improving the Economic Situation in the Fishing Industry (09.03.2006).

2 LEGAL REQUIREMENTS TO ASSESS OVER-CAPACITIES

The legal requirements to assess and report on efforts to address the over-capacity problem in accordance with international commitments as well as European Community (EC) law are outlined below.

2.1 INTERNATIONAL COMMITMENTS

The EC has entered into a number of international commitments which relate to addressing over-capacity. Not all of these commitments are legally binding in nature and are therefore not enforceable. However, all such pledges are important to show the EC and Member States' commitment to address the problem of over-capacity.

The 1982 United Nations Convention on the Law of the Sea (UNCLOS) is the key legal instrument requiring that its parties take action to avoid over-exploitation of marine resources. UNCLOS specifically states that: "the coastal State, taking into account the best scientific evidence available to it, shall ensure through proper co-operation and management, measures that the maintenance of living resources in the Exclusive Economic Zone (EEZ) is not endangered by exploitation"[26].

In 1995, the UN FAO Code of Conduct for Responsible Fisheries was adopted. This voluntary instrument provides that States should take measures to prevent or eliminate excess fishing capacity and ensure that levels of fishing effort are commensurate with sustainable use of fishery resources[27]. Towards this aim, the FAO Committee on Fisheries (COFI) adopted, in February 1999, the International Plan of Action for the Management of Fishing Capacity (IPOA-Capacity) which was later endorsed by the FAO Council in 2000. The immediate objective of the IPOA-Capacity is for "States and regional fishery organizations, in the framework of their respective competencies and consistent with international law, to achieve worldwide, preferably by 2003 but no later than 2005, an efficient, equitable and transparent management of fishing capacity"[28]. In particular, the fishing capacity applied to affected fisheries was to be limited and progressively reduced.

The legally binding UN Straddling and Highly Migratory Fish Stocks Agreement (UNFSA), adopted just a few months after the FAO Code of Conduct, reiterated the latter's concerns on over-capacity[29]. Although, this agreement primarily concerns the high seas the urgency of over-capacity reduction becomes clear as the provisions on the issue concern all maritime waters[30].

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26 UN Convention on the Law of the Sea, 10 December1982, multilateral, 1833 UNTS 396, Article 61 (2). This Convention entered into force on 16 November 1994.

27 FAO Code of Conduct for Responsible Fisheries, Article 6. Available at: http://www.fao.org/DOCREP/005/v9878e/v9878e00.htm.

28 FAO International Plan of Action for the Management of Fishing Capacity. Available at: http://www.fao.org/DOCREP/006/X3170E/X3170E04.HTM, point 7. This was repeated in the 2001 Reykjavik Declaration, concerning responsible fisheries in the marine ecosystem. FAO Conference, Thirty-First Session.

29 UN 1995.Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea, Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, 4 December 1995, multilateral 2167 UNTS 88, Article 5 (3).

30 *Ibid*. Article 3 (2).

The EC, together with other signatories of the 1992 UN "Rio Declaration", committed itself in 1997, to draw up strategies for sustainable development in time for the 2002 World Summit on Sustainable Development (WSSD). This was a response to the UN General Assembly Resolution of 19 September 1997 urging governments to prevent or eliminate overfishing and excess fishing capacity[31]. Furthermore, the EC is party to the Reykjavik Declaration[32] of October 2001, agreed to at the Reykjavik Conference on Responsible Fisheries in the Marine Ecosystem. Paragraph 2 states: "There is a clear need to introduce immediately effective management plans with incentives that encourage responsible fisheries and sustainable use of marine ecosystems, including mechanisms for reducing excessive fishing effort to sustainable levels." At the WSSD in Johannesburg in 2002, the EC also made a commitment to monitor and regulate fishing capacity in line with fishing opportunities.

In 2001, members of the World Trade Organisation (WTO), including the EC, agreed to launch negotiations aimed at clarifying and improving WTO disciplines on fisheries subsidies, taking into account the sector's importance to developing countries. At the WTO meeting in Hong Kong in 2005, a ministerial declaration called for a strengthening of disciplines on fisheries subsidies, including a prohibition of subsidies that contribute to over-capacity and overfishing, taking into account the importance of this sector to development priorities, poverty reduction, and livelihood and food security concerns.

2.2 EC LEGAL REQUIREMENTS

At the European level, the 2001 Sustainable Development Strategy (SDS) identified capacity reduction as the key issue to be addressed for attaining the sustainable management of fish stocks[33]. The 2002 CFP review was seen as the ideal platform to reduce the size of EU fishing fleets to the level of available resources[34]. Since the 2002 CFP reform it has been incumbent upon the Member States to draw up their own management plans to deal with over-capacity[35]. Community intervention has limited itself to the setting of an upward limit on the Member States' fleet, which is expressed in reference levels[36]. In addition, reduction is envisaged under the entry/exit regime[37].

These provisions set no obligation for the Member States to effectively reduce their fleet. However, indirectly, the new 'basic' Regulation (2371/2002) requires Member States to do just that. It is provided that: "Member States shall put in place measures to adjust the fishing capacity of their fleets in order to achieve a stable and enduring balance between such fishing

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31 Resolution S/19−2 adopted by the UN General Assembly. Programme for the Further Implementation of Agenda 21, 19 September 1997. This resolution is available at: www.un.org/documents/ga/res/spec/aress19-2.htm.

32 FAO Conference, Thirty-First Session, 'The Reykjavik Conference on Responsible Fisheries in the Marine Ecosystem', Reykjavik Declaration on Responsible Fisheries in the Marine Ecosystem, Paragraph 2. Available at: www.fao.org/docrep/meeting/004/Y2211e.htm.

33 COM(2001) 264 final, A Sustainable Europe for a Better World: A European Union Strategy for Sustainable Development (15.05.2001).

34 *Ibid.*

35 Regulation 2371/2002, *supra* note 4, Article 11 (1).

36 Reference levels have been established by the European Commission for each Member State for the total fishing capacity of the Community fishing vessels flying the flag of that Member State. *Ibid*., Article 12 (1). The reference levels are the sum of the objectives of the MAGP 1997–2002 for each segment as fixed for 31 December 2002 pursuant to Council Decision 97/413/EC.

37 Regulation 2371/2002, *supra* note 4, Article 13.

capacity and their fishing opportunities."[38] In other words, excess fishing capacity should be reduced to the optimum level for catching the fishing opportunities[39].

It is a prerequisite for any national capacity management measure, that in order to be efficient, and ultimately to reach this equilibrium, over-capacity is quantified. Again, Community legislation imposes such action on the Member States. Regulation 2371/2002 stipulates that: "Before 1 May each year, Member States must submit to the Commission, a report on their efforts during the previous year to achieve a sustainable balance between fleet capacity and available fishing opportunities"[40]. This means that Member States must assess their efforts against two parameters: fleet capacity and fishing opportunities. This document aims to evaluate the extent to which a balance between these has been established.

Regulation 1438/2003 provides a format for the Member State reports and lays down the information to be submitted by the Member States in their annual reports:[41]

a) A description of the fishing fleets in relation to fisheries: developments during the previous year, including fisheries covered by multi-annual management programmes or recovery plans;

b) The impact on fishing capacity of fishing effort reduction schemes adopted under multi-annual management programmes or recovery plans or, if appropriate, under national schemes;

c) Information on compliance with the entry/exit scheme and with the level of reference;

d) A summary report on the weaknesses and strengths of the fleet management system, together with a plan for improvements and information on the general level of compliance with fleet policy instruments; and

e) Any information on changes to the administrative procedures relevant to the management of the fleet.

Under the heading of 'Information to be contained in the Annual Reports', Article 13 (1) of Regulation 1438/2003 provides that "[t]he reports by the Member States as provided for in Article 12 shall contain at least the following information". It is clear from the wording "at least" that this list is not exhaustive and does not aim to substantially limit the scope of the reports.

Linking fleet capacity and fishing opportunities has proven to be challenging for Member States despite fishing capacity and fishing opportunities being clearly defined in Community legislation. Fishing capacity is the ability of a vessel or fleet of vessels to catch fish. Fishing capacity has been defined in Regulation 1438/2003 as meaning "a vessel's tonnage in GT and

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38 Regulation 2371/2002, *supra* note 4, Article 11 (1).

39 It has also been stressed by the Scientific, Technical and Economic Committee for Fisheries (STECF) that the implied objective of managing the fishing capacity of the EC fleet is to achieve a balance between the capacity and the available fishing opportunities. SEC(2007) 474 final, Commission staff working document: 21st Report of the Scientific, Technical and Economic Committee for Fisheries (Second Plenary Meeting) 7–11 November 2005.

40 Regulation 2371/2002, *supra* note 4, Article 14; Commission Regulation (EC) No. 1438/2003 of 12 August 2003 – Laying Down Implementing Rules on the Community Fleet Policy as Defined in Chapter III of Council Regulation (EC) N0. 2371/2002, Article 12, OJ L 204 (13.8.2003) pp. 21–29.

41 Regulation 1438/2003, *ibid*., Article 13 (1).

its power in kW"[42]. The Regulation goes on to say that for "certain types of fishing activity, capacity may be defined by the Council using, for example, the amount and/or size of a vessel's fishing gear"[43].

A definition of "fishing opportunity" is provided in Regulation 2371/2002: "A quantified legal entitlement to fish, expressed in terms of catches and/or fishing effort"[44]. While "catch limit" means a "quantitative limit on landings of a stock or group of stocks over a given period unless otherwise provided for in Community law"[45]. The Council of Ministers approves, on the basis of qualified majority voting, a proposal from the European Commission, which annually sets catch and/or fishing effort limits for each stock or fishery and allocates fishing opportunities among the Member States as well as the conditions associated with those limits[46].

In order to assess over-capacity, a link needs to be made between fishing capacity and fishing opportunities. In line with the CFP's objective to "ensure exploitation of living aquatic resources that provides sustainable economic, environmental and social conditions" and the guidance provided by the European Commission[47], such a relationship needs to be based on economic, environmental and societal considerations.

The absence of Community legislation detailing how Member States must establish this link does not exempt them from doing so. Published literature providing ample methodologies and guidance – at least with respect to the use of economic indicators – has been made available by the Commission[48].

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42 Regulation 2371/2002, *supra* note 4, Article 3 (n).

43 Regulation 2371/2002, *ibid.*, Article 3 (n).

44 *Ibid*., Article 2 (q). "'Community fishing opportunity' means the fishing opportunities available to the Community in Community waters, plus the total Community fishing opportunities outside Community waters, less the Community fishing opportunities allocated to third countries." *Ibid*., Article 3 (r).

45 *Ibid*., Article 3 (m).

46 *Ibid*., Article 20 (3).

47 DG Fisheries and Maritime Affairs, Guidelines for an Improved Analysis of the Balance Between Fishing Capacity and Fishing Opportunities – The Use of Indicators for Reporting According to Article 14 of Council Regulation 2371/2002. Available at: https://stecf.jrc.ec.europa.eu/c/document_library/get_file?p_l_id=1807&folderId=21034&name=DLFE-15201.doc

48 SEC(2003) 74, Commission Staff Working Paper: The Scientific, Technical and Economic Committee for Fisheries, Subgroup on Balances between Resources and their Exploitation, Report Investigating the Scientific Follow-up to the Fourth Generation of Multi-annual Guidance Programmes (MAGP IV), 19–23 November 2001.

3 MEMBER STATES' REPORTING ON THEIR EFFORTS TO BALANCE CAPACITY AND FISHING OPPORTUNITIES

Despite the legal requirement to report on national efforts to reduce over-capacity and achieve a balance with available fishing opportunities, concerns over the level of Member States' non-compliance have been noted in a number of reports and fora. These are listed below.

3.1 SUMMARY OF MEMBER STATES' REPORTS (2003–2007)

Since 2004, the European Commission has been reporting to the Council and the Parliament on Member States' efforts in the previous year to achieve a sustainable balance between fishing capacity and fishing opportunities. This annual summary is based on the reports compiled by the individual Member States[49].

In 2004, most Member States simply summarised the development of the fleet in 2003 and described efforts to comply with the entry/exit regime and the submission of data for the Community fishing fleet register[50]. It was a transitional year for adaptation from the old to the new fleet-management regime. As a result, there were few criticisms about the quality of the Member States' reports.

In 2005, the European Commission reported that only one-half of the Member States had submitted their annual reports for their 2004 efforts within the deadline; some reports were up to two months late. The format and the content fixed by the Regulation had not always been respected; the information included was not homogeneous, making a common assessment of the Member States' reports problematic and difficult to report on levels of over-capacity. The European Commission concluded that more-detailed guidelines for the content of the annual reports should be established alongside a common harmonised methodological approach, with greater emphasis on the analysis of the development of fishing capacity in relation to available fish stocks[51].

In 2006, the European Commission again noted a number of shortcomings, including the failure to submit reports on time. In its report to the Council of Ministers and the European Parliament, the Commission noted that most Member States tried but failed to assess the balance between fishing fleet capacity and available fishing opportunities. Various approaches were used to identify correlations between fishing fleets and available resources. Consequently, the European Commission came to the same conclusions as in 2005with respect to the need for more-detailed reporting guidelines.

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49 These reports are available in English. See: http://ec.europa.eu/fisheries/fleet/index.cfm?method=FM_Reporting.AnnualReport.

50 COM(2004) 799 final, Annual Report from the Commission to the Council and the European Parliament on Member States' Efforts During 2003 to Achieve a Sustainable Balance Between Fishing Capacity and Fishing Opportunities. (14/12/2004).

51 COM(2006) 872 final, Annual Report from the Commission to the Council and the European Parliament on Member States' Efforts During 2005 to Achieve a Sustainable Balance Between Fishing Capacity and Fishing Opportunities (09.01.2007).

In 2007, the European Commission reported that the quality of the Member States' reports had steadily improved since the first Commission report[52], was presented. However, still only 12 Member States submitted their reports on time; seven reports were between two weeks and two months late. The UK sent its report so late (six months) that its contents could not be included in the European Commission's report. Again, the European Commission reported that the majority of the Member States' reports did not describe their fleets in relation to fisheries, as required by Article 13 (1) (a) of Regulation 1438/2003, in a manner allowing the Commission to analyse their efforts to achieve a balance between the capacity of the fishing fleet and the available fishing opportunities, as stipulated by Article 14 of Regulation 2371/2002. Similar to previous years, Member States had simply described the national fleet management systems implemented and the trends in fleet capacity in relation to the entry/exit scheme[53].

3.2 STECF COMMENTS ON THE IMPACTS OF MEMBER STATES' REPORT

The Scientific, Technical and Economic Committee for Fisheries (STECF) confirmed the findings of the European Commission that Member States' reports simply emphasised the implementation of national fleet management measures rather than their efforts to balance fishing fleet capacity with available fishing opportunities. Moreover, STECF stressed that the reported reductions were rather trivial, compared to the existing imbalance between fishing opportunities and fleet capacity. The reported reductions in gross tonnage (GT) and kilowatts (kW) represented "only an attempt to move towards a balance between fishing capacity and available fishing opportunities"[54] when "confronted with the important effort reductions still required for some important fish stocks, the steady technological creep and the poor economic performance of important parts of the fleet"[55].

3.3 HOUSE OF LORDS ENQUIRY – COMMENTS ON THE REASONS FOR NON-COMPLIANCE

In 2007, the House of Lords' EU Committee held an enquiry into the progress of the CFP. In its evidence to the inquiry, the European Commission re-emphasised that while the new fleet management system, in place since 2002, ensures that nominal capacity cannot increase, "real reductions depend on the Member States to establish the balance between fishing capacity and resources"[56]. The European Commission also commented on the lack of real political will among most Member States to address the over-capacity issue in earnest. Here, the European Commission referred to the annual reports from Member States and highlighted that: "in nearly all cases, Member States fail to analyse the relation between harvest capacity and resources"[57].

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52 COM(2004) 799 final, Annual Report from the Commission to the European Parliament and the Council on Member States' Efforts During 2003 to Achieve a Sustainable Balance Between Fishing Capacity and Fishing Opportunities (14.12.2004).

53 COM(2007) 828 final, *supra* note 17.

54 SEC(2007) 474 final, *supra* note 39.

55 At the same time, STECF criticised the Council for adopting, in July 2007, an amendment to the fleet management provisions that allowed Member States, as of January 2007, to replace with public aid 4 percent of the capacity scrapped. As STECF itself rightly pointed out, that decision ran counter to the objective of achieving a balance between fishing capacity and fishing opportunities.

56 House of Lords. European Union Committee. 21st Report of Session 2007–08. The Progress of the Common Fisheries Policy. Volume II: Evidence. HL Paper 146–II.

57 *Ibid*.

The UK government pointed out in its evidence to the enquiry that the European Commission had not yet provided enough guidance on how this assessment should be done. In addition, the UK government suggested that the "lack of guidance was a contributing factor to the UK report being submitted late in 2007"[58]. In response, the European Commission acknowledged that there was a need to "establish methodologies to objectively determine what the adequate fleet size is, so that Member States have a common guidance for their analysis and reporting, and to enable the European Commission to argue in favour of concrete capacity reductions"[59].

3.4 OTHER REFERENCES TO MEMBER STATES' REPORTING

In 2007, the European Parliament congratulated the European Commission on the annual report[60], which, in spite of the difficulties arising from the diverging information supplied by the Member States, provided an overview of the development of the national fleets. However, Parliament expressed the view that it was unacceptable that Member States failed to comply with their obligations to forward data in relation to matching their fishing capacity with the state of the stocks.

In 2008, in response to a written question by Paulo Casaca from the European Parliament Fisheries Committee, European Fisheries Commissioner Borg clarified that the balance between fishing capacity and fishing opportunities can only be assessed on the basis of detailed data per fishery and by taking into account both biological and economic factors. He continued that only the Danish report for the year 2006 included such an assessment. The Belgian, German, Dutch and Swedish reports included assertions in relation to the size of some of their fleet segments, stating either that reductions in capacity were required or that the size of the fleet segment was adequate in relation to the resource. Commissioner Borg pointed out that no detailed analysis was provided to justify the latter assertions. The reports of the remaining Member States only provided information on the trends in fishing capacity or fishing effort and did not make clear statements regarding the balance between fleet and fishing opportunities[61].

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58 *Ibid.*

59 *Ibid.*

60 European Parliament, 2007. Balancing fishing capacity and fishing opportunities. European Parliament Resolution of 5 September 2007 on Member States' Efforts During 2005 to Achieve a Sustainable Balance Between Fishing Capacity and Fishing Opportunities [2007/2108(INI)].

61 Written question E–5673/08 by Paulo Casaca (PSE) to the Commission, Balance Between National Fleets and Fishing Opportunities. An answer was given by Fisheries Commissioner Mr. Borg on behalf of the Commission on 2 December 2008. Available at: www.europarl.europa.eu/sides/getAllAnswers.do?reference=E-2008-5673&language=EN.

4 IEEP EVALUATION OF MEMBER STATES REPORTS RELATING TO EFFORTS IN 2007

Since 2003, there has been a legal requirement for Member States to report annually on their efforts to balance fishing capacity with fishing opportunities (see section 3.2)[62]. The Member States' reports on their efforts in 2007 were published by the Commission in January 2009[63]. What follows is IEEP's independent evaluation of these reports. In the first part of this evaluation, Member States' reports are evaluated on the timing and the amount of information they provide. In the second part, the Member States' reports are evaluated for the quality of the information presented in the reports, specifically on the basis of the indicators recommended in the 2008 Guidelines. Finally, a discussion on the usefulness of this information in assessing national over-capacity is presented.

4.1 EVALUATION OF THE AMOUNT OF INFORMATION PROVIDED BY MEMBER STATES

4.1.1 Evaluation framework

In order to assess the amount of information in the Member States' reports, IEEP scored the individual reports against a set of criteria for their form and timeliness, as further explained below. The overall score ranges from 0 for Member States that have not submitted any report to 10 for those who have used the format recommended by the Commission and reported on all the sections corresponding to Article 14 of the (EC) No. 2371/2002 and Articles 12 and 13 of (EC) No. 1438/2003. The overall score is calculated as a product of timeliness scores (T1 and T2) with the sum of completeness scores (C1 to C5) and a readability score (R1). The corresponding formula is: x = T1*T2(sum(C1:C5)+R1).

Timeliness

The Member States' reporting schedule is set out in Article 12 of (EC) No. 1438/2003, which stipulates that annual reports have to be sent to the Commission by 30 April in electronic format. The Commission then presents a summary to the Management Committee on Fisheries and Aquaculture and to STECF by 31 July, which in turn have to give back their opinion to the Commission by 31 October. The Member States' deadline is crucial to ensure that the reports, the Commission's summary diagnosis, and the Committees' opinions are submitted to the EU Parliament and Council by 31 December each year.

Two criteria relating to timeliness are used. T1 relates to submission of the national report and T2 relates to the timing of this submission. Values for T1 and T2 are assigned as follows:

T1. National report submitted?
- Yes (1)
- No (0) and scoring ends.

T2. National report submitted on time? (*i.e.* by 30 April)
- Yes (1)
- After deadline (from 0.5 to 0.1).

62 Regulation 2371/2002.

63 Reports are publicly available at: http://ec.europa.eu/fisheries/fleetstatistics/index.cfm?lng=en.

T1 has a value of 1 for submission by the 30 April deadline or 0 for a non-submission of the report. T2 has a value of 0.5 for those Member States late by more than one month, 0.3 for those reports submitted later than two months, and 0.1 for those submitted later than three months who therefore could not be included in the Commission's analytical summary. In relation to timely submissions, it is further proposed that the score for T1 and T2 are both multipliers. A multiplying score of less than 1 means that all other scores would be reduced accordingly, say by 50 percent (multiplied by 0.5) if the report is e-mailed in May, and by 90 percent (multiplied by 0.1) if submitted in July. The combined timeliness score can only be calculated when the report submission date is indicated in the report. The lack of an English version of a Member State report, which is provided by the Commission when the report is submitted on time, is also taken to indicate a very late report submission, corresponding to a T2 score of 0.1.

Completeness

The subheadings of the reports that have been submitted are examined to evaluate their completeness. The subheadings follow the minimum information requirements set out in Article 13 of (EC) No. 1438/2003 and are presented as scoring criteria C1 to C5. Each criterion, C1 to C5, is allocated up to two score points.

C1. Description of the fleet in relation to fisheries (+2 for any subheading):

a. state until end of year
b. developments from previous year (s)
c. including fisheries covered by Management plans and Recovery plans covered as applicable

C2. Impact of effort reduction schemes on capacity (+2) adopted under Multi-annual Management Plans, Recovery plans, or under national schemes, if appropriate.

C3. Information on compliance with the entry/exit regime and reference levels (+2).

C4. Summary report on (+2 for any subheading):

a. the weaknesses and strengths of the fleet management system, with
b. plan for improvements, and
c. information on the general level of compliance with fleet policy instruments, and any
d. information on changes of the administrative procedures relevant to the management of the fleet

C5. Results for mainland fleet and for fleet registered in the outermost regions, reported or not as appropriate (+2).

Readability

According to the second point of Article 13 of (EC) No. 1438/2003, reporting on criteria C1 to C5 should not exceed 10 pages. However, there seems to be some confusion in several reports stemming from changes from annual to quarterly updates of the Community Fleet Register for the entry/exit fleet-management regime reports and the additional number of pages allowed for the reporting on the new indicators (see section 5.2). Therefore, the length of the overall report has not been scored and the readability criterion R1 is for information purposes only.

4.1.2 Member States' scores

Individual scores, allocated to the 22 Member States that have a Fishing Vessel Register (FVR) and are therefore required to report on their efforts to achieve a balance between fishing capacity and fishing opportunities in 2007, are presented in Table 1. Overall scores range from 0 for the UK, which did not submit its report, to 10 for Sweden, which reported on all prescribed and recommended aspects. A ranking of the Member States, based on the overall scores, is presented in Table 2.

Timeliness

The UK did not submit its 2007 report (T1=0), which gives it overall score of 0. The Commission's summary report[64] establishes that of the remaining 21 reporting Member States, 13 submitted their national reports on time for the end of April deadline, and eight "were between two weeks and two months late". Unfortunately, the date for submission by Member State does not systematically appear on national reports. Therefore, Table 2 contains two rankings. One ranking scores all Member States without taking T2 into consideration, the other scores only those Member States where information about the time of submission is available. France's report does not indicate the submission date. However, as France did not translate the report into English, or did not submit the report sufficiently early for the Commission to do so, the timeliness score for France is reduced to 0.3.

Completeness

In a number of Member States' reports, criterion C1, relating to fleet description, and C2, relating to impact of fleet management, are often discussed together in the text, and the relevance of C1 sub-criteria a to c is not always apparent either. As it stands, C1 is awarded the score of 2 when any of the prescribed sub-criteria a, b and c are mentioned. A full score is also given when the general headings of fleet description and impacts of fishing effort reduction schemes appear in the report, even without the subheadings. This largely applies to the new entrant Member States for which 2007 is the first year of fleet change reporting, and for Member States around the Mediterranean where single-species recovery plans (sub-criteria C1c) are generally not applicable.

Only Italy does not discuss the impact of effort reduction on fleet capacity and loses the points for C2.

Information on compliance with the entry/exit regime scored under C3 is usually collected and analysed separately by the Commission on the basis of Member States' quarterly reports, and presented, including for the UK, in a report accompanying the annual report on fleet management[65]. Some Member States, such as Belgium, have succinct information on C3 in their report on fishing capacity and fishing opportunities but full information in their entry/exit report. Full points are given for C3 for all Member States where the heading is present.

Similarly to score C1, information under the C4 subheadings a to d are not always clearly apparent in the reports and therefore a decision was taken to award a score of 2 if there is any indication that the topics of sub-criteria a to d are examined in the text. Each sub-criterion

64 COM(2008) 902 final, Annual Report from the Commission to the European Parliament and the Council on Member States' Effort During 2007 to Achieve a Sustainable Balance Between Fishing Capacity and Fishing Opportunities, 12 pp. Available at http://ec.europa.eu/fisheries/fleet/index.cfm?method=FM_Reporting.AnnualReport.

65 *Ibid.*

counts as one-half of a point, and most Member States get the full mark. Belgium and Italy did not clearly report on C4 and therefore lose points for this criterion.

Table 1: Member State's scores for timelines, completeness and readability

Member State	Timeliness		Completeness					Read-ability	Total 1 (without T2)	Total 2 (with T2)
	T1	T2	C1	C2	C3	C4	C5	R1*		
Scoring maximum marks	*1*	*1*	*2*	*2*	*2*	*2*	*2*		*10*	*10*
Belgium	1	?	2	2	2	0	2	7	8	?
Bulgaria	1	0.5	2	2	2	2	2	6	10	5
Cyprus	1	1	2	2	2	2	2	8	10	10
Denmark	1	1	2	2	2	2	2	17	10	10
Estonia	1	1	2	2	2	2	2	6	10	10
Finland	1	0.3	2	2	2	2	2	7	10	3
France	1	0.3	2	2	2	2	2	36	10	3
Germany	1	1	2	2	2	2	2	6	10	10
Greece	1	0.5	2	2	2	2	2	6	10	5
Ireland	1	0.3	2	2	2	2	2	9	10	3
Italy	1	0.3	2	0	2	0	2	8+39	6	2
Latvia	1	1	2	2	2	2	2	7	10	10
Lithuania	1	?	2	2	2	2	2	11	10	?
Malta	1	0.3	2	2	2	2	2	10	10	3
Netherlands	1	1	2	2	2	2	2	6	10	10
Poland	1	?	2	2	2	2	2	6	10	?
Portugal	1	1	2	2	2	2	2	13	10	10
Romania	1	1	2	2	2	2	2	7	10	10
Slovenia	1	1	2	2	2	2	2	9	10	10
Spain	1	0.3	2	2	2	2	2	19	10	3
Sweden	1	1	2	2	2	2	2	8+1	10	10
UK	0	0	0	0	2	0	0		0	0

* Criterion not used in overall score

The number and names of Member States concerned by criterion C5, the reporting for Outermost Regions, is not clear from national reports. However, as for the C3 criterion on the entry/exit scheme, a separate report on Outermost Regions accompanies the Commission 2007 report on fleet management[66]. The Member States reporting are France (Guadeloupe, Martinique, Réunion, French Guiana), Portugal (Azores, Madeira) and Spain (Canary Islands). All other Member States are given a score of 2 by default.

Spain also reports on its fleet activities outside its national and Outermost Regions' waters (NAFO, tuna fleet, and vessels in Portuguese waters), as do Lithuania and Portugal.

Readability

A majority of Member States' reports (15 out of 21) abide by the Commission's rule and do not exceed 10 pages. There are notable exceptions, such as that from France which has 36

66 *Ibid.*

pages. A number of Member States include information already provided in the quarterly fleet entry/exit reports, such as lengthy vessel lists.

Overall scores

The traffic light ranking of the 22 Member States' reports is given in Table 2. A green light is given to Member States with an overall score between 10 and 7, indicating that Member States provide timely information on most subheadings; an amber light is given to those with scores between 4 and 6, indicating lower amounts of information or delay; and a red light is given for scores between 0 and 3, indicating very little or very late information.

Table 2: Traffic light ranking of the amount and timeliness of Member States reports on their efforts in 2007

Member State	Score	
	Without considering timing of submission (Criteria T2)	Considering timing of submission (Criteria T2)*
Belgium	8	
Bulgaria	10	5
Cyprus	10	10
Denmark	10	10
Estonia	10	10
Finland	10	3
France	10	3
Germany	10	10
Greece	10	5
Ireland	10	3
Italy	6	2
Latvia	10	10
Lithuania	10	
Malta	10	3
Netherlands	10	10
Poland	10	
Portugal	10	10
Romania	10	10
Slovenia	10	10
Spain	10	3
Sweden	10	10
UK	0	0

* Date of submission unknown for Belgium, France, Lithuania and Poland

Without taking into consideration possible delays in the submission, 20 Member States end up in the green light according to this ranking system. This includes the new Member States.
Italy is the only Member State with a medium score of six, losing two points for not reporting on the impact of effort reduction of the fleet (C2), and two points for the lack of the summary report (C4). Interestingly, Italy made an attempt to report against the indicators in the 2008 Guidelines discussed below and might have used the new guidelines instead of, rather than in addition to, current obligations under the 2003 Regulation. The UK did not provide a report and therefore received a score of 0, and consequently a red light.

The results change significantly when the time of submission is taken into consideration. Only 10 Member States submitted complete reports on time. Due to the delay in submission, Bulgaria and Greece are given only medium scores, while Finland, France Ireland, Malta and Spain are now given red lights. The UK remains at the bottom of the ranking, due to its failure to submit any report.

Reporting along the subheadings and on time does necessarily mean that the reports entail all the desired information. In its annual report to the European Parliament and the Council, the Commission specifically mentions a number of Member States that did not assess the balance between fishing capacity and fishing opportunities[67]. This includes for instance Estonia, Spain, Ireland, Cyprus, Poland, Portugal, Slovenia and Finland, which reported along the subheadings.

4.2 EVALUATION BASED ON INFORMATION IN LINE WITH 2008 GUIDELINES

In March 2008, the European Commission - DG Fisheries and Maritime Affairs (DG MARE) - issued new "Guidelines for an improved analysis of the balance between fishing capacity and fishing opportunities"[68] to assist Member States with their reporting. This was in response to difficulties in Member States' reporting on the links between fishing capacity and fishing opportunities highlighted in the 2004–2006 reports. The following section describes the indicators, provides an evaluation framework and subsequently assesses the extent to which Member States reports on their efforts in 2007 have been in line with the 2008 Guidelines.

4.2.1 Indicators in the 2008 Guidelines

The recommended indicators in the 2008 Guidelines resulted from two STECF working groups, which met in October 2007 and February 2008. These indicators were originally developed between 2000 and 2002 as part of the Economic Interpretation of the Advisory Committee on Fisheries Management (ACFM) Advice (EIAA) model, through a series of EC-funded research initiatives[69]. Some of these have already been used earlier in the series of three Annual Economic Reports on the economic performance of selected European fleet segments that were submitted to the STECF between 2002 and 2004[70].

The 2008 Guidelines recommend eight indicators – one technical, three biological, two economic and two social indicators.

- Technical indicator: (T1) ratio between average days at sea and maximum days at sea observed in a fleet segment.
- Biological indicators: (B1) ratio between estimated fishing mortality (F) and targeted fishing mortality (F_t) of stocks exploited by the fleet segment; (B2) ratio of current catch weight of species and the estimated biomass of the stock exploited attributed to

67 *Ibid.*

68 DG Mare, 2008. Guidelines for an improved analysis of the balance between fishing capacity and fishing opportunities. The use of indicators for reporting according to Article 14 of Council Regulation 2371/2002. Version 1, March 2008.

69 EAFE, 2002. The potential economic impact on selected fishing fleet segments of TACs proposed by ACFM for 2002 (EIAA –model calculations). A report of the European Association of Fisheries Economists Advisory Committee (EAFE–AC report), 28 pp. Available at: www.eafe-fish.org/notices/eafe-ac-eiaafinal.doc.

70 Further model developments and an overview of the EIAA model are also described in EC (2005). Commission Staff Working Paper: Report of the Joint SGRST-SGECA Sub-group on 'Further improvements on the EIAA model including long term perspective and effect of recovery plans."

fleet segments according to their share of Total Allowable Catch (TAC); and (B3) Catch per Unit Effort (CPUE) measured in catch weight per days at sea of a fleet segment.

- Economic indicators: (E1) return on investment (ROI); and (E2) current revenue against break-even revenue per segment.
- Social indicators: (S1) average wage per Full-time equivalent (FTE); and (S2) gross value added (GVA) of the activity of the fleet segment.

The Commission identifies the technical indicator to be of primary importance as it is based on robust data and provides the only quickly calculated reference for a fishing capacity potential in prevailing circumstances for the fishing activity. Furthermore, the Commission recommends that, as a minimum, the technical indicator should be applied to all fleet segments as a baseline.

In addition to the technical indicator, the Commission refers to the importance of the biological indicators as very important, as "a healthy resource base is a prerequisite for sustainable exploitation". The Commission recommends indicator B1 (ratio between estimated and targeted fishing mortality) as the best indicator, although it acknowledges that the calculation and interpretation of this indicator will need support from fisheries scientists. The economic and biological indicators can be combined to provide a warning system, as indicated in the Commission Guidelines and illustrated in Annex 2. Examples of how the indicators can be calculated are provided in the Annex attached to the 2008 Guidelines[71]. Specific details on the application and interpretation of the indicators are provided in the 2008 Guidelines and summarised in Annex 1 of this report.

The Commission submitted the 2008 Guidelines to the Member States, "requesting that they assess capacity on the basis of the various indicators proposed by the STECF"[72].

4.2.2 Analysis of the use of the indicators recommended by the 2008 Guidelines

The 2008 Guidelines require the technical indicator, which the Commission considers to be "of primary importance", to "be applied to all fleet segments as a baseline", as a minimum. The 2008 Guidelines also recommend that one indicator be used from each biological, economic and social category. Member States' reports were examined for their application of the four categories of indicators recommended in the 2008 Guidelines.

The use or discussion of new indicators as per the 2008 Guidelines for improved analysis in fleet segments is scored with a maximum of 10 points as follows:

- technical indicator (+2 for T1)
- biological indicator (+2 for B1; +1 for B2 and +1 for B3)

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71 COM(2008) 902 final, Annual Report from the Commission to the European Parliament and the Council on Member States' Effort During 2007 to Achieve a Sustainable Balance Between Fishing Capacity and Fishing Opportunities, 12pp. Available at http://ec.europa.eu/fisheries/fleet/index.cfm?method=FM_Reporting.AnnualReport.

72 DG Fisheries and Maritime Affairs, Guidelines for an Improved Analysis of the Balance Between Fishing Capacity and Fishing Opportunities – The Use of Indicators for Reporting According to Article 14 of Council Regulation 2371/2002. Available at: https://stecf.jrc.ec.europa.eu/c/document_library/get_file?p_l_id=1807&folderId=21034&name=DLFE-15201.doc.

- economic indicators (+1 for E1 and +1 for E2)
- social indicators (+1 for S1 and +1 for S2).

Two score points are given for the "essential" technical indicator (T1) and two score points for the preferred biological indicator (B2) if used by a Member State.

Only eight Member States reported on their efforts in 2007 using the new indicators recommended in the 2008 Guidelines; their scores, which used the system above, are shown in Table 3 and 4.

Table 3: Member States' scores for reporting on indicators

Indicators	**Tech-nical**	**Biological**			**Economic**		**Social**		**Over-all score**
Member State	**T1**	**B1**	**B2**	**B3**	**E1**	**E2**	**S1**	**S2**	
Belgium	2	2			1		1		6
Bulgaria	2			1					3
Denmark	2				1	1	1	1	6
Italy	2				1	1	1	1	6
Lithuania	2	2		1	1	1	1	1	9
Malta	2			1					3
Netherlands	2	2			1				5
Sweden	2	2			1	1	1	1	8

All eight Member States that reported on the recommended indicators computed the required technical indicator (T1). Two of the eight Member States did not report on the biological indicators; four used biological indicator (B1), which is the only one that can be used as a warning system without an associated baseline. None used the biological indicator B2. Two Member States did not report on economic indicators and three did not report on social indicators. Belgium, Lithuania and Sweden are the only three Member States in the group of eight to present data for at least one indicator in each of the four categories.

Table 4 provides a traffic light ranking, illustrating to what extent the eight Member States analysed have applied the Guidelines. A green light is given to Member States with an overall score between 10 and 7, indicating that they have made great use of the guidelines; an amber light is given to those with scores between 4 and 6, indicating a lower degree of use of the 2008 Guidelines; and a red light is given for scores between 0 and 3, indicating that the Member States' reports are only to a very low degree in line with the 2008 guidelines.

Table 4: Traffic light evaluation of Member States' reporting on indicators

Member State	**Score**
Lithuania	9
Sweden	8
Belgium	6
Denmark	6
Italy	6
Netherlands	5
Bulgaria	3
Malta	3

4.2.3 Further analysis of the application of the indicators

In order to further assess the quality of reports in respect to the indicators in the 2008 Guidelines, a closer examination of the Member States' reports was undertaken.

As noted previously, the 2008 Guidelines were formally issued late, leaving little time for Member States to amend their annual reports for 2007. However, Table 5 shows that, except for the Netherlands and Lithuania, those Member States using the new indicators did so for the vast majority of their fleet segments.

Table 5: Percentage of fleet segments reported on using 2008 indicators

Member State	Segments reported	Total segments	% reported segments
Belgium	2	2	100
Bulgaria*	4	?	?
Denmark	11	12	92
Italy	20	21	95
Lithuania	2	4	50
Malta	2	2	100
Netherlands	1	3	33
Sweden	5	6	83

* Total segments unclear from report

A summary of the information on indicators provided in the eight Member States' reports is presented below, with some additional comments on the quality of the information. Table 6 provides a summary of the indicator values by Member State, using the traffic light system presented by the Commission (see Annex 2).

Belgium: Belgium calculates indicators for its beam trawler segment, which covers 95 of its 102 registered fishing vessels and is split into two sub-segments according to vessel size (12–24m and 24–40m). Information is provided for the 2003 to 2006 period. The fleet targets sole, which, according to the technical indicator, is overfished in the North Sea and ICES areas VIIIa and b, but not overfished (F/Ft=0.9) in the Channel (area VIId). The combination of economic indicator (E1) and biological indicator (B1) gives a red light to both fleet sub-segments, apart from when they are operating in the Channel and have been given an amber light.

Comment: Belgium should be commended for its use of the new indicators as recommended by the Commission. It computes an indicator in each category and uses the preferred biological indicator. The two fleet sub-segments in the report cover 95 out of its 102 fishing vessels. It may be difficult to estimate the indicators for the remaining seven vessels with disparate gears. There is a clear indication of technical over-capacity for one of the two fleet segments. This is linked to the over-exploited state of two of the three sole stocks it mainly targets. The lack of positive economic return results in either red or amber values for the combined economic/biological indicators of both fleet segments. The information is insufficient to draw further conclusions about the overall level of over-capacity.

Bulgaria: In its first report to the Commission, the new entrant Bulgaria presents some data on four fleet segments operating in the Black Sea and pledges to start collecting economic data in order to compute the necessary indicators for the next report. The technical indicator is calculated based on a few vessels from each fleet segment. However, it is not clear how the

vessels have been selected from the 2,537 registered vessels and what proportion they represent in each segment. The average technical indicator value is between 0.7 and 0.9 and corresponds to an amber light, according to the 2008 Guidelines (Annex 2).

Comment: Bulgaria, as new entrant, should be commended for attempting to report on the technical indicator and CPUE of main target species. However, other indicators, including the key biological indicator B1 were not calculated. Further analysis of the level of over-capacity is not possible.

Denmark: Denmark uses the EIAA[73,74] model to compute the technical indicator, but refrains from calculating the ratio. On the basis of the 2007 data presented, the report concludes that over-capacity varies between fleet segments. The report presentation is not always clear. Five out of 12 segments have much more capacity than their quota allocation deems is sustainable, and the remaining seven segments have amber technical indicators. The ROI indicator is replaced by the "net profit/gross revenue (value of landings)" because of uncertainty about the actual amount of investments. This new indicator provides an estimate of "economic over-capacity" close to 0 percent or negative. Within the 12 segments for which the new indicator was analysed, four show positive net profit ratios, and eight show losses.

Comment: The over-capacity indicators for Denmark give a mixed diagnostic on technical and economic grounds, depending on the fleet segment. The technical indicator points to over-capacities in all fleet segments. As there is no reporting on biological indicators, fishing fleet capacity is not directly assessed against fisheries resource production and the over-capacity cannot be further assessed in this evaluation.

Italy: Italy documented indicators for 14 fleet segments, more than any other Member State, for the years 2003 to 2007. There is little interpretation accompanying the data, but technical ratios for days at sea in 2007 GT*days and kW*days vary between 0.46 and 0.95, depending on the fleet segment, and correspond to red, amber and green lights, with a clear predominance of red (11 out of the 14 analysed fleet segments).

The national report strongly advises against the use of ROI (E1), which is qualified as "an indicator of negligible economic relevance" for the Mediterranean, where fishing fleets are characterised by low levels of investments. The second economic indicator in the 2008 Guidelines is recommended instead, computed as the ratio of current revenue or total income of the fleet segment to the break-even revenue (E2). The indicator is greater than one (green) for 17 of the 21 segments, amber for two and red for two.

On the basis of both technical and economic indicators, Italy suggests that the vast majority of fleet segments is not over-capacity. Italy does not report on the biological indicators for single stocks, which are generally not applicable to Mediterranean multi-species fisheries. There is some analysis in terms of reduced landings and changes in species composition, but no overall interpretation in terms of fleet segments' over-capacity.

Comment: Italy computes the technical indicator and both choices of economic and social indicators. However, in the absence of commentary, it is difficult to assess the meaning of any of these for the sustainability of Mediterranean fisheries beyond the traffic light coding for the technical and economic indicators taken separately. The absence of biological indicators

73 *Ibid.*

74 European Commission 2005. Commission Staff Working Paper: Report of the Joint SGRST=SGECA Sub-group on "Further improvements to the EIAA model including long term perspective and effect of recovery plans". 33 pp.

raises the question of their applicability for Mediterranean fisheries, for which the relationship between fishing fleet capacity and fishing opportunities could not be analysed further.

Lithuania**:** Lithuania reports only on two out of four fleet segments in more detail. The technical indicator points to a large over-capitalisation for both active and passive gear vessels, but there are no explanations as to how the values were devised. It reports that demersal trawlers (24–40m) are more profitable than fixed netters (24–40m), which are in turn more profitable than the smaller fixed netters (<12m), all fishing for cod. Interestingly, the low profitability of small fixed netters is in part explained by a gradual decrease in its cod quota allocation.

Comment: Similar to Bulgaria, Lithuania should be commended for attempting to use the indicators in the 2008 Guidelines, particularly as Lithuania calculates not only a minimum of one indicator for each category but also the preferred ones. At the same time, the information provided in the report is not complete (*e.g.* there is no explanation on how the values for the technical indicators were devised) and only two of the four fleet segments were analysed. The indicators mainly suggest over-capacities with red technical indicator values and amber and red combined economic/biological indicator values in the two fleet segments assessed. Further information is required for a more detailed analysis of the level of over-capacity.

Malta: Malta submitted a short description of its 2,685 vessels operating mostly in coastal waters, more than a third of them part-time. The technical indicator computed on two broadly defined fleet segments for 2005, 2006 and 2007 is less than 0.4 in 2007, which corresponds to a red light (less than 0.7) for structural over-capacity.

A detailed analysis of the CPUE biological indicator (B3) based on total catch (all species together) is presented for 15 'gear types' between 2005 and 2007, and shows a decreasing trend for seven, a stable trend for seven, and an increasing trend for one gear type.

Comment: Malta presented information for only two of the recommended indicators. Based on the values for the technical indicator, Malta's fleet operates with structural over-capacity. However, more information on the other indicators, possibly at the more-detailed level of 'gear types' for all indicators, is necessary to conduct further analyses, which must be done before any conclusions on the specific levels of over-capacity can be drawn.

The Netherlands: The Netherlands reports on three fleet segments, including those for mussel and oyster farming, but only computes indicators for its beam trawl sub-segment. The sub-segment is not described in detail in terms of vessel numbers, fishing areas or mix of target stocks and areas. The report amalgamates all trawlers with fishing rights, including cutters and large pelagic freezer vessels operating outside EU waters, into one segment. It argues in favour of widely defined fleet segments to facilitate capacity transfer and more flexible activity choices for fishermen in times of change. However, for the purpose of indicator computations, homogeneous groups of vessels are more appropriate in order to obtain more meaningful and precise values.

The diagnostic for the beam trawler sub-segment is a technical indicator of 0.89 for days at sea (amber) and red lights for a fishing mortality in excess of the mortality threshold and a negative ROI indicator (no precise figure given).

Comment: Although the calculated indicators are not described or discussed in any length, they are still more meaningful than the opening statement on page one of the same report, which states that: "Sole was under-exploited (-12.9%)" in 2007 as "Dutch fishermen kept to the quota well". Clearly, this statement relates to the quota uptake and not to the sole

resource, which is assessed as over-exploited in most areas in which the Dutch beam trawlers operate, and which also probably contribute to the economic loss reported. These results indicate over-capacity in the beam trawler segments.

Sweden: Sweden provides indicators for all of its six fleet segments. The technical indicator values (presumably estimated using an EIAA model) are all below the suggested threshold value of 0.7, indicating over-capacity, although caution is recommended in the text due to large variability within segments. The analysis for the key biological indicator B1 is presented in detail in Annex 2. The biological indicator B1 (F/Ft) is missing for pelagic trawlers (>=24m). Two fleet segments have green B1 values, but three segments show an excessive total weighted fishing mortality, which is linked to cod, herring and sprat target stocks in the Baltic Sea and Kattegat and Skagerrak areas. Sweden also reports that, overall, five out of six segments are not economically profitable and suggests that the one segment with a small profit margin would also be negative once the cost of self-supplied labour is included. Combining the economic E1 and biological B1 indicators gives a green light for passive gear (>12m), an amber light for prawn trawlers and red lights for the others.

The GVA social indicator varies widely but is positive for all segments, which confirms, according to the report, the social importance of fishing to local communities.

Comment: In addition to Lithuania, Sweden is the only Member State that reports on nearly all the indicators, and from each category. Sweden does not combine the economic and biological indicator values but gives a brief presentation of the results for each of them. It only calculates biological indicators for five fleet segments.

Furthermore, Sweden indicates technical over-capacity for all of its fleets but advises caution in further interpretation of this indicator.

Table 6: Over-capacity indicators in the Member States' annual reports for 2007 (based on the traffic light system in the 2008 Guidelines – see Annex 2)

Member State	Technical indicator	Combined economic/biological indicator	Biological indicators[2]		Economic indicators		Social indicators	
	X/Y are the reported fleet segments out of total number of fleet segments							
			B1	B3	E1	E2	S1	S2
Belgium	1/2	1/2	1/2		1/2		√	
	1/2	1/2	1/2		1/2		√	
Bulgaria	4/?			√				
Denmark[1]	7/12				4/12	3/12	√	√
	5/12				8/12	9/12	√	√
Italy	1/21				Not applicable	2/21	√	√
	2/21					2/21	√	√
	11/21					17/21	√	√
Lithuania	1/4	1/4	1/4		1/4	1/4	√	√
	1/4	1/4	1/4	2007	1/4	1/4	√	√
Malta	2/2			√				
Netherlands	1/3	1/3	1/3		1/3			
Sweden	6/6[3]	1/6	1/5		1/6	4/6[3]	√	√
		1/6	1/5		1/6	1/6[3]	√	√
		3/6	3/5		4/6	1/6	√	√

[1] For Denmark: Technical indicator based on numbers of vessels; E1 is "net profit/gross revenue" instead of ROI, with red showing negative values.

[2] Not all fleet segments have clearly defined biological indicator values given for individual stocks. B3 has no threshold values in the 2008 Guidelines.

[3] Indicator scores to be interpreted with caution, according to Member State report.

4.3 Assessment of over-capacity in EU Member States

Red dominates the coloured scores in the summary Table 6, indicating an imbalance between fleet capacities and fishing opportunities for all the Member States using the indicators recommended in the 2008 Guidelines. On the basis of the technical indicator (T1), 26 of the 43 fleet segments showed signs of red (severe) and 15 showed signs of amber over-capacity, while only two showed no sign of technical over-capacity.

Only four Member States, namely Belgium, Lithuania, the Netherlands and Sweden, used the combination of economic and biological indicators to report on 10 fleet segments or sub-segments. Of these, one had a green light, three had amber lights and six had severe signs of over-capacity on both grounds.

Unfortunately, it seems not to be possible to make clear assessments of the level of fleet over-capacity based on the information provided in the Member States' reports. In fact, beyond an indication of the number of fleet segments presented in the report, and the colour coded score of individual indicators, the results cannot be analysed further. At this early stage, it is also not possible to make a comparison between Member States or establish a ranking of the over-capacities in their fleets. This is partially due to the fact that the links between fleet segments

and fish stocks are rarely established or described in detail. It is, therefore, not possible to compare technical effort indicators for the same stock, or the economic profitability of similar fleet segments across Member States.

4.4 Recommendations to improve the reporting

Clearly, the information provided in the 2008 Guidelines improve the possibility of being able to evaluate aspects of overcapacity. However, the 2008 Guidelines are not mandatory and, therefore, it is still up to Member States to use the Guidelines to improve the quality of their reporting. Furthermore, it remains difficult to assess the level of over-capacities even for those Member States that apply the guidelines or parts of it.

The quality of reporting could be further improved by a number of initiatives, including the following:

- Compute all indicators by fleet segments: Ask Member States to include a detailed summary of all fleet segments definitions for the reporting year, and indicate those for which indicators cannot be devised, with possible remedies, to ensure comprehensive coverage.
- Link fleet segments to stocks. A clearly presented table can be found in the German report (Annex 3), which shows the fleet segments active in each fishery and fisheries management area. The Swedish report provides a similar table for the computation of the key biological indicator. Such information is particularly important, as any change in the definition of fleet segments or area of activity can significantly influence the indicator values.
- Enhance co-operation among Member States: Collaborative work will be needed between Member States that exploit shared resources in the same management area in order to ensure the use of common or compatible reference conditions for both fleet segments and resource units.
- Expose date of submission: Member States should be required to indicate the date of submission on their report, to allow the public to scrutinise whether Member States have submitted it on time.

5 CONCLUSION

In 2002, the EU fleet management system changed, with Member States assuming more responsibility for fleet management. This decentralisation of management was accompanied by the legal requirement that Member States should provide timely reports to the European Commission on a number of aspects of fleet management. One key requirement was the need to report their annual efforts to balance fishing capacity with fishing opportunities. This requirement is contained in the 2002 Basic Regulation but was later made explicit in the 2003 Regulation. A review of the annual reports from the Commission to the Council and the European Parliament for the period 2004–2007 consistently highlights that only some Member States were making attempts to meet the legal requirements for reporting. The analysis of the 2008 reports on the efforts in 2007 that was undertaken in this study shows that all Member States but one submitted reports that were by and large following the subheadings as set out in Article 13 of (EC) No. 1438/2003 (see Table 1). However, the Commission itself noted that a larger number of reports that follow the subheadings do not include information on the balance between fishing capacity and fishing opportunities. In addition, a larger number of the reports had significant delays. Only one country, the UK, did not submit any report in 2008.

In early 2008, the European Commission issued Guidelines to improve Member States' reporting on their efforts to achieve a balance between fishing capacity and fishing opportunities. These Guidelines specifically recommend a common approach of relatively simple indicators to aid in describing this relationship based on accessible data.

The Member States annual reports for their efforts in 2007, published in early 2009, are the first ones to submit estimations for the new set of indicators. The Commission reported that the short deadline for applying these guidelines and their technical nature posed difficulties for some Member States[75]. Nevertheless, eight Member States, including two new Member States, made an attempt to report against the indicators. However, even in cases where the new indicators were calculated, the Member States did not analyse all fleet segments in their fisheries and have recommended caution in using them to assess over-capacities. In addition, the 2008 Guidelines seem to have caused some confusion with regards to legal reporting requirements in the 2003 Regulation and recommendations in the 2008 Guidelines. It is evident from the reports that most Member States need time to apply and benchmark the new indicators, develop reference conditions, and appraise the indicators' sensitivity and potential bias.

While it is not possible to assess the exact amount of over-capacity, the Member State reports that included an assessment of the technical indicator point to over-capacities in almost all fleet segments. More than half of the assessed fleet segments are characterised by severe signs of over-capacity, and 15 show over-capacity. Only two of the analysed fleet segments show no sign of technical over-capacity.

[75] COM(2008) 902 final, Annual Report from the Commission to the European Parliament and the Council on Member States' Effort During 2007 to Achieve a Sustainable Balance Between Fishing Capacity and Fishing Opportunities, 12 pp. Available at http://ec.europa.eu/fisheries/fleet/index.cfm?method=FM_Reporting.AnnualReport.

A similar picture emerges if the economic and biological indicators are taken into consideration. Only four Member States, namely Belgium, Lithuania, the Netherlands and Sweden, used the combination of economic and biological indicators to report on ten fleet segments or sub-segments. Of these, only one had a green light, three had amber lights and six had severe signs of over-capacity on both grounds.

In conclusion, there is a legal obligation for Member States to provide complete reports on an annual basis. Non-compliance with this requirement, for instance by the UK, needs to be addressed as a matter of urgency. It is not acceptable that over-capacity is identified as one of the key drivers for over-fishing, but Member States refuse to comply with the requirement to assess over-capacities. At the same time, Member States and the Commission should continue improving the analyses of the balance of fishing capacity and fishing opportunities.

In the end, reporting alone will not solve the deep-rooted problem of fleet over-capacity. Member States should finally start to increase their efforts to achieve a balance between fishing capacities and fishing opportunities. To further delay the necessary adjustments of the fleet will only serve to increase the associated economic, social and environmental costs.

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ANNEX 1: INDICATORS RECOMMENDED IN THE COMMISSION GUIDELINES FOR AN IMPROVED ANALYSIS OF THE BALANCE BETWEEN FISHING CAPACITY AND FISHING OPPORTUNITIES[76]

Area	Indicators	Comments	Importance
Technical	Ratio of current to maximum effort	Should be considered as a baseline for each fleet segment as days at sea between average days at sea and maximum days at sea observed in the fleet segment.	Important and legally required. Primary importance as it is based on robust data. This indicator is easy to calculate and is the only one that refers to the potential capacity as reference point. An indicator of more than 0.9[77] = green light. Continuous values below 0.7 indicate structural over-capacity = red light.
Biological	Ratio between $F_{estimated}$ and F_{target} ($F/F_{t\ R}$)	Stock has to be subject to full assessments and must be subject to TAC rules and national quotas. A limitation is that not all species are subject to stock assessments. Indicator is only to a small extent directly based on the Data Collection Regulation (DCR) data, *i.e.*, for data on landing or catches by fleet segment by main species.	F/F_t is regarded as the best indicator to use. Overall value of individual fleet segment >1 = red light. In the case that the calculation has been made using fleet-segment quotas, a value >1 = yellow light. If several fleet segments of a Member State operate on the same species, establishing an overall ration for the species across the fleets will show whether national quotas are consistent with long-term management goals. Values >1 = yellow or red light.
Biological	Ratio between current catch weight and stock biomass	Catches of main species per fleet segment are available under the DCR. Should include discards.	Indicator is considered a 'second-best' to be used when F estimated or targets are not available. This indicator provides trends in catch/biomass ratio over time that reflect exploitation of a given stock. The Commission has not proposed threshold values.
Biological	CPUE	CPUE can be calculated for each species targeted by each fleet. Catches from submitted date and effort unit can be expressed in days at sea. CPUE is indicator of stock abundance but does not provide information on whether stocks are being exploited sustainably. Data are available from DCR.	This is the 'third best' indicator. No traffic light reference level suggested.
Economic	ROI	Some data are available under DCR except for opportunity costs. ROI measures the average investment profitability in the fleet segment. Its strength lies in comparability with other economic sectors. Weaknesses are attributable to methodological inconsistencies concerning the calculation of 'invested capital' across Member States.	>0 indicates economic profits and undercapitalisation <0 indicates economic loss and overcapitalisation
Economic	Ratio between current revenue and break-even revenue	The current revenue is the total income of the fleet segment. Data are available under the DCR whereby vessel costs are expressed by repair, maintenance costs and other fixed costs. And depreciation plus interest payments are capital costs.	Break-even revenue in a simplified calculation – the level of revenue at which the costs are covered and net profit is zero. It is a good measure of economic stability. When the ratio is <1, current cash flow does not cover costs, activity is not economically sustainable. A difference between the two revenues indicates a level of economic over-capacity (red light).
Social	Average wage per FTE	The average wage is the crew share (%) times the landings value divided by the number of full-time employees.	
Social	GVA of the activity of the fleet segment		

[76] DG Fisheries and Maritime Affairs, Guidelines for an Improved Analysis of the Balance Between Fishing Capacity and Fishing Opportunities – The Use of Indicators for Reporting According to Article 14 of Council Regulation 2371/2002. https://stecf.jrc.ec.europa.eu/c/document_library/get_file?p_l_id=1807&folderId=21034&name=DLFE-15201.doc.

[77] Observed in fleet segments showing a largely homogeneous activity.

ANNEX 2: APPLICATION AND INTERPRETATION OF INDICATORS IN THE 2008 GUIDELINES

The technical indicator is calculated for each fleet segment, as an average for all fishing vessels, of the individual ratio of days at sea fished to the maximum of days at sea allowed over specific fishing opportunities. The 2008 Guidelines prescribe to use the data in kW-days for vessels using active gear and in GT-days for those using passive gear, as collected according to the DCR. A ratio of 1 indicates a full use of the segment's fishing opportunities, and any value below 1 indicates an under-use of fishing opportunities and therefore a technical over-capacity in the fishing fleet. The 2008 Guidelines propose – subject to the fleet segment homogeneity – that a value less than 0.7 indicates a 'distinct structural over-capacity' and therefore should have a red light, while a value greater than 0.9 "could be considered to generate a green light in practice" (see table below). Any values between 0.7 and 0.9 generate an amber light as a result.

The biological indicators refer to the resources targeted by the fleet segments. Of the three indicators, only one – the relative fishing mortality F/F_t – has threshold values. A ratio (per fleet segment and target species according to the catch composition [including discards]) that is greater than 1 indicates a fishing mortality in excess of the target, and is therefore coded red. A ratio that is less than 1 is coded green. The value of 1 exactly is coded amber for convenience. The ratio of total catch weight to stock biomass and the CPUE cannot be interpreted as thresholds without additional reference conditions. Therefore, they may be useful for comparison between years or between fleet segments, but cannot be scored by fleet segment.

The two economic indicators, the ROI and the ratio between current revenue and break-even revenue, provide crude indications of the fishing business performance. A positive ROI indicates a profitable investment and gets a green light, and a negative ratio is given a red light. A zero value is given an amber light for convenience. A ratio of current revenue to break-even revenue greater than 1 indicates that the cash flow covers current costs. The fishing business, for individual vessels and in aggregate for the fleet segment as a whole, is therefore sustainable and gets a green light. Conversely, a ratio less than 1 is a measure of economical over-capacity and gets a red light. We give a ratio of 1 an amber light for consistency.

Indicators and thresholds as described in European Commission Guidelines

Indicator group	Name	Thresholds		
Technical	Days at sea / max days at sea	<.7	.7 - .9	>.9
Biological	F/F_t	<1.	1	>1.
	Catch weight / stock biomass	Need reference conditions		
	CPUE	« and use for trends only		
Economic	ROI	<0.	0.	>0.
	Current revenue/break-even	<1.	1	>1.
Social	Crew share FTE €			
	GVA €			

The two social indicators, the crew share for a FTE crew, and the GVA should be expressed in € to allow comparisons between different Member States' fleet segments that operate in the same fisheries. These indicators are relatively easy to calculate and are based on accessible

data that are supposed to be already collected under the EC DCR. The social indicators give valuable information to compare fishing activities between fleet segments in a Member State and between Member States operating in a shared fishery. However, absolute values will need to be standardised before they can be scored.

The economic and biological indicators can be combined to provide a warning system as illustrated in the table below. The combined economic/biological indicator is only green or red if both component indicators are. It is amber otherwise.[78]

Warning system combining the economic and biological indicators*

Economic indicator	Biological indicator		
	F/Ft<1.	F/Ft=1.	F/Ft>1.
ROI>0.			
ROI=0.			
ROI<0.			

* An amber category is added for each component indicator to resolve ambiguities.

78 DG Fisheries and Maritime Affairs, Guidelines for an Improved Analysis of the Balance Between Fishing Capacity and Fishing Opportunities – The Use of Indicators for Reporting According to Article 14 of Council Regulation 2371/2002. Available at: https://stecf.jrc.ec.europa.eu/c/document_library/get_file?p_l_id=1807&folderId=21034&name=DLFE-15201.doc.

ANNEX 3: TABLE FROM GERMAN REPORT DESCRIBING THE CORRESPONDENCE BETWEEN MAIN TARGET STOCKS AND NATIONAL FLEET SEGMENTS

Befischte Bestände

Stocks being fished			Segment								No of segments
Code	ICES/NAFO areas	Stock	4C1	4C2	4C3	4C4	4C5	4C6	4C7	4CZ	
COD	SA I, Div. IIa,IIb	Norway/Spitzbergen cod							X		1
COD	Div. IIId SD 25-32	Eastern Baltic cod	X		X		X				3
COD	Div. IIIb-d SD 22-24	Western Baltic cod			X		X				2
COD	Div. IIIaN, IVa,IVb, IVc, VIId	North Sea cod			X						1
CSH	Div. IVb,IVc	North Sea *Shrimp*					X				1
DAB	Div. IVa,IVb,IVc	North Sea dab					X				1
GHL	Div. XIVb	East Greenland halibut							X		1
GHL	NAFO Div. 1D	West Greenland halibut							X		1
HAD	SA I, Div. IIa,IIb	Norway haddock							X		1
HAD	Div. IIIaN, IVa,IVb, IVc, VIId	North Sea haddock			X						1
HER	Div. IIa,IIb	Atlanto-Scandian herring						X			1
HER	Div. IIId SD 25-32	Eastern Baltic herring			X						1
HER	Div. IIIa, IIIb-d SD 22-24	Western Baltic herring	X	X	X		X				4
HER	Div. IV, VIId	North Sea herring (incl. Eastern Channel)			X			X	X		3
HER	Div. VIa	Herring ICES 6a						X			1
JAX	Div. IIa,IVa,Vb,VIa,VIIa-c,e-k,VIIIa-e	Western stock of horse mackerel						X	X		2
JAX	Div. 87	South Pacific horse mackerel						X	X		2
MAC	Div. IIa,IIIa,IV,Vb,VI,VII,VIIIabde,XII,XIV	North East Atlantic mackerel						X	X		2
MAC	Div. 87	South Pacific mackerel						X	X		2
MUS	SubDiv. IIIC22	Western Baltic mussels								X	1
MUS	Div. IVb	North Sea mussels								X	1
PLE	Div., IVa,IVb, IVc	North Sea plaice			X	X	X				3
POK	SA I, Div. IIa,IIb	Norway saithe							X		1
POK	Div., IVa,IVb, IVc	North Sea saithe			X				X		2
RED	SA I, Div. IIa,IIb	Norway redfish							X		1
RED	SA XII, Div. XIVb	East Greenland redfish							X		1
RED	SA XII, Div. XIVb, NAFO SA 1-2	West Greenland redfish							X		1
SAN	Div. IVa,IVb,IVc	North Sea sandeel			X						1
SAR	Div. 34	Mauritanian *Sardinella*						X			1
SOL	Div. IVb,IVc	North Sea sole				X					1
SPR	Div. IIIb-d	Baltic sprat			X						1
WHB	SA I-IX,XII,XIV	Blue whiting						X			1
WHG	SubDiv. IIIC22-25	Western Baltic whiting			X						1
Number of fished stocks			2	1	12	2	6	9	14	2	48