European Commission

DG MARE

Lot 2: Retrospective and prospective evaluation on the common fisheries policy, excluding its international dimension

Ref. No MARE/2011/01

Ex-post evaluation of the European Fisheries Fund (2007-2013)

Final Report

November – 2016

Fisheries

EUROPEAN COMMISSION

Directorate-General for Maritime Affairs and Fisheries

Directorate D — Fisheries Policy Mediterranean and Black Sea

Unit D.3 — CFP and Structural Support - Policy Development and Coordination

Contact: Elisa ROLLER

E-mail: MARE-D3@ec.europa.eu

European Commission
B-1049 Brussels

Ex post Evaluation of the European Fisheries Fund

Final Report

Europe Direct is a service to help you find answers to your questions about the European Union.

Freephone number (*)**:**

00 800 6 7 8 9 10 11

(*) The information given is free, as are most calls (though some operators, phone boxes or hotels may charge you).

LEGAL NOTICE

Luxembourg: Publications Office of the European Union, 2017

Catalogue number KL-01-17-039-EN-N
ISBN 978-92-79-65193-9
doi: 10.2771/798734

TABLE OF CONTENTS

EXECUTIVE SUMMARY 2
1 INTRODUCTION 16
1.1 Introduction to the European Fisheries Fund (EFF) 16
1.2 Objectives and scope of the study 16
1.3 Study methodology 17
1.4 Lessons learned from the evaluation and the methodology used 22
1.5 Structure of the report 25
2 INTERVENTION LOGIC OF THE REGULATION 27
3 IMPLEMENTATION AND FINANCIAL EXECUTION (TASK1) 30
3.1 Financial consumption 30
3.2 Modifications to the Operational Programmes 45
3.3 Reallocations of budget from axis Management bodies: organisation and management of the OPs 46
3.4 Project Selection 49
3.5 Monitoring and control systems 51
3.6 Promotion and communication actions 55
4 ANALYSIS OF THE RESULTS BY SPENDING CATEGORY (TASK 2) 58
4.1 Fisheries Measures 58
4.2 Aquaculture Measures 79
4.3 Processing and Marketing Measure 95
4.4 Common Interest Measures 106
4.5 Community Development 119
4.6 Technical Assistance 121
5 TRANSVERSAL ANALYSES AND IMPACTS (TASK 4) 127
5.1 Effectiveness of the EFF 127
5.2 Efficiency (programme objectives, and delivery system) 159
5.3 Relevance 167
5.4 Coherence 169
5.5 EU Added-value 173
5.6 Sustainability 176
6 MAIN FINDINGS, CONCLUSIONS AND RECOMMENDATIONS 179
6.1 Conclusions by spending category 179
6.2 Conclusions by evaluation criteria 188
7 References 197

LIST OF TABLES

Table 1: Summary of sources and data collection tools by task 20

Table 2: Overview of the case study topics to be covered in selected Member States 22

Table 3: Comparison between EU funds originally programmed for EFF, EU funds committed at mid-term and committed as of May 2015, EU funds and national funds paid as of May 2015, by Axis (in Mil. euros) 32

Table 4: MS with regional implementation of Operational Programmes* 47

Table 5: Fleet capacity changes in GT (top) & kW (bottom) 2007-2015 with EFF contribution 63

Table 6: Member States implementing Fleet Adaptation Schemes* 65

Table 7: Data available on inland fishing sector and EFF aid in the first five MS in terms of EFF granted for M2.2 77

Table 8: Assessment of the main results of the measure in MS 98

Table 9: Number of operation by measure under Axis 3 107

Table 10: Change in fish consumption in the main Member States in terms of commitments on measure 3.4 111

Table 11: Change in the number of recognized PO over the EFF period 112

Table 12: Qualitative assessment of the effectiveness by measure under the common interest measures 116

Table 13 - Qualitative costs / benefits analysis of common interest measures 118

Table 14: Type of potential beneficiaries of Axis 4 measure 120

Table 15 - Main features for soft measures 163

LIST OF FIGURES

Figure 1: Overarching intervention logic of the EFF 29

Figure 2: Evolution of EFF payments and comparison with initial budget allocated for convergence and non-convergence regions 2008-2014 34

Figure 3: EU commitments for EFF by MS and Spending Category (in%) 38

Figure 9: Breakdown of EFF granted for Fisheries 39

Figure 10: Breakdown of Fisheries measures by MS 39

Figure 11: Breakdown of EFF granted for Aquaculture 40

Figure 12: Breakdown of Aquaculture measure by action by MS 41

Figure 13: Breakdown of EFF granted for Processing 41

Figure 14: Breakdown of processing measures by MS 42

Figure 15: Breakdown of EFF granted for Common Interest measures 43

Figure 16: Breakdown of Common interest measures by MS 43

Figure 17: Breakdown of EFF granted for Technical Assistance 44

Figure 18: Breakdown of Technical Assistance measures by MS 44

Figure 19: Employment in the European fishing fleets 2008-2013 59

Figure 20 Evolution of GT and kW in the EU fleet 2006-2015* 64

Figure 21: EFF funding under measure 1.3 as a percentage of average fleet investment 2008-2013 69

Figure 22: Number of fleet investments (measure 1.3) as a proportion of the MS fleet in 2015 69

Figure 23: EU aquaculture production in value from 2007 to 2013 in billion EUR 85

Figure 24: Results of M2.3 on the development of the activity (online survey) 99

Figure 25: Results of M2.3 on the environmental performance (online survey) 103

Figure 26: Types of projects implemented by processing companies during the EFF period (online survey) 105

Figure 27: Results of M2.3 on competitiveness (online survey) 105

Figure 28: there are disparities in the number of FTEs involved in the MS monitoring system but only 4 MS have data on the number of staff which is not representative ...124

Figure 29: Evolution of EU and global aquaculture production since 2000 133

Figure 30 Status of commercial fish stocks in relation to Good Environmental Status (GES) 142

Figure 31 Change in EU fishing effort between 2004 and 2011 by gear types 143

Figure 32 Cessation spend per GT and per vessel (as of July 2012) 160

Figure 33 - Processing projects average cost per tonne increase per MS (Euros) 161

ACRONYMS

AA	Audit Authority
AER	Annual Economic Review
CA	Certifying Authority
CFP	Common Fisheries Policy
CLLD	Community Led Local Development
DCF	Data Collection Framework
DG MARE	Directorate-General for Maritime Affairs and Fisheries
EARDF	European Agriculture and Rural Development Fund
EC	European Commission
EFF	European Fisheries Fund
EMFF	European Maritime and Fisheries Fund
ERDF	European Regional Development Fund
ESF	European Social Fund
ESI Funds	European Strategic Investment Funds
EU	European Union
FAME	Fisheries and Aquaculture Monitoring and Evaluation (support unit)
FARNET	European Fisheries Areas Network
FIFG	Financial Instrument for Fisheries Guidance
FLAG	Fisheries Local Action Group
FTE	Full Time Equivalent
GT	Gross Tonnage
ITQ	Individual Transferable Quotas
kW	Kilo Watts
MA	Managing Authority
MPA	Marine Protected Area
MS	Member State (of the EU)
MSY	Maximum Sustainable Yield
NSP	National Strategic Plan
OECD	Organisation for Economic Cooperation and Development
OP	Operational Program
PO	Producer Organisation
RAS	Recirculating Aquaculture Systems
SHI	Sustainable Harvest Indicator
SME	Small or Medium sized Enterprise
STECF	Scientific, Technical and Economic Committee for Fisheries
ToR	Terms of Reference

EU Member States country code	
Country Code	*Country Name*
AT	Austria
BE	Belgium
BG	Bulgaria
CY	Cyprus
CZ	Czech Republic
DE	Germany
DK	Denmark
EE	Estonia
GR	Greece
ES	Spain
FI	Finland
FR	France
HR	Croatia
HU	Hungary
IE	Ireland
IT	Italy
LT	Lithuania
LU	Luxembourg
LV	Latvia
MT	Malta
NL	Netherlands
PL	Poland
PT	Portugal
RO	Romania
SE	Sweden
SI	Slovenia
SK	Slovakia
UK	United Kingdom

EXECUTIVE SUMMARY

Introduction and Methodology

The European Fisheries Fund (EFF)[1] was established under the 2007-2013 programming period to replace the previous multiannual programme, the Financial Instrument for Fisheries Guidance (FIFG). Each Member State (MS) produced a single Operational Programme (OP), covering both the Convergence and the Non-Convergence regions[2].

The EFF supported most measures implemented under the FIFG (e.g. permanent and temporary cessation measures, investments on board, investments in aquaculture and in processing and marketing facilities, investments in ports, collective actions, etc.), but implementation rules evolved and new and innovative measures were introduced, including:

- Targeted support for fleet segments that were affected by Community conservation measures, notably by planning permanent and temporary cessation within Fishing Effort Adjustment Plans;
- More 'environmental measures', e.g. more selective gear, aqua-environmental measures, measures for fuel efficiency;
- Specific measures supporting small-scale coastal fisheries and inland fishing;
- Financing local strategies for the sustainable development of fisheries areas (Axis 4, similar to the rural development tool Leader);
- Targeting investment on Small and Medium sized Enterprises (SMEs);
- Making gender equality a cross-cutting objective.

This evaluation covers the 16 EFF measures, including technical assistance, and the 27 MS with an Operational Programme (OP). Analysis focuses on the period 2007-2015 (i.e. the 2007-2013 programming period plus the 2 years allowed for projects approved in 2013 to be completed).

The EFF was structured around five axes as described in the regulation, but this evaluation is structured around spending categories as defined in the Terms of Reference: Fisheries, Aquaculture, Processing, Common interest, Community development, and Technical assistance, in order to make recommendations in line with the structure of the new European Maritime and Fisheries Fund (EMFF).

The methodology focuses on demonstrating the results of the EFF intervention and highlighting the lessons to be learnt for the design of future policies.

An extensive data collection phase was carried out, including interviews with Managing Authorities in the 27 MS; field work in eight MS (CZ, FR, DE, IT, NL, PL, ES and the UK); meetings with all the DG MARE desk officers and with FARNET[3]; several online and email surveys targeting vessel-owners, fish farmers, processing companies and Producer Organisations.

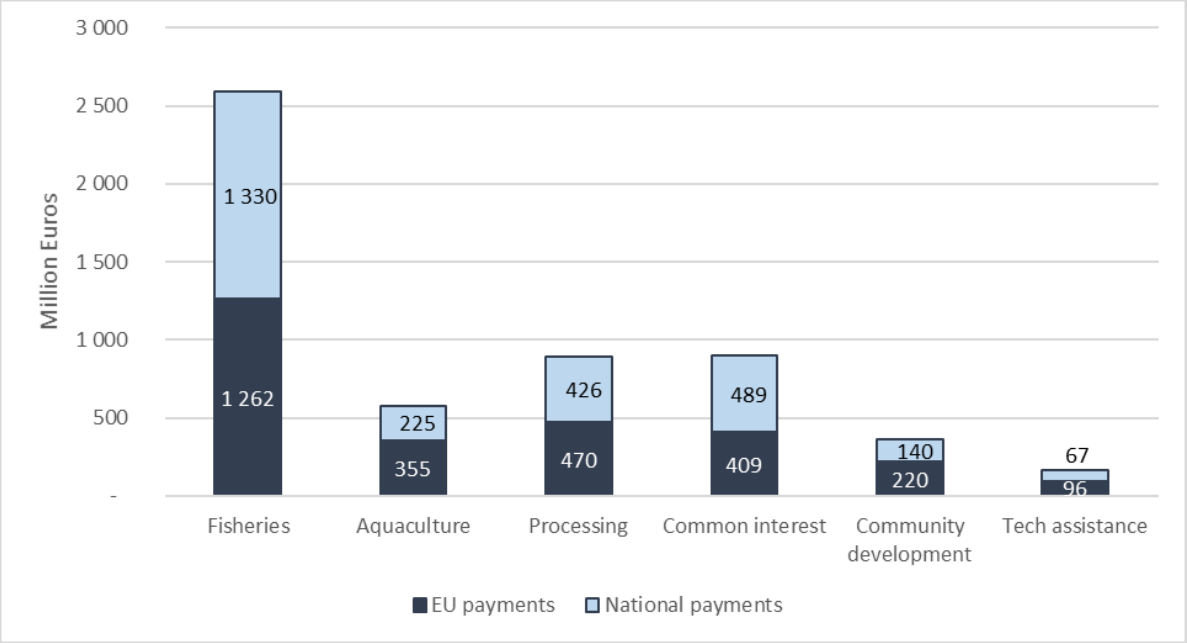
[1] Commission Regulation (EC) No 1198/2006 of 27 July 2006 of the European Fisheries Fund and Commission Regulation (EC) No 498/2007 of 26 March 2007 laying down detailed rules for the implementation of Council Regulation (EC) No 1198/2006 on the European Fisheries Fund

[2] Regions under the convergence objective are the least developed regions according to the Council Regulation (EC) No 1083/2006.

[3] European Fisheries Areas Network; https://webgate.ec.europa.eu/fpfis/cms/farnet/

Implementation and financial execution of the EFF

This section analyses the EFF implementation across all MS. The analysis of **financial consumption** relies on the Article 40 data as of May 2015. At May 2015, public payments for EFF reached EUR 5,489 million, 51% from EU funds (EUR 2,812 million paid) and 49% from national funds (EUR 2,677 million paid). The following figure provides details on EU and national payments (Mil; Euros) by spending category.



The total EU payments for EFF at May 2015 are 71% of the total EU funds originally programmed for EFF (EUR 2,812 million paid).

A total of EUR 38 million of top-up budgets (a mechanism providing additional 10% EU contribution) were provided to CY, GR, IE, PT and RO during the financial instability resulting from the economic crisis. To date de-commitments are reported in 15 of 27 EU MS totalling EUR 257 million over the 2008 – 2012 period. More than 80% of the de-commitments occurred in convergence areas and particularly in 2012.

The following table presents the breakdown of EFF public payments (EU + national) by spending category as of May 2015. At the start of the EFF programme, the MS focused on measures that were easier to implement and already known by stakeholders, with cessation measures particularly popular. The implementation of Axis 4 (Local development), a transposition of the Leader programme in rural areas, but entirely new to the fisheries sector, lagged behind and spending on this measure only really took off in the second half of the programme. These dynamics explain why fisheries measures account for a higher share of payments compared to commitments while Community development shows a lower share in payments.

	1. Fisheries	2. Aquaculture	3. Processing	4. Common interest	5. Community development	6. Technical assistance	Total
EFF payments (EU + national)	47%	11%	16%	16%	7%	3%	100%

By the end of 2015, all MS OPs had been revised, with the exception of HR, which had its OP adopted in 2013. The primary objective of OP modifications was to re-allocate budget among axes. In the beginning of the programme OP modifications were prompted by the economic crisis, often increasing allocations to Axis 1 for cessation measures. At the end of the programme re-allocations were often made to take into account actual commitment and payment trends and avoid N+2 losses.

Despite several management issues, sometimes leading to significant de-certification[4], and the fact that the administrative burden is still considered too high by several MAs, the **definition and distribution of management** tasks was considered to be good overall in most MS. In the majority of MS, the EFF was implemented centrally, reflecting the relatively small scale of the sector and the programme compared to other European structural funds. In some MS certain measures were delegated to regional intermediate bodies. The average number of administrative jobs per million euro of programmed EFF is estimated at 0.3 FTE (estimate based on interviews with the EFF Management Authorities).

Since the interim evaluation more MS included selection criteria on environment and gender, suggesting an increased awareness of these topics and a progressive cultural change from the traditional "first come – first serve" approach seen with the FIFG. However, these criteria rarely determined selection, only becoming a factor when requests for funding exceeded the allocation.

The main **monitoring** tools applied by the Commission and the MAs are: Monitoring Committees, implementation data ('Article 40[5]') data collection, (Annual) implementation reports including result indicators, Annual review meetings between the MS and the Commission. The request by the Commission of implementation data (Art. 40 data) raised a lot of comments from MAs, who often considered the request to be difficult and time-consuming to interpret and implement, with implementation data that are not always relevant and fully reliable. MA experiences with the monitoring system have improved since the interim evaluation and, despite reliability and completeness issues, all MS managed to obtain data that was transmissible to the Commission.

The inability to measure many of the EFF achievements is a clear weakness of the EFF monitoring system. Under EMFF this issue has been addressed through the development of common indicators and support to improve monitoring and evaluation processes.

[4] Projects being rejected by the EU Commission after having been implemented and paid by the Member Stated to the beneficiary.

[5] Data collection based on the article 40 of the Commission Regulation (EC) n° 498/2007.

Analysis by Spending Category

Fisheries

The fisheries spending category accounts for the largest proportion of EU spend for EFF (38%) amounting to nearly EUR 1.5 billion across 96,000 operations. It includes all of the measures under Axis 1 (cessation, on-board investments, small-scale coastal fishing and socio-economic compensation) as well as *inland fisheries* (2.2) and *fishing ports and landings sites* (3.3), which supports the fisheries sector. Overall, ES had 30% of EU spend under this category, PL (16%), IT (13%), and FR (7%). This spending category accounted for at least 40% of EFF commitments in CY (77%), IE (71%), MT (65%), BE (59%), IT (55%) and GR (54%), FR (49%), ES (46%), DK and SI (40% each).

Measures to adjust **fleet capacity** accounted for the majority of EU fisheries spend (58.5%) and in four MS (ES, It, IE and SE) accounted for 74% or more of fisheries spend.

The catching sector employed around 150,000 fishers across the EU in 2014, an increase since 2008. The objective to reduce fishing capacity suggests that job creation from fisheries measures is very limited.

EFF funding of **permanent cessation** was significant in the overall reduction in EU fleet capacity during the EFF programme period. The net contribution of the EFF to fleet capacity reduction was estimated to be 66% (MRAG et al., 2013). The dead-weight effect was limited: a survey of skippers found that only 12% of vessels would have been scrapped anyway. The majority of MS met or exceeded the capacity reduction targets set in their OPs. The fuel regulation further incentivized scrapping and resulted in the peak scrapping levels seen in 2009 and 2010. However, the incentive to scrap vessels was already strengthened by the poor economic performance resulting from high fuel costs and low fish prices. The 2011 Special Report by the European Court of Auditors[6] highlighted several weaknesses of the permanent cessation system: inadequacy of indicators to reflect the ability of fishing vessels to catch fish, low restrictions related to ceilings, insufficient clear rules for the treatment of fishing rights when fishing vessels are scrapped and weaknesses in the implementation of measures to balance fishing capacity with fishing opportunities (notably issues related delays in implementation, definition of targets for reducing capacity, eligibility and selection criteria and updates of fishing fleet register).

Scrapping schemes remain popular with industry, but many MAs consider that fleet capacity re-balancing is mostly complete and permanent cessation is not a cost-effective tool to reduce excess capacity. Decommissioning large-scale fleets is costly and small-scale fleets often have a lot of under-utilised capacity where licensed vessels could become more active and undermine capacity reduction.

Only 6 MS funded **temporary cessation** (measure 1.2) with ES, PL and IT accounting for 90% of EU temporary cessation spending (FR, PT and SE being the other MS using the measure). In most instances it was applied when fishing activity was stopped by regulation (e.g., closed seasons). The funding encouraged compliance by making these more acceptable to industry, but it did not result in any additional reduction in effort.

On-board investments (measure 1.3) accounted for 8% of total EU fisheries spend with BE and NL highest at 55% and 42% respectively. The investment in on-board equipment levered by EFF funding was significant at around 20% of total EU fleet investments. 'Investments in safety and working conditions' was the most popular action, which may be due to (a) uptake benefitted from group schemes and (b) 'safety

[6] ECA (2011) Special Report No 12/2011 – Have EU measures contributed to adapting the capacity of the fishing fleets to available fishing opportunities? European Court of Auditors, 2011

improvements' can justify many types of on-board investment. Investments in fuel efficiency provided benefits to competitiveness and environmental performance.

Small-scale coastal fishing (measure 1.4) accounted for 2% of EU fisheries spend with only EE, PL and FI spending 10% or more on this measure. Sixteen MS did not implement the measure at all and uptake was very low in five others due to either the absence of a small-scale fleet or a lack of interest from the sector. Other EFF measures were open to the small-scale fleet and in some instances the small-scale fleet was already prioritised in selection criteria. Employment across the EU in small-scale fleets increased over the EFF programme, suggesting that EFF investment did help to maintain the small scale fleet. Small-scale fleets are faced with the same issues and have the same needs as the wider catching sector, but their ability to access funds can be constrained by access to private co-financing and/or a lack of organisation.

Socio-economic compensation (measure 1.5) was less than 2% of EU fisheries spend. Only IT significantly exceeded this at 6%. Both ES and IT account for 60% of operations, mainly using the measure for non-renewable compensation and monthly early retirement payments to fishermen. The limited attraction of the sector for young people, few alternative opportunities for diversification and the lack of access to co-financing (for diversification and premiums for young fishermen) were the main reasons identified for the limited uptake of actions under this measure, other than non-renewable compensation and early retirement.

Inland fishing (measure 2.2) accounted for 1% of overall EU fisheries spend. Inland fishing is of critical importance to a small number of MS (EE, FI, GR, LT and PT) and significant support was provided to the sector in these MS. This resulted in the development of the production in both volume and value in FI, but mixed results in other MS. The largest contribution made by EFF to the sustainable development of inland fishing in other MS was associated with the EU-wide recovery of the European eel.

Investments in fishing ports and landing sites (measure 3.3) was widely applied and accounted for 30% of the EU "fisheries spend". In four MS (SI, DE, BG and the UK) the EFF investment in fishing ports and landing sites was 70% or more of support under the fisheries spending category. The measure was successful for MAs (in delivering large investments with clear, tangible results) and for the sector (as shared facilities benefit the whole sector). Several EFF-supported developments support the fishing industry and provide tourism benefits, which contribute to income diversification for fishing communities.

Aquaculture

EU commitment to measure 2.1 amounted to just under EUR 600 million (contributing to a total cost of operations amounting to EUR 1.5 billion), 14.2 % of the total EU committed. The average total cost of operations was EUR 204,540 with about 8,130 operations supported. Projects focused mainly on increasing production capacity through investments in construction and modernisation of existing fish farms and construction of new farms (except in PL, which focused mainly on aqua-environmental projects).

Most (over 70%) of EU funds committed were in MS where aquaculture is dominated by inland fish farming such as PL and RO. The EFF was mainly utilised to modernise traditional, extensive carp farming operations and to some extent trout in freshwater environments, even though EU production volume and value is dominated by marine species.

EFF funding did increase the productivity of the EU aquaculture sector, during a period when investment reduced due to the financial crisis. Intensive farming methods, such as marine cage culture, suffered particularly over this period. The financial crisis also impacted the willingness to invest in new species – one of the aims of the measure. There is a widespread view that EFF funding was essential during this difficult period from 2008 onwards that reduced investment and borrowing activity in the aquaculture sector.

Although most MAs cannot quantitatively assess where the EFF had a positive impact on employment in the sector, BG and ES estimated that the EFF slowed down the trend of decreasing employment and to a lesser extent some (BG, CY and ES) suggested it created employment in the aquaculture sector. The EFF contributed to improve the economic resilience and competitiveness of beneficiaries, but this was hindered by a number of EU-wide issues such as (i) access to stable licences, (ii) access to private funding and especially bank loans, (iii) high production costs compared to third countries and (iv) a complex regulatory environment.

Although the measure was designed to foster innovation, EFF funding was rarely used for this purpose. There has been a small increase in the use of RAS in finfish farming, often combined with other innovations such as new feeding systems and species. None of the respondents specifically mentioned the use of low trophic farming systems, although French shellfish farmers indicated that farming densities had decreased in response to disease risk.

The European Court of Auditors report (ECA, 2014) noted that one underlying weakness of measure 2.1 was that the MS National Strategic Plans failed to link with the financial resources required to achieve the support measures (see case study aquaculture). The requirement under EMFF for a national strategic plan and the introduction of a measure to implement spatial planning for aquaculture should strengthen the sector and build on the achievements of the EFF.

Processing

Measure 2.3 – Fish processing and marketing – accounted for 17% of total EU commitments with EUR 688 million committed as of May 2015. The main MS involved were ES (32% of the total spending category), PL (15%), PT (10%) and IT (10%). About 88% of EFF granted was for increasing processing capacity in existing units or construction of new units. This spending category accounts for 40% of EFF commitments in AT, and it ranges between 20% and 30% of EFF commitments in PT, SK, LV, LT, ES, FI, IT, UK and SI.

In total, there were over 5,000 operations implemented across the EU by approximately 2,700 beneficiaries, under measure 2.3, for a total number of processing companies estimated at 3,400 in 2012 by the STECF. Some aquaculture companies, fisheries companies, POs and other trade organisations also invested in processing.

In total, it is estimated that between 1.5 and 1.8 million tonnes of production capacity was modernised (including new capacity) for a total production of around 4 million tonnes of processed products in the EU (EUMOFA). The reported increase in production capacity is therefore significant, but is likely to be over-estimated as it probably does not always take into account the production capacity removed as a result of investments. It is estimated by the consultant that up to 30% of processing companies across the EU increased their capacity through the measure, which in turn contributed to an increase in production, in the total value of the production, and in the creation of new jobs in these processing units. There is a general consensus that the measure contributed to maintain jobs. However, there are no available data to support this view. The number of jobs created is estimated by the consultants at 10,000 jobs[7].

The measure clearly contributed to foster and accelerate the modernisation of the industry. There is no evidence of a major change in production methods but EFF generally contributed to improved product quality, mainly through improved products characteristics (e.g. improved freshness, regularity, etc.) and in a few cases, through new products or markets (e.g. free-gluten products), and to improved environmental awareness and performance.

[7] based on data provided by four MS that represent 36% of spend.

Common interest measures

This spending category includes all Axis 3 measures except measure 3.3 on fishing ports, which is considered under 'Fisheries'. It accounted for 16% of total EU commitments with EUR 636 million committed as of May 2015. The main MS involved were ES (28% of total EU spend), then PL (9%), FR (10%), DE (9%), DK (7%) and IT, PT and the UK (5% each). Common interest measures gather 49% of EU commitment in DE, 42% in NL, between 25% and 33% in CZ, SE, FR, BE, DK, FI and the UK. In ES and PL, which are the main MS for this spending category, it "only" accounts for, respectively, 19% and 8% of EU commitment. Collective actions accounted for 45% of spend followed by marketing and promotion (22%). Pilot operations, protection and development of aquatic environment and construction and modernisation of marketing establishments each represented about the same share (11-14%) of common interest measures. Projects on the reassignment of fishing vessels accounted for only 2% of spend.

In total there were about 10,500 projects under this spending category. Some projects involve multiple beneficiaries (e.g. collective actions), but the same beneficiaries can also participate in several projects. Beneficiaries were mainly public bodies or other institutional entities (POs, other professional organisations or cooperatives, research institutes, etc.). Private companies and individuals could be involved in projects but generally not as project leads.

The qualitative information gathered shows that projects carried out were generally coherent with the objectives of the EFF. Collective actions supported the creation of 48 POs and the restructuring of a further 73 as well as networking and collaboration between research institutes and the industry, especially on topics related to fuel efficiency and selectivity. Only very few projects (1.5% of the "spend") related to Marine Protected Areas, mostly in ES. The rehabilitation of inland waters was more widespread, often associated with Eel management plans.

Common interest measures provide an opportunity for both MA and stakeholders to be innovative in addressing the sector's needs and to focus on long-term impacts for the sector rather than individual strategies. The challenge is measures supporting innovation, being more open in their definitions and often involving multiple participants, tend to be more complex to implement with a higher risk of the project not being approved, or being approved and funded and then de-certified (implying reimbursement of funding) or simply of not achieving the expected results. Assessing the true impact is also difficult as the type of measures concerned tend to have indirect and/or longer-term impacts. 'Success' in pilot operations for example can be difficult to define. Research and development findings can be useful whether they lead to positive results or not. Seeing a roll out of the project without public support can also be an indicator of "success". This also emphasizes the added value of EFF to implement projects for which there is not necessarily a direct return on investment for stakeholders. The case study on pilot projects showed the benefit of a clearly identified and shared innovation strategy in the sector to plan how to address these challenges. A history of collaboration between research institutes and the industry is also helpful.

Community-led local development (Axis 4)

Axis 4 consisted of measure 4.1 – Development of fisheries areas (a new measure under EFF transposing the EU Rural Development 'Leader' programme to fisheries areas). It accounted for 11% of total EU commitments with EUR 441 million committed as of May 2015. The main MS involved were PL (43% of the total spending category), then RO and ES (9%), GR (6%), EE and DK (4% each). Implementation mainly occurred during the second half of the programme (92% of commitments occurred after 2010) due to delays in the selection of the Fisheries Local Action Groups (FLAGs) and the validation of their strategies.

Despite demarcation rules, in some areas, the newly created FLAGs benefitted from the experience with the Leader programme, sometimes relying on a shared board, but in

other cases there was also a necessary learning phase to build capacity. The EU-wide support unit, FARNET, is considered to have been useful in supporting capacity building and sharing good practice. About 11,500 operations were implemented by May 2015, for an estimated 28,000 beneficiaries of various types (estimate of number of beneficiaries by consultants). At this stage and considering the late implementation of this measure, the most tangible results are the estimated number of jobs created (6,776) or maintained (9,240) and the creation of 2,000 new business (estimates on jobs and business created by FARNET).

Projects mainly focused on adding-value and promoting innovation, well-being and cultural heritage and diversification[8]. A significant number of operations related to small fisheries communities and tourism infrastructure. Projects implemented are generally considered to be coherent with the objectives of the measure to improve quality of life in fisheries areas. Other achievements in terms of the quality of life in coastal areas, such as quality of jobs, strengthening of local identities, enhancement of the natural and living environment, cultural endowments, etc. are more long-term achievements that cannot be assessed at this stage.

Technical assistance

Technical assistance meets MS' needs, especially where technical expertise is not available and/or budgetary discipline constrains capacity building for the implementation of OP. On average, it accounted for 3% of EU support to MS, well below the 5% funding cap. Some of the MS reached the 5% limit (SI, SE, NL, EE, HU and SK) with EU budget for TA ranging between EUR 0.6 million and EUR 5.5 million. These are not specifically the MS with the smallest EFF budget or smallest TA budget. This shows that, even if the size of the OP plays a role in the TA budget, it is not the only factor explaining the cap funding overtaking. Almost all MS focused on Management and implementation (85% of the spending on TA overall); only LT spent less than 50% of its technical assistance budget on this action. Other MS sought to improve administrative capacity (e.g. payment system in HR) and the IT system (SE) and two MS commissioned a number of studies.

Evaluation criteria

Effectiveness

Effectiveness regarding the environmental objectives of the EFF

At the end of the EFF period, the objective of adapting the EU fishing fleet capacity with the EFF support in terms of reduction of fleet power and gross tonnage was met. The majority of MS met or exceeded the fleet capacity reduction targets set in their OPs, some of which were revised upwards (along with reallocation of funds to Axis 1) following the fuel regulation. A 2013 evaluation of EFF cessation schemes estimated that the net contribution of the EFF was around 66% of total fleet capacity reductions (MRAG et al., 2013). Fleet capacity is now closer to being in balance with fishing opportunities even though over-capacity remains.

All coastal MS fleets show reductions in Gross Tonnage (GT) and kilowatts (kW) between 2007 and 2015[9]. The EFF-funded reduction accounted for 97% of net kW reduction but only 53% of net GT reduction, which reduced by 17% over the same period. The rate of capacity reduction, including that supported by measure 1.1, slowed over the EFF

[8] Study on the implementation of Axis 4 of the European Fisheries Fund, Capgemini Consulting et al. for DG MARE, 2014

[9] The PL fleet is considered against the 2008 baseline, which saw a 37% increase in gross registered tonnage 2007-2008, and GT was still to reduce below this by 2015.

programme period as the main imbalances were addressed; allocated funds were committed and more MS determined that publicly-funded scrapping schemes did not represent good value for money.

The requirement under EFF to first identify over-capacity and then to target this with permanent cessation funds made the funds more effective than would otherwise have been the case. However, the difficulty in measuring the balance between fleets and resources continues to undermine effective targeting of decommissioning programmes. The sustainable exploitation of fish resources has improved during the EFF programme even if there is still work to be done, particularly in certain regional seas like the Mediterranean. In 2014 the EC reported that 61% of assessed stocks are fished consistently with MSY, up from only 2% of stocks in 2005, 12% in 2008 and 53% in 2012[10]. EFF fisheries funding complemented EU management measures by contributing to an overall reduction in fishing effort.

Most MAs recognise that the EFF helped reduce the environmental impacts of fishing mainly through its contribution to fleet capacity reduction. Reduced fishing capacity in the bottom trawl fleet (this fleet segment accounts for 79% of fleet removals under EFF) has contributed to reduced effort overall, which has reduced benthic impact. More efficient catching by the remaining vessels also reduces benthic impact. Gear selectivity has also contributed to significant by-catch reduction in participating vessels with regulation driving adoption throughout fleet segments. Projects initially focused on reducing cod by-catch and more recently, due to the landing obligation, on undersized target and other by-catch species. Environmental benefits were often a by-product of efficiency gains. Change has primarily been in response to regulatory drivers to reduce by-catch or economic drivers to reduce fuel cost. The latter resulted in the additional benefits of reduced benthic impact and reduced carbon emissions.

The direct contribution of aquaculture and processing measures to environmental improvements has been more limited. Efficiency improvements have often had the benefit of reduced environmental impact, either through more efficient resource or energy use, or with the adoption of cleaner technology.

The uptake of projects to specifically protect and conserve biodiversity was comparatively small under the EFF. This is to be expected as the programme focused on fishery and aquaculture development (to either reduce environmental impact or at least ensured impacts were not at unacceptable levels) rather than biodiversity objectives. There were also other funding sources such as LIFE, with a more specific remit on biodiversity protection and conservation. With the exception of a few MS such as DE and SE, biodiversity protection under EFF was *ad hoc* rather than strategically implemented.

Measure 3.2, the protection and development of aquatic flora and fauna, is the most explicit EFF support to biodiversity projects. The measure was mainly applied for inland waters and was barely used in marine protected areas. There is some evidence of EFF supporting implementation of an ecosystem approach through Axis 3 assistance in drafting management and recovery plans, such as for the European eel fisheries, or indirectly through the funding of fishery and aquaculture certification schemes, encouraging consideration of the wider environment.

Effectiveness regarding the socio-economic objectives of the EFF

The objectives of the EFF were achieved where the MS programmes focused funding, particularly on reducing fleet overcapacity, supporting the processing sector and modernising fishing ports. Reinforcement of operators' competitiveness throughout the

[10] https://ec.europa.eu/dgs/maritimeaffairs_fisheries/magazine/en/policy/state-fish-stocks

supply-chain became a priority with the economic crisis.As a consequence, some MS reduced targets and/or re-allocated budget to axes with greater demand.

Based on the available statistics at EU level[11] and consultation, the competitiveness of the fleet has improved overall during the EFF programme period despite very different situations for fleet segments and MS. This is partly a result of the reduced capacity and exit of a large number of unprofitable vessels, and partly as a result of increased landing value and labour productivity and a reduction of production costs, all of which the EFF contributed to. However, except for the reduction of capacity, the extent of the EFF contribution is not possible to assess.

The competitiveness of the EU aquaculture sector did not improve over the period, mainly because of external factors (difficult access to stable licences, economic crisis, difficult access of fish farms to bank loans, etc.). The EFF did contribute to the development of aquaculture companies and especially SMEs, but did not enable the sector to overcome remaining structural weaknesses. The key objective to increase the volume of aquaculture production was not met at an EU level: EU aquaculture production stagnated over the EFF period. Certain MS were exceptions to this, such as BG where mussel production increased with the EFF support.

The EU output of processed fish increased by 12% between 2008 and 2013 according to EUMOFA data and the EFF clearly contributed to this increase as it is estimated that the share of processing firms increasing their production capacity with EFF support may be as much as 30%. Feedback from the sector and data on the profitability of processing companies indicate that the EFF intervention did not result in overcapacity, despite a difficult economic context. Beyond the increased capacity, investments supported by the EFF are generally considered to have contributed to improve productivity and product quality.

The total number of FTEs decreased in all three sub-sectors (fishing, aquaculture and processing) over the programming period. Only two measures have been stated to contribute significantly to the creation of new jobs: measure 2.3 (processing and marketing), with approximately 10,000 jobs created[12] and Axis 4, with a little less than 7,000 jobs. Counteracting this, measure 1.1 (permanent cessation) clearly contributed to job losses in fishing. The EFF also contributed to maintain jobs, but except for Axis 4 (were approximately 9,000 jobs said to have been maintained) there are no data being collected to quantify this claim. The EFF also contributed to improve the quality of jobs, mainly through investments in improving safety and working conditions (the largest share of the investments on board) as well as investments in aquaculture, processing and fishing ports and landing sites).

Investments in fishing ports and shelters are considered by MAs to be successful where implemented, helping to support an economically viable sector and improve quality of life through improved working conditions, along with wider socio-economic gains for fishing communities.

There is some evidence that the EFF contributed to gender equality in an indirect way, for example through information and awareness raising concerning the potential support available, as well as through participation in planning and improvement to working conditions and the environment.

The contribution of the EFF "to the interest of consumers", an objective of the CFP, can only be assessed through the amount of projects related to product quality, including certification schemes. However the implementation data does not give an exact number

[11] Taking into account the limits highlighted by the STECF Reports on the EU fleet, aquaculture and processing sectors about data completeness and reliability.

[12] Based on data provided by four MS, representing 36% of the EFF committed to the measure.

of such projects. According to the information gathered, product quality was mainly supported through measure 2.3 (marketing and processing) and measure 3.3 (fishing ports, landing sites and shelters) and more marginally, and only in a few MS, under other measures.

Efficiency

The quality of the monitoring data does not allow analysis of most MS programmes to assess whether the EFF objectives were achieved at a reasonable cost. The cessation evaluation found that there were significant differences between MS in terms of the proportion of EFF paid compared to the national contribution and per GT or kW removed. Differences largely depend on the structure of the fleet targeted by adjustment plans, but the lowest public cost per vessel and per GT for equivalent fleet segments were achieved by MS implementing competitive bidding systems rather than applying a pre-determined premium. Overall, the funding of decommissioning schemes is increasingly viewed as an expensive tool for addressing over-capacity compared to regulatory or market measures.

The costs of achieving an additional tonne of aquaculture production or processed output vary considerably between MS. These differences may in part relate to differences in the culture methods. Similarly, the average project cost for creating an additional tonne of capacity across the EU (EUR 732/tonne) varied considerably between MS and the focus on different species or processing methods may in part explain some of the differences.

Managing authorities faced administrative costs and implemented technical assistance measure to face this issue. Analysis also showed costs for stakeholders which led to create disincentives for potential beneficiaries.

Relevance

The EFF regulation explicitly recognises the need to regulate the development of the Community Fishing Fleet in line with the CFP's objectives of sustainable exploitation. This was an early priority for the EFF programme. Even though spend on cessation slowed during the EFF programme cycle, the need to continue the process of rebalancing the fleet remained relevant to CFP and EFF objectives.

No EFF objectives are identified in relation to the specific CFP objectives to 'progressively implement the ecosystem-based approach to fisheries management' or to 'take into account the interests of consumers'. These were supported through certain measures such as 3.5 on pilot operations and 3.4 on developing new markets and promotional campaigns, but the uptake of these was limited in most instances and only amounted to 5% of total EFF spend.

There was an emerging need for measures that support the fisheries and aquaculture sector in improving performance and engaging with processes such as certification to inform the market. Under EMFF, such measures address a number of objectives including taking into account the interests of consumers, which was not explicit under the EFF.

For aquaculture and processing, competitiveness was the focus rather than environmental performance, unless both were achieved through efficiency savings by reducing energy use and waste. The scale of uptake suggests that the measures were highly relevant for the sector and the beneficiary survey respondents in the processing case study confirm this. Increased competitiveness mainly resulted from increased productivity, rather than just increases in production volumes, which remains relevant for the EU processing sector facing stiff competition from processing centres outside the EU such as South East Asia and China.

Coherence

MAs and stakeholders did not raise any specific issue regarding the EFF and other EU structural funds as regards coherence of the objectives or demarcation issues. Several

MS noticed a spill-over effect of the measure 3.3 on tourism, which could be complimentary to rural development projects.

Some MS mentioned the existence of coordination committees or cross-participation of some of the monitoring committee members between the different funds, but this was not systematic. In general the funds were implemented with little coordination with other funds or ministries. The only real synergies identified occurred with Axis 4 when Fisheries Local Action Groups (FLAGs) were implemented with the support of existing Local Action Groups under the Leader Programme despite demarcation of the two funds.

There was no coordination between the EFF and the LIFE fund but 53 projects implemented under LIFE between 2007 and 2014 were considered relevant to the EFF objectives. Funds like LIFE or Horizon 2020 are mainly used by research institutions to fund larger projects than those implemented under the EFF.

The objectives of the EFF Regulation are coherent with the objectives of EU structural funds (ERDF, ESF and EARDF) and other EU funding instruments such as LIFE and demarcation lines are generally clear in the regulations.

The demarcation lines between the different funds were predominantly clear. Except for Axis 4, synergies with other funds remained limited.

EU added-value

The vast majority of MAs and stakeholders consider that the EU intervention is legitimate and necessary to achieve objectives that would otherwise not be obtained (market failure). Most MAs suggest that, even if complying with state aid rules, national financial allocation would be reduced if EU funding were not to be available. EU added-value mainly comes from the financial leverage and equity of financial support among MS; the improvement of management and monitoring processes (in particular the enforcement of a more strategic and planned approach); the coherence with EU environmental policies and; the incentive to orient the investments in a common direction.

The added-value of the EU intervention is evident in the extent of the reduction in the fleet capacity (net contribution of the EFF to fleet capacity reduction estimated to be 66% (MRAG et al., 2013)); the job creation and maintain achievements of Axis 4 as well as the focus of innovation projects and collective actions on issues like fuel efficiency and selectivity. EU value added is also evident in the more transversal issues such as the focus on SMEs and the streamlining of gender and environmental issues. All of which would receive even less attention without an EU fund.

Sustainability

One of the key environmental achievements of the EFF is the partial re-balancing of fishing capacity with resources. This has contributed to the harvesting of fish resources at a more sustainable level and has also reduced the wider environmental impacts of fishing.

Most other environmental achievements from EFF support were implemented for efficiency reasons. This applies to fishing (engine replacement), aquaculture and processing (new production techniques). With the win-win of reduced costs as well as reduced environmental impact, there is no logic in returning to the situation before the EFF project and re-investment would be expected to at least maintain, if not increase the environmental gains made.

Recommendations

The recommendations below are formulated in the light of the present ex-post evaluation of the EFF and although they may have already been taken into account at the time of

adoption of the EMFF, it is worth presenting them in anticipation of the preparation of a possible successor to the EMFF for the post 2020 programming period.

Implementation

1. The continuation of EU support to the sector, and if so its scope, size and contents, should be based on a thorough analysis of its necessity from the point of view of effectiveness, efficiency, coherence, EU-added value and sustainability.
2. Public support should respond to the needs identified in the SWOT analysis and reflected in the MS strategy for the sake of coherence and EU added value, however, this public support should also be focussed to ensure greater effectiveness and efficiency.
3. MS should select the measures to be included in their strategies and allocate appropriate budgets for these measures on the basis of documented context indicators.
4. National strategies should address complementarities and synergies with other EU funds including all ESIF, EFSI and other programmes managed by the Commission such as LIFE, COSME or Horizon 2020. They should also establish safeguards to avoid overlaps. National strategies should contain output and result indicators allowing to monitor progress and to assess the adequacy of these strategies.
5. National strategies should contain output and result indicators allowing to monitor progress and to assess the adequacy of these strategies. For results difficult to quantify, the monitoring system should consider qualitative impacts.
6. Although the current 5% funding cap for Technical Assistance seems to be appropriate, it is recommended
    a. to put a transparent mechanism in place to allow MS to go beyond this capping in duly justified circumstances and
    b. to introduce a minimum budgetary amount to allow MS with a small allocation to address adequately monitoring, reporting and evaluation requirements.

Monitoring

1. The lack of context, result and output indicators in the EFF has increased the difficulty of the analysis of its impacts. Comprehensive sets of relevant (meaningful and useful) context, results and output indicators should thus be identified to monitor progress and to measure the impacts of public support. To ensure consistency these indicators should be harmonised across MS.
2. A review of main achievements by FLAG, for example in the form of a simple (mandatory) questionnaire, should be implemented on an annual basis without increasing the administrative burden. This would improve visibility (and therefore legitimacy) of FLAGs actions.
3. The resilience of projects beyond their launching and implementation phases should be a consideration in the evaluation of EU public support, irrespective of the difficulty of introducing a quantifiable indicator.

Future measures

1. Permanent cessation has been concluded to be ineffective and inefficient to adjust fishing capacity to resources. It is recommended to discontinue this form of public support as soon as possible and in the meantime to restrict it to well identified circumstances.
2. Compensation for temporary cessation is used as a mitigation tool. It is recommended to maintain it only if directly linked to conservation measures and an appropriate structural adjustment of fishing capacity, thus limited in time.

3. Widespread increase of crew health, safety and working conditions should be encouraged via all possible means – including public support - and should be complemented by adequate training.
4. Public support to the small scale and inland fishing fleets should be revisited and alternatives should be sought to better support these fleets (specific measures, conditions with increased aid intensity).
5. Possible future support should maintain and increase the focus on innovation and environmentally sustainable solutions.
6. There is a strong need to improve and expand marine and coastal aquaculture both in terms of production and competitiveness though simplifying administration, integration into spatial planning and coordinated multi-annual planning[13]. Much of this is reflected already in MS EMFF OPs, but further work is needed to assist MS to utilise findings in an efficient manner and to promote EU aquaculture development, knowing that increased production capacity does not necessarily increase competitiveness and the development of economically viable aquaculture enterprises.
7. Future Community Led Local Development support should strengthen the involvement of local communities, in particular fishermen communities, share experiences and where possible capacity with Leader Local Action Groups, strengthen networking and experience sharing among FLAGs.

[13] As recognised by the EU Strategic Guidelines for the sustainable development of EU aquaculture (COM(2013) 229 final)

INTRODUCTION

1.1 *Introduction to the European Fisheries Fund (EFF)*

The European Fisheries Fund (EFF)[14] was established under the 2007-2013 programming period to replace the Financial Instrument for Fisheries Guidance (FIFG) in place under the previous multiannual programme (2000-2006).

Each Member State (MS) had to present one single Operational Programme (OP), covering both the Convergence and the Non Convergence regions.

The EFF supported most of the measures already implemented under the FIFG (e.g. permanent and temporary cessation measures, investments on board, investments in aquaculture and in processing and marketing facilities, investments in ports, collective actions, etc.). However, implementation rules of existing measures evolved and new and innovative measures were introduced to adapt to changes in the sector's environment. These changes aimed to:

- Target support at those fleet segments which were affected by Community conservation measures, notably by programming permanent and temporary cessation in the framework of fishing effort adjustment plans.
- Offer more 'environmental measures', e.g. change to more selective gear, aqua-environmental measures and measures for fuel efficiency.
- Allow for special support for small-scale coastal fisheries.
- Finance local strategies in support of the sustainable development of fisheries areas (Axis 4, similar to the rural development tool Leader).
- Include more measures for inland fishing.
- Target investment aids on Small or Medium Sized Enterprises (SMEs).

Equality between men and women was also introduced as a cross-cutting objective.

Changes in the general context in the beginning of the programming period led to the adoption of a Restructuring Package by the Council on 24 July 2008[15] to promote the restructuring of the EU's fishing fleets affected by the economic crisis. These measures constituted a temporary derogation from some provisions of the EFF and therefore resulted in reprogramming efforts for a number of MS within the EFF OPs. According to the interim evaluation[16], nine MS implemented the Reg. (EC) 744/2008, primarily for permanent cessations. The Regulation also provided the possibility to apply higher co-financing rates for other types of measures (e.g. investments on board or pilot projects related to fuel efficiency).

1.2 *Objectives and scope of the study*

As stated in Commission Regulation (EC) No 1198/2006, Art. 50, the *ex post* evaluation aims to:

- Examine the degree of utilisation of resources.

[14] Commission Regulation (EC) No 1198/2006 of 27 July 2006 of the European Fisheries Fund and Commission Regulation (EC) No 498/2007 of 26 March 2007 laying down detailed rules for the implementation of Council Regulation (EC) No 1198/2006 on the European Fisheries Fund

[15] Council Regulation (EC) No 744/2008 of 24 July 2008 instituting a temporary specific action aiming to promote the restructuring of the European Community fishing fleets affected by the economic crisis

[16] Ernst & Young et al (2011) Interim evaluation of the European Fisheries Fund (2007-2013), for the EU Commission. Final Report February 2011.

- Examine the effectiveness and efficiency of the operational programmes.
- Examine the impact of the operational programmes in relation to the objectives set out under Article 4 and the guiding principles set out for the OPs under Article 19 of the Regulation.
- Identify the factors which contributed to the success or failure of the operational programme, including from the point of view of sustainability, and best practice.

The core objective of the ex-post evaluation of the EFF 2007-2013 Programme is to provide robust analysis on the net outputs, results and where possible impacts of its intervention in the different Member States and at EU level.

The evaluation covers the 16 EFF measures, including technical assistance, and the 27 MS with an Operational Programme (OP).

Analyses focus on the period 2007-2015 (or 2007-2013 programming period).

Although the EFF was structured around five axes described in the Regulation, analyses focus here on the following spending categories defined in the Terms of Reference (ToR):

- Fisheries
- Aquaculture
- Processing
- Common interest
- Community development
- Technical assistance

1.3 *Study methodology*

1.3.1 General approach

The overall approach used during the evaluation was characterised by two mutually reinforcing features, namely: i) the use of a theory-based approach; and ii) the use of a wide range of information and data collection methods.

A theory-based approach was appropriate given the limited scope for evaluating the impacts of the financial measures using control groups. However the approach was completed by some counterfactual approaches involving surveys of non-beneficiaries and analysis of non-beneficiary data (engine replacement case study). The theory-based approach required the use of Intervention Logics as the basis for assessing how the EFF measures were intended to achieve the objectives, and how the measures contributed to the objectives, and graphically illustrating how the funding was expected, through the delivery of certain activities, to lead to desired outputs, results and impacts (all of which are linked to objectives at different levels). The intervention logics are presented and more fully explained in Section 2 below.

The evaluation was carried out in four phases:

- The inception phase included:
    - The analysis of the intervention logic, for the EFF as a whole and by spending category.

- Preliminary data collection: Art. 40 data[17], Managing Authority (MA) email survey, literature review, desk officer survey and first interviews.
- Refining the methodology for the case studies and the evaluation questions.

- The data collection phase included both primary and secondary data collection:
  - MA structured interviews in the 27 MS.
  - Collection of relevant national documents.
  - Field work in 8 MS including meetings, face-to-face and phone interviews with stakeholders (representatives of the sector and beneficiaries).
  - Meetings with all the desk officers and with FARNET.
  - A beneficiary online survey targeting beneficiaries and non-beneficiaries among vessel-owners, fish farmers and processing companies.
  - An email survey targeting Producer Organisations (carried out in conjunction with the study on Producer Organisation's Production and Marketing Plans to avoid concomitant multiple requests).
  - An email survey coordinated by FARNET targeting potential project holders for Axis 4.
  - Secondary data collation (STECF reports, Eurostat, EUMOFA, National sources…).
- The analysis phase covered the tasks defined by the ToR:
  - Task 1: Implementation of the EFF and financial execution.
  - Task 2: Evaluation questions by spending category, with a focus on outputs and results.
  - Task 3: Case studies on 8 topics (seven measures and one transversal topic).
  - Task 4: Transversal evaluation questions: effectiveness, efficiency, relevance, coherence, EU added value, sustainability.
  - Task 5: Open public consultation.
- The judgement and recommendation phase (Task 6). This phase articulated the conclusions which could be drawn from the factual findings and analysis of the data/information.

The methodology focuses on demonstrating the results of the EFF intervention and highlighting the lessons to be learnt for the design of future policies and spending programmes.

Beyond the analysis of the implementation and financial execution dynamics in the different MS (Task1), the evaluation aims to "demonstrate" or to bring evidence that projects having benefited from EFF have indeed resulted (or not) in the desired effects (task 2 and 3). This relies on both MS monitoring systems (to the extent possible) and on the extensive data collection carried out specifically for this evaluation.

Analyses for the evaluative questions (Task 4) and recommendations (Task 5) rely on the demonstration of the successes and failures (regarding effectiveness, efficiency, EU added value and sustainability of the effects) and the analysis of the causes (relevance,

[17] Article 40 from Commission Regulation (EC) No 498/2007 defines the data on EFF operations to be communicated on request to the Commission.

coherence, good / weak practices and occurrence of unwanted effects). Recommendations also take into consideration the EU 2020 objectives and the EMFF implementation as well as perspectives for the post-EMFF programming period.

1.3.2 Data Collection

In total, the evaluation team gathered data from:

- Eighty-seven people across the 27 MS with an EFF OP, including staff from the 27 national Managing Authorities and some Intermediate bodies (through meetings, face-to-face and phone interviews),
- Sixty-seven industry representatives and beneficiaries in eight MS through meetings, face-to-face and phone interviews (HR, FR, DE, IT, NL, PL, ES and the UK).
- Eighty-nine answers of vessel-owners, fish farmers and processing companies to the online survey.
- Thirty-five Producer Organisations (POs) through the email survey[18].
- Seventy respondents to the FARNET survey.

The list of interviews with MAs and with the sector in each MS is provided in Annex 1.

The following table provides an overview of the main data collection tools used during the study and their link with the six tasks specified in the ToR.

Table 1: Summary of sources and data collection tools by task

Task	Sources and Tools
Task 1: implementation and financial execution	Analysis of national documents, Synthesis of Interim evaluation, MA interviews, desk officers, financial data
Task 2: Evaluation questions by spending categories (focus on outputs and results by measures)	**Wide range of quantitative and qualitative sources**: Analysis of national documents, MA interviews, Stakeholder interviews, Monitoring data (to the extent possible), Producer Organisation (PO) and beneficiary surveys, EU, national statistical sources and extrapolations based on available data and information when possible and relevant.
Task 3: Case studies	Analysis of national documents, MA interviews, interviews with beneficiaries and representatives of the sector in 8 MS, Monitoring data (to the extent possible), specific focuses in the PO and beneficiary surveys for some case studies.
Task 4: Evaluation questions	Analysis from previous tasks and contextualisation based on official statistics and information (at EU and national level)
Task 5: Open public consultation	Open public consultation
Task 6: Conclusions and recommendations	Previous tasks

[18] Results available in Annex 3.

1.3.3 Description of the data collection process

Detailed quantitative and qualitative information at MS level

One of the main data collection tasks required in the ToR consisted in gathering a maximum of quantitative and qualitative information available in the MS. This relied on:

- An **analysis of available national documents**, in particular Operational Programmes (OPs) and Annual Implementation Reports (AIR), but also additional studies carried out in the MS.
- An **online survey with the Managing Authorities** (conducted during the inception phase).
- At least two interviews with the Managing Authorities at national, and in some MS, regional levels.

During the inception phase, DG MARE also provided the evaluators with the **compilation of financial data and output indicators (Art. 40 data) sent by MS** and corresponding to the state of implementation of the EFF as of the 31st of May 2015.

Finally, a **three-day workshop**, consisting of two presentations of the evaluation and its expectations and of **individual meetings with all the desk officers** to go through a detailed list of questions, was organised by the evaluators on DG MARE premises from the 26th to the 28th of January 2016.

In order to obtain standardised, detailed information that could be compiled across all MS, covering the overall implementation of the EFF as well as each of the 16 measures, detailed Excel grids were developed to be used by country experts as support to information gathering from the different sources.

The analysis of national documents relied primarily on the AIR 2014 (annual implementation report), which cover the whole programming period, as well as previous AIRs for specific enquiries. Depending on availability, the following other sources had to be screened for complementary information:

- Minutes of the meetings with the MAs transmitted by desk officers.
- MA survey.
- Ex-ante evaluations.
- Operational Programmes.
- Other documents provided by MAs during the inception phase.

The template for the grid was in English but questions were translated into national languages for the MA interviews. For each question there was a possibility to add a comment to provide additional information on the answer (e.g. clarifications for interpretation, reasons why the information was not available).

The Excel grid contained sheets by axis and measures to allow the indicators to be retraced easily by spending category.

The grid aimed to cover all the evaluations questions and all the measures. It was therefore fairly long and country experts were advised to not necessarily fill in everything but to focus on implementation of the most relevant measures/issues for the MS and impacts.

Fieldwork in eight MS

Field work was conducted in eight MS to collect a range of information on the eight case study topics requested by the ToR as well as on support to the processing sector. This allowed good coverage of all the spending categories, taking into account that Axis 4 –

Community development - was covered by the Study on the implementation of Axis 4[19] and that Technical assistance was discussed primarily with MAs.

The countries selected and corresponding case study topics are presented below in Table 3.

Table 2: Overview of the case study topics to be covered in selected Member States

Case study topic	ES	PL	IT	FR	UK	DE	NL	CZ
1. Engine replacement				■				
2. Small-scale fisheries		■	■					
3. Aquaculture		■		■				■
4. Socio-economic measures	■		■					
5. Promotion and development of new markets	■							■
6. Promotion of equal opportunities	■	■	■	■	■	■	■	■
7. Port Infrastructure		■			■			
8. Pilot operations						■	■	
Processing (additional)	■				■			

A list of the interviews carried out in each MS is provided in Annex 1.

Beneficiary survey

An online survey was disseminated to gather feedback from both beneficiaries and non-beneficiaries of EFF support. The full text, agreed with DG MARE, can be found in Annex 2. Translations in Czech, French, German, Greek, Italian, Dutch, Polish, Portuguese and Spanish were provided to cover the case study countries and to facilitate data/information collection from fisheries-relevant communities. The online survey was uploaded on surveymonkey.com, launched on 19 February 2016. Initially open until 31st March, the deadline was extended until 15th April to account for a very low initial response rate.

The dissemination of the links to the different versions of the survey was done through multiple organisations as we targeted POs in the concerned countries, asking them in turn to circulate the link to their members. That dissemination strategy was chosen given the impossibility to have access to operators' individual contact details. In the languages concerned, POs from the 2015 list of recognised POs, as well as other relevant organisations identified by country experts were sent the link (see Annex 3). A reminder was sent to the organisations that had already been approached and we also emailed individually operators where MAs gave us the lists and contact details (726 individual beneficiaries in ES, 209 in the CZ and 84 in GR).

1.4 *Lessons learned from the evaluation and the methodology used*

During the course of the evaluation, the team made several observations based on its experience of putting into practice the methodology and approach agreed during the inception phase. These are expressed below, as 'lessons learned' that could be considered during the preparation of similar evaluation exercises in future.

[19] Capgemini Consulting et al. (2014) Study on the implementation of Axis 4 of the European Fisheries Fund, for the EU Commission.

1.4.1 Rationale and successes of the methodology

The methodology was adapted to the specific challenges of the EFF ex-post evaluation: the need to analyse a wide range of measures, different implementation, monitoring and control procedures among MS, multiple causal relationships between the measures and the objectives of the EFF, and the lack of reliable and complete quantitative data related to the projects implemented. The chosen methodology allowed to gather extensive qualitative information that partially compensated the lack of quantitative data and allowed to analyse some of the mechanisms that led to the observed outputs and results. The analysis of short and long-term impacts then focused on putting these results in perspective with the wider socio-economic, regulatory and environmental context.

During the data collection phase, country experts, including members of the core evaluation team, managed to:

- Obtain feedback from MAs and desk officers from all the 27 MS. with an EFF Operational Programme on implementation, outputs and results of the different measures, available quantitative data and perceived short-term and long-term impacts;
- Obtain feedback from the sector (representatives and direct beneficiaries) in order to cover the six spending categories and the eight case study topics in at least two different MS for each topic;

The monitoring system did not require in-depth qualitative information to be gathered on all measures, and very often the knowledge stayed within the administration and services that actually implemented the measure. It was therefore not centralised and dependent on the stability of the staff during the entire programming period. The interviews with a large number of staff within the MAs and relevant Intermediate Bodies (IB) allowed to obtain, if not a full picture of the projects implemented under every single measure, at least a better one than what was available under the FIFG.

The methodology also allowed to cross-check the different sources and therefore assess the reliability or representativeness of stakeholders' opinions and observations.

1.4.2 Difficulties encountered

The main difficulties encountered came from the heterogeneity of the data and information available in MS and the difficulty in reaching stakeholders, and in particular beneficiaries (due to a lack of updated contact information, and an apparent lack of interest in providing feedback).

The following paragraphs present the main difficulties encountered for each of the different information sources.

<u>Monitoring data (mainly Article 40 data)</u>

The main problems with the use of Article 40 data come from:

- Discrepancies between data provided at measure level and action level in some MS;
- Unavailability of detailed data at project level, which prevented the evaluators from being able to identify errors, gaps and extreme values in order to use statistical methods to fill in the gaps and adjust the analyses; and
- Reliability of indicators.

The data collection phase provided some complementary information from desk officers and MS about weaknesses in Art. 40 data:

- EFF projects are often duplicated at action level when they cover different categories as per Art. 40 indicators categories, which explains the discrepancies observed during the inception period between measures and actions.
- Considering the amount of information already asked and following exchanges with DG MARE, it was decided only to ask MS for project-level data where it was easy to extract and for specific measures. As a result this level of detail was only available in ES and FR for engine replacement (for all investments on board in ES), and in ES for promotional campaigns and processing.
- The degree of reliability of indicators varies depending on the types of indicator and on the MS (see the analysis of the monitoring system, section 3.5), therefore as mentioned above, the complete table of Art. 40 output indicators aggregated at EU level was difficult to interpret. However, it has been possible to use those indicators to provide examples and to provide an idea of the breakdown of certain measures per type of project, based on the MS where these data were assessed as reliable.
- In some cases, there were discrepancies between the monitoring data provided by DG MARE and MS monitoring systems, so there appear to have been some issues either in the transmission or in the compilation of the data at EU level. Generally, in those cases the MS provided corrected data, but they were not always able to provide data as of May 2015 (e.g. in ES and in MT). The data used for those two MS therefore is as of December 2015[20].
- In one MS, the numbering of the measures used by the MS is different from the Commission's one.

In general, there are no additional output or result indicators at MS level (with the exception of the result indicators reported on a yearly basis in the AERs). A handful of MS provided additional indicators on the number of jobs created by measure, sometimes with a breakdown by gender, generally based on estimations provided by the beneficiaries prior to the implementation of the projects.

Annual Implementation Reports (AIR)

Result indicators provided in the AIR 2014 were difficult to use because of inconsistencies in the indicators used, definitions and baseline references. The most complete and reliable indicators were those obtained from other sources: changes in Gross Tonnage (GT) and kilowatts (kW) from permanent cessation and engine replacement, were extracted from Art. 40 data indicators; and overall changes in industry trends were obtained from official statistics and in most cases from EU sources that are already standardised and homogeneous. Other indicators varied from MS to MS and clear definitions are not always provided.

Qualitative information varied significantly among MS. In some MS, the AIR mainly focuses on financial execution, while other MS provide extensive qualitative assessment and examples of projects.

Despite the fact that a common template was provided, the AIRs are in fact structured very differently among MS, which presented challenges and difficulties for country experts in easily matching specific sections of the Excel grid to the AIR contents, and resulted in a time consuming exercise for the country experts.

[20] As agreed with the evaluation Steering Committee after the interim report. National monitoring systems generally do not do not allow to make extractions based on a specific cut-off date. Once the data are recorded until December it seems difficult to extract the situation at a previous cut-off date.

MA and stakeholder interviews

The following difficulties arose in some MS:

- lack of centralisation of the information by national MAs: the information asked for to address the evaluation questions included a lot of detailed information that went beyond the information collected by the monitoring system or for the drafting of the AIRs. In most cases, the information was not therefore centrally available from the services in charge of the EFF, especially in MS with a regionalised implementation of the EFF (e.g. ES or DE) or where the implementation of individual measures were spread over a large number of services within the MA;
- loss of institutional knowledge and memory: changes of staff and in some cases, restructuring of services within the Managing Authorities (e.g. dissolution of the FROM in ES, previously in charge of the implementation of national promotional campaigns) or full restructuring of the Managing Authorities (e.g. LT, PL) led to some losses in the historical knowledge about EFF implementation, which was not compensated by the monitoring system and the available documentation; and
- difficulties to reach the MAs: interviews were finally carried out in all the 27 MS, but there were some significant delays in obtaining MAs' responses in some MS, despite numerous solicitations by phone, email and the support of DG MARE desks officers (e.g. IT and PT).

MA and stakeholder interviews provided both qualitative and quantitative information on the context, implementation and achievements of EFF. However, these interviews could not fill data gaps of monitoring data (Art. 40). When information was not available from Art. 40 data, MAs and stakeholders could, in many cases, not provide other information. In some cases, they could provide a qualitative assessment or anecdotal evidences which had to be used with caution.

Beneficiary survey

Difficulties were faced due to the absence of structured and up-dated list of emails in some MS, and the total absence of email addresses in MAs IT systems in other MS.

The reliance on intermediaries to disseminate the link to the survey created challenges for the evaluators in that there was no obligation for those organisations to actually circulate the link or easy way to know if they had. Based on the feedback obtained during the fieldwork, there may also have been some confusion, as the same organisations received in a short period of time solicitations for interviews, notifications for the stakeholder consultation and the link for the online survey. Some organisations are also structured as federations at national level, with multiple layers (national, regional, etc.), and the original email took up to three or four weeks to reach the local organisations in direct contact with the economic operators targeted by the survey.

Finally, even in MS where lists of beneficiaries were provided, a lot of the email addresses were erroneous.

1.5 *Structure of the report*

Following this introduction, this evaluation report is divided into five main sections

Section 2, ***intervention logic of the regulation***, provides the initial step towards assessing the EFF by presenting the intervention logic for the regulation. This depicts and clarifies the causal chain whereby certain inputs (namely funding) are expected to lead to outputs, results and impacts (which are linked to objectives at different levels), as well as considering the role that external factors (such as prevailing economic conditions and industry trends) might play. The IL therefore serves to structure the subsequent sections

and analysis contained herein, and provides an understanding of what the EU aimed to achieve with the EFF and how it aimed to achieve it.

Section 3, ***implementation and financial execution***, analyses EFF implementation across all Member States (MS) in relation to the following issues: Typology of programmes; commitment and expenditure under the European Fisheries Fund; modifications of the Operational Programmes (OPs); structure and management of the Managing Authorities (MAs); project selection and application procedures; monitoring and control systems; and promotion and communication activities.

Section 4, ***analysis of results by spending category***, evaluates the outputs and results of individual measures by spending category, i.e. an evaluation of the types of projects and actions implemented under the EFF and the changes achieved directly from these actions.

Section 5, ***transversal analyses and impacts***, provides an assessment of the overall achievements of the EFF programme in relation to its original objectives, with the current needs of stakeholders and the funds spent. The added value of the EU intervention is also assessed as well as the contribution to the socio-economic and environmental sustainability of the sector. The analyses answer the evaluation questions recommended under the Better Regulation Package: effectiveness, efficiency, relevance, coherence, EU-added-value and sustainability.

Section 6, ***main findings, conclusions and recommendations***, concisely presents the key findings from each of the preceding sections.

2 INTERVENTION LOGIC OF THE REGULATION

A first step towards assessing the EFF entails determining how it is meant to work *in theory*. The intervention logic diagrams allow us to clarify the causal chain whereby certain inputs (namely funding) are expected to lead to outputs, results and impacts (which are linked to objectives at different levels). They also allow us to consider the role that external factors (such as prevailing economic conditions and industry trends) might play. Most importantly, the causal relationships depicted in the intervention logic diagrams define the assumptions (for example that a certain input will lead to a certain output) that underpin the EFF and that are measured and tested by the evaluation. The expected causalities described in the intervention logic diagrams (put in perspective with their relative financial importance) also structure our assessment of the actual contribution of each measure to each objective of the EFF. Finally, the intervention logic diagrams provide shared understanding of what the EU aimed to achieve with the EFF and how it aimed to achieve it.

The evaluation thus analyses the theoretical intervention logic of the Regulation not the strategies or intervention logic developed by Member States.

The information presented in Figure 1 represents the intervention logic developed for the EFF Regulation as a whole (Annex 4 presents the intervention logic related to each of the five spending categories: Fisheries (including infrastructure); Aquaculture; Processing (including investments in marketing establishment[21]); Measures of common interest; and Community development).

As per the ToR, the evaluation is not structured around the axes specified in the EFF Regulation, but around the spending categories on the basis of the Regulation implemented. The ToR provides a correspondence table between the axes and the spending categories which was used to construct the intervention logic.

Although it formally constitutes another spending category, technical assistance is not represented in a separate diagram but integrated into the other intervention logic. This choice was made to emphasise the supporting nature of technical assistance for the implementation of the Regulation. Overall, key aspects of the intervention logic are as follows:

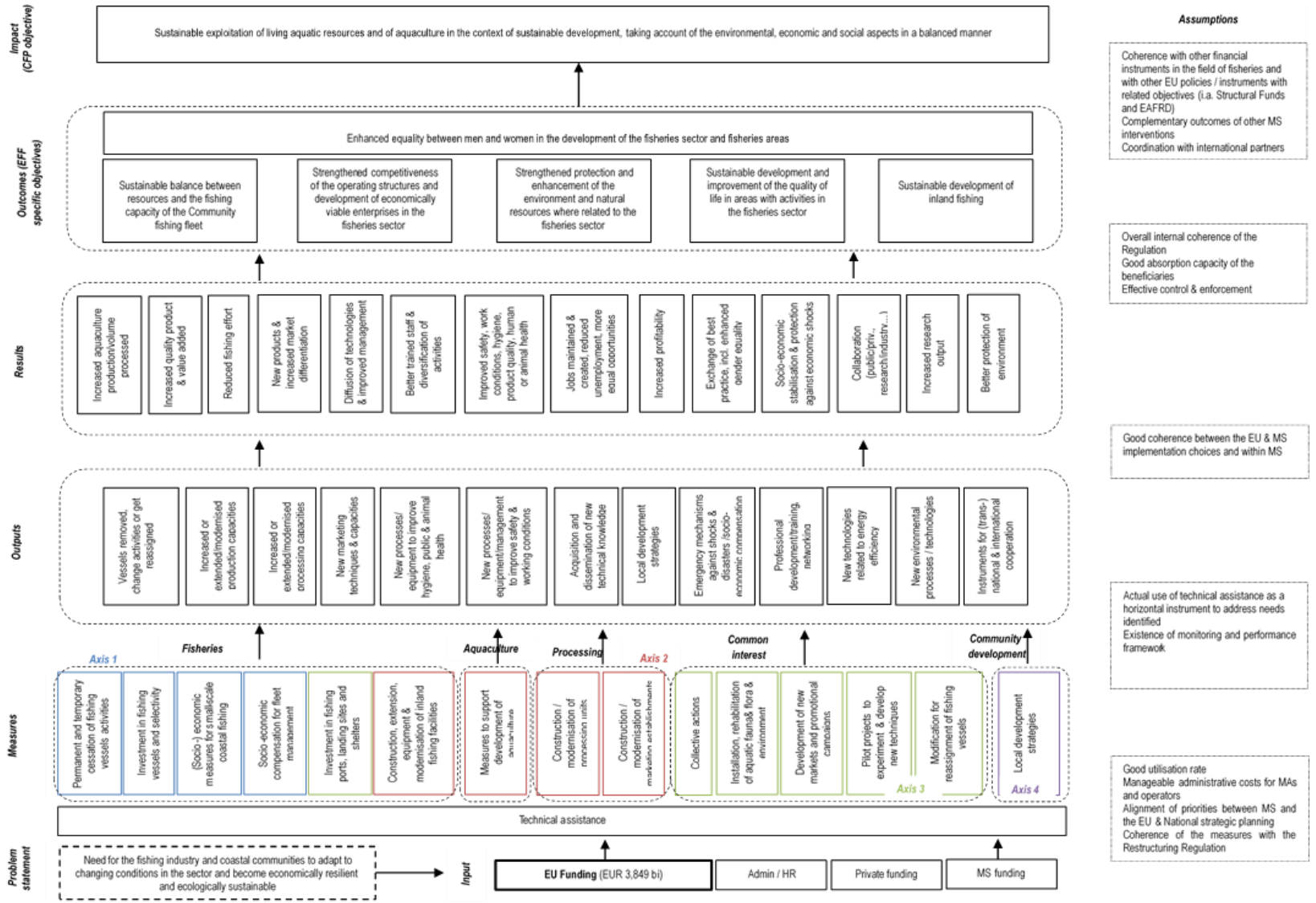
- The **problem statement** describes the issues that the intervention is meant to address, thereby providing a rationale for action.
- **Inputs** are the financial and human resources put towards the intervention.
- Categories of **measures** are the different types of actions / interventions implemented using the resources made available.
- **Outputs** are directly produced, supplied or put in place through the EU intervention.
- **Results** consist of the short-term effects and changes in the situation due to the intervention.
- The **specific objectives** determine the medium-term desired outcomes of an intervention. They are identified on the basis of Article 4 (b) to (g) of the Regulation.
- In the case of the overarching intervention logic, the **impact** describes the envisaged longer-term changes. They consist of the general objective of the CFP.

[21] The Annex 2 of the ToR allocates Actions 3 and 4 of Measure 2.3 to the spending category Common Interest. However, the steering group for the evaluation agreed to keep the entire measure 2.3 under one single spending category as it is more coherent with the intervention logic.

- Along the diagram, a number of critical **assumptions** show which internal and external factors must be present in order to progress between steps in the intervention logic.

The overarching intervention logic provides a synthesis of the EU's intervention across the spending categories and puts it into the broader perspective of the fisheries sector.

Figure 1: Overarching intervention logic of the EFF



3 IMPLEMENTATION AND FINANCIAL EXECUTION (TASK1)

This section analyses EFF implementation across all Member States (MS) for the following issues:

1. Commitment and expenditure under the European Fisheries Fund.
2. Modifications of the Operational Programmes (OPs).
3. Structure and management of the Managing Authorities (MAs).
4. Project selection and application procedures.
5. Monitoring and control systems.
6. Promotion and communication activities.

3.1 *Financial consumption*

This section presents and analyses the public spending for EFF (national and EU) and the evolution of EFF commitments (EU funds) over time and in comparison with original budget allocations, as well as the breakdown of EFF commitments by MS, by spending category, and within each spending categories until May 2015. Projects could be approved up to December 2015. There will be additional projects approved and all currently approved projects may not actually be implemented, but overall the breakdown of EFF commitments as of May 2015 is considered representative of what the final financial execution will be. Certified payments by MS as of May 2015 are also presented here, but they are expected to increase significantly by the time of the final closure of the programme.

Detailed financial information is only available from the Art. 40 data, which required some adjustments based on MA feedback for the cumulated data in 2015. Data from the synthesis of national interim evaluations (2011) is used here for the original allocation of budget and for the EFF commitments at mid-term (31/12/2010). The comparison between convergence and non-convergence regions is based on the payments from DG MARE to MS, as Art. 40 data do not distinguish between convergence and non-convergence regions.

3.1.1 Evolution of EFF commitments by axis over the period

Allocations of budgets per axis in OPs have been revised over time to take into account the N+2 rule and to adjust actual commitment trends. As a result, the budget allocations in revised OPs reflect actual commitments better than the initial OP strategy. It is interesting therefore to compare the evolution of commitments to the original budget allocation in OPs. Analysis in this section focuses on evolution. A more detailed analysis of current commitments by measure is provided in section 04.

Commitment trends at mid-term (31/12/2010)

Table 3 below shows early uptake of axes 1 and 2 for the following reasons:

- At the start of the EFF implementation period, EU MS committed funds to measures that were easier to implement, in particular measures that existed during the previous programming period under the Financial Instrument for Fisheries Guidance (FIFG) and were well-known by the administrations and the stakeholders.
- A greater focus on cessation measures at the beginning of the programming period, as a result of the economic crisis.

As of 31/12/2010, 86% of EFF commitments under Axis 1 corresponded to permanent and cessations measures[22]. A few MS in particular had already committed over 70% of the EFF programmed for Axis 1 (e.g. 113% in BG, 91% in SE, 79% in FR, 76% in DK).

The early uptake on Axis 2 was also reasonably high overall, although with more variation between MS. The ratio of EFF committed to the EFF programmed ranged from 4% in BG, 11% in RO, up to 64% in PL, 80% in LT, 82% in CZ and 100% in AT. While in some MS, the focus was on investments in aquaculture (e.g. land-locked countries and GR), in other MS, commitments were primarily under the processing measure (e.g. ES, IT, PT and the Baltic States). Overall processing represented 62% of Axis 2 EFF commitments.

By contrast, the implementation of Axis 4 lagged behind the other axes with only 6% of the total EFF programmed committed by the end of 2010. This delay was mainly due to the time needed to set up a new institutional framework for this Axis (Fisheries Local Action Groups), to define the geographical scope of the groups, and select the strategies.

The uptake for Axis 3 was moderate at the interim stage and varied between MS. In IT, only 14% of the EFF programmed had been committed, while in DK, it had reached 70%. Commitments focused on measure 3.3 – fishing ports and shelters, and measure 3.1 - collective actions, with 41% and 24% of total axis commitments respectively. In some MS, commitments under Axis 3 were fairly concentrated (e.g. for fishing ports and shelters in PT and PL with 65% and 51% respectively, and for pilot operations in DE and NL with 54% and 46% respectively), but were spread more evenly across the different measures in other MS (e.g. FR, ES and DE).

[22] Interim evaluation of the European Fisheries Fund (2007-2013) - *Synthesis of the 26 national evaluation reports*, Ernst & Young et al., 2011

Table 3: Comparison between EU funds originally programmed for EFF, EU funds committed at mid-term and committed as of May 2015, EU funds and national funds paid as of May 2015, by Axis (in Mil. euros)

Axis	EU funds programmed	% of EU funds programmed	EU funds committed (31.12.2010)	% Axis fund committed (31.12.2010) /Originally programmed (EU funds)	% of EU funds committed (31.12.2010)	EU funds committed (31.05.2015)	% Axis fund committed (31.05. 2015) / Originally programmed (EU funds)	% EU funds committed (31.05.2015)	EU funds paid (31.05.2015)	% EU funds paid (31.05.2015)/ EU funds committed	National funds paid (31.05.2015)	% National funds paid on total public funds paid (31.05.2015)	Total public funds paid (EFF +national) (31.05.2015)
1	1,216	28%	575	47%	36%	1,036	85%	26%	947	91%	1,056	53%	2,003
2	1,237	29%	518	42%	32%	1,265	102%	32%	840	66%	660	44%	1,500
3	1,133	26%	451	40%	28%	1,079	95%	27%	714	66%	753	51%	1,467
4	573	13%	34	6%	2%	441	77%	11%	216	49%	141	39%	357
5	146	4%	35	21%	2%	125	74%	3%	95	76%	68	42%	163
TOT.	**4,305**	**100%**	**1,613**	**37%**	**100%**	**3,945**	**91%**	**100%**	**2,812**	**71%**	**2,678**	**49%**	**5,489**

Source: Evaluators analysis based on Ernst & Young et al., 2011 and Art.40 data as of 31 May 2015.

Commitment trends during the second half of the programming period (as of 31/05/2015)

By the end of the programming period (data up to May 2015), the breakdown of EFF commitments per axis was closer to the original budget allocation than it was at mid-term.

The uptake under **Axis 1** slowed down after 2010 and reduced from 36% of total EFF commitments to 26%. It only reached 85% of the programmed Axis 1 EFF.

Cessation measures still accounted for the largest share of commitments, with 78% of total EFF commitments under Axis 1. As the emphasis on permanent cessation reduced, take-up in the three other measures increased in the second half of the programming period (from 9% to 12% of Axis 1 EFF commitments for **investments on board**; from 0% to 4% for **small-scale coastal fishing** and from 4% to 6% for **socio-economic measures**). The evolution by MS[23] shows that a few MS that had very high commitment rates at the end of 2010 for Axis 1, significantly reduced the budget allocated to these measures in the second half of the programming period (e.g. SE, DK, BG and IE). By contrast, GR changed allocations and targets as a result of the economic crisis and mainly implemented permanent cessations after 2010.

The uptake under **Axis 2** increased over the second half of the programming period to reach 102% of the originally allocated EFF. The breakdown by measure was more balanced between aquaculture and processing than at mid-term (44% and 55% respectively of total Axis 2 commitments in 2015 compared to 32% and 62% in 2010). Use of measure 2.2 – inland fishing – remained marginal, with only 1% of total Axis 2 EFF commitments.

The commitment rate reached over 100% of the programmed EFF in 13 out of 26 MS[24] and over 150% in 1 MS (LV). Commitment levels remained below 50% in BG and MT[25]. The uptake increased considerably in some MS after 2010 as investment confidence improved after the economic crisis, especially in RO (from 11% to 114% of the EFF programmed), in SI (from 21% to 125%) and in BG (from 20% to 113%). In both RO and BG, budgets are significant and went primarily to the aquaculture sector, which partially explains the increased share of Measure 2.1.

EFF commitments under **Axis 3** by the end of 2015 were fairly close to the original budget allocated, at 95% of programmed EFF. As observed at mid-term, commitments focussed on measure 3.3 – fishing ports and shelters and measure 3.1- collective actions, with 41% and 27% respectively of total commitments for this Axis (no significant change from the 2010 distribution). However, these general figures hide important discrepancies among MS, with EFF commitments going from 1% of EFF programmed in HU up to 181% in DK. Out of 26 MS, 14 reached over 100% of achievements in terms of financial consumption and 3 reached over 150% (DK, MT and LT):

- in MT, over half the EFF committed under this Axis went to investments in port infrastructure;

[23] See detailed tables by Axis and MS in Annex 5.

[24] HR is not included in the analysis as it joined the EU only in 2013.

[25] In MT the small size of the sector means that investment decisions by individual operators will affect the likelihood of achieving expected uptake. Development of the sector was hindered by a lack of juveniles, which is being addressed by hatchery development under EMFF. In BE multiple reasons are given for lack of expected investment in the sector, including ageing producers keeping with artisanal technology.

- in DK, it was spread mainly among collective actions, protection of the aquatic fauna and flora (specifically river restoration works), and fishing ports and shelters;
- LT is unique as 82% of the funds committed went to the reassignment of fishing vessels, a measure barely used in other MS.

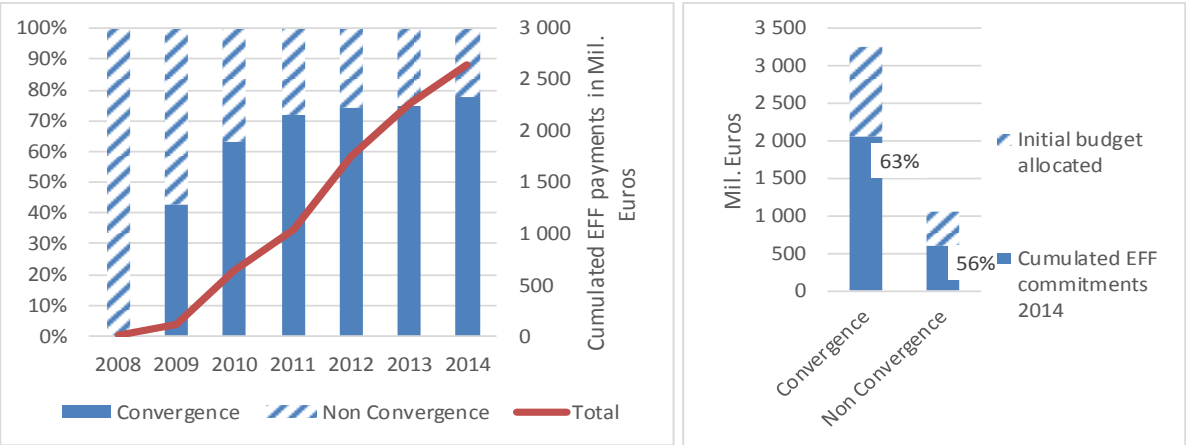
In those three MS projects were mainly initiated after 2010. By contrast, commitments remained below 50% of EFF programmed in five MS (HU, AT, SK, CZ and RO), with commitments in 2015 lower than in 2010 in AT and CZ[26].

In terms of financial consumption, the main evolution since 2010 comes from the implementation of **Axis 4**, for which 92% of commitments occurred in the second half of the programming period, due to the delays mentioned above. As of the end of May 2015, EFF commitments had gone up from 6% to 77% of the originally programmed budget, with 7 MS even reaching over 100% of EFF programmed (NL, DK, IE, BG, the UK, CY and EE). Among those MS, DK, NL and CY were performing well already in 2010, but the UK and BG did not have any EFF committed at that stage. Only three MS remain below 50% commitment under Axis 4 (LT, LV and IT), despite some progress made in the second half of the programming period by these MS. The differences among axes reflect the evolution of commitments over the period, with the highest rate for Axis 1 (91% of EFF committed) and the lowest rate for Axis 4 (49% of EFF committed).

3.1.2 Evolution of EFF payments between convergence and non-convergence regions

Information on EFF commitments categorised by convergence and non-convergence region is not available, therefore this section focuses on EFF payments made by the European Commission to MS from 2008 to 2014[27].

Figure 2: Evolution of EFF payments and comparison with initial budget allocated for convergence and non-convergence regions 2008-2014



Total EFF payments by the Commission reached EUR 2.64 billion at the end of 2014, or 61% of the total budget allocated in the beginning of the programming period. Total payments for convergence regions reached 63% of the budget originally allocated and 56% in non-convergence regions, despite some delays in the beginning of the programme in convergence regions.

[26] This may occur if projects approved are not actually implemented, which happened in the aquaculture sector.

[27] Payments for 2015 are not available for all MS in 2015 in the data provided by DG MARE.

The main factors explaining the difference in uptake between convergence and non-convergence regions are:

- Commitments, then payments, started faster in Western MS, with more experience with EU funds and more administrative and financial capacity (e.g., FR and AT are the only MS that made payments in 2008). These MS include more non-convergence regions.
- Several MS stated that the late approval of the OP or the monitoring and control system affected to a large extent the implementation of the EFF. These are notably MS with convergence regions: HU, GR, ES, SI and RO (source: Mid-term evaluation).
- Within MS with both convergence and non-convergence regions, there has sometimes been more delay in convergence regions due to economic difficulties at the beginning of the programme (e.g., ES).
- By the end of the programme, in contrast to the start, better EU co-financing permitted increased payment levels for convergence regions in MS benefitting from top ups.
- In some MS, de-commitments due to N+2 rules were higher in convergence regions (e.g., SK).

3.1.3 Overview of total public spending (EU + national payments)

The table below shows the breakdown of the total public spending (EU + national payments) by MS and spending category.

At May 2015, public payments for EFF reached EUR 5,489 million, 51% from EU funds (EUR 2,812 million paid) and 49% from national funds (EUR 2,677 million paid).

The EU payments (May 2015) account for 65% of EU funds originally programmed and account for 71% of EU commitments as for May 2015.

The overall ranking and breakdown by MS and spending categories is slightly different when referring to total public contribution or EU payments only, as the level of national contributions vary between MS and spending category (see details in annex 5).

Tableau 1: EFF total public spending (EU + national payments) by spending category and by MS (in Mil. euros)

MS	Fisheries	Aquaculture	Processing	Common interest	Community dev.	Tech assistance	Total
ES	989	99	388	346	43	36	1,901
PL	256	126	99	39	142	33	695
FR	297	32	23	122	7	2	484
IT	296	28	86	30	2	17	460
GR	173	11	18	3	16	10	230
PT	91	13	62	23	11	4	204
DK	71	20	12	57	23	6	190
UK	76	11	38	36	8	4	173
LV	59	26	30	14	13	5	148
DE	11	19	25	66	18	2	142
SE	31	13	21	48	21	8	141
RO	3	66	10	4	3	9	95
EE	23	7	14	21	23	5	94
NL	39	5	2	34	7	6	93
IE	65	2	8	9	1	0	85
FI	23	10	18	19	6	1	78
LT	10	12	19	5	6	2	55
BE	24	1	0	11	2	1	39
BG	9	19	3	2	3	2	37
CY	28	2	2	1	1	1	35
HU	0	30	2	0	0	2	34
SI	9	5	4	1	3	3	24
SK	0	12	7	1	0	1	21
MT	9	0	1	3	0	1	13
AT	0	6	4	0	0	0	10
CZ	0	5	0	3	0	0	9
HR	0	0	0	0	0	0	0
Tot.	**2,592**	**579**	**896**	**899**	**360**	**163**	**5,489**

Source: Art.40 data as of 31 May 2015

3.1.4 Detailed analysis by MS and spending category

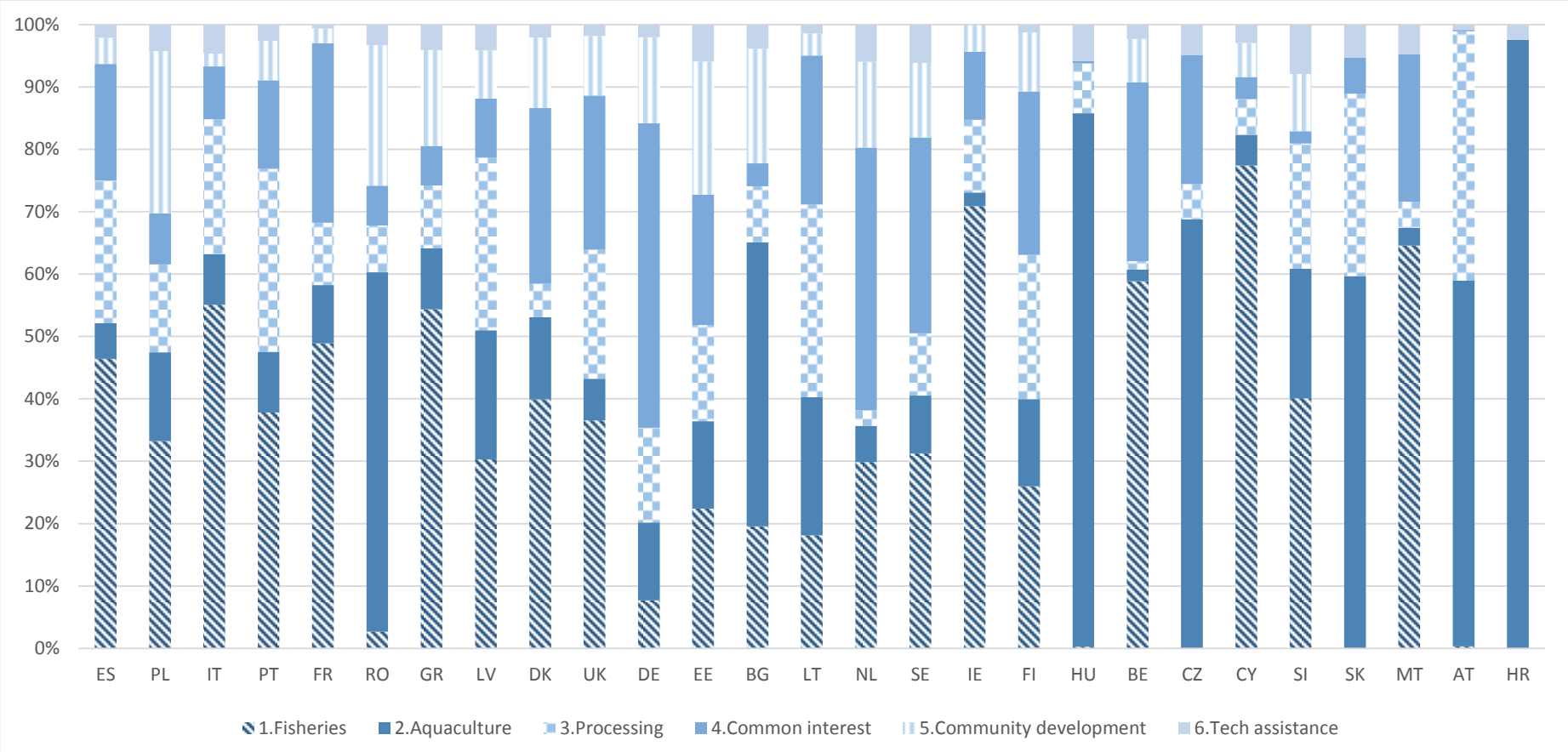
Note: in this section and in the following sections of this report, the term "EFF" refers to EU funds and does not cover national contribution.

This section presents the breakdown of EFF granted within each spending category and analyses the concentration of the funds by type of project and geographically. A more detailed analysis of "what has been done", *i.e.* outputs and results are analysed in section 4 - ANALYSIS OF THE RESULTS BY SPENDING CATEGORY (TASK 2).

There is no detailed analysis of the "Community Development" (Axis 4) spending category in this section, as it only includes one measure and one action.

The following chart illustrates the distribution of the EU commitments for EFF across MS and spending categories. These can vary slightly taking in account the national contributions and the co-financing rate can vary significantly between MS (see Annex 5 the analysis with total public spending). An analysis of the importance of the EFF support and the economic size of the sectors is provided in Annex 5.

Figure 3: EU commitments for EFF by MS and Spending Category (in%)



MS are sorted by order of decreasing importance of EFF commitments in absolute value, with ES on the left of the figure having the highest levels of commitments.

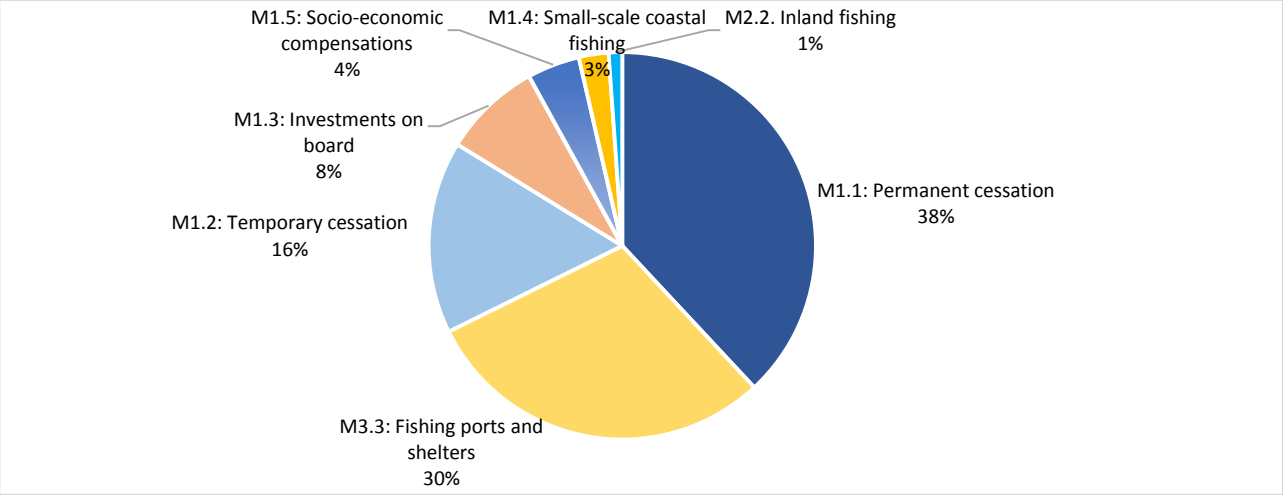
Source: Evaluators calculations, based on Art. 40 data provided by action and measure[28]

[28] Table in Annex 5

3.1.4.1 Fisheries

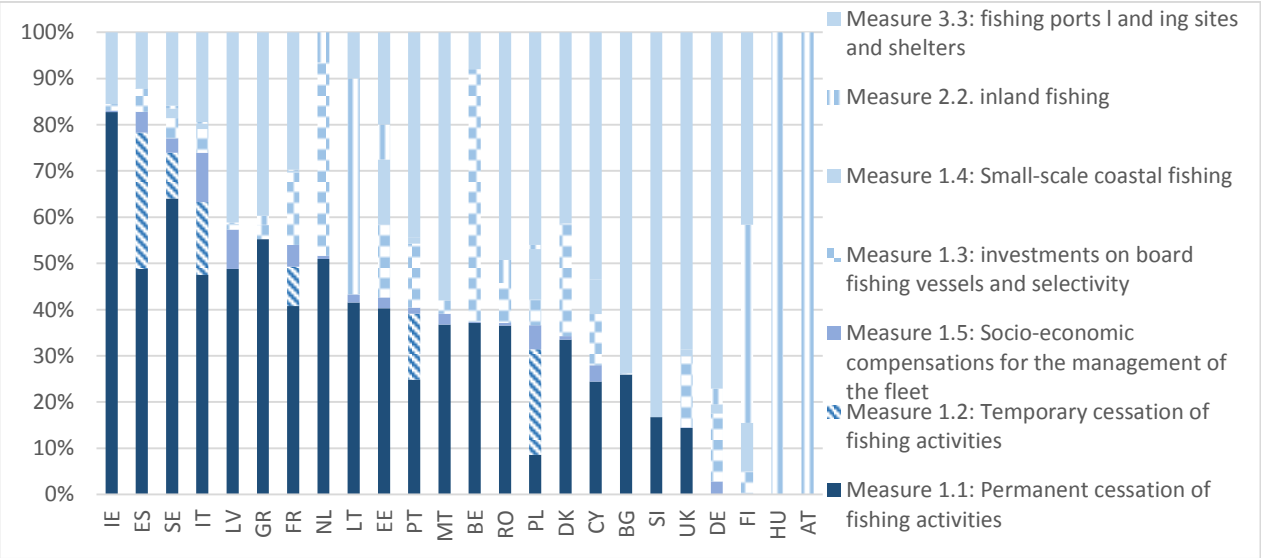
This spending category accounts for 38% of total EFF commitments. The main MS were: ES (30% of the total spending category), PL (16%), IT (13%), and FR (7%). Scrapping (permanent cessation) and investments in fishing ports, landing sites and shelters together accounted for 68% of the EFF granted under this spending category. Inland fishing (Measure 2.2) does not feature in the figure as it accounted for less than 1%. Details with total public funds (national + EU) are provided in annex 5.

Figure 4: Breakdown of EFF granted for Fisheries



Source: Evaluators calculations, based on Art. 40 data provided by action and measure

Figure 5: Breakdown of Fisheries measures by MS



Source: Evaluators calculations, based on Art. 40 data provided by action and measure (MS are ranked according to the importance of the share of fleet adjustment measures in the SC).

Among MS, the breakdown varies significantly between measures within this spending category. Using the criterion of the share of spending for fleet adjustment measures (permanent and temporary cessation of activity and socio-economic measures), the following typology of MS is identified:

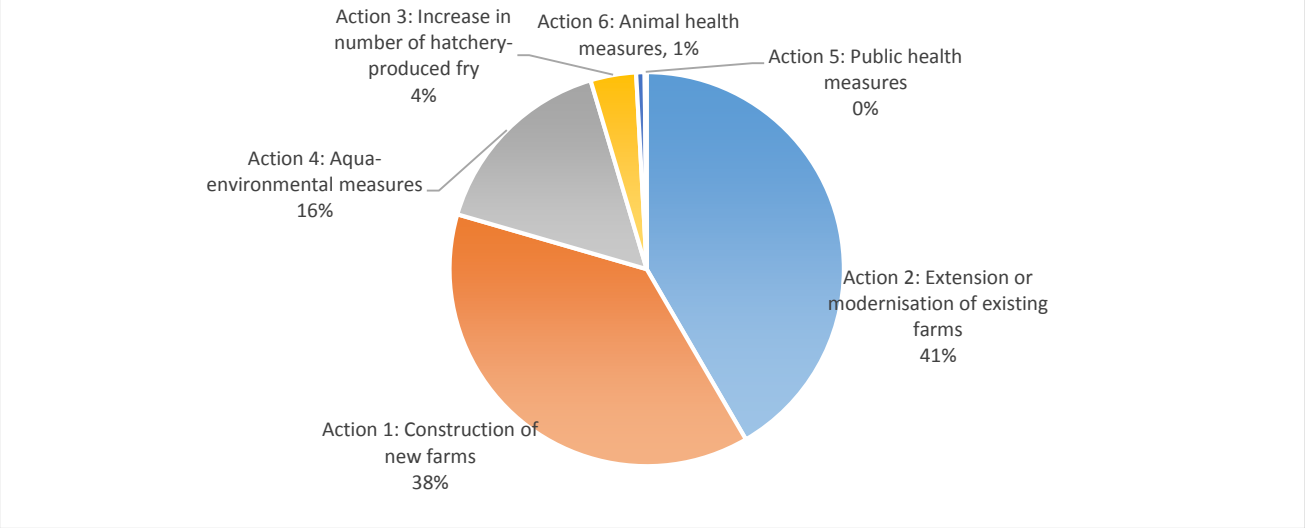
- Fleet adjustment measures >50%: IE, ES, SE, IT, LV, GR, FR, NL (relatively high share of measure 1.3).

- Fleet adjustment measures between 30% and 50%: LT (relatively high share of measure 2.2), EE, PT, MT, BE (relatively high share of measure 1.3), RO, PL, DK.
- Fleet adjustment measures <30%: CY, BG, SI, UK, DE (strong predominance of measure 3.3), FI (mostly measures 2.2 and 3.3).
- No projects under Fleet adjustment measures: AT and HU (used only measures 2.2 and 3.3).
- HR, CZ and SK did not use any measure within the 'Fisheries' spending category.

3.1.4.2 Aquaculture

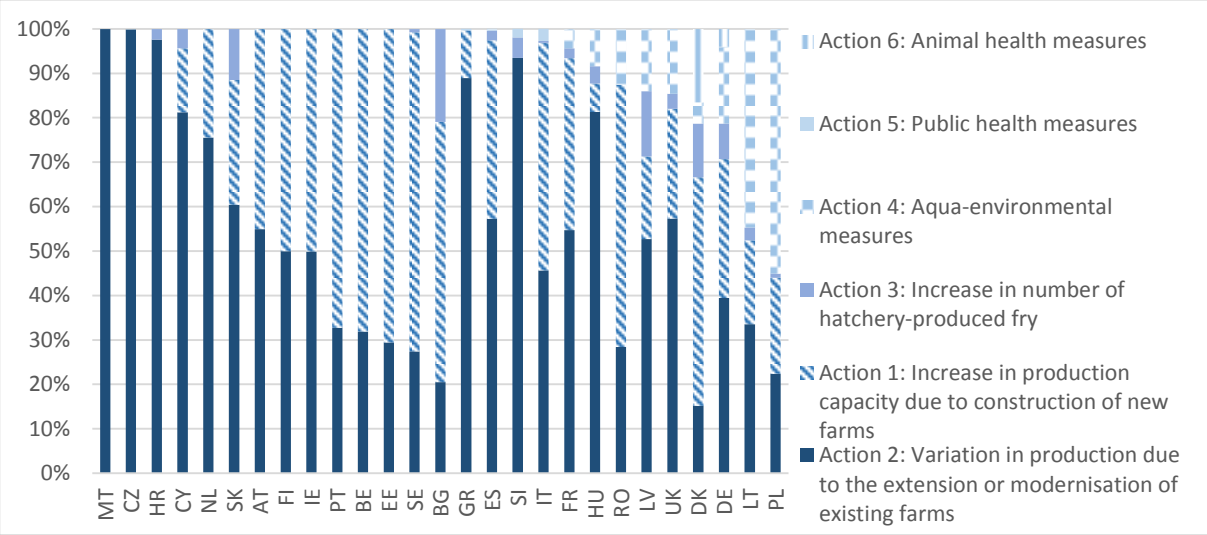
This spending category accounts for 14% of total EFF commitments. The main MS involved were PL (19% of the total spending category), RO (19%) and ES (10%). Projects primarily aimed at increasing production capacity through investments in construction and modernisation of existing fish farms, and construction of new farms (80% of the EFF granted for this spending category). Details with total public funds (national + EU) are provided in annex 5.

Figure 6: Breakdown of EFF granted for Aquaculture



Source: Evaluators calculations, based on Art. 40 data provided by action and measure

Figure 7: Breakdown of Aquaculture measure by action by MS



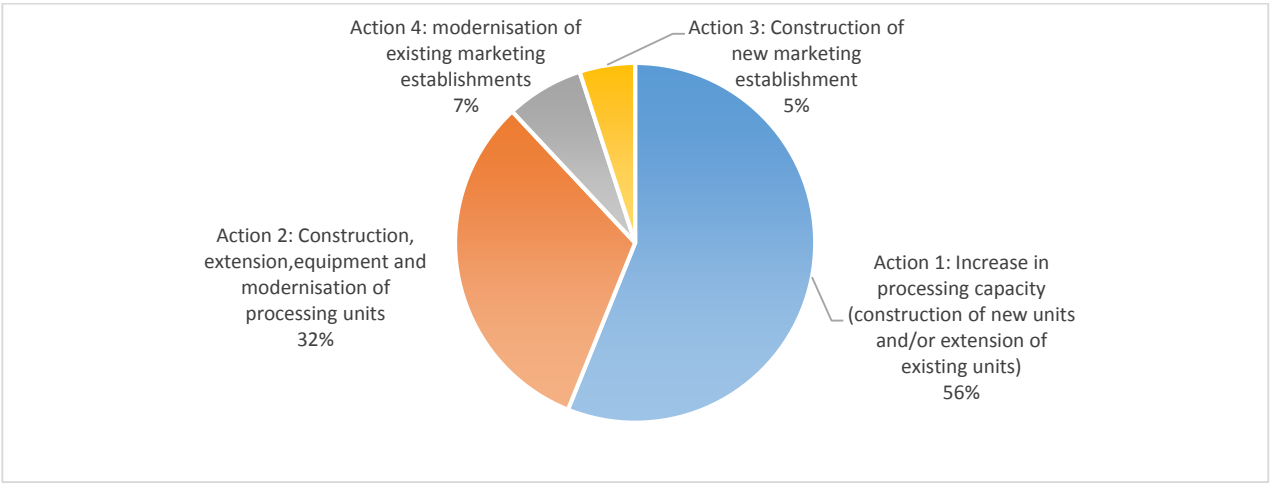
Source: Evaluators calculations, based on Art. 40 data provided by action and measure (MS are ranked according to the importance of the share of Actions 1 and 2 in the SC)

Actions 1 and 2 represented by far the main actions implemented across MS, except in PL, where they represented less than 50% of the commitments. Aqua-environmental measures represented a significant share of the projects (over 10%) in only 6 MS (RO, LV, the UK, DE, LT and PL).

3.1.4.3 Processing

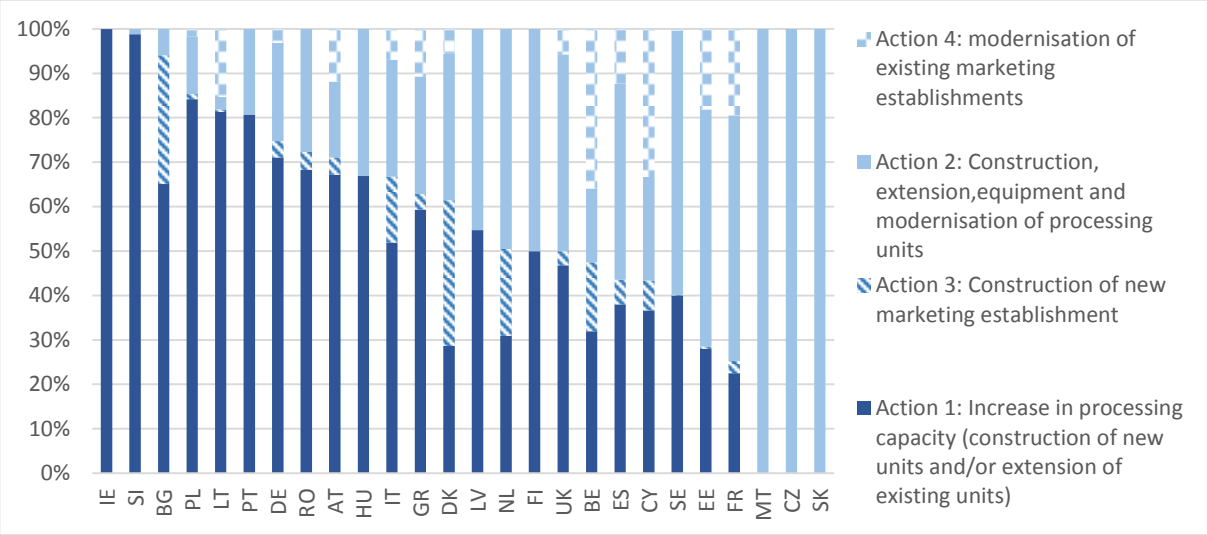
This spending category accounts for 18% of total EFF commitments. The main MS involved were ES (32% of the total spending category), PL (15%), PT (10%) and IT (10%). Processing accounts for most of the measure with about 88% of EFF granted for increasing processing capacity in existing units or construction of new units. Details with total public funds (national + EU) are provided in annex 5.

Figure 8: Breakdown of EFF granted for Processing



Source: Evaluators calculations, based on Art. 40 data provided by action and measure

Figure 9: Breakdown of processing measures by MS



Source: Evaluators calculations, based on Art. 40 data provided by action and measure (MS are ranked according to the importance of the share of new constructions, Actions 1 and 3, in the SC)

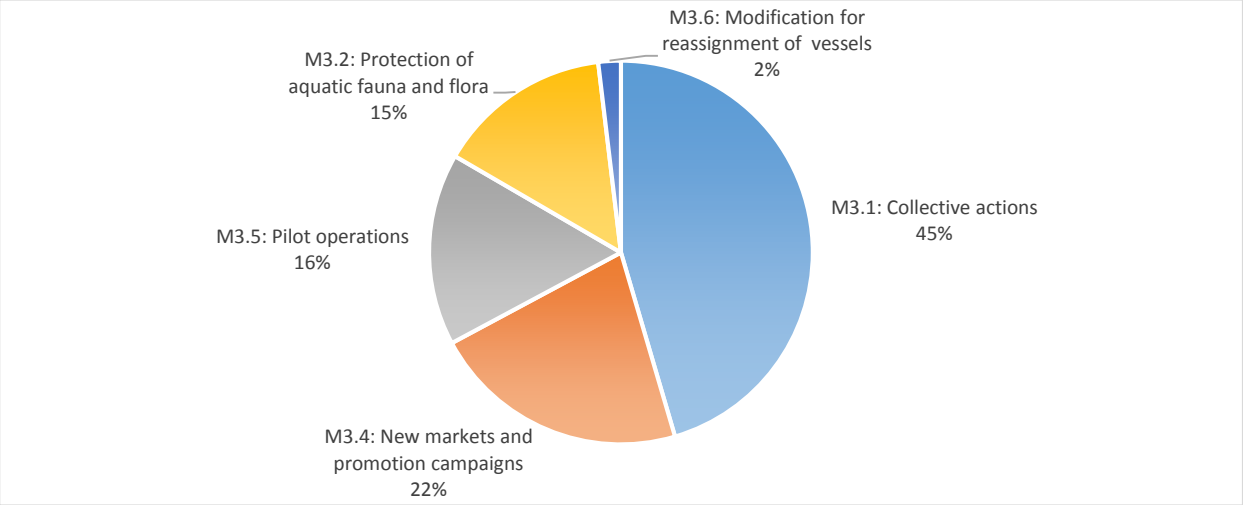
The difference among MS lies more in the share of commitments allocated to increased capacity as opposed to modernisation of existing capacity, than in the share of processing *vs* marketing, especially considering that there is no clear definition, and some activities could be considered either as marketing or as processing depending on the type of beneficiary (e.g. fileting or packaging done at landing by a fishermen cooperative or a primary wholesaler[29] or done by a processing company). About half of the MS focused on increased capacity, while the other half focused on modernisation. The share of projects involving increased capacity remained below 50% in the MS with the largest processing industry (the UK, ES and FR). On the contrary, PL used over 80% of this measure for new units.

3.1.4.4 Common interest measures

This spending category accounts for 16% of total EFF commitments. The main MS involved were ES (31% of the total spending category). Then PL (9%), FR (9%), DE (8%), DK and IT (6% each), and UK, PT, the NL (5% each). This spending category was dominated by collective actions (45%) and marketing and promotion (22%). Pilot operations, protection and development of aquatic environment and construction and modernisation of marketing establishments measures each represented about the same share (11-14%). Projects related to modification for reassignment of fishing vessels accounted for only 2% of the spending category. Details with total public funds (national + EU) are provided in annex 5.

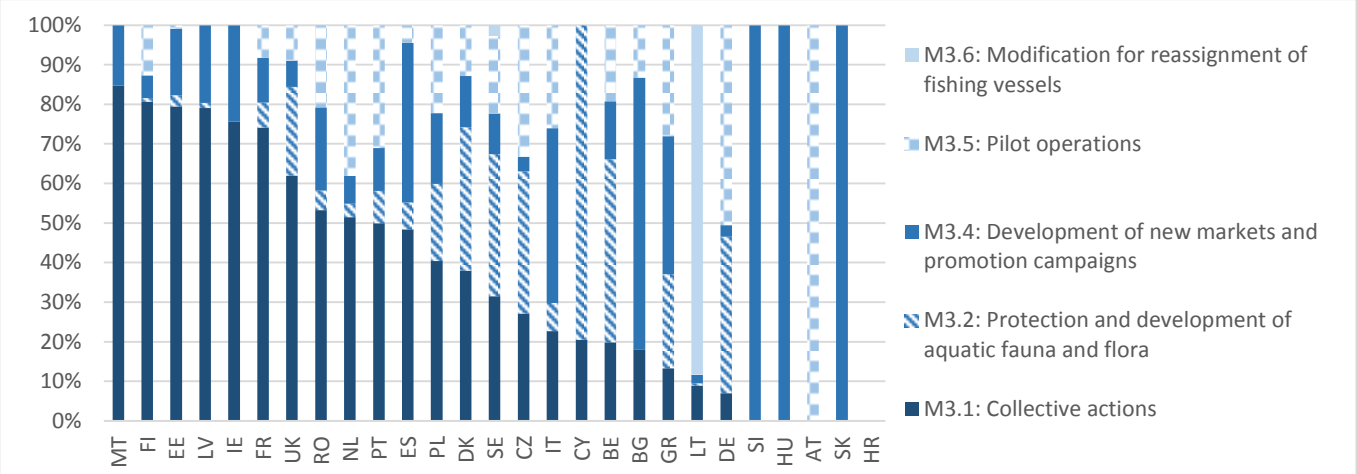
[29] E.g. *Mareyeurs* in FR or *Mayoristas de origen* in ES

Figure 10: Breakdown of EFF granted for Common Interest measures



Source: Evaluators calculations, based on Art. 40 data provided by action and measure

Figure 11: Breakdown of Common interest measures by MS



Source: Evaluators calculations, based on Art. 40 data provided by action and measure (MS are ranked according to the importance of the share of Collective actions in the SC).

Among MS, the breakdown varies significantly between measures within this spending category. Taking the criterion of the share of spending for collective actions in the total spending category, the following typology is apparent:

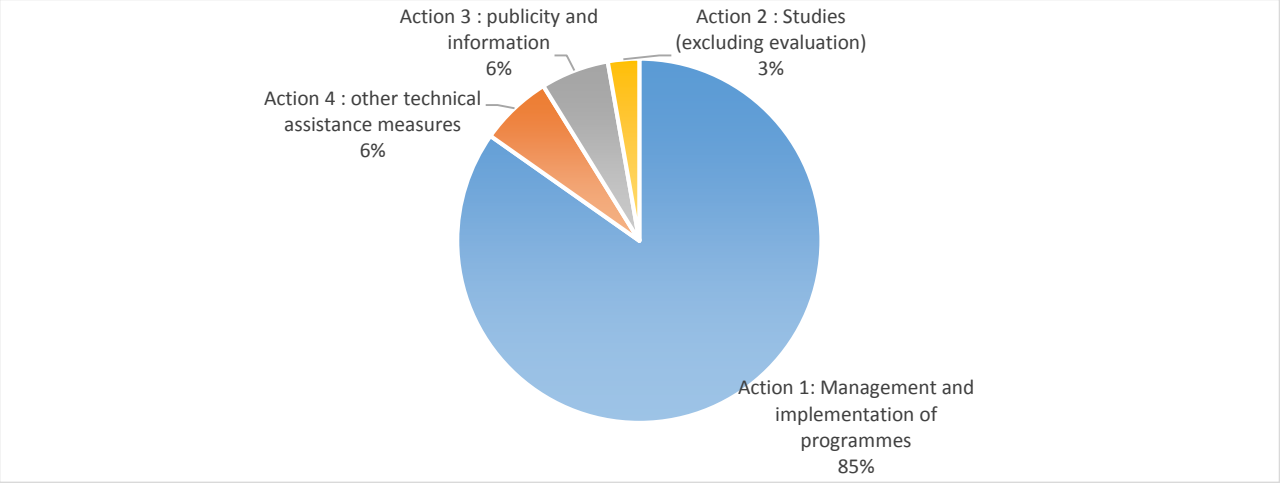
- Collective action >50%: MT, FI, EE, LV, IE, FR, UK, RO and NL.
- Collective actions between 20% and 50%: PT, ES, PL, DK, SE, CZ, IT and CY.
- Collective actions <20%: BE (large share for measure 3.2), BG (most of spending under measure 3.4), EL (3 other measures more important), LT (the only MS for which most of the spending category is under measure 3.6), DE (mostly measures 3.2 and 3.5).
- No projects under collective action measure: SI, HU and SK (all only used measure 3.4); AT (used only measure 3.5); HR (no use of common interest measures).

3.1.4.5 Technical assistance

This spending category accounts for 3% of total EFF commitments. The maximum amount for this spending category for a single MS of total EFF commitments is 5%. The top MS for Technical Assistance spend were PL (25% of the total spending category), ES

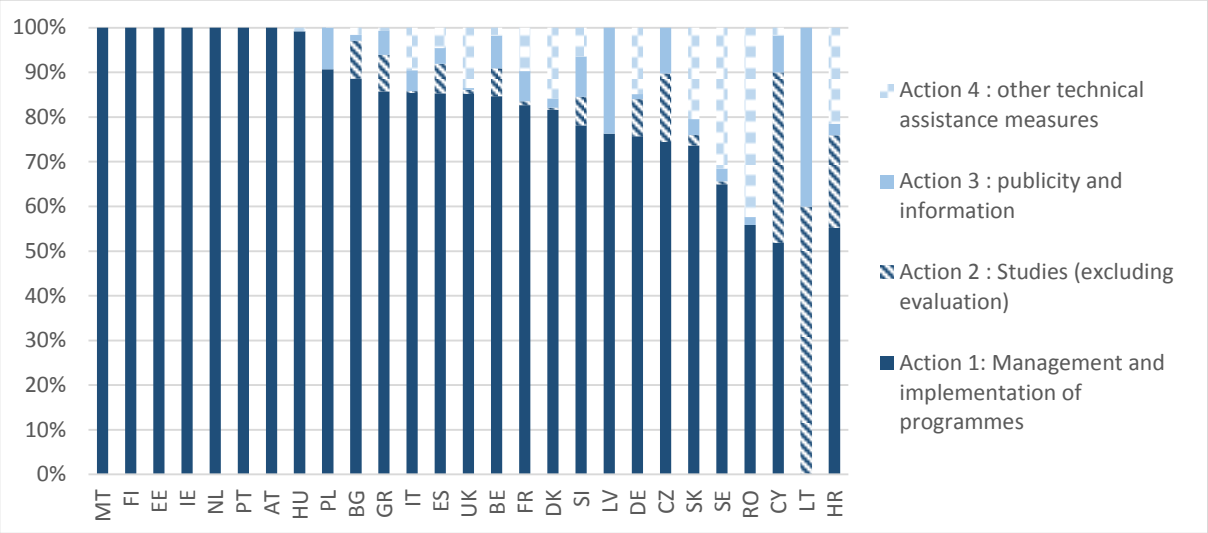
(16%), and IT (13%). EFF granted for technical assistance was mostly attributable to management and implementation of programmes (85%) whereas spending on communication, studies or other technical assistance together represented only 15% of the total spending category. Details with total public funds (national + EU) are provided in annex 5.

Figure 12: Breakdown of EFF granted for Technical Assistance



Source: Evaluators calculations, based on Art. 40 data provided by action and measure

Figure 13: Breakdown of Technical Assistance measures by MS



Source: Evaluators calculations, based on Art. 40 data provided by action and measure (MS are ranked according to the importance of the share of Action 1 in the SC).

The above figure shows that although almost all MS focused on Management and implementation – only LT spent less than 50% of its technical assistance for this action. A number of different patterns are shown among MS:

- 9 MS used over 90% of their technical assistance for management and implementation.
- 13 MS used between 70% and 90%.
- 5 MS used less than 70% (among them, three focused on other technical assistance measures, and two on studies). Among other technical assistance, those MS have focused on improving the administrative capacity (e.g. payment system in HR) and the IT system (SE).

The above figures however should be used carefully as the interpretation of the different categories is not always clear, in particular as regards the scope of Action 1.

The use of technical assistance remained very low in some MS – below 1% of the EFF budget in AT, FR and IE. The information gathered does not provide an explanation for these discrepancies, but a plausible reason could be that the administrative capacity in those MS was considered sufficient. MS had actually mixed views on whether the resources allocated to the management, implementation and monitoring were sufficient. Only a few MS qualitatively assessed that their level of staff was enough for the implementation of EFF (DE, EE, HU, MT, PL, CY also – which is outlining that the staffing is sufficient because the staff is highly skilled). The UK also recognised that it has enough staff after it had to go through a restructuring phase to adjust to changing political priorities. The other MS, understaffed and facing important administrative costs (ES), reported different types of difficulties, from peaks of activity difficult to handle (around reporting deadlines), the difference in staffing levels between different levels of administration and the negative impact of the economic crisis on the resourcing (see also section 4.6.3).

3.2 *Modifications to the Operational Programmes*

Modifications of OPs requires validation, then an official notification, by the European Commission (DG MARE). By the end of 2015, all MS OPs had been revised with the exception of HR, which only finalised its OP in 2013. Many MAs proposed multiple revisions (e.g. DE, 8; BG, 6) including a final modification in 2016. About one third of the OPs were amended at the mid-term implementation period.

Adoption dates of amended OPs and nature of changes

OP modification increased and then decreased progressively over the EFF implementation period, peaking between 2013 and 2015 when half of the OPs were amended. Three OPs, in BE, BG and HU, were modified in 2016[30].

Changes to OPs consisted mostly of: re-allocation of funds from one axis to another; and to a lesser extent, changing targets or adding new selection criteria and monitoring indicators.

Reasons for amendments

An important number of amendments were made by MS to support fishing fleet restructuring to cope with the *fuel crisis*[31]. BG, DK, FI, FR, GR and ES modified their operational programmes to respond to crisis. Several MAs have identified a limited or temporary impact of the fuel crisis on the sector: AT, EE, FI, HU, PL, SK, SI and UK (Ernst & Young et al, 2011b).

In addition to the fuel crisis, the *financial and economic crisis of 2008-2009* impacted the implementation of the OPs (e.g. GR and CY). This wider economic crisis did have significant and longer-term (2-3 year) effects including reduced investment, poor trading conditions with key export EU markets, limited access to private finance (credit), and reduced national public expenditure.

Other external factors having had effects on the sector and therefore on the implementation of the OPs were:

- Increased consumer awareness of sustainable fishing promoted by environmental Non-Governmental Organisations (NGOs) and influencing fish trading in some EU MS (e.g. DE).

[30] See detailed data on OP modifications per year per MS in Annex 5 -Table 13

[31] Commission Regulation (EC) n° 744/2008 provided an enhanced support package to help the EU fishing fleet to adapt to the crisis.

- Financial difficulties for small scale fishers and aquaculture producers (e.g. BG, RO).
- Phyto-sanitary (harmful algal blooms) and disease issues affecting the shellfish aquaculture sector (FR).
- International trade, including the effects of the Russian Federation export ban for fisheries products (particularly affecting neighbouring MS, e.g. LV).

SK was the only MS declaring it had not experienced any change in the sector conditions.

Most OP modifications were to transfer allocations from unused budgets in one axis to another with more demand (e.g. in BG, the funds were allocated to axis 2 'Aquaculture' from other axes), or to adjust for anticipated 'N+2 losses'[32] through reallocating funds to axes where projects had a greater certainty of completion within the required timeframe. NL revised their OP to incorporate a financial instrument, while others made alterations in response to expected demands with the introduction of the Landing Obligation (e.g. the UK allocated more funds to Axis 3).

MS also modified their OPs after 2010 as a result of the mid-term evaluation and related recommendations, by:

- Reallocating their budgets (8 MS: CY, ES, GR, IE, LT, LV, PL and PT).
- Adding new monitoring indicators (1 MS: Ireland for Axis 3).
- Improving their monitoring systems (5 MS: CY, GR, IE, LV and ES).
- Improving communications on the OP and on its achievements (3 MS: CY, GR, and RO).
- Improving their evaluation system (LV).

3.3 *Reallocations of budget from axis Management bodies: organisation and management of the OPs*

Definition and distribution management tasks

The definition and distribution of management tasks was considered to be good by most of the EU MS. However, some MS raised the following management issues:

- Difficulties in understanding and interpreting the EU regulations and the reporting and control requirements.
- Difficulties in transferring competencies between management organisations due to the centralisation of OPs – central managing authorities - compared to the previous management mechanism for the EU fisheries fund (FIFG).
- The heavy administrative burden created by the management system, most particularly with regards to the auditing activities compared to the size of the programmes (similar findings were reported in the interim evaluation, 2011).

Regional delegation of implementation

In the majority of MS, the EFF was implemented centrally, reflecting the relatively small scale of the sector in those MS and the small scale of the programme compared to other European structural funds. In some MS certain measures were delegated to regional intermediate bodies (Table 4). In IT the programme was devolved to the regions, other than Axis 1 on fisheries measures.

[32] Member States have two years (N+2) to drawn down budget that has been committed to a specific project.

Table 4: MS with regional implementation of Operational Programmes*

	Measures implemented at MS level	Measures implemented regionally
AT	Axis 5 (technical assistance)	Axis 2 (aquaculture, inland fishing, processing and marketing) Axis 3 (measures of common interest)
DE	None	All measures devolved to regions.
IT	Measure 1.1 and 1.2: permanent and temporary cessations of fishing activities	All except measures 1.1 and 1.2
ES	Measures 11, 12, 13, 15, 31, 32, 34, 51[33]	All except measures implemented at national level
PL	Some tasks of Axis 4	Some tasks of Axis 4
UK	None	All measures delegated to devolved nations (England, Scotland, N. Ireland, Wales)

*Axis 4 activities are implemented locally, rather than regionally

Source: Evaluator's own elaboration based on the MA surveys

Staffing levels

The average number of full time equivalent (FTE) employees per million euro of programmed EFF is estimated by the Consultant using MA's estimates [34] at 0.3 (see Annex 5 – Table 12 for additional details). This result is relatively close to the estimate provided in the interim evaluation and the one estimated to manage the European Regional Development Fund (ERDF) and Cohesion Fund (CF) programmes over the 2007-2013 programming period (cf. Ernst & Young et al., 2011b where both estimates are mentioned).2011b,). The highest staffing in proportion to the EFF budget is reported in SK (5.2), HR (4.0), which may be expected with their more recent involvement in EFF. Reported staffing for AT (3.2 FTE/EUR million) and IT (2.6) were also well above the average. 12 MS reported FTE levels that suggest a significant reduction in staff since the interim evaluation, while a few (ES, HU, RO, SK) report significant increases on previously reported staff levels.

These differences may be due to differing interpretations of EFF-related staffing. Several MS stressed the difficulty to quantify the number of FTEs as many employees have some EFF remit along with other assignments. Some MAs provided the total number of staff employed in the organisation where the Managing Authority is located. Therefore, the analysis of MA staff above is to a large extent based on both the evaluators' interpretation of the figures received compared with figures from the interim evaluation and on a qualitative approach.

Payment management

[33] These measures do not fall only under the national competence: only when beneficiaries belong to several autonomous communities or regions or when the competence falls within the scope of the national administration

[34] Consultant's estimates from MA interviews and figures from Ernst & Young et al., 2011

The average amount of time between approval of the payment (validation of the project or milestones approval) and payment to beneficiaries varied between MS. In some cases it was as short as a few days to few weeks, particularly for MS applying an electronic and integrated system for payments (HR, FI), while in others it was up to two years (ES and FR).

Eight Member States (30% of the 27 MS) commented on payment delays between the MS and beneficiaries, with delays mainly due to:

- The time required by the different authorities involved in controlling the payment claims (GR and SE).
- The period to proceed to payments from receipt of the invoice (PT, where most of the delays where due to the country economic situation, and SE).
- Beneficiaries not providing all the necessary documents (CY, SE).
- Administrative bottlenecks at receipt of payment applications when applications increased (UK - England).
- Investigations of irregularities (SK and LT).
- Major cash-flow issues at the level of Intermediate Bodies (IB) related to the economic crisis (some Autonomous Communities in ES).

Top-up budgets

Six Member States (IE, GR, PT, HU, LV and RO), when facing difficulties of financial stability, could apply to increase their EU interim and balance payments by an amount corresponding to 10% above the initial co-financing rate applicable to each priority axis, up to a maximum of 100% of the eligible public expenditure. The EU Regulation defining these rules entered into force in April 2012 and could be applied retrospectively from January 2010 for HU, LV and RO. In the cases of IE, GR and PT, this could be applied with effect from the date when the financial assistance was made available to those Member States. The 'top-up' derogation was not applicable for statements of expenditure submitted after 31 December 2013 (EU Regulation No 387/2012).

In total EUR 38 million of top-up budgets were applied for by:

- GR, PT and RO in convergence areas.
- CY, GR, IE and PT in non-convergence areas.

The mechanism was requested by these MS during the period of financial instability resulting from the economic crisis. HU and LV did not use this mechanism (see Annex 5 – Table 16 for further details).

De-commitments

The exact amount de-committed by each MS will be known in March 2017 when EU MS submit their closure documents and the final statement of expenditure to the Commission (European Commission, pers. comm., 25 April 2016).

To date the situation is as follows:

Slightly more than half of the Member States (15 of 27 EU MS), experienced significant de-commitments totalling EUR 256.89 million over the 2008 – 2012 period. More than 80% of the de-commitments occurred in convergence areas (EUR 214.82 million) De-commitments reached their highest level in 2012.

Countries which faced the highest amounts of de-commitments from 2008 to 2012 were (EUR millions): ES (76.6), RO (52.4), DE (23.6), PT (20.6) and BG (17.2) (see Annex 5 – Table 15 for additional details).

De-commitments occurred on specific measures in ES (measures 1.2 and 1.3) in FR (outermost regions) and in convergence regions (ES in 2013 and 2014 and SK).

De-commitments were reported by MAs to be a result of:

- N+2 rules[35] (BG, DE, HU, IT, RO, SK and ES) and mistakes in implementing the N+2 rules (FI).
- Retroactive decertification due to interpretation changes of eligibility criterion (for instance, ES).
- Reimbursements due to irregularities identified by audit authorities (NL) and contracts being ceased (LT).
- Late start of the programme and incorrect allocation across axes (UK).
- Lack of co-financing resources (DE).
- Low absorption capacities (SK).

Further de-commitments are expected (based on interviews completed with MAs during the evaluation) during the closing procedures of the EFF, for instance, in IT and SE.

3.4 *Project Selection*

Application process and selection of projects

Managing Authorities applied a range of selection methods, but mainly:

- A 'First come first served' approach: potential beneficiaries could apply at any time; projects were approved as they came as long if the allocated budget had not been entirely used and the project fulfilled the eligibility criteria.
- Calls open for a certain period of time (usually annual or multi-annual): potential beneficiaries could apply while the call was open; projects that fulfilled the eligibility criteria were examined by an appointed commission, which met on a regular basis, to carry out the final selection based on agreed criteria ("first come first served" approach or selection criteria); and
- One-time calls for proposals (more relevant to target a specific objective or type of project): potential beneficiaries had a specific time frame to apply, applications that fulfilled eligibility criteria were then examined by a commission appointed to make the selection.

The main difference between the second and the third option, is that the allocated budget and eligibility criteria were more likely to be more restrictive with the third option. This may have been used for instance to implement pilot projects on a specific topic. Open calls tended to be broader in scope and mainly applied eligibility criteria from the EC Regulation rather than specific ones.

There is no clear terminology across the 27 MS for the different methods and translation issues make it difficult to precisely categorize the answers provided by MAs during the interviews (especially between the second and third option). The results from the interviews showed that most MS implemented procedures implying the use of selection criteria and that open calls and calls for proposals were more frequent than the 'first come first served' method, regardless of the axes.

The time between application and communication of selection decisions varied from 1 to 3 months, while the time between the selection decision and the contract signature varied from 1 to 6 months (6 months quoted by ES). Projects with a larger budget and / or which were more complex usually required a longer selection process, often involving approval at a higher level within the management bodies (e.g. BG).

[35] N+2 rules are not applicable to the last commitment tranche of 2013.

Assistance to potential beneficiaries in the application procedure

In 16 MS (60% of the 27 MAs) beneficiaries were assisted by Managing Authorities. The support consisted mostly of:

- Responding to queries from the beneficiaries either directly or through the intermediate bodies (e.g. CZ).
- Training (e.g. PT).

Example of good practice:

Assistance with the application process given to applicants was mostly covered by the budgets of the Managing Authorities and intermediate bodies. 16 MS stated that they helped potential beneficiaries. For example, DK supported its national applicants by contracting a specific staff. The cost of this assistance was EUR 250,000 to contract one person for 2.5 years up to 2012 and half of this amount was funded by EFF while the other half originated from national funds.

Eligibility criteria

The feedback from MAs showed that MS scarcely used eligibility criteria beyond those in the EC Regulation, which can be explained by the fact that this programming period was characterised by rather low absorption of the funds and that the EU eligibility criteria were considered as restrictive enough. Some MS however used additional restrictions on the minimum size of the projects mainly under axis 4 in order to reduce administrative costs (e.g. NL MA stated that the minimum size of Axis 4 projects was EUR 100,000).

Some MAs raised issues regarding the interpretation of the regulation (e.g. ES, RO). In ES, the term "ability to fish" in relation to investments on board was clarified by the Commission after a significant number of projects had been approved, which led to the de-certification of many projects totalling EUR 830,000 of EFF funding (AIR 2013).

Selection criteria

When the 'first come first served' approach was not used, selection criteria applied.

Based on the objectives of the EFF, particular attention was paid to environmental impact, gender, and the size of enterprises (Small and Medium Enterprises - SMEs).

At the end of the EFF implementation period:

- Environmental considerations were said to be applied by more than half of the 27 MAs.
- Gender consideration was said to be applied by at least a quarter of the 27 MAs.

Several issues were raised about the difficulty in implementing gender-related selection criteria:

- The marginal presence of women in the fisheries and aquaculture sector in the Member State (e.g. BG).
- Globally around 90% of the applications came from organisations and companies and not individuals.
- Many MS stated that they have national laws do not allow positive discrimination.

Example of good practice:

Some MS managed to circumvent those difficulties, for instance by favouring companies that had implemented a "gender equality plan" (e.g. processing measure in ES).

Other considerations taken into account in the selection criteria included the quality of the project, priorities and needs of the sectors, or the absorption capacity of the beneficiaries. But even in this case, MAs assessed that it had contributed to increased awareness of both the administrations and the stakeholders.

Improvement in project selection

The speed of application procedures and the administrative burden were two key issues raised by MAs at the interim evaluation and the evaluators recommended more transparent selection processes (Ernst & Young et al., 2011). At the end of the EFF implementation period, half of the MAs report that the selection of projects improved in terms of transparency of the selection criteria. 30% of the MAs stated that the administrative burden had improved, while 20% of MA reported the selection process was now more rapid than it was at interim. The selection improvements were not specific to some measures or beneficiaries.

Improvements were achieved mostly through:

- Publishing the selection criteria on the MA web page and also including these in the beneficiaries' guidelines (MA interviews);
- Experience of the applicants in requesting EFF support ('self-learning'); and
- Recommendations from the Monitoring Committees (e.g. HU).

3.5 *Monitoring and control systems*

Types of monitoring systems in place

The main monitoring tools applied by the Commission and the MAs were:

1. Monitoring Committees.
2. Monitoring indicators ('Article 40[36]' data collection).
3. (Annual) implementation reports.
4. Annual review meetings between the MS and the Commission.

This section provides an overview of the organisations and issues that faced the monitoring tools 1 and 2 above.

Monitoring systems

Monitoring systems implemented by the Managing Authorities provide:

- A rejection rate per measure – reported by almost two thirds (59%) of the MAs.
- Additional data (e.g. details on beneficiaries, project description, list of activities, invoicing) – reported by slightly more than half (56%) of the MAs.
- A breakdown of number of operations and EFF expenditure per gender/ measure - reported by almost half (48%) of the MAs.

MAs reported that they used some of these indicators both for internal monitoring and evaluation purposes whereas seven of the MAs interviewed stated that they only used the monitoring system for production of the annual implementation reports.

[36] Data collection based on the article 40 of the Commission Regulation (EC) n° 498/2007.

While the majority of MAs used a centralised computerised monitoring system, most had difficulties to rapidly extract detailed information and to further process the data for aggregation (evaluators' analysis).

Article 40 data indicators: use of common and specific indicators and issues

By the end of the EFF implementation, the majority (64%) of the MAs suggested that article 40 data were complete and reliable for all the various recorded parameters (MA interviews). However, this opinion is not consistent with the assessment of the reliability and completeness of Art. 40 data at EU level presented in this report (see section 1.4.2 on difficulties encountered).

With regards to data using numbers of jobs as indicators, 30% of the 23 MAs that responded to the question considered that these data could be used but with caution.

Other monitoring issues raised were:

- The loss of experience in monitoring EFF within the MAs. Defining a knowledge transfer process before experienced staff leave post would be useful.
- The absence of a validation mechanism between Member States and the Commission to confirm that collected data are finalised, enabling both MAs and the Commission to refer to similar figures.
- The difficulty at the EU level to manage and process the large amount of data received from the MAs.

Monitoring Committees

Composition of the monitoring committees

Monitoring Committees (MCs) consist of public sector representatives, industry representatives (fishing sector, aquaculture sector and processing/trade sector), and in some instances associations involved in environment or gender equality issues. Industry representatives and civil society are regularly and strongly active in almost all the MCs.

Effectiveness of the monitoring committees

MAs were almost unanimous in emphasising the instrumental role of the MCs in the implementation of the EFF (analysis of MA surveys) by:

- Providing a forum for dialogue and exchange of best practices (a 'learning by doing' process).
- Addressing questions relating to interpretation and implementation of the EFF programme (making important decisions throughout, as evidenced by the list of documents that MC adopted: e.g. approval of the training programmes for end-users, selection criteria, review progress).
- Enhancing coordination at regional level (although challenges remain in some regions).
- Enhancing coordination between the different priority axes/measures and the streamlining of horizontal policies.
- Monitoring the implementation and the evaluation process.
- Coordinating different funding sources.
- Integrating Common Fisheries Policy (CFP) objectives into innovation actions (e.g. 'blue contracts' enabling a partnership between fishermen and scientists to collect fishing data, monitoring information in protected areas, oceanographic information and to carry out scientific fishing trips) (MA questionnaires).

Monitoring Committees most commonly met twice a year. The frequency of MC meetings was less regular in some Member States for instance in FR, CY, GR and EE (Ernst & Young et al., 2011).

Monitoring improvements

The monitoring improved over the EFF implementation period:

- In nearly half of the MS by enhancing the completeness of collected information and the level of controls of the collected information (expressed by 12 MS).
- In a third of the MS by improving the homogeneity of the information collected by the intermediate bodies (9 EU MS answers, although not all EU MS had intermediate bodies involved, see section 3.3 above).

Improvements to monitoring mechanisms reported by MAs involved or came from:

- Continuous improvements in the information system for data entry (ES, CY, GR, SE).
- Pro-active exchanges with the beneficiaries (HU).
- Monitoring Committee recommendations (AT).
- Changes in the regulatory framework (BG).
- Modifications of monitoring procedure rules (BG).
- Audit recommendations (BG).
- Ex post spot checks and on-spot[37] checks after payment requests (HU and LV).
- Checking against the fleet registry to avoid mistakes or accessing alternative information systems (ES).
- The increasing level of competency in the intermediate bodies and an improvement in the quality (HU).
- The relevance and comprehensiveness of the collected data (HU and IE).
- Developing new result indicators in BE and IE for Axis 3 measures (e.g. BE monitored results of fauna protection by measuring the length of improved freshwater fish migration paths in km).

Management of control systems: methods and lessons learned

Internal verifications and audits at the EU and MS level follow rules controlling the use of the EFF[38]. The auditing of public expenses increased over the EFF programme period due to increased scrutiny of the use of public funds. Some MAs complained of the auditing burden resulting from:

- Duplication of audits, albeit with different mandates (e.g. existence of Audit agencies at regional, national and EU level).
- Differing interpretations of eligibility criteria by different financial auditors (e.g. ES, BE).

Non-compliances were detected during the 2007-2013 programming period in almost half of the 27 EU MS. The most common being:

[37] Verifications based on Article 39 2 b of the EFF implementation Regulation No 498/2007.

[38] To conform to the EFF implementation regulation, each MS had to submit to the Commission its (management and) control system to describe the role and responsibilities for these tasks between its Management Authority, its Certifying Authority and its Audit Authority. At EU level, the Commission, the European Court of Auditors and the European Anti-Fraud Office are authorised to audit the EFF implementation of EU MS within their respective mandates (EC Regulation No 498/2007).

- Ineligible expenditure that had been included in grants previously claimed or paid (BG, ES, UK).
- Interpretation of 'sound financial management' differed between audit authority, who insisted on beneficiaries providing three quotes for proposed investments, and the MA who only sought two (NL).
- Projects that failed to implement the European Commission's requirements in publicity, procurement or payment procedures (BG, RO).
- Beneficiaries that went bankrupt during the implementation grant (DK).
- Misuse of funds (IT– 14 cases of double funding under investigation, UK, HU– use of EFF to fund road works).
- Administrative errors or administrative non-compliances.
- Insufficient documents provided to the MAs (ES).
- Mistakes in VAT reimbursements (GR in 2014).
- Errors in payment (SE) or in co-financing rates (ES).
- Exchange rate issues (RO).

The number of non-compliances was generally below the 2% tolerance level for most member states, but the data provided by MAs indicate that this level was exceed by seven MS (BG, CZ, ES, HU, IT, MT and RO). Non-compliances were mostly solved by the MA and the national financial control authorities. In ES, out of 60 600 approved projects, 2,948 non-compliances were identified (slightly less than 5% of the projects), including administrative issues, which were corrected by the MA within the programme. In NL, the resulting shortfall in EU payments was balanced by an increased national contribution (Annex 5 – Table 17).

Non-compliances amounted to a significant number or a significant scale in a few MS (the MS estimates depend on whether they include irregularities and administrative mistakes). In IT the 2014 Annual Control Report identified high error rates resulting in the interruption of EFF payment claims, which were started again after the MA undertook remedial actions.

MAs found it difficult to assess (a) costs of dealing with management verifications and to address non-compliances in FTEs and (b) finances recovered. In terms of savings from solving non-compliances, some MAs considered the activity beneficial, while five MS estimated financial recoveries from their identification of non-compliances ranging from EUR 5,000 (SE) to EUR 4.2 million (RO) (See Annex 5 – Table 18).

3.6 *Promotion and communication actions*

Two thirds of MAs improved their communication by enhancing their communication methods over the course of the EFF period.

Methods Used

Tools for communication and information to potential beneficiaries included:

- Dedicated online resources on the EFF (either a separate EFF website or specific web pages of the MA).
- Communication, information and promotion materials for the sector and the public (e.g. communication campaign on fishing in the Baltic sea by DE using brochures and flyers).
- Organisation of public events.
- Media broadcasting.
- Meetings with stakeholders dedicated to specific measures or priority axes or call for proposals.

Communication actions targeting mostly fish farmers, fishermen and vessel owners active in small-scale fisheries and processors

During the OP launch, the consultation processes were considered as satisfactory. EFF beneficiaries were reported to be appreciative of the communication actions in the first half of EFF implementation, but reaching small-scale operators was difficult and the language used could be too academic and technical (Ernst & Young et al., 2011). To address these challenges over the implementation period, communication actions specifically targeted:

- Fish farmers in half of the EU (expressed by 13 MAs).
- Vessels owners and fishermen in slightly more than a third of the MAs (41%, cited by 11 MAs) and more particularly small-scale fisheries stakeholders (30%, expressed by 8 MAs).
- Processors (30%, cited by 8 MAs).
- Producer organisations (19%, 5 MAs).

Only 3 MAs responded that they focused their communication improvements to specific measures: collective actions for HU; pilot projects and aquaculture for DE; and sustainable development of community areas dependent on fishing for RO. Two MAs also answered that they specifically targeted communications to public organisations (DE) and fisheries local action groups and women (ES).

Improvements consisted of developing a manual for information and publicity measures (AT); and improving cooperation and agreeing joint strategies and joint priorities between the MAs and the monitoring committee (PT).

4 ANALYSIS OF THE RESULTS BY SPENDING CATEGORY (TASK 2)

Task 2 covers the outputs and results (types of projects and actions implemented and changes achieved directly from these actions) of individual measures and by spending category.

The analysis of results achieved relies on a wide range of sources of both quantitative data and information (result indicators reported by the MS, beneficiary survey, national implementation reports, other data potentially collected by MAs) and qualitative information (MAs and stakeholders' opinions from the stakeholder's consultation and from the fieldwork at EU level and in 8 MS, desk officers, national implementation reports, thematic evaluations in the MS, the Court of Auditors Reports, DG MARE studies).

Analyses are conducted by individual spending category and structured around a set of evaluation questions listed in the ToR. Evaluation questions for this task include:

1. ***Common questions*** on the number and types of beneficiaries and achievements in terms of jobs created and maintained. A factsheet by measure combining the main findings of the different analyses tasks is provided in Annex 13. It includes a short description of the types of projects carried out under each measure and provides example of success stories and best practices[39];
2. A list of ***specific questions*** for each spending category.

4.1 *Fisheries Measures*

The fisheries spending category accounts for the largest proportion of EFF spend. It includes all of the measures under Axis 1 (cessation, on-board investments, small-scale coastal fishing and socio-economic compensation) as well as *inland fisheries* (2.2) and *support to fishing ports and landings sites* (3.3), which is considered to support the fisheries sector.

Measures to adjust fleet capacity (1.1, 1.2 and 1.5) accounted for 58.5% of spend under these fisheries measures and in four MS (ES, IT, IE and SE) it accounted for 74% or more of fisheries spend.

Only six MS used the temporary cessation measure with ES, PL and IT accounting for 90% of temporary cessation spend (FR, PT & SE being the other MS using the measure).

Investments in fishing ports and landing sites, used by 21 MS, accounted for 30% of fisheries spend. However, in four MS (SI, DE, BG, UK) the EFF investment in fishing ports and landing sites was 70% or more of total fisheries spend.

Onboard investments (Measure 1.3) accounted for 8% of spend within this category with BE and NL showing the highest as a proportion of total fisheries spend at 55% and 42% respectively.

Small-scale coastal fishing (Measure 1.4) accounted for 2% of spend with only EE, PL and FI spending 10% or more of total fisheries spend on this measure.

Inland fishing (Measure 2.2) accounted for 1% of overall fisheries spend.

Ports and shelters (Measure 3.3) accounted for 9% of overall fisheries spend.

[39] Other « Common questions » from the ToR are addressed under Task 4 evaluation questions on effectiveness, as agreed with the Steering Committee during the inception phase.

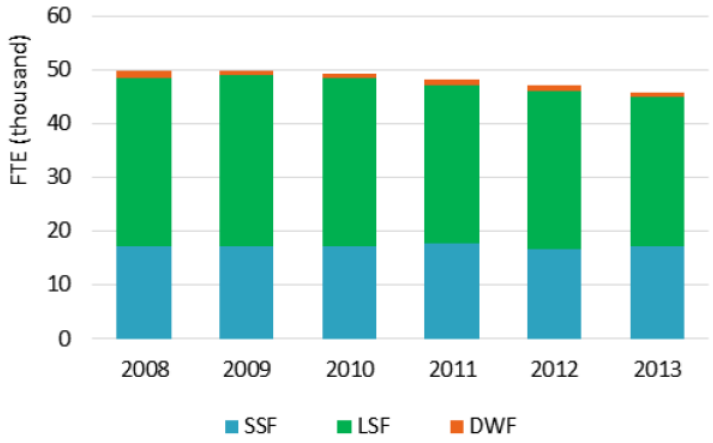
4.1.1 Common Questions

4.1.1.1 Impacts of the measures under this spending category on jobs

The contribution of measure 1.1 to maintaining jobs is contentious as jobs on the scrapped vessel are inevitably lost, but a reduction in over-capacity contributes to maintaining those jobs remaining in a viable catching sector. For example in IE decommissioning is credited with enabling a greater share of quota between remaining vessels with an increase in profits resulting for those vessels. Only five MS gave numbers for fishermen on scrapped vessels, which average 1.40 FTE per vessel.

For 16 MS fleets with available data, employment in the fishing industry decreased steadily between 2008 and 2013. Total employment and FTEs decreased on average 1.9% and 1.6% during the period 2008-2013 (STECF, 2015c). In absolute terms, the Large Scale Fleet (LSF) lost the highest number of FTEs over the period (3,408 FTEs between 2008 and 2013, against 180 FTEs and 392 FTEs for the Small Scale Fleet and the Distant Water Fleet, respectively). Total numbers employed actually increased for the small-scale fleet showing an increase in fishers operating on a part-time fishers.

Figure 14: Employment in the European fishing fleets 2008-2013



Source: STECF, 2015c

There is not sufficient data from monitoring to establish the contribution of fisheries measures to the maintenance of jobs in the sector, or the number of jobs that would have been present in the fleet in the absence of EFF, given various other factors impacting on vessel activity, profitability and employment. It can, however, be expected that the substantial funding paid directly to beneficiaries for temporary cessation, investment or compensation, helped to maintain their activity in the sector.

4.1.1.2 How many jobs (in FTE) have been created as a result of spending under these measures?

The intention to reduce fishing capacity and ensure supported investments did not increase fishing capacity suggests that job creation via fisheries measures is limited. Only measures 2.2 and 3.3 can realistically be expected to enable job creation, but few MS are unable to identify specific instances.

ES monitoring data indicates that for measure 3.3 (ports & shelters) only 10 projects out of 364 had an objective of job creation, with a total of 125 jobs. In the Port of Ribeira (Galicia), the number of jobs is expected to go from 5 to 15 jobs in direct and ancillary services. While in MT funding under measure 3.3 focused on a new fish market that may have created some new jobs, but most were displaced from the old fish market suggesting such projects mostly contribute to maintaining rather than creating employment.

4.1.1.3 How many beneficiaries have received funding under these measures?

In total 95,839 operations were reported as of May 2015 for the whole spending category. For the permanent cessation measure, the total number of operations reflects the total number of beneficiaries as the recipients are owner-operators. For fleet investments, some MS like BE, show that there was more than one operation per vessel. However for other measures, the link between the number of operations and the number of beneficiaries is not so clear. For temporary cessation, particularly the large numbers for ES and IT, individual fishers are recipients of several cessation payments (63,030 operations are recorded for this measure only). In total, based on fleet numbers and operations per measure, the evaluation team estimates that there were around 30,000 beneficiaries for the fisheries spending category.

4.1.1.4 Of these how many were women?

The number of women beneficiaries from fisheries measures is not known, but is expected to be very low in line with the very low proportion of women employed within the fishing sector. ES was the only MS to provide a detailed breakdown of recipients by gender and for measure 1.1 this amounted to 1%.

4.1.1.5 How many existing firms have received funding under these measures?

Beneficiaries of temporary cessation measures and socio-economic measures were mostly individuals and beneficiaries of the fishing ports and landings sites measure were primarily Port or local authorities. For other measures it can be considered that the number of operations reflects the number of existing firms to receive funding (new firms can be considered as marginal here). In total, there were 25,469 operations funded under the remaining measures. Recipients were mainly vessels, which can be considered firms as the majority are owner/operators. Therefore, as with the beneficiaries above, it is estimated that around 30,000 existing firms received funding.

4.1.1.6 How many of these were SMEs and non-SMEs?

The fisheries sector is dominated by owner-operators that would be classed as micro-enterprises (less than 10 employees) with only a few fishing companies showing a larger scale enterprise, but even the large fishing companies are still within the SME definition of 250 employees and a turnover of less than EUR 50 million. Therefore, while no data are available stating the number of SMEs receiving funding, for fisheries measures the proportion of SMEs is expected to be close to or at 100%.

Conclusion of the common questions:

Overall fisheries measures did not contribute to maintaining employment. This was not an objective associated with fleet measures where the objective was to reduce capacity to ensure sustainable exploitation. Temporary cessation and socio-economic compensation funding maintained employment on a temporary basis in the specific fleets where it was applied.

Fisheries measures did not contribute to creating employment. This was not an objective associated with fleet measures where the objective was to reduce capacity to ensure sustainable exploitation.

An estimated 30,000 beneficiaries are identified, which are all existing SMEs and existing firms. The vast majority are micro-enterprises run by owner/operators. This is less than the total of around 100,000 operations under fisheries measures as some member states report monthly temporary cessation payments as separate operations and some vessels received multiple on-board investments.

4.1.2 EQ1. To what extent and in which manner has the funding spent under fisheries measures affected the fishing capacity?

The following analysis focuses on permanent cessation (measure 1.1), which had the clear objective of reducing fishing capacity. Temporary cessation (measure 1.2) was found not to reduce fishing capacity as funding was associated with regulatory requirements to stop fishing. Temporary cessation may in fact maintain some capacity that would otherwise have been removed without such financial support. Direct funding of on-board investments (measure 1.3) was provided on the proviso that fishing capacity would not increase as a result.

The case study on engine replacement reports that the measure had a low impact on overall fleet capacity in ES and FR (only 0.5% and 0.7% of fleet kW decrease respectively), but in BE the measure had a major impact, accounting for 27% of the kW decrease (see case study report for more details).

Accepting the above, it is the contribution of permanent cessation to reduce fishing capacity that is explored in detail below.

By May 2015 4,232 vessels had been scrapped using EFF funding in 20 of 27 MS[40]. This number has not increased significantly since the evaluation of the cessation measures was undertaken in October, 2013 (when 3,976 operations were reported) indicating that the results from that evaluation remain valid.

Article 40 data shows that up to May 2015 the permanent cessation of vessels using EFF funding removed around 169,000 GT and 612,000 kW from the EU fleet. There are some gaps in reporting and some reductions from 2014 and 2015, which highlight data errors either ongoing or corrected. AIR data is used where the MA identified significant errors in Article 40 data (IT, RO and SI). The lack of 2015 GT and kW data for ES does have some impact on the overall results as an additional 134 operations are reported. Assuming the same level of GT and kW removal per operation, this suggests a further 11,000 GT and 26,000 kW could have been removed, amounting to a total EU reduction of 179,766 GT and 637,887 kW using EFF funding. This equates to 9.3% of total GT and 9.0% of total kW of the EU fleet in 2007 when the EFF programme began[41]. The breakdown per MS along with percentage changes are shown in Table 5 overleaf.

All MS fleets show reductions in GT and kW between 2007 and 2015[42]. The EFF-funded reduction accounts for 97% of net kW reduction but only 53% of net GT reduction, which reduced by 17% over the 2007-2015 period. Seven MS are above this proportion due to EFF and in IE and BG, EFF-supported GT removal accounts for 98% and 91% of net GT reduction respectively. The largest reductions in GT and kW per MS fleet were in ES (38% of total GT reduction in the EU fleet) NL (14%) and IT (12%). PL had a net increase in GT despite a reduction in power overall and the vessel removals through EFF.

The largest reductions from 2007 to 2015 in tonnage capacity as a proportion of that MS' fleet in 2007 were in the comparatively small fleets in RO (63% GT reduction) and MT (53%). However, measure 1.1's contribution to that fleet reduction varied, accounting for only 5% of the GT reduction and 15% of the kW reduction seen in MT.

MS where the EFF contribution to significant GT reductions was also limited include the UK (18% contribution), NL (22%), FR (27%) and DK (35%). In DE there was no EFF contribution to the 7% reduction in fleet GT as it did not implement measure 1.1.

[40] Assuming each operation equates to one vessel being scrapped

[41] Eurostat statistics show in 2007 EU fleet total of 1.9million GT and 7 million kW

[42] The PL fleet is considered against the 2008 baseline, which saw a 37% increase in gross registered tonnage 2007-2008, and GT was still to reduce below this by 2015.

The contribution of EFF to the net change in fleet power varies between MS more substantially than GT. For six MS, the net contribution of EFF-supported kW reduction is greater than 100%, i.e. more kW were removed via EFF operations than the fleet reduced by between 2007 and 2015. In addition to removal of vessels, there was also investment in vessels that are on average lighter, but more powerful.

The latest fleet report states that [in addition to the vessels removed by EFF], a further 2,620 vessels were removed from the fleet without public aid, but this privately withdrawn capacity can be brought back into the fleet (EC, 2015a). In many instances re-investment trends differ between segments:

- **CY** shows a 4% net reduction in total fleet power, even though 12% of fleet power was removed using EFF. The decrease in trawlers is mirrored by an increase in hook and line vessels;
- **EE** shows a 10% net reduction in total fleet power, even though more than 20% of fleet power was removed using EFF. This is due to a 70% increase in the gill net sector, which counters the large reductions in other fleet segments.
- **IE** shows a 6% net reduction in total fleet power, even though 9% of fleet power was removed using EFF. Overall the Irish fleet increased 10% by number since 2007 with additions to the trawl and seine segments illustrating a fleet renewal process.
- **LV** shows a 24% net reduction in total fleet power, even though 29% of fleet power was removed using EFF. Major reductions in trawl and seine segments were to an extent countered by additions to the traps and pots sector.
- **PL** shows a 16% net reduction in total fleet power, but slightly more fleet power was removed using EFF. The large reductions across the trawl and gill net sectors are partly offset by slight increases in the hook and line segment.
- **RO** shows a 24% net reduction in total fleet power, but data suggests 30% of fleet power was removed using EFF. This is likely to be due to some of this EFF-funded removal not being completed and the de-commitment of funds is expected.

Table 5: Fleet capacity changes in GT (top) & kW (bottom) 2007-2015 with EFF contribution

Gross Tonnage	reduction	Difference	reduction	% of total	% of	% of
GEO/TIME	2007/2015	2007/2015	EFF-funded	reduction	2007 fleet	2015 fleet
European Unior	**336,595**	**83%**	**179,766**	**53%**	**9.3%**	**11.3%**
Belgium	5,220	73%	2,641	51%	13.7%	18.8%
Bulgaria	1,678	80%	1,520	91%	18.5%	23.2%
Denmark	10,057	87%	3,494	35%	4.6%	5.3%
Germany (until 1	5,083	93%	-	0%	0.0%	0.0%
Estonia	5,865	70%	4,596	78%	23.8%	34.1%
Ireland	7,067	90%	6,913	98%	9.8%	10.9%
Greece	18,221	80%	8,922	49%	9.9%	12.4%
Spain	127,018	73%	74,549	59%	15.9%	21.8%
France	39,665	81%	10,561	27%	5.0%	6.1%
Italy	39,819	80%	29,108	73%	14.7%	18.4%
Cyprus	1,668	67%	749	45%	15.0%	22.4%
Latvia	9,020	73%	6,824	76%	20.3%	27.7%
Lithuania	16,024	74%	920	6%	1.5%	2.0%
Malta	8,000	47%	362	5%	2.4%	5.2%
Netherlands	45,573	74%	9,971	22%	5.8%	7.9%
Poland	-4,213	114%	5,217	-124%	17.4%	15.3%
Portugal	11,662	89%	5,486	47%	5.1%	5.8%
Romania	1,512	37%	596	39%	25.0%	68.3%
Slovenia	373	62%		0%	0.0%	0.0%
Finland	793	95%	-	0%	0.0%	0.0%
Sweden	13,508	69%	2,573	19%	6.0%	8.7%
United Kingdom	24,760	88%	4,366	18%	2.1%	2.3%

Kilowatt	reduction	Difference	reduction	% of total	% of	% of
GEO/TIME	2007/2015	2007/2015	EFF-funded	reduction	2007 fleet	2015 fleet
European Unior	**656,299**	**91%**	**637,887**	**97%**	**9.0%**	**10.0%**
Belgium	15,293	75%	8386	55%	13.8%	18.5%
Bulgaria	7,526	89%	6880.08	91%	10.5%	11.9%
Denmark	56,208	80%	9427	17%	3.4%	4.3%
Germany (until 1	19,626	88%	0	0%	0.0%	0.0%
Estonia	4,781	90%	10019	210%	20.4%	22.6%
Ireland	12,941	94%	19356	150%	9.4%	10.0%
Greece	79,642	85%	49303.59	62%	9.6%	11.3%
Spain	266,869	75%	173235.11	65%	16.2%	21.7%
France	104,348	91%	102291	98%	9.3%	10.2%
Italy	167,886	85%	129441	77%	11.2%	13.1%
Cyprus	1,601	96%	6358.55	397%	16.2%	16.9%
Latvia	13,907	76%	16725.53	120%	29.2%	38.6%
Lithuania	18,521	73%	3081.82	17%	4.5%	6.1%
Malta	24,589	75%	3686.96	15%	3.8%	5.1%
Netherlands	90,023	77%	35748	40%	9.1%	11.8%
Poland	15,064	84%	15569.38	103%	16.1%	19.1%
Portugal	25,722	93%	17451.88	68%	4.5%	4.9%
Romania	1,872	76%	1730	92%	21.9%	28.7%
Slovenia	1,812	82%		0%	0.0%	0.0%
Finland	11,140	93%	0	0%	0.0%	0.0%
Sweden	47,811	77%	10032	21%	4.7%	6.1%
United Kingdom	88,292	90%	17057.4	19%	2.0%	2.2%

Source: EFF Art. 40 data & Eurostat

As the above illustrates, scrapping under EFF was targeted via Fishing Effort Adjustment Plans (FEAPs) to focus more on those sectors where fishing capacity was most out of balance with fishing opportunities. These FEAPs included a range of different national, regional or sectoral plans. For example, in ES, 22 FEAPs were implemented: four recovery plans, six Fleet Adaptation Scheme (Reg. 744/2008), three decommissioning schemes for the fleet operating in third country fishing zones, and nine other national management plans relating to specific fisheries.

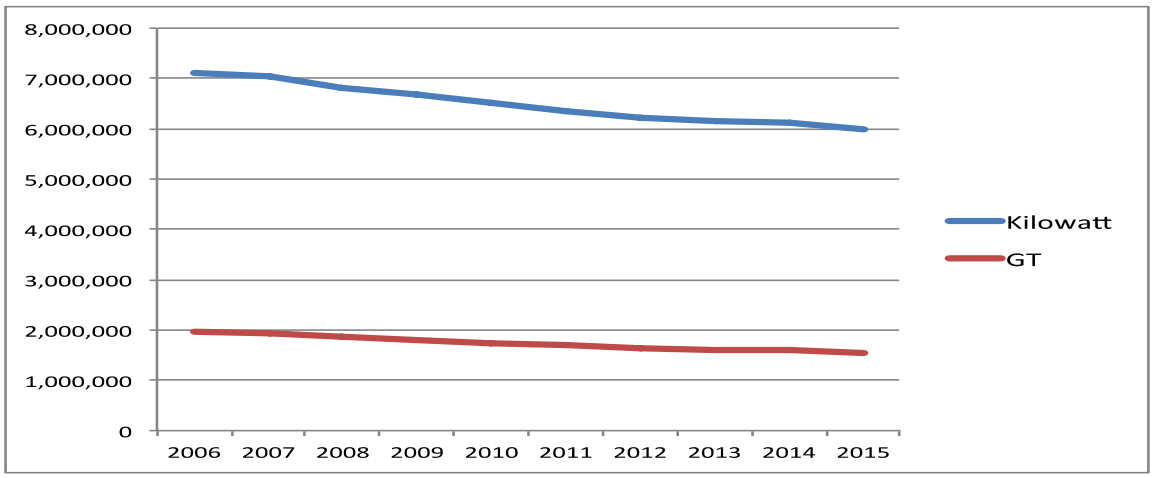
Article 40 data does not enable analysis by fleet segment, but the cessation evaluation does confirm this targeting of specific fleet segments. The decrease in fleet capacity as a result of EFF funding mainly applied to the trawl segment, accounting for 79% of GT exiting. A notable exception is ES, which saw the removal of over 200 hook and line vessels (MRAG et al., 2013).

The 2013 cessation evaluation drew the following general conclusions:

- There is a general decreasing trend in the use of scrapping across the EFF programme, which continues a trend seen since FIFG which saw higher levels of scrapping; and
- The number of vessels scrapped without support has also decreased steadily between 2005 and 2010, following the end of the construction measure. Most vessels scrapped without support under the EFF are relatively small vessels.

Since 2013, the MAs report that the commitment of funds under measure 1.1 stopped altogether or slowed. This is evident in Figure 15below, which excludes HR as an increase is seen in 2013 with its accession. A slight increase in capacity removal is seen 2014 to 2015 with nearly 3% of GT removed compared to just 0.1% from 2013 to 2014. This is reflected in EFF implementation with a 2.5% increase in measure 1.1 operations in 2014 compared to 2013 and a 4% year on year increase in 2015 (EC, 2015b) as final re-allocations are made (for example LV altered targets to include its high seas fleet).

Figure 15 Evolution of GT and kW in the EU fleet 2006-2015*



source: Eurostat **excluding HR, with EU entry in 2013*

Conclusion of the evaluation question:

Permanent cessation (measure 1.1) contributed to around 66% of the EU fleet capacity reduction seen over the EFF programme period. The use of permanent cessation funding has lessened as MS consider that their fleets are not significantly over capacity and that permanent cessation is an expensive tool compared to effort controls.

4.1.3 EQ2. To what extent and in which way has the "fuel regulation" had an impact on the implementation of the OP and of the fisheries measures?

Council Regulation 744/2008 was adopted with the intent to address the immediate situation of economic and social hardship, while tackling systemic overcapacity. It provided a package of measures including increased public aid levels up to the end of 2010. Fleet Adaptation Schemes (FAS) were required to justify actions with the targeting

of fleet segments where fuel was 30% or more of production costs. It also increased the aid intensity to fuel saving equipment.

Table 6: Member States implementing Fleet Adaptation Schemes*

Member State	Number of FAS	Number of vessels	Type of cessation
BE	1	9	Permanent
CY	1	12	Permanent
DK	1	32	Permanent
ES	6	4,457	Both
FR	1	60	Temporary
IT	2	12,622	Temporary
MT	5	25	Permanent
SE	2	29	Permanent
Total perm	14	1,004	
Total temp	6	16,247	

Source: MA interviews **DK added as scheme known to result from fuel regulation*

Table above based on the responses from MAs in relation to the use of FAS shows 8 of the 27 MS implemented measure 1.1 or 1.2 under the Regulation. Actions included BE scrapping vessels from the fuel-intensive beam trawl fleet, and IT introducing 'emergency temporary cessation' in 2008.

ES used both permanent and temporary cessation, with the MA reporting that the FAS were very costly to implement and the only real added-value was the increase in financing rate. ES did however use the increased flexibility to provide financial aid for temporary cessation of activities under FEAPs. By the end of 2009, 8,750 fishers were supported in ES for a total number of 880,060 days (Ernst and Young, 2011). The ES MA suggested that the same results could have been achieved at a much lower cost. The interim evaluation of the EFF in 2011 concurs with this. It found that few countries actually used the possibilities offered by this regulation and those that did were not very satisfied. The main criticisms of this Regulation are the following (Ernst and Young, 2011):

- The Regulation arrived too late (coming after the peak in fuel prices).
- The implementation was too complex and too restrictive (e.g. in Andalusia ES, fleets could not meet the 30% rule).
- According to some MS, the regulation as a whole was not relevant and was mainly used to circumvent the original EFF regulation.

Many MS cite the fuel crisis as a factor in continuing decommissioning schemes or at least increasing the incentive for vessel owners to apply to existing schemes. The impact of the fuel crisis was compounded by low fish prices resulting from the wider economic crisis impacting export markets, strengthening the incentive to apply for decommissioning (MRAG et al., 2013).

Only DK cites the fuel regulation in prompting the use of measure 1.1. DK's EFF scrapping scheme was implemented in 2009, following the fuel regulation and was primarily aimed to cut fuel consumption in the fisheries. This was achieved by scrapping 32 fuel inefficient vessels and the mandatory use of own funds, equivalent or more to the scrapping premiums received, for the modernisation of other vessels[43] in terms of energy efficiency within specific restructuring plans (DK case study, MRAG et al., 2013). The overall effect of the fuel package was a reduction in tonnage and engine power of 43%

[43] Or alternatively purchase of new vessels (new entries had to be compensated by exits of same tonnage and kW)

and 45% respectively, and a reduction in fuel consumption of 37% (Ernst and Young, 2011).

The cessation evaluation concluded that the peak seen in 2009 and 2010 of GT scrapped, results from the fuel regulation (MRAG et al., 2013). The fuel regulation did therefore increase the rate of permanent cessation. Temporary cessation continued as planned, but under more favourable terms.

The fuel regulation included preferential funding rates to encourage the uptake of fuel-saving technology. There is no evidence to indicate that the level of investments on board or the type of investment was impacted by the fuel regulation.

Case study 8 on pilot operations (see case study report) explores whether fuel consumption across the EU fleets has reduced over the EFF period and after 2008. The Annual Economic Report for 2015 (STECF, 2015c) shows that fuel consumption has reduced overall, primarily due to reductions in effort across the EU fleet. Average fuel consumption per vessel per day is shown to be stable for 15 Member State small scale fleets and large scale fleets from 2008 to 2013.

The reason behind increased profits in the Baltic fleet in 2013 was lower fuel consumption (-6%) and fuel costs (-10%), as well as a slight revenue increase. Measures undertaken by the EC in order to reduce the effects of the fuel crisis on EU fisheries in 2008 may have contributed to the observed fuel savings, but the main reason is decreased effort (STECF, 2015c).

Conclusion of the evaluation question:

8 of the 27 MS implemented measure 1.1 or 1.2 under the Regulation (permanent and temporary cessation). Based on the cessation evaluation, the peak seen in 2009 and 2010 of GT scrapped, results from the fuel regulation (MRAG et al., 2013); the fuel regulation did therefore increase the rate of permanent cessation.

However, few countries which used the possibilities offered by the regulation were very satisfied (Ernst and young, 2011), this was due to:

- the timing of the regulation (coming after the peak in fuel prices),
- the difficulties met in the implementation
- the lack of relevance of the regulation which was used to circumvent the original EFF regulation.

4.1.4 EQ3. To what extent has funding Temporary cessation contributed to protecting and conserving marine biodiversity, to providing for its sustainable exploitation and to minimising the impact of fishing activities on marine eco-systems?

The use of temporary cessation (measure 1.2) was reported by six MS (ES, FR, IT, PL, PT, SE) and resulted in 63,152 operations by May 2015. ES, FR, IT and PL accounted for 99% of those operations. SE closed the temporary cessation measure after the interim evaluation concluded that the measure was not effective in delivering a reduction in fishing effort.

In the MS where temporary cessation was implemented, it was associated with regulatory changes such as fishery closures and recovery plans. As these instances involve regulatory restrictions it could be argued that temporary cessation did not by itself reduce fishing pressure or conserve biodiversity as this would have been required anyway. In the case of IT, the measure was used for the *fermio biologico*, an annual seasonal closure intended to give the fishing grounds recovery time and reduce pressure

on resources. The cessation evaluation found that these closures supported fishermen during summer vessel maintenance or holidays, which may have occurred anyway. So again, temporary cessation alone did not particularly contribute to conserving marine biodiversity.

The measure was used to make compulsory fishery closures more acceptable to the industry, be they seasonal or until fisheries recovered. It could therefore be suggested that the measure made compliance with regulatory closures more likely.

ES industry representatives suggest that temporary cessation also created an economic incentive to implement voluntary cessation periods in fisheries where it is not traditionally done. In the survey of FR beneficiaries, 71% receiving temporary cessation said they would not have agreed with voluntary cessation without subsidy.

Managing Authorities in the Mediterranean area have observed that once fishermen have implemented planned cessation periods rationally (e.g. based on reproduction periods), they often realise the practice can be in their best interest from both an economic and environmental perspective (as fishermen eventually depend on the availability of resources) and that cessation periods are implemented in later years even when the subsidy is not available any more. In some instances, the funding has therefore facilitated protective measures.

Overall, the additional contribution of temporary cessation to environmental objectives cannot be quantified, but is considered to be limited compared to compulsion by regulation.

Conclusion of the evaluation question:

Temporary cessation (measure 1.2) was implemented in six MS and was associated with regulatory changes such as fishery closures and recovery plans.

Temporary cessation did not by itself reduce fishing pressure or conserve biodiversity as this would have been required anyway by regulatory restrictions but the measure was used to make fishery closures more acceptable to the industry.

4.1.5 EQ4. To what extent did Temporary cessation support contribute to sustaining fleets affected by emergency measures (Articles 7/8 of Regulation (EC) No 2371/2002) or Fishing Effort Adjustment Plans

As described above, the impact of temporary cessation is mainly economic; sustaining fleets affected by emergency measures or FEAPs. In some MS, such as ES, there was some flexibility to allow crew members of affected vessels to work elsewhere, e.g. in construction. However, the EFF period saw a deep economic crisis impact these MS and alternative employment was scarce. The funding to vessel owners and crew did make a contribution to ensure vessels and crew remained within the fishing sector.

The value per operation varies between the MS: In ES and IT the average allocation per operation was similar with EUR 4,800 in ES and EUR 4,667 in IT, reflecting funding to individual fishermen. In PT, PL and FR the amounts per operation average between EUR 18,000 and EUR 25,000 indicating payments to vessel owners.

In PL the share of subsidies received by the owners was distributed to the crew and was equal to EUR 570 per month. This amount of money secured jobs and allowed the crew to resume working after the period of temporary cessation (MRAG et al., 2013). However, this simply maintained employment for the period funded and it was concluded that the amounts awarded do not contribute to vessel owners' adaptation to changing opportunities.

In ES the beneficiary survey found that for 62% of vessel-owners, the temporary cessation subsidy did not cover the fixed costs of the vessels and for 12% of them, it was just enough to cover them. For IT 80% of respondents also suggested that the funding received was not enough to cover fixed costs. However in FR only 13% of vessel-owners said the subsidy did not cover the fixed costs of the vessels and for 25% of them, it was just enough to cover them.

In ES many of the numerous FEAPs implemented were targeted on specific fisheries.

In FR there were 11 schemes implemented from 2007 to 2011 for 5 species/fisheries: anchovy (Bay of Biscay), cod, glass eel, porbeagle, hake (Mediterranean trawlers).

STECF reports fleet data in the AER based on the whole fleet segment, making it difficult to determine the impact on fleet performance as a result of temporary cessation funding. However in some instances, the contribution of subsidies to economic performance can be seen. The temporary cessation payments to the PL small scale fleet in 2013 contributed to the 12% average net profit seen, but in 2012 these payments were reduced while landings income remained similar and a 6.4% net loss is reported (STECF, 2015). For other fleet segments, the proportion of income made up of such subsidies is less significant. In the ES large scale fleet, direct income from subsidies was greatest in 2009 when it amounted to 4.6% of income, falling to 1.6% in 2011.

Temporary cessation funding did make a contribution to sustaining fleets affected by emergency measures, but (as was intended) this was generally a short-term impact covering 1-3 months with minimal impact on the economic performance of those fleets.

Conclusion of the evaluation question:

The impact of temporary cessation is mainly economic; sustaining fleets affected by emergency measures or FEAPs.

Temporary cessation funding did make a contribution to sustaining fleets affected by emergency measures, but (as was intended) this was generally a short-term impact covering 1-3 months with minimal impact on the economic performance of those fleets.

The beneficiary survey showed that temporary cessation subsidy did not cover the fixed costs of the vessels for 80% of vessel-owners in IT, 62% in ES and 13% in FR.

4.1.6 EQ5. To what extent did fleet investments strengthen the competitiveness of the fishing fleet?

4.1.6.1 The EFF intervention significantly contributed to the fleet modernisation

To answer this question, first the scale of EFF-supported investments on-board (measure 1.3) is considered in the context of EU fleet investment (as reported in the Annual Economic Reports on the EU fishing fleets). Then the key elements to improve competitiveness are considered; increasing revenue through improved catch quality and decreasing operating costs through energy efficiency (see also section 4.1.8.1 on fuel efficiency).

Fleet investments made using measure 1.3 amounted to just over EUR 0.5 billion with EFF funding providing 18% of that investment (EUR 91.5 million). Data do not enable a breakdown of annual investments, but on average over the EFF programme the investment under measure 1.3 amounts to EUR 71 million per year of which EUR 13 million was EFF funding.

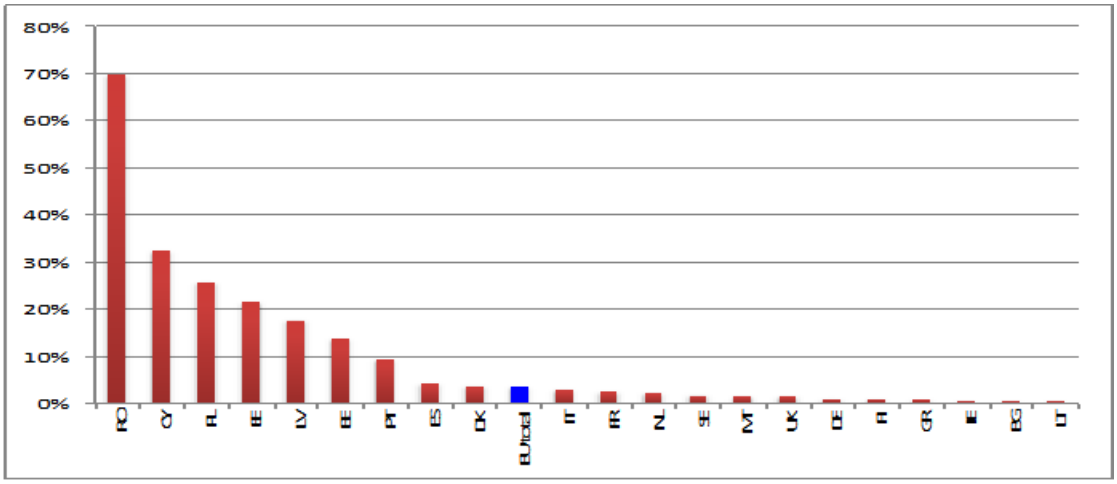
According to the wording of the DCF legislation, "capital investment subsidies such as vessel modernisation should also be included in the data submitted" (STECF, 2011).

However it is evident that not all MS adhered to this and some MS data are incomplete. Nevertheless the AER reports do provide an overview of investment levels in the EU fleet, enabling comparison with investment through EFF measure 1.3.

Overall EFF-supported on-board investment under measure 1.3 amounted to around 20% of EU fleet investment during the 2008-2013 period, with the EFF funding amounting to 3.6% of total fleet investment. EU fleet investment was lowest in 2009 at EUR 350 million and consequently the EFF-supported contribution was greatest in this year at 24.4%.

As Figure 16illustrates, the contribution per MS varies from a high of 70% in RO (although the data on fleet investment presented in the AER are questionable) and 33% and 26% in CY and PL respectively. For four other MS the EFF support equates to substantially more than the EU average (EE, LV, BE and PT). The remaining MS show EFF support under measure 1.3 at or below 4% of average fleet investment between 2008 and 2013.

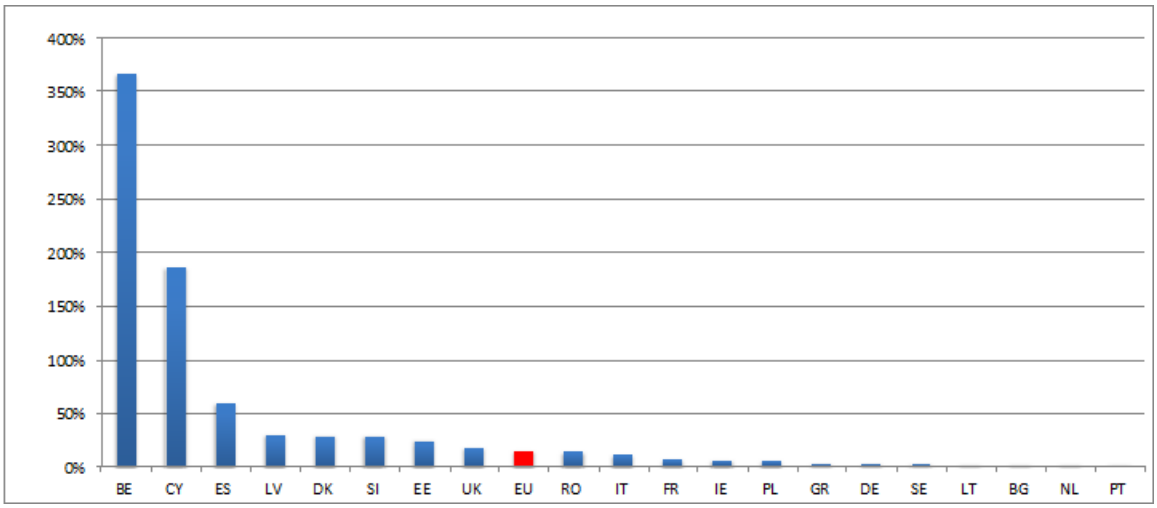
Figure 16: EFF funding under measure 1.3 as a percentage of average fleet investment 2008-2013



Source: Art 40 data and STECF (AERs 2011-2015)

The figure below illustrates that the number of fleet investments as a proportion of the 2015 fleet varied considerably between MS. Data suggest that on average in BE, every vessel in the fleet made multiple investments supported by EFF, as did CY to a lesser extent. For ES the number of investments equated to 59% of the fleet, while three of the Baltic states supported investments in 24-30% of their fleets (LV, DK, EE). The total number of operations amounted to about 15% of the EU fleet (assuming each operation relates to a vessel).

Figure 17: Number of fleet investments (measure 1.3) as a proportion of the MS fleet in 2015



Source: Art 40 data

Overall the investment levered by EFF funding was significant at around 20% of total fleet investments during the EFF programme. In some MS the contribution from EFF was far more significant than this with BE and CY in particular supporting substantial fleet investment both as a proportion of total fleet investment and in terms of the number of operations.

The AER report that economic performance of the EU fleet improved at the start of the EFF period, was stable 2010-2012, and improved again from 2013. This was mainly influenced by external factors changes in the key operating cost, fuel price, and the economic crisis depressing EU export markets. The MAs and industry representatives consider that the EFF support was very important during this testing period for the EU fishing sector.

On-board investments modernise the fleet and are assumed to make it more efficient, with one measure being fuel use intensity. Average fuel use intensity per day at sea decreased between 2008 and 2011, remaining stable from then on. Fuel use intensity per tonne landed has also followed a similar pattern but with a slight drop in 2013 (STECF, 2015). In supporting significant levels of investment in the EU fleet, the EFF therefore did contribute to this aspect of competitiveness.

4.1.6.2 The EFF intervention has contributed to improvements in catch quality

A key indicator of improvements in catch quality is price. However, there are no data available to allow a comparison of prices achieved by beneficiaries in relation to non-beneficiaries. There are also multiple variables that affect price on the demand and supply side in addition to quality, making it impossible to distinguish the contribution of EFF-supported investments to changes in price.

The main determinant of contribution is therefore the level of support given. Article 40 data show that for measure 1.3, action 4 (improvement of product quality), there were 1,061 operations at a total cost of EUR 54 million across 16 MS (equating to only 1% of the EU fleet). Of the MS implementing the measure, only BE and NL show significant investment levels, with operations representing 50% and 12% of their fleet. Under action 3 (improvement of hygiene) only 250 operations are reported with CY showing the highest proportion of the fleet supported at just 6%.

Conclusion of the evaluation question:

Overall EFF-supported on-board investment under measure 1.3 amounted to around 20% of EU fleet investment during the 2008-2013 period and higher in some MS. The contribution of EFF to fleet investment is therefore significant

The EFF did contribute to the modernisation of the fleet, which has helped to make the fleet more efficient overall, as indicated by a reducing fuel use intensity. The EFF did there help to strengthen the competitiveness of the EU fleet in this regard.

Other than the concerted effort applied across the fleets of BE and to a lesser extent NL, the EFF made a limited contribution to improvements in catch quality via this measure.

4.1.7 EQ6. To what extent did fleet investments contribute to improved quality of life?

4.1.7.1 The EFF intervention has contributed to improvements in safety

Measure 1.3 provided support for investments that were expected to improve safety on board (6,800 operations) and also working conditions (2,070 operations). Assuming each operation related to one vessel, investments in on-board safety amounted to 8% of the EU fleet by 2015. In PL this figure was far higher at 73%, while for CY and ES investments related to 30% of the fleet. In FR and BE investments were 14% and 11% of the fleet respectively, but in other MS the investments equated to 10% or less of the 2015 fishing fleet.

The number of fishing vessels involved in accidents increased from 184 in 2011 to 367 in 2013. The number of fishing vessels involved in a casualty increased from 145 in 2011 to 235 in 2013. Fishing vessels involved in occupational accidents rose from 39 in 2011 to 132 in 2013 (EMSA, 2014). These increases are in part a consequence of improved reporting. The number of fishing vessels reported sunk was stable in that period at 19, while the number of fatalities reporting on fishing vessels fluctuated with 6 in 2011, 16 in 2012 and 11 in 2013. It is not therefore possible to determine any particular pattern in the reported accidents, fatalities and injuries on board fishing vessels that might point to the contribution made by EFF.

There are, however, examples of EFF investments in safety making a real and immediate impact, particularly when investments were supported by awareness-raising campaigns and safety training. In the UK, a nation-wide campaign distributed personal flotation devices (PFDs) to fishermen, provided training in their use along with a media campaign 'Sea you home Safe'[44], which includes stories of fishermen who were saved from the water due to the PFD distributed under the scheme.

For action 2 – improvements in working conditions - overall investment levels remained low, with the number of operations, 15% of the operations under this measure, but equating to just 2% of the EU fleet in 2015. Only CY and BE show significant investment in this area with the number of operations equating to 31% and 18% of their fleets respectively. The uptake of funding for improved working conditions was low, which is perhaps to be expected during a period of economic crisis where vessel owners focus on improved competitiveness and limited alternative employment options for crew.

Conclusion of the evaluation question:

As investments in on-board safety equate to assistance for around 8% of the EU fleet, the contribution of the EFF to safety improvements in the fleet overall can be considered limited. The uptake of support for improved working conditions was low, which is understandable when vessel viability is a greater priority.

[44] www.seafish.co.uk/training/sea-you-home-safe

Group schemes allowed the purchasing and distribution of life saving equipment widely across the catching sector in some MS and combined with the necessary training. These show very positive results with clear evidence of lives being saved.

4.1.8 EQ7. To what extent did fleet investments contribute to the protection and enhancement of the environment?

4.1.8.1 The EFF intervention has contributed to improvements in energy efficiency

Investments reported under action 5 (improvement of energy efficiency) only amounted to 618 operations in total, and 1% of the EU fleet (assuming 1 operation equates to one vessel). BE accounted for a large proportion of these operations, 124% of the fleet, i.e. each vessel made at least one investment under this category.

The main contribution to improvements in energy efficiency was therefore via engine replacement (action 7), with 1,535 operations (equating to 2% of the EU fleet). Thirteen MS show investments under this action and again BE was highest, showing a significant proportion of the fleet (26%) invested in replacement engines; followed by FR with 7%, CY 5%, ES 4% and PT 3% of their fleets.

The engine replacement case study shows that the measure had a significant impact on capacity reduction in kW in BE, with a limited deadweight effect, while it focussed on small-scale coastal fisheries with only marginal reduction of capacity in FR and ES. The data available do not allow to quantify the resulting reduction in fuel consumption, but the reduction of capacity and the use of more recent or better engines in the small-scale fisheries segment is expected to result in a greater reduced fuel consumption than would have been the case in the absence of the measure. This is clear in certain examples, such as FR Guadeloupe where 2 stroke engines were replaced with more fuel-efficient 4 stroke engines. In BE, overall fuel costs reduced due to lowering prices, but the efforts to reduce fuel use via engine replacement is also given as a reason for improved profitability (STECF, 2015c). The positive impact of newer engines is also cited in the HR, DE, NL, and SE fleet economic reports.

Some specific gear modifications (e.g. lighter gear, semi-pelagic trawl doors, pulse trawl technology) are proven to show significant reductions in fuel use with good uptake across EU fleets although this uptake has not been quantified. The engine replacement Case Study found no quantification of fuel efficiency across the EFF period, but suggests the impact of engine replacement was positive.

Fuel-efficient investments in certain fleet segments resulted from EFF funding of innovation without the subsequent uptake being supported by EFF. For example, the NL flatfish fishery for plaice and sole shows significant fuel savings through the widespread adoption of more fuel-efficient technology, such as the sumwing replacing the traditional heavy beams. Research also supported by the EFF (see 'pilot case study') shows further fuel savings are possible through additional gear innovations.

At EU fleet level, the impact of investment in fuel-efficient technology and replacement engines is not readily identified as reductions are mainly attributed to reduced effort. However, individual projects do show positive impacts on fuel use and costs through investments in fuel efficiency.

4.1.8.2 The EFF intervention has contributed to reduced bycatch levels

The overall impact of gear modifications on by-catch levels within a fishery is difficult to distinguish. There is a complex mix of market and regulatory reasons for discarding, which can be more influential than gear selectivity.

STECF reports and discard atlases for the N. Sea and North Western Waters report discard rates, but these often use small samples and are not across a sufficient time

period to establish trends. In the North Sea demersal fisheries between 2010 and 2012 on average 40% of the catch in weight was discarded (i.e. discard ratio) with 78% of the discards coming from plaice and dab. Average discard ratios per species were highly variable, ranging from zero (e.g., megrim, blue ling) to over ninety percent (dab) (IMARES, 2014).

In assessing the EU cod recovery plan, Kraak et al., (2013) concluded that, 'despite extensive and ongoing research into the development of fishing gears that reduce the capture of cod, the uptake of these has been less successful across métiers and areas in comparison to adherence with spatial closures. Uptake of species selective gears that reduce cod catches in whitefish fisheries have been limited (North Sea) or absent (West of Scotland). Uptake of selective gears has been better in *nephrops* fisheries in general, with widespread use of gears in the Kattegat and some uptake in the Irish Sea. The lower levels of uptake are probably due to losses of other target species when trying to exclude cod (Kraak et al., 2013).

Actions 6, 8 & 9 all have the potential to contribute to improved selectivity and together amounted to 1,900 operations costing a total of EUR 66 million across 17 MS. The average cost per operation averaged EUR 34,716 (ranging from EUR 121,184 in EE down to EUR 5,224 in CY). The number of operations representing a significant proportion of the fleet were in CY (52%), BE (43%) and to a lesser extent PL (14%). Nearly half the operations are allocated to 'replacement gear', which has the potential to improve selectivity, rather than specific action 'improvements in selectivity'. This is true of BE where lighter gear was supported to reduce fuel costs and not to improve selectivity.

Given the extent and type of investment, it is likely that the contribution of the EFF to reduced bycatch was limited, particularly compared to regulatory measures associated with the cod recovery plan (creating positive incentives to reduce cod bycatch). The introduction of the Landing Obligation is likely to increase demand across MS fleets for such support under EMFF, which has been informed by pilot operations under EFF. For example, the UK supported a range of gear trials to develop separator trawls enabling vessels to reduce by-catch[45].

Conclusion of the evaluation question:

Overall fleet investments under the EFF did make a modest contribution to the protection and enhancement of the environment through improved energy efficiency. The contribution to reducing by-catch levels was more limited as uptake of improved selectivity devices was driven by regulations at the time. Greater uptake of gear selectivity that was developed with EFF funded research is now expected with the implementation of the Landing Obligation.

4.1.9 EQ8. Has EFF support helped to maintain the small scale fleet?

4.1.9.1 EFF intervention has supported a viable small scale fleet

EU data indicates there are around 72,000 vessels under 12m in length that make up the small scale fleet (EC, 2016). However, STECF estimates active vessel numbers to be far lower at just over 48,000, making up around 74% of the active EU fleet.

Measure 1.4, specifically targeting the small scale coastal fleet (SSCF), resulted in 5,708 operations equating to around 8% of the EU small scale fleet. It was intended to co-fund small-scale coastal fishers and vessel owners to undertake projects/activities with at least one of the following objectives: to improve management and control of access conditions to certain fishing areas; to promote the organisation of the production,

[45] See http://www.seafish.org/media/1330550/dag_nov2014_cefas_update.pdf

processing and marketing chain of fisheries products; to encourage voluntary steps to reduce fishing effort for the conservation of resources; to encourage the use of technological innovations that do not increase fishing effort; and to improve professional skills and safety training.

Sixteen MS did not implement the measure at all, while for FR, DE, SE and UK, the level of uptake was very low, with the number of operations accounting for 10% or less of the small scale fleet in these MS. Those that did not implement the measure report either the absence of a small scale fleet (e.g., BE) or due to a lack of interest from the small scale sector (e.g., BG and SI). Meanwhile those MS that had a low level of uptake indicated that there was a general lack of organisation within the SSCF segment (e.g. FR, IE), long processing times and perceived difficult application requirements (e.g., SE and DE) including obtaining bank loans due to low income levels (e.g., UK) and age restrictions (e.g. DE).

The top five MS in terms of the amount of EFF committed for this measure(s)/action(s) were PL, EE, IT, PT and CY which together represented 95.6% of the EFF committed for measure 1.4 at EU level.

Assuming one operation equates to one vessel, all the small scale fleet in PL was supported with multiple operations (375%) and substantial proportions of the small scale fleets in CY (57%), EE (30%), FI (29%) and IT (18%) were supported under measure 1.4. Within PL for example, operations centred mainly around individual not collective projects, with the majority of applicants benefiting from the temporary cessation of fishing effort as part of a rebuilding plan as well as purchasing production, processing and marketing equipment, such as industrial freezers and specialist transport system to increase efficiency in unloading. The majority of beneficiaries in IT supported voluntary steps to reduce fishing effort for the conservation of resources, however, this created a high administrative burden for the MA to keep records of individual expenses. At a lower level of uptake, SE, DE and the UK small scale fleet all benefitted from using technological innovations that don't increase fishing effort, such as developing a trading floor at Stockholm's fish market and development of new business premises to improve management of local resources (SE) and developing technological innovations that led to better catch quality, lower discards and higher value, including increased fuel efficiency (UK).

The average cost per operation suggests that MS implemented the measure in a variety of ways, with some such as ES (average cost EUR 61,000) implementing two group schemes and CY (average cost EUR 4,665 for 474 operations) supporting individual vessels. The EU average was around EUR 11,000 per operation. It should also be remembered that, in addition to measure 1.4 specifically targeting them, other measures were open to the small scale fleets and some selection criteria prioritised them. For example, PL and PT used measure 1.3 to help modernise the small scale fleet segment without increasing fishing effort (e.g., engine replacement to increase fuel efficiency) whereas measure 1.1 was used by SSCF in ES to implement vessel adjustment plans although in general small vessels were not considered to be worth the administrative cost of implementing cessation measures).

The AER report indicates that overall the economic performance of the SSF has decreased steadily over the period (STECF, 2015). Therefore, while the EFF has supported the small scale fleet in a targeted manner to a limited extent under measure 1.4 and more generally across other fisheries measures, EFF has managed to support a viable small scale fleet.

4.1.9.2 EFF intervention has contributed to maintaining employment in the SSF

The AER report (STECF, 2015) shows that in the MS with the biggest small scale fleets, numbers reduced substantially from 2008-2013 in GR (which did not implement the measure) and ES (with just 2 operations amounting to spend per small scale vessel of just EUR 29). In contrast the MS showing the highest investment per small scale vessel

(PL and FR) showed fleet numbers to be stable and in the case of EE and CY, the small scale fleet increased over the EFF period. For the EU overall employment in the small scale fleet has increased over the EFF programme. These findings give an indication that EFF investment might help to maintain the small scale fleet.

Interviews with MA representatives reveal conflicting opinion about the impact of measure 1.4 on the profitability and employability of the small scale fishing sector. Opinion of the MA in PL is that measure 1.4 has been largely successful and has resulted in the improved employment and profitability of the small-scale fishing fleet. Interviews with the regional MA in IT however suggested the contrary: measure 1.4 did not result in improved profitability of the small-scale coastal fishing sector. Although, it should be noted that the level of small scale fleet investment in PL amounted to EUR 60,318 per vessel, but only EUR 569 in IT. MA representatives in SE indicated that the country's small-scale fishing sector still demonstrates profitability problems following implementation of the EFF and the AER indicates that average wages and profits in the EU small scale fleet have decreased overall in that time.

Small-scale fishers not benefitting from measure 1.4 still benefited from a range of other measures under Axis 1. Thus, a reliance on alternative measures potentially contributed to the limited uptake of measure 1.4. The most extreme example of this is present in ES, where uptake of measure 1.4 was extremely limited (2 operations) but small-scale fishers were targeted and benefitted extensively from initiatives implemented under measure 1.5 (socio economic measures; 1,887 operations).

Conclusion of the evaluation question:

Uptake of measure 1.4 was low, but small-scale fishers still benefited from a range of other measures under Axis 1. STECF data on the small scale fleet indicates employment in this sub-sector has risen over the EFF period and vessel numbers were stable in MS that did provide targeted support. The EFF did help to maintain numbers and employment in the small-scale fleet, but overall the viability of the small-scale fleet has worsened during the EFF period.

4.1.10EQ9. How and to what extent did the EFF counteract the negative impacts of fleet capacity adjustment?

Measure 1.5 resulted in 5,611 operations at a total cost of EUR 168 million. The average compensation per vessel was EUR 1,993 [noting that compensation was generally paid to individuals affected by vessels exiting the fleet], with PL again showing a much higher level of spend per vessel (EUR 19,538) compared to this average than other MS. ES and IT accounted for the highest number of operations and EFF contribution.

In total the number of early retirement payments was >120,000 compensation payments (note: these operations were payments that would include several monthly payments to a single beneficiary) and training activities outside of fisheries was 955. These results are mainly from ES reporting and it is not possible to determine how many fishers were supported as some MS monitoring relates to beneficiaries while others report individual payments (in 2013 FTE employment in fishing in ES was 33,129).

Regarding early retirement, the Galician (ES) MA commented that recipients received ca. EUR 1,000 per month until they reach the age of retirement. Of the EUR 1,000, a total of EUR 300 are deducted for social contributions, whereas under the FIFG, social contributions were also paid for, which made it a more attractive than under EFF.

Eight out of 27 MS (AT, BG, CZ, GR, HR, HU, SI and SK) did not implement any operations for measure 1.5. Of these, only BG and SI implemented measure 1.1 – permanent cessation. Furthermore, MT and BE only had one operation.

Limited attractiveness of the sector for young people, the administrative burden, and level of co-financing (for diversification and premium for young fishermen) were cited as reasons for the limited uptake. Monitoring data are not adequate to determine the proportional uptake of early retirement or diversification outside of fishing. During the economic crisis it is understandable that fishers would take up training days offered, particularly if paid, but may not have been inclined to leave the fishing sector if alternative employment opportunities were limited.

Conclusion of the evaluation question:

Measure 1.5 resulted in 5,611 operations at a total cost of EUR 168 million.

This measure has been widely used as 19 out of 27 MS implemented operations for measure 1.5, and only BG and SI did not implement this measure while they implemented permanent cessation.

The average compensation per vessel was EUR 1,993. EFF also supported early retirement and training activities outside of fisheries.

4.1.11 EQ10a. To what extent has EFF contributed to the viability of inland fishing fleet?

Support for inland fishing (measure 2.2) resulted in 1,297 operations at a total cost of EUR 43 million across 16 MS. However, five MS represent over 80% of the EFF granted (LT, FI, PL, GR and EE). The largest number of operations was in FI and NL. In those five MS, the investment funded under the EFF is significant compared to the size of the sector (see table below). BG and ES implemented only one operation and HU just 2.

Data on the inland fisheries sector are poor, with the sector often combined with the small-scale coastal fleet, especially in the Baltic states where the coastal fleet targets freshwater species such as pike-perch and perch, with inland aquaculture or recreational fishing (e.g. in PL)[46].

Three main areas of intervention were seen under this measure: investment in inland fisheries infrastructure (e.g. lakeside storage and equipment in SE and PL, ice-fishing equipment and snow-scooters in FI, agro-tourism infrastructure in GR), investments on board (mainly in in LT and EE including engine replacement in EE, where larger vessels operate on Lake Peipsi) and compensation for fisheries management, mainly relating to the Eel recovery plans developed during the EFF period (e.g. NL implemented a 3 month closure each year)[47]. As with temporary cessation, the funding can be seen to have helped maintain conservation actions in specific fisheries, even though negative trends at a sector-wide level continue.

MA interviews and analysis of national documents do not provide information on profitability of inland fisheries. There is no indication on the evolution of the production and turnover either in LT. The production in volumes has decreased in GR and PL. It has remained stable in EE and has increased in FI. The turnover is indicated to have increased in FI and PL while it remained stable in EE.

Table 7: Data available on inland fishing sector and EFF aid in the first five MS in terms of EFF granted for M2.2

	Data from the EU study on inland fishing (1)			Data provided by MAs/ AIRs				Art. 40 data (31.05.2015)	
MS	Nb of boats	Catches (t)	Value of catches (kE)	Volumes (t) - Baseline (2006)	Volumes (t) - achieved (2014)	Turnover (kE) - Baseline (2006)	Turnover (kE) - achieved (2014)	EFF granted (kE)	EFF granted/value of catches
LT	200	1,594	2,500	n.a.	n.a.	n.a.	n.a.	4,629	185%
FI	651	4,498	9,276	4,500	6,000	6,300	11,700	4,023	43%
PL (2)	480	3,057	5,206	2,810	2,700	28,000	38,000	2,188	42%
GR (3)	200	887	2,481	24,366	20,616	n.a.	n.a.	1,754	71%
EE (4)	350	2,748	3,570	n.a.	n.a.	n.a.	n.a.	1,582	44%

(1) Data provided by national statistics or experts assessment corresponding to 2007/2008

(2) According to the EU study on EFF intervention in inland studies, the data provided in the AIR is likely to include some pond aquaculture and/or recreational fishing data

(3) Reference year is 2005 and latest year available is 2011 - data includes recreational fishing.

(4) MA indicated that production remained stable both in value and volumes but no data has been provided

Source: Evaluators from MA interviews and analysis of available documents and data

[46] EU intervention in inland fisheries (2010), Ernst & Young et al – EU Commission, Framework contract N° FISH/2006/09 (Lot N°3) "Studies linked to the implementation of the European Fisheries Fund"

[47] The financial and monitoring data do not allow to identify operations in this category

The AER data does not differentiate inland fishing from small scale coastal fishing to enable a specific assessment of inland fleet viability. For those top five MS in terms of inland measure support (where inland fishing is expected to make up a substantial proportion of the small scale fleet), the economic performance is poor. For EE and LT net profit levels are very marginal at 1.3% or below and for FI, GR and PL fleets are loss-making. For PL the data shows the economic performance of the SSF to be worsening, and for FI the level of losses have only slightly reduced over the EFF period.

Conclusion of the evaluation question:

The EFF has contributed to the development of inland fishing in those MS with significant inland fleets (EE, FI, GR, LT, PT), particularly in FI where this was a priority. For those five MS, EFF investment levels are substantial compared to the annual value of catches. Available data does not provide a specific assessment of the viability of inland fishing in the EU, but is expected to be facing the same issues of economic viability as the small scale coastal fleet. As with SSF the EFF is most likely to have helped to maintain vessel numbers and employment in the MS with significant inland fleets, but not viability.

4.1.12EQ10b. To what extent has the EFF contributed to promote the sustainable development of inland fishing?

The contribution from EFF is considered to be limited other than in FI where, based on the Study on the EFF intervention on inland fisheries, the inland sector represented 478 FTEs in 2008 and produced 4,500 t. The production in 2014 amounted to 6,000 t. assuming that the increase in production was mainly a result of the EFF intervention and that productivity has not significantly changed, this would mean that the EFF contributed to the creation of 159 jobs in FI (not including indirect employment in ancillary services).

In other MS, the largest contribution made by EFF to the sustainable development of inland fishing was various forms of support to the EU-wide recovery of the European eel.

Council Regulation (EC) 1100/2007 (the Eel Regulation) [48] resulted in the development of eel Management Plans in 19 MS. Many MS used funding from the pilot operations measure to develop and implement eel management plans. The ICES working group on eels found that management actions (including the restocking of fisheries) were for the most part being implemented in accordance with the recovery plans developed (ICES, 2013). Early indications are that eel stocks are responding positively, but remain at a critical level (EC COM 640/2014[49]).

[48] OJ, L 248, 22/09/2007, p. 17. The STECF opinion referred to in article 9(2) of the Eel Regulation may be found at: http://stecf.jrc.ec.europa.eu/documents/43805/594118/2013-07_STECF+PLEN-13-02_JRC83565.pdf (p. 113 f.)

[49] Report From The Commission To The Council And The European Parliament On the outcome of the implementation of the Eel Management Plans, including an evaluation of the measures concerning restocking and of the evolution of market prices for eels less than 12 cm in length. http://eur-lex.europa.eu/resource.html?uri=cellar:d77e3ffd-5918-11e4-a0cb-01aa75ed71a1.0006.03/DOC_1&format=PDF

Conclusion of the evaluation question:

A direct contribution by EFF to the sustainable development of inland fishing is identified in FI, where this measure was a priority. Elsewhere, inland fishery support mainly focused on eel recovery plans intended to deliver the sustainable development of European eel fisheries. EFF funding has contributed to the implementation of these plans, which are showing positive results.EFF supported inland fishing and contributed to an increase of volume of catches (4,500 tonnes in 2008 compared to 6,000 tonnes in 2014).

EFF also contributed to inland fishing sustainability through the recovery of European Eel.

4.1.13EQ11. To what extent has EFF support contributed to catch quality, safety and environmental improvements in fishing ports?

4.1.13.1 EFF assistance to ports improved catch quality

EEF-funded operations under measure 3.3 (Ports and Shelters) amounted to 1,737 at a total cost of EUR 833 million with EFF providing 36% of this. The average cost of operations implemented was EUR 479,733.

Investments in existing fishing ports (action 1) accounted for 77% of operations and total cost, while improvements to landing sites (mainly in PT, FR, LV and GR) was 16% of operations; and investments in small fishing shelters (mainly in GR, FR and CY) accounted for 5%.

Some MS implemented a few, high cost projects: EE with one project at EUR 8.8 million, followed by RO (one project at EUR 3.2 million), BG (three projects with an average amount of EUR 4.8 million). Other MS implemented numerous projects with a much lower average cost: ES had 391 projects averaging EUR 233,000; FR had 375 operations averaging EUR 297,000; and PT had 208 operations averaging EUR 285,000.

The measure 3.3 resulted in 170,452 m² of restructured wharfs, 36,073 m² of linear meters of restructured wharfs, and 260,121 m² of first sale area. There is no obvious correlation between increased volumes and ports investments and changes are expected to be as a result of displacement of vessels being attracted to improved facilities.

As described above in relation to fleet investments, it is not possible to clearly identify the extent to which EFF support has contributed to improvements in catch quality, safety and environmental improvements in fishing ports. However, qualitatively based on MA and PO interviews, the measure 3.3 effectively improved economic viability of the sector, especially through better working conditions / safety (100% of the respondents), improved quality of products (92% of the respondents), and increased value (91% of the respondents). Increased volumes contribute to a less extent.

Conclusion of the evaluation question:

Data does not enable quantified analysis, but there is broad consensus among stakeholders that the substantial EFF-supported investments in fishing ports across most MS have contributed to improvements in catch quality, safety and environmental improvements in fishing ports.

4.2 *Aquaculture Measures*

The spending category for 'Aquaculture' consists of the EFF funded measure 2.1. 'Aquaculture' that focuses on developing and strengthening the economic, environmental and social sustainability of the sector, which is the objective defined in Article 4 of the EFF Regulation – EC Regulation No 1198/2006. Measure 2.1 consists of six specific funding actions:

- Action 1: Construction of new farms.
- Action 2: Extension or modernisation of existing farms.
- Action 3: Increase in number of hatchery-produced fry.
- Action 4: Aqua-environmental measures.
- Action 5: Public health measures; and
- Action 6: Animal health measures.

This spending category is analysed below in terms of outputs and results using judgment criteria and indicators by evaluating in the first instance Article 40 monitoring data, using background information mostly from STECF reports on aquaculture (which in turn base their sector analysis on DCF data and EU statistical databases (EUMOFA and Eurostat). To provide robust findings, the evaluation team verified Art. 40 monitoring data by cross-checking them with:

- Similar data provided in Art. 40 financial data.
- MA surveys and MA evaluation questionnaires.
- The situation of the aquaculture sector in each EU MS.

Main focus of the measure (task 1 findings)

Measure 2.1 projects focused mainly on increasing production capacity through investments in construction and modernisation of existing fish farms and construction of new farms (except in PL, which focused mainly on aqua-environmental projects). The Fund tended to be proportionately higher in MS where aquaculture focused on inland fish farming such as PL and RO (mainly carp and to some extent freshwater trout) (Task 1, see especially the analysis of the ratio of EFF commitment compared to the value of the aquaculture sector in each EU MS).

Number of operations within Measure 2.1

4.2.1 In total, around 8,130 operations have been supported by EFF in EU MS under Measure 2.1. This figure is an overestimate as some operations were counted several times by MAs under different actions (for instance in Czech Republic). Based on Art. 40 data from MA surveys, Spain, France, Italy, Germany, Poland, Hungary and Czech Republic together represented 75% of the operations within the measure. Common Questions

Common questions overlapping with specific evaluation criteria are answered within the later sections on specific evaluation questions.

4.2.1.1 What is the number of women out of the total number of beneficiaries of Measure 2.1?

In the EU aquaculture sector in 2012 a quarter of employees were estimated to be women (STECF, 2014). The production sector employs fewer women than the downstream sectors in the supply chain: women generally tend to take up employment in processing, administration and shops selling fish products. There are exceptions such as in SI, where jobs in aquaculture are almost exclusively carried out by men (STECF, 2014). There is a lack of reliable and comprehensive data on the situation of women's in fisheries in general and on women's access and take up of EFF support in particular (see Gender case study). However, qualitatively, five MS out of 27 (BG, CZ, EE, HU and IT)

considered that some operations favoured the employment of women or improvement of working conditions for women in the aquaculture production sector, although nine countries did not know (MA surveys).

A few EU MS such as BG and HU had a selection scoring system to favour projects proposed by women owners (AIR 2014). FR set an objective that a minimum of 10% of the projects co-financed by the EFF had to involve women in the fisheries and aquaculture sector (AIR, 2014). However, FR was among the nine MAs not knowing whether the projects funded under 2.1 improved the employment or the conditions of work for women (MA survey).

Conclusion of the evaluation question:

EFF contributed to some extent to support women in the EU aquaculture sector (measure 2.1). For instance, five MS out of 27 (BG, CZ, EE, HU and IT) considered that some operations favoured the employment of women or improvement of working conditions for women in the aquaculture production sector (MA surveys). A few EU MS such as BG and HU had a selection scoring system to favour projects proposed by women owners (AIR 2014). The portion of the women in the total number of beneficiaries of measure 2.1 is however not known, being not recorded by EU Member States or under article 40 implementation data.

4.2.1.2 To what extent has funding spent under these measures contributed to foster and disseminate innovation?

Although Measure 2.1 did not have actions titled 'the promotion and dissemination of innovation' in the aquaculture sector, but overall the EFF contributed to this objective in some EU Member States in the following ways:

- In the UK, the Fund helped in creating a new Scottish Aquaculture Innovation Centre.
- In IE, the Fund supported the creation of a multi-interest representative aquaculture group (ARG) to focus on collective actions across sectors for the benefit of the industry as a whole.
- In BE, it enabled the development of an aquaculture platform of exchanges to foster the development of the aquaculture production sector, a platform appreciated by both the public and private stakeholders (MA surveys).
- In ES and HU, EFF funded land-based projects using solar energy enabled to demonstrate the potential of energy saving aquaculture production.
- In NL there was innovation in the development of multi-trophic polyculture systems (Zeeland sole, samphire, worms and oysters grown in adjacent units), but this was funded through the pilot operations measure 3.5, not 2.1.

Conclusion of the evaluation question:

EFF contributed to some extent to disseminate and foster innovation through measure 2.1 and pilot operations (measure 3.5), for instance by supporting the use of renewable energies (ES and HU), aquaculture (innovation) centres (UK) and platforms of exchanges between stakeholders in the sector (BG).

4.2.1.3 Which best practices can be identified per the spending category?

Below are examples of some successful projects or best practices within the Measure 2.1:

- In ES (Andalucía), the EFF contributed to the development of a mutual guarantee fund to address difficulties for fish farmers to access bank loans. The guarantee fund did help to alleviate this credit access problem for small scale operators.
- In ES and HU, the EFF had successful impacts on the environment (energy saving) by the funded land-based aquaculture projects applying photovoltaic energy technology on farms.
- In BG, the EFF contributed to developing mussel farming.
- In BE, the EFF favoured a project to operate a farm while protecting migrations of birds (in Flanders). It also contributed to the development of an aquaculture platform of exchange to foster the development of the aquaculture production sector.
- Under Action 4 - aquatic-environment measures, HU launched an Environmental Management Fishpond Programme in 2011. The support contributed to the maintenance of biodiversity and to the promotion of the environmental protection and to the saving of natural services. The support was paid as partial compensation for the loss of income and the incurred additional costs of fish pond operators who accepted the terms of support and joined the programme (MA survey).
- Under Actions 5 and 6 - tackling animal health and public health issues, in DK, the EFF enabled the eradication of a viral disease outbreak (MA survey).

Conclusion of the common evaluation questions:

Best practices were identified in a few EU MS such as ES, BG, BE and DK. This includes: beneficial funding practices to help the sector tackle the economic crisis; the development of sustainable and disease free productions; renewable energy use and environmental protection.

4.2.2 EQ1: To what extent and in which manner has the funding spent under aquaculture measures affected the aquaculture production in volume, number of species, production capacity, production methods and value, number and size of firms, jobs?

The volume of aquaculture produced in the EU stagnated over the EFF period (2007–2013): it decreased from 1.31 million tonnes in 2007 to 1.2 million tonnes in 2013 (a decrease of 1.21 million or about 10%). EU aquaculture was worth around EUR 4 billion in 2013 (EUMOFA extraction; see also STECF, 2014 and ECA, 2014[50]). The main producers are ES (mostly sea bream, seabass and mussel farming), the UK (mostly salmon), FR (mostly shellfish farming), GR (sea bream and seabass farming), and IT (mostly trout and clam farming), with these five MS representing three quarter of the production in value in 2011 (ECA, 2014).

4.2.2.1 Judgment Criteria 1: EFF intervention has contributed to an increase in aquaculture production by volume <u>and</u> value

Although overall aquaculture production stagnated in the EU over the programming period, there has been a modest rise of 6.7% in production volumes from the reference level baseline in Member State respondents (18 MS). Four responding MS reported volume rises, with HU (411%), BG (257%) and the CZ (98%) the most significant. SI (-80%), PT (- 50%) and IT (-22%) reported production decreases. In FR, where much of EFF support went into the shellfish sector, production increases were much less than

[50] Figure 3.1 in STECF, 2014 and Figure 1 in ECA, 2014.

anticipated, mainly due to disease mortality and storm-related losses (Aquaculture Case study).

Below is an assessment of the evolution of production and production capacity of farmed species receiving EFF support but also its potential effect in increasing the production of the farmed species in each EU MS. The analysis uses the two available Art. 40 data indicators in tonnes per year per farmed species:

1. 'Increase in production capacity due to construction of new farms' [with EFF support].
2. 'Variation in production due to the extension or modernisation of existing farms' [with EFF support].

The indicator for Action 3 'Increase in number of hatchery-produced fry' [by EFF support] is analysed in section 4.2.5.1.

The change in production is analysed below for a selection of farmed species. The results of this analysis should be considered with some caution, as providing accurate and robust information for these two indicators is difficult for the data providers (MAs and beneficiaries). Also, the impact of constructing new farms and modernising or extending existing farms on production generally appears a couple of years after the intervention was funded.

However, we can conclude that the Fund under Actions 1 and 2 of measure 2.1 supported both an increase in production and production capacity for key farmed species produced in the EU:

- By construction of new farms: mussel farming, other farmed species, freshwater trout farming, sea bream and sea bass farming, clam farming.
- By modernising existing farms: shellfish farming (clam and mussel), carp farming, freshwater trout farming and other farmed species.

Analysis of production by selected key farmed species:

1. Mussel farming

ES, FR and IT represented 80% of the EU production in 2013. ES by itself represented almost half of the production over the 2007 – 2013 period (44% in 2007 and 40% in 2013) (EUMOFA analysis). EFF contributed to a capacity production increase in ES, IT, BG and IE by construction and modernisation of farms according their respective MAs. At EU level, the production of mussels decreased from 474,000 tonnes in 2007 to 385,000 tonnes in 2013.

In ES (Galicia), the EFF targeted mussel farming support under Measure 2.1 by increasing the production capacity in constructing new farms (+4,560 t/year) and to a lesser extent in increasing the production by modernising or extending existing farms (+531 t/year). The production increase estimated by ES due to construction of new farms compared to the overall volume of mussel farming produced in 2013 was low (4%) while the production increased in the country from 210,000 t to 220,000 t from 2007 to 2013. EFF may have contributed to increasing the production slightly while improving its competition (MA Questionnaire ES and article 40 implementation data analysis).

In BG, the EFF contributed greatly to the capacity production of mussels by new farm construction (+659 t/year with six operations) and current farm extension or modernisation (+1,319 t/year with three operations). This increase in capacity had an effect in increasing the production of mussels according to the EU MS (MA survey and questionnaire). Within the EFF period, mussel production rose from 282 t to 1,250 t in the Member State (EUMOFA extraction). The growth potential of mussel farming in BG (see page 7 of EUNETMAR, 2014) demonstrates an example of the positive effects of EFF on production capacity.

2. Carp farming:

The EFF has certainly contributed to consolidate the carp farming in RO, HU and CZ. Carp production and consumption take place mainly in Eastern Europe and in particular in land-locked countries. It is mainly the extensive pond production of common carp (Eurostat data analysis) and is generally consumed domestically. The five largest producers of carp in the EU are CZ, PL, HU, DE and RO in 2008 representing three-quarters of total production that year (59,249 t out of 80,795 t). At EU level, carp production stagnated in volume between 2008 and 2014, dropping slightly from 80,795 t to 79,993 t (EUMOFA data).

RO, HU and BG are among the EU Member States that both intensely used the EFF to support their carp farming sector and indicated changes in their production capacity and production, utilising EFF support for the construction of new farms and farm modernisations (Task 1 and Annex 6.2). PL did support the sector through farm modernisation but did not record drastic changes according this Art. 40 indicator (2 operations, +2 t / year).

The production clearly dropped in DE (-50% in volume; and -42% in value between 2008 and 2014, with an almost continuous decreasing trend; EUMOFA data). The country fell to the fifth largest farmed carp producer in the EU in 2014 while it barely supported the carp farming sector under the EFF. In PL, the production stagnated slightly above 17,000 t per year over the EFF period.

3. Freshwater trout farming

Globally, the EU production of freshwater trout decreased from 209,000 t to 138,000 t (98% of the production being rainbow trout, the remaining being brook trout and other unspecified trout species; EUROSTAT extraction). The effect of EFF is likely to have contributed to sustaining the production, or to slowing down the production decrease over the EFF period. In IT, for instance, the EFF contributed to construction of new farms - however Italian rainbow trout production decreased from 35,000 to 31,000 t over 2008 – 2013 (EUROSTAT data).

4. Sea bream farming

Sea bream are farmed in the EU in GR, ES, IT, CY, HR, MT, MT and PT (by order of importance). GR has consistently represented around 60% of the sea bream production in the EU over the period 2000 to 2014. Sea bream farming in the EU consists essentially of gilthead sea bream representing 99% of the EU production of sea bream species or 92,601 t out of 93,823 t in 2013 for instance. ES is the second producer of sea bream in the EU, representing around a third of the EU production over the EFF period. Global EU production has stagnated at between 80,000 t and 100,000 t since 2007 (EUMOFA extraction 16 July 2016). Due to high investment costs, sea bream farming suffered particularly over the financial crisis that started in 2008.

New farm construction was supported by EFF increased production in ES, CY and GR, and the increase is estimated at 3,371 t, 380 t and 150 t in tonnes/year respectively (article 40 data analysis). For GR, the same figure is provided for sea bass, which may be a coincidence or more likely demonstrates a difficulty for the data providers at EU MS level to assess the production capacity increase distinctly for these two species which are often considered together for statistical purposes.

Aquaculture is an important sector in the GR economy and it is one of the leading European producers in sea bass (and sea bream) production. During the last years, the sector faced competition, for instance from Turkey exporting to the EU, coupled with the effects of financial crisis. The EFF support on sea bream farming contributed to support the sector in a difficult economic situation mostly by modernising the existing farms (11 EFF operations, whilst only one EFF operation was funded to increase the production capacity by constructing new farms over the EFF period) (Art. 40 data analysis).

In ES, EFF support under actions 1 and 2 may only have had an effect in sustaining the sea bream production during the international financial crisis that occurred in 2008. Farmed sea bream production decreased overall from 20,481 t in 2007 to 19,127 t in 2013 (-7%) (EUMOFA data analysis, 16 July 2016). EFF supported capacity production increases in farmed sea bream to a large extent by modernising and extending new farms (capacity production increased estimated at 6,300t/year) and to a lesser extent by constructing new farms (article 40 data analysis).

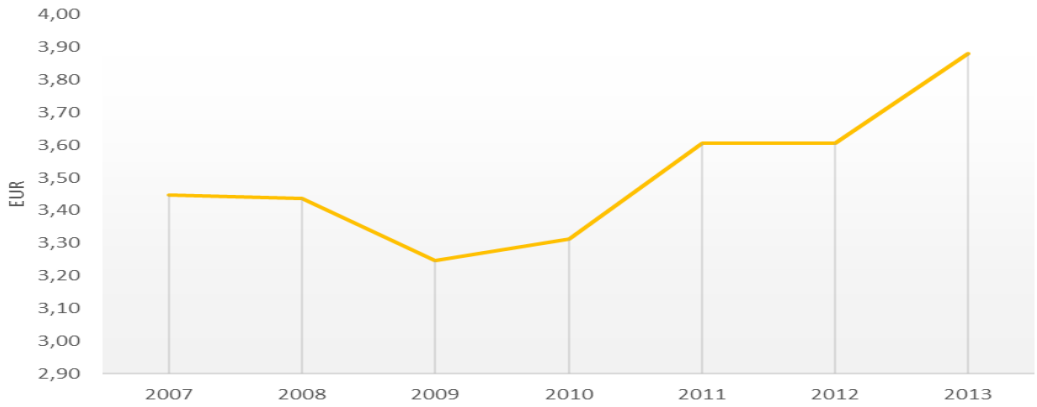
5. Tuna ranching

MT, ES and HR are the main EU MS farming bluefin tuna in the EU. They represented 6,123 t, 2,903 t and 2,616 t respectively of production in 2013 (EUROSTAT). ES recorded a production increase due to EFF extension or modernisation of new farms of 119 t/year (Art. 40 monitoring data). In ES production has stagnated at around 3,000 t/year over 2008 to 2014, decreasing then increasing over the period with the lowest level at 1,793 t in 2010 (EUROSTAT). Production capacity increases have been severely constrained by restricted quota allocations for this wild species which is part of a recovery plan.

4.2.2.2 Judgment Criteria 2: EFF intervention has contributed to an increase in aquaculture production in value

Production value is not monitored under Art. 40 data. The total value of the EU aquaculture production rose moderately in nominal terms from EUR 3.4 billion to nearly EUR 3.9 billion over the EFF period 2007 – 2013 (with a decrease from 2008 to 2009) (based on EUMOFA extraction, see Figure 18). That is an increase of 11% compared to the 2007 value. The increase originated from marine fish aquaculture.

Figure 18: EU aquaculture production in value from 2007 to 2013 in billion EUR



Source: Consultants 'own elaboration based on data extracted from EUMOFA

Overall there has been a modest rise of 7.2% from the reference level baseline in the value of production in Member State respondents (5 MS). Of the MS that responded with quantitative data, BG increased its production value by 185% whilst IT and ES reported losses of -18% and -7% respectively.

While the volume of aquaculture stagnated at EU level, with a slight decrease over the EFF period 2007 - 2013, there has been globally a modest rise in value of production from EFF funded operations under measure 2.1. There is a widespread view that EFF funding was essential during a difficult period such as the financial crisis from 2008 onwards that reduced investment and borrowing activity in the aquaculture sector (see Aquaculture case study for details).

Productivity in the sector has improved, making the industry more resilient to external factors and increasing overall competitiveness (Aquaculture case study). However, the lack of clear linkages between the use of EFF and National Plans (a weakness identified in the EU court of auditors report), makes it difficult to quantify the overall impact of aquaculture funding. Some MS mitigated this by changing targets (e.g. from marine to

freshwater juvenile production), and GR reduced its targets (23% in terms of companies assisted and 20% number of new jobs). Other reasons for falling below targets were administrative barriers to water permits (SI), but not one specific to EFF projects, and that many of the larger companies, especially in marine aquaculture, were ineligible for EFF support (Aquaculture case study).

Finally, in several countries poor spatial planning, especially when combined with complicated licensing procedures (e.g. in SI for carp farming), hindered the development of aquaculture (MA surveys).

4.2.2.3 Judgment Criteria 3: EFF intervention has contributed to changes in number of enterprises and employment

Under Art. 40 data calls, the number of beneficiaries having received funding under these measures are monitored according to:

a) Number of companies benefiting from EFF by the size of the companies differentiated in micro enterprises, small enterprises, medium enterprises and large enterprises (see definition under EUROSTAT[51]).

b) Number of mollusc farmers who have benefited from compensation under action 5.

c) Number of farmers who have benefited from compensation under action 6.

That is the change in the number of enterprises is not monitored. The judgment criteria is therefore assessed below through other sources and by a qualitative analysis.

Existing firms having received funding under Measure 2.1

In the EU aquaculture sector, most companies are small. 90% of the employees are in companies with less than 10 employees (STECF, 2014). Beneficiaries were logically mostly micro- and small companies, representing in total 85% of the beneficiaries: 59% and 26% respectively of the beneficiaries under Measure 2.1. Support to large companies was marginal (Art. 40 data from MA surveys).

Change in number of companies in the sector by EFF under Measure 2.1

Although this indicator is not monitored under Art. 40 data, some countries set objectives in their plan to develop their aquaculture sector in terms of increasing number of companies. For instance, in FR, the 2013 targets were:

- Shellfish companies: 2,818 companies against an objective of 3,400 (unmet).
- Finfish companies: 410 against a target of 550 (unmet) (MA survey).

Change in number of employees in the sector by EFF under Measure 2.1

In 2012, 80,000 people were estimated to be employed in the sector across the EU. The same number was estimated to be employed in the first years of the EFF period, with a large percentage of part-time workers (STECF, 2012). However, based on DCF data, 69,000 people were employed in 2012, a decrease of 9% from the 76,000 employed in 2011 (reported number of employees under the DCF from STECF, 2014). The number of FTE reported in 2012 decreased by 2% from 2011, which might indicate a tendency towards higher productivity and less part-time employment in the sector according to STECF (STECF, 2014).

The number of jobs at expanded farms was not monitored by EU MS under Art. 40 data calls. Only four out of 27 EU MS assessed quantitatively the number of jobs (in FTE) at expanded farms supported by EFF: ES, 240; HU, 1947; BG, 216 and AT, 140.

Although it is difficult for most of the MAs to quantitatively assess the EFF's impact on employment in the sector, some MAs (BG and ES) determined that the EFF had slowed down the trend in decreased employment and others (BG, CY and ES) stated the EFF had created employment in the aquaculture sector within these years. Over the EFF period, the MAs interviewed found that employment:

[51] http://ec.europa.eu/eurostat/web/structural-business-statistics/structural-business-statistics/sme [accessed 14th July 2016].

- Decreased in five MS: BE (a farm went bankrupt), ES, FI, GR, IT.
- Remained stable in three MS: NL, CZ and AT.
- Increased in six MS: BG, DE, HU, SI, PL and LT.

13 MS did not specify a quantitative evolution of employment in the sector (MA surveys).

4.2.2.4 Judgment Criteria 4: EFF intervention has contributed to new species being cultured

These data were not collected through Art. 40 and analysis is based on the Aquaculture Case study. There has been some diversification into new species, but given the difficult financial conditions, many operators focused on traditional, high value species rather than risking diversifying into novel species and markets.

In FR technical difficulties restricted the expansion into production of the native flat oyster (*Ostrea edulis*), and one attempt at growing abalone was destroyed by a storm.

4.2.2.5 Judgment Criteria 5: EFF intervention has contributed to new production methods being adopted

These data were not collected through Art. 40 indicator collection system. Thus, analysis is based upon aquaculture association and operator interviews from the Aquaculture case study.

In PL there was a greater focus on changing production systems, and moving away from traditional pond and through-flow farming into recirculating aquaculture systems (RAS). A similar pattern has occurred in the CZ, with greater adoption of RAS as well as developing new product forms through the adoption of more advanced processing technologies.

Both the Czech Fish Farmers Association and the State Agriculture Intervention Fund stressed the increased use of RAS in finfish farming, often combined with other innovations such as new feeding systems and species. None of the respondents specifically mentioned the use of low trophic farming systems, although French shellfish farmer respondents indicated that farming densities had decreased in response to disease risk. In SI, the implementation of new aquaculture methods enhanced positive effects on the environment.

Conclusion of the evaluation question:

The EFF under Actions 1 and 2 of Measure 2.1 supported both an increase in production and production capacity for key farmed species produced in the EU:

- By construction of new farms: mussel farming, other farmed species, freshwater trout farming, sea bream and sea bass farming, clam farming.
- By modernising existing farms: shellfish farming (clam and mussel), carp farming, freshwater trout farming and other farmed species.

While the volume of aquaculture stagnated at EU level, with a slight decrease over the EFF period 2007 - 2013, there has been a modest rise in value of production from EFF funded operations under Measure 2.1. There is a widespread view from MAs and the industry that EFF funding was important during the financial crisis from 2008 onwards that reduced investment and borrowing activity in the aquaculture sector (see Aquaculture case study for details). Also, the impact of constructing new farms and modernising or extending existing farms on production generally appears a couple of years after the intervention was funded. The EFF is considered to have slowed down a trend in decreased employment and in some MS (BG, CY and ES) helped to create employment in the aquaculture sector.

There has been some diversification into new species and new production methods to, but given the difficult financial conditions, many operators focused on known species

and methods rather than risking diversifying into novel species and markets.

4.2.3 EQ2: Did the EFF support contribute in equal measures to improving or increasing the volume and value of production?

4.2.3.1 Judgment Criteria: EFF intervention has contributed at least to maintaining average prices for EU farmed species

The change in average price for EU farmed species due to EFF contribution is not quantitatively available as they are not monitored under Art. 40 data. Analysing whether EFF support may have had any effect in the average price of EU farmed species is complex, and the evaluation ToR and budget did now provide for econometric analysis of price determinants. Price variability is subject to different factors such as competition with other producing or exporting countries, production volumes and the economic context facing the producing countries.

There has been a modest rise in the value of production from EFF funded operations under measure 2.1 while the volume of aquaculture has stagnated at EU level. To this degree, EFF did support an increase in the value of production, but not in equal measure with the volume of production.

Conclusion of the evaluation question:

The increase in the value of production during the EFF period, while volume slightly decreased suggests that EFF intervention did contribute to a slight increase in average prices of farmed species.

4.2.4 EQ3: To what extent has EFF support contributed to improved viability of EU aquaculture enterprises?

In general the viability of the EU aquaculture enterprises was not improved in the strict meaning of the term. This said, EFF funding enabled a number of EU MS aquaculture businesses to sustain their production during the economic crisis and difficult trading conditions.

4.2.4.1 Judgment Criteria 1: EFF intervention has contributed to reduced production costs

In the CZ the case studies indicated that whilst production did not increase, profitability was increased through reduced costs (e.g. higher survival) and better value (better quality fingerlings) (Aquaculture Case study). Overall, from the MA surveys, EFF intervention may have contributed to a small extent to reduced production costs then.

4.2.4.2 Judgment Criteria 2: EFF intervention has contributed to increased profitability

Although FR did not produce quantitative estimates, the Aquaculture case study interviews suggested a considerable increase in value and profitability over the EFF period. In particular investments in grading and other handling machinery produced a better-sized product, less damage and faster results (thus decreasing labour costs). It was widely viewed by respondents as having maintained investments and productivity over what has been a very difficult period for the French shellfish industry with high levels of mortality. Shellfish values did increase over the period (e.g. oysters from EUR 2/kg to EUR 4/kg over 2007 – 2010, but dropped back to EUR 2.70/kg by 2015). Other benefits included less fuel consumption per unit production as productivity grew, and a more comfortable, secure environment for aquaculture workers.

PL also saw increases in profitability, and like FR this was more a consequence of better productivity than the small increase in sale values, partly due to production diversifying to new products.

The potential increase in average production tonnage per farm site due to EFF intervention is not quantitatively available as it is not monitored under Art. 40 data.

Conclusion of the evaluation question:

EFF funding enabled EU MS aquaculture businesses to sustain their production during the economic crisis and difficult trading conditions.

4.2.5 EQ4: To what extent has EFF support contributed to increased hatchery fry use in European production?

4.2.5.1 Judgment Criteria: EFF intervention has increased the use of hatchery fry in EU production

Whether the intervention increased the use of hatchery fry is analysed using the single action 3 Art. 40 data 'increase in number of hatchery produced fry per year' [with EFF support]. The values provided by EU MS are questionable. The required unit is individual fry (rather than weight), but the figures presented by EU MS are in numerous circumstances very low or very high. When low, they are very close or similar to the number of operations implemented by EU MS under action 2.1.3. Figures provided cannot therefore be considered robust enough for a quantitative analysis.

EFF supported actions increased the number of hatchery fry in:

- BG in freshwater trout farming.
- CY in sea bream and sea bass farming.
- DE in carp farming, freshwater farmed trout and other farmed species[52].
- DK in freshwater trout farming and other farmed species.
- ES in sea bream and seabass farming.
- HR in mussel, seawater and freshwater farmed trout, eel and tuna farming (3 operations in tuna farming).
- HU in carp and other farmed species.
- IT in clam, sea bream, sea bass, freshwater trout farming.
- LT in freshwater trout farming and other farmed species.
- LV in freshwater and seawater trout, eel, carp farming and other farmed species.
- PL in mussel, freshwater trout, carp, eel and tuna farming and other farmed species.
- SE in carp, seawater and freshwater trout farming and other farmed species (four operations in total).
- SI in other farmed species, freshwater and seawater trout, carp, seabass and sea bream, oyster, tuna and salmon farming (5 operations).
- SK in carp, trout and other farmed species (see MA survey). A significant proportion of fish from commercial farms in SK is used as fry for stocking fisheries (Slovak Republic, 2013).
- UK in eel, freshwater farmed trout and mussel farming.

Countries that supported operations under action 3 (Art. 40 financial data) but did not record any increase in hatchery production fry due to EFF support in Art. 40 data calls were: CZ and FR (11 supported operations).

The other 27 EU MS that did not fund operations under action 3 are: AT, BE, EE, MT, NL and PT. MT mentioned a shortfall in hatchery in availability of juveniles hence the need

[52] Under Measure 2.1 'Other farmed species' monitored within this Art. 40 data indicator are all species excluding mussels, clams, oysters, bass, sea bream, turbot, salmon, seawater farmed trout, eel, carp, freshwater farmed trout and tuna.

for a public hatchery according to the Maltese Managing Authority. The support is included in the EMFF (MA Survey). RO recorded 78 operations for other farmed species under action 3 but did not record the total EFF paid under Art. 40.

Other farmed species

The EFF contributed to hatchery production in other farmed species by supporting hatchery buildings (e.g. sturgeon farming in FR) and hatchery modernisation (e.g. langoustine farming in Andalucía, ES) (ECA, 2014).

The change in mortality rates is not monitored under Art. 40 data. FR faced very high mortality rates in spat and juvenile oyster farming in all sea basins from a series of viral outbreaks since 2008, all affecting Pacific oysters (FR AIR, 2014; see section 4.2.8 for further details). This overwhelmed any improvements that EFF funding may or may not have made.

Conclusion of the evaluation question:

EFF contributed to increase hatchery fry use in the EU especially in freshwater trout, carp, sea bream and sea bass.

4.2.6 EQ5: To what extent has EFF support contributed to more sustainable aquaculture practice?

4.2.6.1 Judgment criteria: EFF intervention has contributed to the reduction of aquaculture's environmental impact

In 2014, following their analysis of EFF actions to the aquaculture sector covering the EFF implementation years 2007 - 2011, the European Court of Auditors (ECA) concluded that CFP and the EFF did not provide sufficient details on the content of measures in support of the sustainable development of aquaculture (ECA, 2014). However, measure 2.1 had the potential to contribute to more sustainable aquaculture through a number of actions, not only the specific aqua-environmental measures which saw limited uptake.

Aqua-environmental measures include:

a) *Units with 'aquaculture comprising protection and enhancement of the environment, natural resources, genetic diversity, and management of the landscape and traditional features of aquaculture zones' (Article 30(2)(a) of regulation (EC) N° 1198/2006):*

Most MS focussed on other actions under measure 2.1, but PL spent 65% of its measure 2.1 expenses on Action 4 with slightly over 1,000 operations (Art. 40 financial data[53]). Projects taking into account minimising the impact on the environment were given premium points in the selection process in PL. Additional amelioration of farms to make sure possible flooding / overflow did not impact Natura 2000 sites occurred in three of these funded projects (Aquaculture case studies).

To a lesser extent, DE (113 units), HU (88 units), LV (34 units), BG (23 units), LT, FR, ES and UK were the other key EU MS that supported operations under action 4 to protect the environment, the genetic diversity and traditional aquaculture. In the UK, the support consisted of developing integrated multi-trophic aquaculture systems (5 operations).

[53] PL was not coming up when analysing EU MS activities through this Art. 40 data indicator. It is likely caused by an error in the data call reporting.

b) Units that has adhered to the Community eco-management and audit scheme (EMAS) in conformance to Regulation (EC) No 761/2001:

There was a lack of awareness and interest among the beneficiaries about this support (e.g. MA survey, SI). ES, with 1 project approved, supported beneficiaries in adhering to EMAS.

c) Units that have put in place organic production:

Seven MS, ES (a supported beneficiary obtained the organic certification), LT (6 projects), DK (11 projects), RO (17 projects), CZ and FR, supported farmers in developing organic production. However, the number of production facilities having achieved certification following EFF supported is not available from Art. 40 data.

MA views on the overall impact of the measure on sustainability, environmental impact, economic viability and the standard of living suggested that the majority thought the EFF had a major contribution to maintaining the economic viability of beneficiary operations. However, the impact on the other elements such as on the environment was much more mixed (Aquaculture case study).

The EFF minimised the impact on marine ecosystems in some countries through the development of recirculation aquaculture systems in CZ and LT. Additionally, although the Fund did not focus much on organic production (action 4), it had positive effects in supporting EU MS such as ES and RO. In the latter, the number of operators producing organically increased from three in 2010 to 29 in 2014 with the support of the EFF (MA survey).

Conclusion of the evaluation question:

Measure 2.1 contributed to more sustainable aquaculture through a number of actions (that improved general practices and reduced impacts), not just the specific aqua-environmental measures, which saw limited uptake.

4.2.7 EQ6: To what extent has EFF support contributed to reductions in public health issues?

4.2.7.1 Judgment criteria: EFF intervention has contributed to improved public health standards in the aquaculture sector

The proportion of the production that was covered by EFF public health measures in each EU MS, and the quantitative reduction in public health issues in the aquaculture sector by EFF support, are not monitored through the Art. 40 data calls. A qualitative and quantitative analysis is provided below using the unique Art. 40 data indicator collected to monitor action 5: 'Number of mollusc farmers that has benefited from compensation under action 5 – public health measures'. It is an output indicator.

Mollusc farmers that benefited from compensation for public health measures under action 5 were mostly from ES, IT, SI and FR:

- ES: 550 mollusc farmers were supported in Galicia to manage toxin outbreaks. ES considered that this measure should also have applied to the shellfish gatherers (*marisqueras*). They had to stop working at the same time as marine fish farmers during disease outbreaks. The shellfish gatherers did not have access the

temporary cessation (Art. 24) not being fishermen (that is they do not go on board) and did not have access to aquaculture measures not being fish farmers[54].
- FR (5 operations, Art. 40 Financial data and MA survey; the number of supported mollusc farmers is unknown from the latest available Art. 40 data call): according to the Managing Authority, the granting of compensation for the temporary cessation conditions for farmed shellfish harvesting activities are difficult to meet and it is extremely rare to see farmed bivalves phycotoxin contamination periods lasting for more than 4 consecutive months (French AIR 2014).
- IT: 26 mollusc farmers were supported.
- SI: 30 mollusc farmers were supported (Art. 40 financial data).

Conclusion of the evaluation question:

EFF intervention has contributed to improved public health standards in the aquaculture sector (action focusing on shellfish farming) but to a small extent being mostly used by ES, IT, SI and FR only. It could have contributed more by extending the compensation scheme to shellfish gatherers and to allow compensation when the contamination would last for less than 4 consecutive months.

4.2.8 EQ7: To what extent has EFF support contributed to improving animal health?

4.2.8.1 Judgment criteria: EFF intervention has contributed to improved animal welfare standards in the aquaculture sector

One Art. 40 data indicator is collected in relation to action 6. It is an output indicator only: *Number of farmers that has benefited from compensation under action 6 – animal health measures*

Few farmers indirectly benefited from compensation for public health measures under action 6 (Art. 40 data and MA survey analyses). The supported farmers were mostly from DE, DK, RO and FR:

- DE (24 operations): the Fund supported eel restocking to continuously adapt to the population trends.
- DK (7 operations): to eradicate a viral infection in Danish aquaculture. Viral haemorrhagic septicaemia (VHS) is a deadly infection for freshwater and marine fish.
- RO (7 operations).
- FR (5 operations, Art. 40 Financial data and MA survey): The FR shellfish sector did not receive substantial amount of support under action 5 even though oyster farmers faced extremely high mortality[55] in oysters spat and juvenile production for seven consecutive years and in all French production basins. The French Managing Authority informed that animal health measures would have been more effective if they had been allowed to fund the prevention of animal diseases, not only eradication plans.

In SI, farms faced an outbreak of Viral Haemorrhagic Septicaemia in 2008 which reduced the production significantly in 2009 and 2010 (MA survey and EUMOFA analysis) but the

[54] This situation remains in the EMFF as it is still required to work on a ship to be eligible for funding under temporary cessation (Art, 33.3.b EMFF, MA Survey ES).

[55] (50 to 80%, depending on the area)

country did not apply to fund any operation under action 6. In SI, operations were initially planned under this action but not implemented (MA survey).

Conclusion of the evaluation question:

EFF intervention has contributed to improved animal welfare standards in the aquaculture sector to a small extent as beneficiaries have focused their applications to other actions. However, the few operations within this action had positive impacts; for instance, in DE, DK, RO and FR. Also, animal health measures could have been more effective if funding animal disease preventions and not only eradication plans.

4.3 *Processing and Marketing Measure*

This spending category only includes Measure 2.3 (Article 34): Investments in processing and marketing.

The objectives are to increase quantity and added-value of fish processed, develop innovative products, enhance quality, develop new markets, reduce waste, reduce the negative impact on the environment, reduce inputs consumption (e.g. energy and water consumption), and maintain and create jobs.

4.3.1 Common Questions

4.3.1.1 How many jobs (in FTE) have been maintained as a result of spending under these measures?

There is a general consensus among a majority of MAs and the industry that the measure contributed to maintain jobs. However, there are no available data to support this view (only HU provided a figure, but is not clear how it was obtained). Quantitative assessment would in most cases be difficult as the investment contributes to maintain or improve competitiveness but it is not vital to the continuation of the beneficiaries. Assessing the number of jobs maintained for a beneficiary would therefore require speculation on the number of jobs that might have been lost in the medium term if the company had lost market share or turnover for not having invested.

4.3.1.2 How many jobs (in FTE) have been created as a result of spending under these measures?

Only four MS provided an estimate that could be used for extrapolations for the number of jobs created by Measure 2.3 as of December 2014 (BG, ES, GR and IE, representing 36% of the EFF committed to the measure).

Those estimates are based on applicants' declarations and correspond to intentions rather than controlled actual creation of jobs. It seems, based on the feedback from MAs and from the industry and from the limited data available, that the share of projects carried out under Action 1 (increase in capacity) is a determinant for the impact of the measure in jobs. However, the number of jobs created under action 1 specifically is not known and the data available do not allow for extrapolation on this basis.

The only possible way to approach the number of jobs created as a result of Measure 2.3 projects, although very approximate, is to apply the weighted average of the number of jobs created by euro spent (the total cost of operations being considered) in BG, ES, GR and IE. This approach is more accurate than using the number of jobs created by operations, as it can be considered that the number of jobs is proportional to projects'

size (in particular when considering an increase in capacity) and considering the strong variability in the cost by operation between Member States.

The 4 MS in the sample account for 37% (EUR 889.357 million) of the total cost of operations reported by the 27 MS. It is estimated that around 4 jobs/euro invested are created in the processing sector. Do so, provides an estimate that about 10,000 jobs were created (or expected in the medium term) in the EU.

4.3.1.3 How many beneficiaries have received funding under these measures?

In the absence of available data for the number of beneficiaries, the number of operations was used as a proxy. However, detailed data by project from ES show that the average number of projects by beneficiary in this MS was around 2 projects/ beneficiary. This was cross-checked with the number of enterprises in the processing industry by MS and the breakdown provided by Art. 40 data on the number of companies by size for the measure.

Depending on the apparent reliability of Art. 40 data, we either used Art. 40 data or an estimate based on number of operations / 2 (based on the Spanish data). In total it is assessed that there were around 2,700 beneficiaries for this measure across the EU, for a total number of operations of 5,192.

Beneficiaries are mostly companies but not necessarily "processing companies" in the sense of the NACE nomenclature, as aquaculture companies have also benefitted from the measure. In some MS, POs or other forms of fishermen's organisations have also carried out projects under this measure.

4.3.1.4 Of these how many were women?

Not relevant for this measure as beneficiaries are firms, not individuals.

4.3.1.5 How many existing firms have received funding under these measures?

The monitoring data do not allow differentiation between new businesses and existing ones. Feedback received shows that the measure was used for new businesses but there is no possibility to assess to what extent.

Based on the available information, we can only assess that most beneficiaries were existing firms and that the number of firms is therefore close to 2,700.

4.3.1.6 How many of these were SMEs and non-SMEs?

The breakdown by size of company from Art. 40 data has been assumed to be accurate even when data was incomplete, for most MS. For MS where the data was clearly not reliable, the% of SMEs in the industry has been used (STECF data 2012). In total, it is estimated that about 2,600 SMEs benefitted from the measure.

Conclusion of the common questions:

- The measures from this spending category created 10,000 jobs.
- The number of beneficiaries is estimated at 2,700 beneficiaries.
- Most of the 2,700 beneficiaries were existing firms.
- 2,600 of these beneficiaries were SMEs.

4.3.2 EQ1: To what extent and in which manner has the funding spent under the processing measure affected the processing production in volume, production capacity, production methods and value, number and size of firms, jobs?

4.3.2.1 Judgment Criteria 1: Processing companies that have benefitted from measure 2.3 have increased their volumes of fish processed

Analysis of the financial execution shows that 51% of the projects carried out under Measure 2.3 were related to an increase in capacity (Action 1).

The only related result indicator from the monitoring system (Art. 40 data) is the increase of production capacity for those projects. However, the figure from the monitoring data is difficult to interpret for various reasons:

- There is no systematic control or validation/coherence checks in national monitoring systems as there is no requirement associated to this indicator for the beneficiary.
- It is likely that beneficiaries may indicate the total production capacity corresponding to the investment, including if it comes as a replacement of an older production line, rather than the actual *increase* (total production capacity of the unit after the investment – total capacity of the unit before the investment)[56].
- Without access to detailed data, it is not possible, at EU level, to identify extreme values that could be caused by unit errors or data-entry errors and exclude them from the analysis.

If we take Art. 40 data in MS where it they assessed as fairly reliable[57] and apply the same ratio of increase in capacity/ EUR 1,000 of investment (total cost of the project) in other MS (1.37 t/EUR 1,000 of investment[58]), it can be estimated that the EFF resulted in new production capacity for the beneficiaries of about 1.8 million tonnes. Using the same logic but the average increase/project (321 t/project) would give a total of 1.5 million in new production capacity[59]. These figures should be interpreted as the capacity of subsidised new/modernised production lines rather than a net increase in capacity. In other words, investments under Action 1 represent between 1.5 million and 1.8 million tonnes of production capacity, which partially comes in replacement of older production lines, for a total volume of production estimated by EUMOFA at about 4 million tonnes in 2008 and 4.6 million tonnes in 2013[60] (the last year available).

[56] This issue had already been identified in the ex-post evaluation of the FIFG.

[57] Using the assessment reported by the country experts based on MA interviews and national documents as well as the evaluators assessment: e.g. the indicator for the UK was not taken into account even though it was reported to be reliable because the total value (776.648 t) seemed unrealistic both in absolute value (almost twice the actual production of the UK) and in proportion to the amount of investments carried out and EFF granted. For all MS, the amounts provided by the Art. 40 data was also cross-referenced with other sources (e.g. data published in the AIR or not) and available qualitative information from MAs, industry representative and beneficiaries.

[58] The ratio has been calculated by dividing the total reported increase in capacity by the total cost of corresponding projects in the MS (1.334.706 t / 977 617 per EUR 1,000 of total costs of projects over 19 MS representing 70% of EFF committed for Action 1 of M 2.3 – Increase in capacity).

[59] Although it would seem logical that larger projects result in greater increase in production capacity, there is no clear correlation between the average size of projects and the increased capacity based on the data at MS level, so both methods are assessed to be equally valid based on the available information.

[60] EUMOFA statistics are based on PRODCOM, which classifies the output of manufactured goods based on the NACE nomenclature of the firms.

At MS level, the number of processing units has decreased overall in the EU (- 4% between 2008 and 2012 according to STECF reports). The increase in capacity from EFF investments has been therefore partially compensated by a reduction of capacity in other units.

Finally, investments were partially carried out by fish farms or by POs or other fishermen organisations (e.g. *Cofradias* in ES). The production of processed goods by operators whose main activity is not processing are not well taken into account in production statistics so this should be taken into account when comparing the production capacity of investments to the actual annual production.

Another approach consists of comparing the estimated number of beneficiaries for Action 1 (increase in production capacity) with the total number of firms reported by the STECF for 2008 in order to assess the percentage of companies that increased their production capacity under the EFF. Analysis shows that the share of processing firms having increased their production capacity under the EFF could have reached approximately 30%[61].

Although it is not possible to provide a figure for the actual increase of production capacity, these different approaches clearly show that the increase and modernisation of the production capacity under the EFF has been significant and that the measure has been widely used by the industry. It also suggests that investments in new production capacity outside the EFF has probably been limited, except in large companies that did not have access to the EFF (companies with more than 750 employees and with a turnover above EUR 200 million).

Based on EUMOFA data, the total increase in production between 2008 and 2013 (the last year data are available) was 12% of the 2008 production, with significant differences among MS (from -44% in SE to +483% in CZ, where the production of processed products was marginal in 2008[62]). The monitoring system does not provide information on the actual evolution of the production of beneficiaries after the investment, but the analysis above suggests that even though there are external factors, the overall increase in production output was closely related to the increase in capacity from the EFF. This was also confirmed by the feedback from the MAs and the industry.

Table 8: Assessment of the main results of the measure in MS

	Certainly	Possibly	Probably not	No	Impossible to assess	No answer	Total
Increase the volume of fish processed	74%	13%	0%	9%	4%	0%	100%
Improved product quality	65%	13%	0%	4%	4%	13%	100%
Increase overall added-value of fish products	57%	9%	0%	9%	9%	17%	100%
Improved safety and working conditions	57%	17%	4%	4%	4%	13%	100%
Job creation	39%	17%	4%	9%	13%	17%	100%
Reduction of waste	35%	17%	9%	13%	4%	22%	100%
Job maintained	35%	17%	4%	0%	13%	30%	100%
the development and marketing of innovative products	30%	30%	9%	4%	4%	22%	100%
Improved environmental performance (other than reduction	17%	39%	9%	4%	13%	17%	100%
the development of niche markets	13%	17%	30%	4%	9%	26%	100%
Other (explain)	9%	4%	0%	9%	0%	78%	100%

[61] The number of firms having benefitted from Action 1 is estimated from the number of operations/1.2 (this ratio comes from the analysis of detailed data provided by the Spanish MA as this is the only MS where we can analyse the average number of operations/ beneficiary for this measure). It is also consistent with the numbers provided by MS for the breakdown of operations by size of companies. Considering that at least in Galicia, where the processing industry is the most important, there was a selection criteria to favour companies that applied for the first time (to limit the concentration of the funds on the same companies), this ratio is considered as a minimum. The total share or companies estimated is therefore a maximum.

[62] See data by MS in Annex 6

Source: evaluators from National documents and MA interviews (based on 23 MS representing 94% of EFF committed where at least one answer was provided for this question).

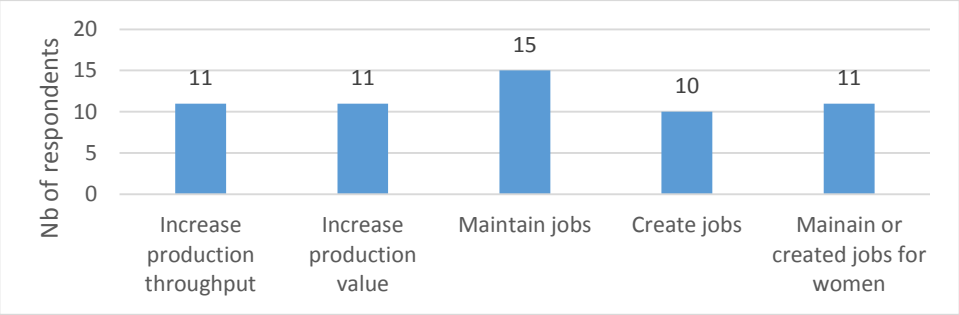
The above table illustrates the feedback from MAs (based on interviews, AIRs and other relevant documents when available) regarding the results of the EFF.

As there has been no real assessment by MAs of the impact of the projects on beneficiaries at MS level, MA views rely mainly on the initial objectives and the nature of the projects actually carried out. Comments provided with the answers show that the answer "certainly" generally relies on factual elements (e.g. typology of project and monitoring data), while the answer "possibly" means that a result could be expected but it has not been be verified.

The feedback from beneficiaries through the online beneficiary survey[63] and interviews also indicates that the measure resulted in an increase in production for at least half of them.

Figure 19: Results of M2.3 on the development of the activity (online survey)

Has the project contributed to any of the following? (% of positive answers - 20 answers in total for this question) *only for respondents who answered that the projects had contributed to the development of their activities.*



Source: Online survey

Only four online respondents provided a value for the increase in production. In those four cases, the increase was between 10% and 25%. Interviews with beneficiaries in ES and the UK also indicated that a majority of investments resulted in increased production. The rates of increase varied depending on the type of investment and the size of companies. It was proportionately greater for new businesses or when new products are launched. The impact may also have been more important in relative terms for micro-enterprises. Overall, rates of increase mentioned ranged from 5% per year to 50% (not including new businesses for which it is not possible to compute an increase rate).

The link between the increase in production capacity and production throughput also varies. Some beneficiaries indicate that it was planned to increase production progressively and that it had not yet reached full capacity utilisation (the lowest rate mentioned was between 30% and 40% utilisation rate three years after the investment). On the contrary others are already using the full capacity (possibly with seasonal or year-to-year variations). In all cases, the increase in production throughput was considered to be as a direct consequence of the increase in capacity resulting from EFF support.

[63] 20 out of 30 processing companies that carried out an investment claimed that it had a significant impact on the development of their activity (including 3 companies that did not use the EFF). Two respondents did not develop their activity following the investments because it was not an objective. The others did not answer this question.

Considering the importance of the investments in new production capacity, there could be a risk of over-capacity, which would reduce the actual results of the investments in real production throughput, but from the STECF reports and the feedback from the industry there is no evidence of this[64].

In conclusion, Measure 2.3 resulted in an increase in production for at least half of beneficiaries (Action 1 beneficiaries). The relative increase varied significantly depending on the projects (from 5% to 50% based on a small sample of beneficiaries). Considering the relative importance of EFF investments on the production capacity of the industry as a whole, it can be considered that the EFF contributed to the 12% increase in production reported by EUMOFA between 2008 and 2013, even if it is not possible to claim sole and direct attribution.

4.3.2.2 Judgment Criteria 2: Companies have increased the value of their products through innovation, quality and niche markets thanks to the EFF support

Article 40 data does not provide information on the share of projects related to product quality, innovation and niche markets, so the analysis is entirely qualitative.

Table 8 above shows that improved quality and increased added-value are considered as the main results after the increase in production output, according to MAs, while the expected impact on innovation and the development of niche market is more uncertain.

Out of the 30 processing companies that answered the online survey, 15 made investments aimed to improve product quality (12 of them with EFF), and only 4 of them invested in product or market innovations (3 with EFF). Although the sample is not representative statistically, these results are coherent with MAs feedback. Figure 19 above from the beneficiary survey also indicates that the projects resulted in increased value for about a third of respondents, but this could be related to the increase in volumes.

Interviews with beneficiaries tended to indicate that product quality or innovation were not necessarily objectives *per se* but even when they were not, modernisation of the equipment contributed to improved product quality. Compared to the increase in production throughput or increase in total value, the improvement of product quality or the degree of innovation are more difficult to assess. Typical indicators, such as the implementation of quality schemes or patented processes, are not available for the EFF projects and they are not as relevant as most of the projects were outside these types of schemes as shown in the next indicator (examples of relevant projects). Quality improvements, in particular, can come from various factors and may come down to very basic processes (e.g. regularity of fileting, better preservation of fish, etc.) that are facilitated by modern equipment.

Projects involving quality schemes or patents may also have been carried out under different measures than the measure 2.3 (e.g. measure 3.4 - development of new markets, measure 3.1- partnership with scientists and measure 3.5 – pilot projects) and some MS also had national schemes to support innovation in the industry that may have been available for the fish processing industry (e.g. *Oseo* in FR or I + D in ES) over the EFF period.

Many projects involved improvements of product quality (e.g. regularity of filleting or better preservation as mentioned above), new products (including new recipes or new packages), new processes (e.g. new cooling or heating systems), including in some cases using patented equipment. The development of products targeting niche markets seems

[64] There are no available statistics on capacity utilisation, so we cannot analyse trends.

more marginal but some projects clearly fit in this category (e.g. processing of algae; high-value deli product, gluten-free products)[65].

Measure 2.3 contributed to some extent to create value through the improvement of product quality, innovation and niche markets, but the real results of the measure in that regard are difficult to assess and cannot be quantified in terms of number of quality schemes or patented processes. As regards product quality, the results are more diffused and seem often to relate to basic characteristics of products (regularity, freshness) obtained through better equipment. Even though the measure certainly contributed to the introduction of new products or new packages, it is not clear to what extent this can be considered as 'innovation'. The result in terms of more breakthrough innovation and the development of niche markets seems to be real but more anecdotal and may have relied also on other EFF measures or national types of support.

4.3.2.3 Judgment criteria 3: Companies that have benefitted from M2.3 have improved their environmental performance

Article 40 data do not provide information on the share of projects related to environmental performance.

Only four MS explicitly mentioned improving the environmental sustainability of the sector as an objective of the measure in the MA survey (BE, CY, ES and SE) and six of them declared they implemented environmental selection criteria for this measure (HU, IT, RO, SI, ES and the UK). The feedback from the MAs showed that a full analysis would require a more systematic analysis of the calls for proposals and guidelines for applicants at MS level and in some cases regional level, which is outside the scope of this evaluation. So while environmental criteria were not necessarily used in only six MS, feedback from MAs clearly indicates that the environment was less of a priority for this measure than for other spending categories of the EFF. Selection criteria may have been generic (applicants showing that the investment should contribute to reduce the environmental impact are better ranked) or more specific, including for instance criteria based on the use of renewable sources of energy or environmental certification of the applicants.

Table 8 (p. 98) also shows that the expectations in terms of environmental results of the measure are lower and more uncertain than for economic results, such as increased volumes or added-value.

Feedback from MAs and the beneficiaries both indicate that the main improvements as regards the environmental performance are primarily related to the reduction of production costs (energy-efficiency, reduction of waste, other resources-efficiency) and upgraded legal standards (e.g. to comply with EU standards or to remain above legal standards for companies that put forward their environmental awareness in their communication).

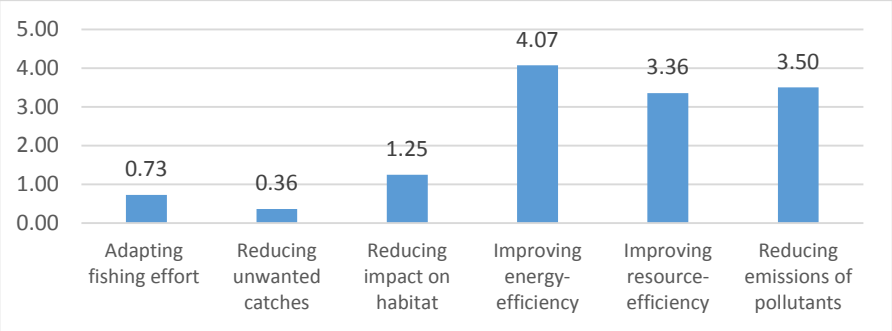
The detailed analysis provided in the Spanish AIR 2014 also indicates that environmental results depend on the specific actions under this measure. In ES, under Action 2 (Construction, extension, equipment and modernisation of processing units), almost all projects involve some sort of environmental commitment including the implementation of Environmental Management Systems, the use of underutilized species, products and waste, improving environmental conditions above what is required by law and compliance with EU standards. Under Action 1 (Increase in processing capacity), close to 60% of the projects involved some environmental commitments – the same types of initiatives as for action 2. Under Actions 3 and 4 (investments in marketing establishments), however only 10% of the projects had an environmental dimension.

[65] See Annex 6 for examples of projects under M2.3

Out of the 30 processing companies that answered the online survey, 9 made investments aiming to improve the environmental performance (7 of them with EFF), but 14 declared the project had a significant impact on the environmental sustainability; which suggests that the primary objective of the measure related to competitiveness and that the environmental dimension was often present but as a secondary objective or as a side-effect, for instance when the reduction of production costs also improved environmental sustainability.

Figure 20: Results of M2.3 on the environmental performance (online survey)

Has the project had significant impact on the environmental sustainability of your activity? If Yes, ***Has the project contributed (and to what extent) to*** *(scale 1 to 5; 14 answers)*



Source: Online survey

Likewise, only one interviewed beneficiary explicitly mentioned environmental performance as an objective of the project. However, several projects included an environmental dimension through energy-efficiency, reduction of waste, valorisation of by-products, treatment of residual waters, etc.

As mentioned above, the main environmental improvements were related to cost reduction strategies. Other examples mentioned by MAs included environmental certifications or the implementation of environmental management systems.

Product innovation also lead to environmental improvements, for instance when focusing on the usage of waste or by-products, such as a project reported in Galicia that invested in a processing unit in order to use mussel shells for pet food, therefore creating added-value from wastes that represented an environmental issue in the area.

Improvements in environmental performance was not in general the primary objective of investments made under Measure 2.3 and the environmental results, are probably less significant than for the increase in production or improved competitiveness. However, measure 2.3 clearly contributed to improved awareness (e.g. by fostering the implementation of Environmental Management Systems and including environmental criteria in the application processes) and to improved environmental performance for some beneficiaries, mainly through modernised equipment that allowed improved energy and other resource-efficiency, the construction of new water treatment plants, the reduction of waste, and the development of new products using waste, by-products or under-utilised species as raw material.

Conclusion of the evaluation question:

- Measure 2.3 resulted in an increase in production for at least half of beneficiaries, the relative increase varied significantly depending on the projects.
- EFF contributed to the 12% increase in production reported by EUMOFA between 2008 and 2013, however, it is not possible to claim sole and direct attribution.
- Measure 2.3 contributed to create value through the improvement of product quality, innovation and niche markets, but the real results in that regard cannot be quantified
- As regards product quality, the results seem to relate to basic characteristics of products obtained through better equipment.
- The measure contributed to the introduction of new products or new packages. The result in terms of more breakthrough innovation and the development of

niche markets seems to be real but more anecdotal and may have relied also on other EFF measures or national types of support.

- Improvements in environmental performance was not in general the primary objective of investments made under measure 2.3 and the environmental results, are probably less significant than for the increase in production or improved competitiveness.
- However, measure 2.3 clearly contributed to improved awareness and to improved environmental performance for some beneficiaries.

4.3.3 EQ2: To what extent did the EFF support contribute to improving the competitiveness of processing firms?

4.3.3.1 Processing companies that have benefitted from M2.3 have become more competitive (overall assessment)

The two main types of strategy to improve competitiveness were:

- Improving price-competitiveness, which consisted of reducing prices and usually implied the reduction of production costs (raw material costs, labour costs, energy costs, etc.).
- Improving product-competitiveness, which consisted in improving products to better address consumer needs, focussing on different characteristics of the product, such as quality, innovation, services provided by the product (e.g. through packaging), image of the product (in particular as regards the environmental impact), etc.

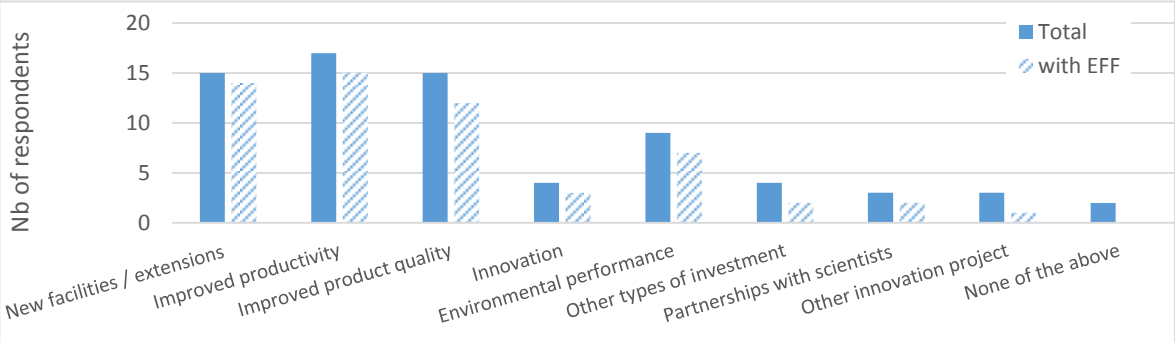
The previous analyses already provided an assessment of the contribution of the measure to changes in volumes, value, product quality, innovation and development of niche markets, which are all driving factors of competitiveness. Text in this section therefore focusses on the overall perception of MAs, industry representatives and beneficiaries.

The MA survey shows that competitiveness was a primary objective of the measure across all MS that implemented it, although this objective was pursued with different strategies (e.g. developing the industry, improving added-value, fostering innovation, reducing production costs, etc.). Likewise the assessment of the results presented in Table 8 (p. 98) shows that the main results of the measure were expected to come from the increase in processed fish products, improvements in quality, increased added-value, and improvement of working conditions. For the latter, although working conditions are not directly a factor of competitiveness, they result, in most cases, from automation, which also contributes to reduce production costs.

The feedback from the 30 processing companies that answered the online survey, also indicated that improving competitiveness through increased capacity, improved productivity and/or improved quality was the main driver for investments, while environmental performance came next, and innovation was not necessarily related to investments (partnerships with scientists and other innovation projects).

Figure 21: Types of projects implemented by processing companies during the EFF period (online survey)

Did you implement any of the projects listed below? For which of the following have you received an EFF grant? (multiple answers possible)

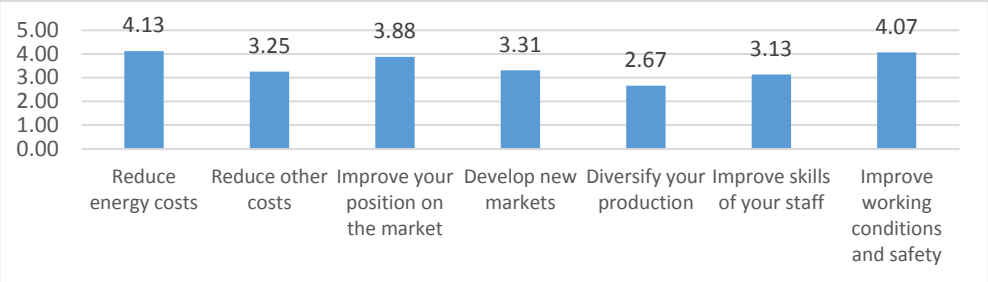


Source: Online survey

When questioned about the impact of their projects, 17 respondents claimed that the EFF funding had had a significant impact on their competitiveness. Among the 13 respondents that did not answer 'Yes' to that question, three indicated that that was not the objective and one said it improved worker's productivity but the main objective was improved working conditions. The others did not answer this question.

Figure 22: Results of M2.3 on competitiveness (online survey)

Has the project had significant impact on the competitiveness of your activity? If Yes, has the project contributed (and to what extent) to (scale of 1 to 5)



Source: online survey

The main effects of the projects in terms of competitiveness, according to respondents, came from the reduction of energy costs, improved working conditions (which comes with improved labour productivity in most cases) and improved position in the market, which may have been related to either increased volumes or improved product quality and/or better marketing.

Interviews with industry representatives and beneficiaries also pointed to the improvement of competitiveness through improved productivity (mainly through automation or more resource-efficient processes) as a major driver for new investments. Regarding the results, the increase in production as certainly the most tangible economic result, and often the main driver for the increase in total value of production and the creation of new jobs.

Both interviews and the online survey suggested that the majority of the respondents would have abandoned the project without EFF or postponed it. A few others would have scaled it down. In the latter case, parts of the investments that did not provide immediate return on investment would probably have been reduced. Only very few beneficiaries said that the same investment would have been carried out even without EFF.

Conclusion of the evaluation question:

The various sources concur that competitiveness was the primary objective of the measure and that projects implemented contributed to improve it, mainly through improved productivity and increased production capacity, but also, through the improvement of product quality, and to a lesser extent, through innovation and the development of niche markets.

4.4 *Common Interest Measures*

The Common Interest spending category consists of five measures under Axis 3 (measure 3.3 on ports and landing sites is considered under the fisheries spending category (Table 9) summarises the objectives and main achievements of the measures along with some project examples. Annex 6.3 provides more details for this spending category.

A total of EUR 639.8 million was granted for common interest measures, which accounted for 16% of total EFF commitments. This spending category was dominated by collective actions (45%) and marketing and promotion (22%). Pilot operations and the protection of aquatic fauna and flora each represented about the same share (respectively 16% and 15%). Projects related to modification for reassignment of fishing vessels accounted for only 2% of the spending category.

ES accounted for 31% of total commitments on the spending category, PL and FR for 9%, DE for 8%, DK and IT for 6% and UK, PT and NL for 5%.

4.4.1 Common Questions

4.4.1.1 How many jobs (in FTE) have been maintained or created as a result of spending under these measures?

Projects carried out under this spending category did not directly aim to create or maintain jobs and there are therefore no data available. Except for the creation of new POs, projects were likely to rely mainly on existing staff in the concerned organisations. Some projects may have contributed to improve the economic resilience of participants (therefore resulting in jobs maintained) or resulted in opportunities to create jobs, but this is entirely hypothetical and cannot be measured based on the information available. The only action that is assessed to clearly create jobs is the creation of new POs. It is assumed here that there was a new administrative job created for each new PO, or 48 jobs created in total. However, the restructuring of 73 POs under the same action is likely to have resulted in the destruction of jobs, so the total impact can be assessed to be neutral.

4.4.1.2 How many beneficiaries have received funding under these measures? How many of these are firms, women and SMEs?

Based on data from Art. 40, there were 10,492 projects under this spending category (see following table). The number of actual beneficiaries is not known. Some projects involve multiple beneficiaries (e.g. collective actions) but the same beneficiaries can also participate in several projects. The PO survey for instance shows that POs have participated as project leads or as simple participants in various measures under this spending category, other than the creation and restructuring of POs: collective actions related to training, pilot projects, partnerships with scientists, networking, promotional campaigns, etc.

Table 9: Number of operation by measure under Axis 3

	Number of operations
3.1. Collective actions	5,612
3.2. Promotion and development of aquatic fauna and flora	1,595
3.4. Development of new markets and promotion campaigns	2,385
3.5. Pilot operations	710
3.6. Modification for reassignment of fishing vessels	190
Total	**10,492**

Source: Art. 40

Beneficiaries were mainly public bodies or other institutional entities (POs, other professional organisations or cooperatives, research institutes, etc.). Private companies could be involved in projects but generally not as project leads. The same holds for individuals which participation is assessed to be even more marginal. There is no data on the size of companies or gender of beneficiaries for the measures under this spending category, but it is therefore barely relevant.

Conclusion of the common questions:

- Projects carried out under this spending category did not directly aim to create or maintain jobs. It is estimated that measures under this spending category had a neutral impact on employment.
- There were 10,492 projects under this spending category but the number of actual beneficiaries is not known. Some projects involve multiple beneficiaries but the same beneficiaries can also participate in several projects.

4.4.2 EQ1: To what extent and in which manner has the funding for common interest projects contributed to the EFF objectives?

4.4.2.1 Judgement criteria: The projects implemented were relevant to the different EFF specific objectives

The first step to answer this question consists in identifying the types of projects implemented in order to assess their relevance to the EFF objectives (see section 2-intervention logic of the Regulation). According to the Intervention logic, this spending category should contribute to all EFF specific objectives, mainly through non-investment measures.

Detail on the projects implemented in the most significant Member States in terms of EFF commitments on the measures is presented in Annex 6.3[66]. The following section

[66] The monitoring system did not require to provide information on the focus of the projects (e.g. selectivity, market transparency, etc.), only the types of projects (e.g. creation of PO, training, networking, etc.). Some information was gathered through AIRs and MA interviews, but considering the time available, the primary focus during the interviews was on overall implementation, impacts and case study topics. So the information on collective actions is very partial.

provides an overall assessment of the coherence between the projects identified and the objectives of the EFF and of the measures.

Collective actions (Measure 3.1): 45% of total spend for this spending category

In nine Member States (MT, FI, EE, LV, IE, FR, UK, RO, NL), collective actions accounted for more than 50% of total EFF commitments on common interest measures. This is therefore by far the most important measure of this spending category in terms of financial allocation. Based on the intervention logic, this measure should have contributed to the EFF objectives through increased networking and collaboration among the different stakeholders, a better organisation of the sector around the POs and professional training.

There are some inconsistencies in article 40 data on the number of operations by category. Moreover, a large number of operations (almost 50% of the total number of operations) were flagged into the category 'other operations' with no further detail on the types of projects implemented. It can nevertheless be estimated, based on the available data that actions related to the promotion of scientist-industry partnership accounted for around 25% of the total number of projects, and the upgrade of professional skills or development of new training methods for around 20%. Projects related to PO were more limited in terms of number of operations: 41 POs were created and 73 restructured.

Information provided on the types of projects is very partial, but shows that the projects implemented have covered at least the following topics:

- Organisation of the market: creation and restructuring of POs, creation of an inter-branch organisation, networking of fish markets, collective equipment to process and market fish products, including processing of by-products.
- Safety on board: collective investments for the small-scale fisheries.
- Improvement of selectivity: innovation platform and knowledge centres.

The examples provided are coherent with the objectives of the measure but are not sufficient to provide an overall assessment.

Some MS also encountered problems with the definition of eligibility criteria leading to potential significant decertification[67].

Protection and development of aquatic fauna (Measure 3.2): 15% of total spend for this spending category

According to article 40 data, the two main operations under measure 3.2 were the rehabilitation of inland waters (around 50% of the total number of operations), and the rehabilitation of spawning grounds and migration routes (40%). The measure generally represented a small share of the EFF, except in DE (about 40% of total EFF committed in this MS), where projects mentioned are coherent with the objectives of the measure. It was used for instance for the implementation of the Eel Management Plan. Little information is available in other MS but no issue was raised about this measure it was focussed enough to guarantee that it would not be used for other purposes than what it was intended for.

Development of new markets and promotion campaigns (Measure 3.4): 22% of total spend for this spending category

[67] This is the case with the "*Contrats Bleus*" implemented under this measure in FR, which status was under investigation at the time of the data collection.

The EFF monitoring system (Art. 40 data indicators) provides the number of operations by type of operations. The main issue with the indicators is that some categories are very generic and projects can often fall under more than one category. It nevertheless shows that 46% of operations registered were campaigns for fisheries and aquaculture products and 19% campaigns to improve the image of fisheries. These outcomes are strongly influenced by ES, which represented 60% of total operations (and 51% of total commitments).

The case study on this measure shows that based on the Art. 40 data and qualitative information gathered, the main types of projects were:

- Publicity campaigns (including TV, radio and press ads, brochures); by far the main types of projects implemented both in terms of number of projects and budget allocation at EU level, but also in most MS. These projects generally focussed on specific products or product segments, or specific types of customers (e.g. children and young in Galicia), they could also focus on the quality of the products (healthy characteristics or the production methods to improve the image of the sector).
- Other promotional tools, including recipe books, tasting events, presentations in schools, etc.
- Business fairs: much less significant in terms of budget allocation, based on the detailed data available in ES, but widely used across MS, especially for international trade fairs in order to develop exports, according to the information available, this particularly benefitted SMEs that would not participate otherwise.
- Support to certification (mainly for MSC certifications) and to PDO/PGI (mostly for freshwater aquaculture).

The nature of the projects was coherent with the objectives to improve competitiveness through increased differentiation, new market development and increased quality.

Pilot operations (Measure 3.5): 16% of total spend for this spending category

The implementation of this measure was fairly concentrated with five MS accounting for 67% of the EFF committed at EU level (DE, PL, PT, NL and ES). The types of project supported varied significantly in size. BG and EE for instance only had single, but substantial projects, and RO supported 2 large projects totalling EUR 3.4 million (one relating to the restocking of Black Sea sturgeon, the other on the intensive culture of sturgeon).

The EFF monitoring system includes the following Art. 40 data indicators for this measure relating to the number of operations for each of the four actions under the measure: (i) test on innovative technology (23% of total operations); (ii) test on management plans and fishing effort allocation plans (24% of total operations); (iii) develop and test fishing gear with improved selectivity (38% of total operations); (iv) develop and test alternative fisheries management techniques (15% of total operations).

According to the case study on pilot operations, the measure supported a range of innovative technologies and improvements to fishing gear selectivity, benthic impact & fuel efficiency. It also supported innovative production techniques, energy efficiency and various actions related to improving knowledge on the marine environment. New resource management methods for water resources and fisheries could also be supported. All projects reported are consistent with the objectives of the measure to contribute to the EFF objective through acquisition and dissemination of new technologies.

Re-assignment of fishing vessels (measure 3.6): 2% of total spend for this spending category

The uptake was very low on this measure, with only 3 projects implemented across the EU for a total amount of EUR 553,000 of EFF committed. As a consequence, the measure was not commented on in AIRs and questions were often skipped during the MA

interviews so there is no additional information on the types of projects implemented under this measure.

4.4.2.2 Judgement criterion: There are some tangible achievements identified by MAs and stakeholders

MA interviews provided qualitative assessments on the results of collective actions (3.1), protection of aquatic fauna measure (3.2) and promotion measure (3.4).

Results of collective actions highlighted by MA were an increased collaboration between industry and scientists (65% of MA considering this result as certain, 18% as possible), the development of innovative gears (certainly: 53%, possibly: 18%) and the modernization of equipment and infrastructures (certainly: 47%, possibly: 12%). Opinions on other results were more mixed (See annex 6.3 for detailed results).

The question asked to MAs about the achievements of measure 3.2 on the protection of aquatic resources focused on Marine Protected Areas, based on the only result indicator, but most projects were carried out in inland waters, so the question was not relevant.

MA qualitative assessments showed that in a majority of MS, a possible positive effect of measure 3.4 was on the increase of the level of differentiation in the market (certainly: 7%, possibly 50%) and on the development of new markets (certainly: 7%, possibly 57%). However, the case study shows that no real assessment was done on the impact of the campaigns.

As for pilot operations, the case study carried out in the framework of the evaluation showed that the main results of pilot operations were improving gear selectivity, which resulted in significant by-catch reduction by participating vessels.

Protected marine area (km^2)

According to the EFF regulation, the protection and enhancement of the environment in the framework of NATURA 2000 could be supported through measure 3.2 on the promotion and development of aquatic fauna. The implementation of protected marine area was not directly supported by the EFF.

Analysis of article 40 data showed that the measure mainly focused on the rehabilitation of inland waters (around 50% of the total number of operations), and the rehabilitation of spawning grounds and migration routes (40%). Only 62 operations (1.5% of the total number of operations) targeted Natura 2000 areas, of which 44 were registered in ES.

According to the 2014 AIR data for ES, 29.56 km^2 of marine protected area were established through measure 3.2 (22.14 in 2007 and 7.42 in 2008), from 3,045.52 km^2 of marine protected area registered before the entry in force of the program. Since 2009, no marine protected area was established with EFF support (Nevertheless, the marine protected area significantly increased in ES on the period 2009-2014, in the context of the INDEMARES LIFE project). There was no significant contribution of the EFF to the establishment of protected marine area.

Increase of the added value of fish processed and sold

According to the analysis of the EFF intervention logic, an increase of the added value was one of the objectives of collective actions (measure 3.1) and of measure 3.4 on the development of new markets and promotion. As regards measure 3.1, increased added-value was expected to result from the better organisation of the sector, enhanced quality and innovative products. The following section shows that the measure did contribute to the organisation of the sector through the creation and restructuring of POs, The MAs feedback also indicates some achievements in terms of innovative products and enhanced quality but there is no data available to confirm this assessment. As for measure 3.4, 50% of MAs interviewed considered that the promotion measure contributed to an increased differentiation in the market, which could have led to a better valorisation of products. According to the case study findings, the nature of the projects

implemented within measure 3.4 corresponded to the objectives of the measure and of the MS. The general perception on the results of the measure was positive and without being able to provide quantitative evidence, it can be considered that EFF measures had a positive effect on the increase of the added value.

Increase of consumption of fish products per inhabitant (EFF indicator) in MS where promotional campaigns were carried out

The increase of fish consumption was the main focus of measure 3.4 on the development of new markets and promotion campaigns. In the MS where promotion campaigns were launched, the issue of decreasing consumption (ES) or very low level of consumption per capita (CZ), was clearly identified in the sectorial diagnosis carried out for operational programs.

The following data shows the evolution of fish consumption between 2010 and 2014[68]. Data refers to the first MS with more than EUR 2 million of commitments on the measure.

Table 10: Change in fish consumption in the main Member States in terms of commitments on measure 3.4

	Total EFF granted on measure 3.4 (EUR 0,000)	Fish consumption per capita					
		2010	2011	2012	2013	2014	2014/2010
ES	72,627	44.6	44.9	44.6	44.1	46.2	4%
IT	12,720	29.1	29.8	28.3	27.8	28.9	-1%
PL	10,639	14.0	13.8	13.6	14.5	13.0	-7%
FR	6,843	34.7	36.1	32.9	34.6	34.4	-1%
DK	5,404	21.1	23.4	23.6	23.7	22.1	5%
CZ	4,375	9.6	9.1	10.6	7.9	7.5	-22%
PT	3,745	57.5	57.4	57.2	56.7	55.3	-4%
GR	3,675	19.4	17.3	14.1	16.9	17.3	-10%
EE	3,279	17.2	17.0	16.0	17.5	18.1	5%
LV	2,790	27.7	27.6	26.1	26.9	25.5	-8%
RO	2,443	6.4	5.0	5.3	5.5	6.3	-1%
UK	2,079	22.7	23.9	24.0	24.7	24.9	10%

Source: Article 40 data for EFF commitments and EUMOFA for fish consumption per capita

Among MS with the highest commitments on the measure fish consumption in kg per capita increased between 2010 and 2014, in ES (+4%), in DK (+5%), in the UK (+10%) and in EE (+5%). In FR and IT, consumption was relatively stable over the period (with fluctuations). In PL, CZ and GR, it decreased significantly: -7% for PL, -22% in CZ and -10% in GR. Overall, according to EUMOFA data, consumption in volume at EU level decreased over the recent period, whereas consumption in value (fish purchases in euros per capita and per year) has progressively increased.

Consumption trends depend on a series of factors including local economic conditions, availability and prices of fish and substitutes products, evolution of consumer habits. As a

[68] EUMOFA data were used. The data set starts from 2010. FAO data for previous years (2007 to 2009, last update for the data set being 2011) could not be used as there are significant differences between the two sources.

consequence, the net effects of promotional campaigns is difficult to assess. The results of promotional operations carried out with EFF support have rarely been measured. In ES, stakeholders' assessment was that the measure contributed to maintaining fish consumption despite the economic crisis. They moreover considered that for some campaigns, the effects may be visible only in the medium to long term (e.g. campaigns targeting children). In the CZ, the consumption per capita of freshwater fish increased from 1.32 kg in 2008 to 1.46 kg in 2011 when the campaigns were carried out and then decreased slightly to 1.34 kg in 2014, after the campaigns were interrupted. An evaluation carried out in 2009 showed that promotion had an effect on the increase of consumer awareness on the products targeted (carp under PDO/PGI).

Conclusion of the evaluation question:

- Projects implemented under common interest measures are overall coherent with the objective of the measures.
- There was no significant contribution of the EFF to the establishment of protected marine area.
- The general perception is that EFF measures had a positive effect on the increase of the added value (without being able to provide quantitative evidence).
- The results of promotional operations carried out with EFF support have rarely been measured (except in CZ, where freshwater fish consumption and consumer awareness on targeted products increased when promotion campaigns were implemented).

4.4.3 EQ 2: How many producer organisations were created using funding from the EFF and what was their impact on the marketing of fisheries and aquaculture products?

4.4.3.1 The EFF contributed to the creation of new POs

The following table is based on DG Mare data on the number of POs registered at the beginning and at the end of the programming period (i.e. 2007 and 2014). Between 2007 and 2014, the number of Producer Organisations was relatively stable. Indeed, 50 POs lost their recognition during the EFF period, whereas 48 were registered for the first time. IT and ES had 11 and 10 new POs respectively over the period. Nevertheless, in these two MS, these new registrations only partly compensated for PO exits (8 in IT and 9 in ES). The number of POs significantly increased in PL and RO, as a consequence of the entrance of Eastern countries in the European Union.

Table 11: Change in the number of recognized PO over the EFF period

Member States	Number of PO in 2007	Number of PO in 2014	Number of PO exits on the EFF period	Number of PO registrations on the EFF period
BE	1	1	0	**0**
DE	22	14	10	**2**
DK	3	2	1	**0**
EE	3	5	0	**2**
ES	41	42	9	**10**
FR	34	24	15	**5**
GR	3	1	2	**0**
IE	5	5	0	**0**
IT	42	45	8	**11**

LT	2	3	0	**1**
LV	3	3	0	**0**
NL	12	15	0	**3**
PL	6	12	0	**6**
PT	16	14	2	**0**
RO	2	6	0	**4**
SE	6	5	3	**2**
UK	22	24	0	**2**
TOTAL 17 MS	**223**	**221**	**50**	**48**

Source: DG Mare

The following data show the evolution in the representativeness of POs over the EFF period. Data for 2007 come from the evaluation report of the Common Market Organizations performed in 2008 (Ernst and Young, AND International, Eurofish and Cogea) and were transmitted by national authorities. Data for 2014 were provided by DG Mare. They show that in most countries where data are available, the representativeness of POs increased, even in Member States that reported a decrease in the number of recognized PO (DE in particular): +75% in LV, +25% in DE, +15% for both ES and DK, +10% in BE, the NL and PT (see detailed figures in annex 6.3). In FR, the number of POs decreased but their representativeness as stable. This means in both cases that there has been a restructuration trend and that larger organizations have been created.

4.4.3.2 PO have contributed to the marketing of fisheries and aquaculture products

On the 2007-2013, POs had to establish an annual operational program. Operational Programs (OPs) included a marketing strategy in order to adapt the volume and quality of supply to market demands. The establishment of OPs was supported through Common Market Organization funds and therefore, EFF did not contribute to the establishment of PO marketing strategies. Nevertheless, OPs could include actions supported by the EFF and linked to the implementation of their marketing strategies, through collective actions in particular. Nevertheless, Article 40 data do not give any detail on the type of beneficiaries and it is not possible to identify the type of operations specifically implemented by PO and contributing to reinforce their marketing strategies.

The following analysis is based on the results of the survey targeted to POs. This survey was completed within the framework of the evaluation of the Production and Marketing Plans of POs carried out for DG Mare, and which included a specific section on EFF results. 32 answers from PO were received. More than half of the respondents declared that they had applied to one or more EFF measures.

Respondent POs mainly applied for measure 3.4 on promotion and development of new markets (mainly as project leader and to a lesser extent as participant – 11 PO in total). They were also involved in collective actions, in particular collective actions related to the establishment of partnerships with scientists. Almost all applications resulted in the implementation of the projects. If not, the reason is that eligibility criteria were not met.

These answers, although not statistically representative, show that POs play an active role in the processing and marketing of the fisheries and aquaculture product.

Conclusion of the evaluation question:

- The establishment of OPs was supported through Common Market Organization funds and therefore, EFF did not contribute to the establishment of PO marketing strategies.
- Nevertheless, OPs could include actions supported by the EFF and linked to the implementation of their marketing strategies, through collective actions or promotion and development of new markets.

4.4.4 EQ 3: How were the partnerships between scientists and operators affected by the funding spent?

4.4.4.1 Existing partnerships were reinforced and new partnerships were set up to implement projects under the common interest measures

According to Article 40 data, operations aimed at promoting partnerships between scientists and operators represented 25% (around 1,000 operations reported) of the total number of operations registered under the collective actions measure. ES and IE respectively accounted for around 38% and 30% of these operations. In IE, the measure supported in particular the implementation of a scheme aimed to improve lobster stocks: Lobster V-Notching.

Pilot projects very often involved partnerships between the industry and research institutes. One of the most relevant examples was in NL. A Fisheries Innovation Platform (VIP) was established to act as a catalyst and selection committee for innovation proposals. Knowledge circles (kenniskringen) were also established for a number of sector topics, which established a forum for industry and researchers to discuss needs and potential collaborations. In the UK, the Seafish Industry Authority was awarded GBP 1.4 million to undertake a series of pilot studies that tested approaches to improving the evidence base for the management of Scottish inshore fisheries that used technology not previously used for inshore fleets and encouraged collaboration between scientists, technologists and the industry.

MA qualitative assessment of the results of collective actions revealed that the increased collaboration between industry and scientists was considered as one of the main effects of collective actions (65% of MA considering that collective actions certainly had a positive effect, 18% consider this result as possible).

The case study on pilot projects showed that the implementation of the projects was greatest in MS that identified innovation as a priority and implemented via a strategy. Strategies involved facilitating the collaboration and development of ideas and projects between industry and scientists e.g. through innovation platforms, events and networks.

Nine MS did not fund projects under the pilot operations measures, perhaps because collaborative pilot operations can be more complex in terms of establishing partnerships and developing projects. The delivery of such projects can also be time-consuming and appropriate quantitative indicators difficult to define.

Conclusion of the evaluation question:

- Operations aiming at promoting partnerships between scientists and operators represented 25% (around 1,000 operations reported) of the total number of operations registered under the collective actions measure
- The increased collaboration between industry and scientists was considered as one of the main effects of collective actions.
- Pilot projects very often involved partnerships between the industry and research institutes (NL in particular)

4.4.5 EQ 4: What were some of the difficulties in setting up pilot projects and did the EFF provide added value?

4.4.5.1 The EFF provided added value in establishing and implementing pilot projects

Based on the case study of pilot projects, for those MS with innovation strategies, uptake was as expected or above targets, but most MS did not have such a strategy and so had no clear expectations for the level of uptake. Only four of the 11 MAs responding stated that there was an explicit strategy for innovation.

At the start of the EFF programme, a key factor in the need for pilot projects was the increase in oil price. This was particularly true for heavy towed gears and pilot projects have explored this issue. A key development in the latter half of the programme was CFP reform and in particular the introduction of the landing obligation. This created a clear incentive for the sector to re-examine gear selectivity.

The interpretation of what a 'pilot operation' is varied from MS. Most MS left it to the applicants to justify what was innovative about their proposal. Many developments require testing and often adaptation for use in new settings, and this was used as justification for pilot operations.

However, some MS took a more active role in encouraging innovation. The North Sea fisheries task force in NL highlighted the need for innovation in the sector. A Fisheries Innovation Platform (VIP) was established to act as a catalyst and selection committee for innovation proposals.

Article 41 of the EFF regulation describing pilot operations shows a clear focus on fisheries. However, it appears that this measure addressed a genuine need within the aquaculture sector.

Most MAs could not give a clear explanation of how success or impact was determined. For many, success was simply whether a project was completed.

The majority of MAs that responded found no problems in the implementation of the measure, but 40% of respondents said that the 'requirement for results to be available to all' was an issue that constrained uptake of the measure. Certain MAs mentioned other sources of funding used (Horizon 2020 in ES, specific research & innovation fund in BE). Overall the pilot operations measure was considered important by MAs, in a context of economic crisis (with reduction of research & innovation investments) and the need for innovation due to landing obligations.

Of the 10 MAs responding to the question, 8 MS highlighted the important role of EFF for the introduction of innovative technologies. Only GR and the UK stated that innovative technologies were introduced without EFF support.

Conclusion of the evaluation question:

- Uptake of pilot projects was as expected or above targets for those MS with innovation strategies. However, most MS did not have specific strategy and clear expectations.
- The key factor for pilot projects were the increase of oil price and landing obligations.
- Most MAs did not report difficulties in the implementation of pilot projects. Most of them determined the success of pilot projects when projects were completed.
- The support of pilot operations is considered as important by MAs in a context of economic crisis.

4.4.6 EQ 5: In this category how much non-investment support was funded from the EFF? And how did this support differ in efficiency to investment support?

4.4.6.1 Non-investment support contributed to EFF objectives effectively

The type of support ("non-investment" / "investment") has been identified at operation level for each measure under Axis 3. Some operations covered the two types of support, and in such cases, the main orientation of the operation is identified (see details in annex 6.3). Based on these analyses:

- Operations from measure 3.1: collective actions could include collective investment projects, but in the absence of data to estimate the share of such projects, we have to consider that most projects were non-investments.
- Operations from measure 3.2: promotion and development of aquatic fauna and flora mainly covered investment projects. Operations concerning rehabilitation of inland waters and Natura 2000 areas covered investments and non-investments projects.
- Operations from measure 3.4: development of new markets and promotion campaigns were non-investment measures.
- Operations from measure 3.5: pilot operations were mainly non-investment measure, the objective being the development and testing of innovative technologies, gears and methods.
- Operations from measure 3.6: modification for reassignment of fishing vessels were investment measures.

Only the number of projects is available at operations level and some discrepancies have been identified in the data for some MS. No financial data are available at the level of the operation for common interest measures. Thus, in the analyses for this question, we considered that operations from measures 3.1, 3.4 and 3.5 are non-investment supports, and operations from 3.2 and 3.6 are investment support. Based on data from Article 40 (see Annex 6.3):

- Non-investments operations gathered 83.5% of EFF granted and 83.0% of the number of operations.
- Investments operations gathered 16.5% of EFF granted and 17.0% of the number of operations.

The following table proposed an overall qualitative assessment of the effectiveness of the different measures, based on the previous analyses for this spending category.

Each measure had a positive impact compared the objectives defined, however, in each case, some limits are identified.

Table 12: Qualitative assessment of the effectiveness by measure under the common interest measures

Investment type	Measures / Actions	Qualitative assessment -- / - / +/- / + / ++	Comment
Non-investments	3.1. Collective actions	+	A large range of topics have been covered. Assessment by MA is generally positive even if the project did not contribute to all potential results.

	3.4. Development of new markets and promotion campaigns	+	The operations are considered to have supported new market development and increased market differentiation. However, there is a lack of monitoring data on the impact of the operation on purchase and consumption
	3.5. Pilot operations	+	Pilot operations covered effectively two main issues faced by the EU fleet: selectivity and fuel efficiency
Investments	3.2. Promotion and development of aquatic fauna and flora	+	50% of MAs assessed the measure contributed to the increased protection of aquatic resources through more designated sites and MPA coverage
	3.6. Modification for reassignment of fishing vessels	+/-	Low uptake

4.4.6.2 Non-investment support contributed to EFF objectives at a lower cost than investment support

The average cost by project was EUR 124,600 for operations related to non-investments and EUR 98,100 for operations related to investments. The largest cost per project was related to pilot operations (average of EUR 326,600/project). For this operation, the average cost / project was below EUR 100,000 in only two MS (AT and FI) and above EUR 1 million in 3 MS (GR, PL and RO). For other measures (related to non-investments or investments), the average cost per project ranged between EUR 90,000 and EUR 110,000. Thus, except for pilot operations, there was not a clear distinction between non-investments and investments measures in terms of average costs per project. See details in Annex 6.3.

Some operations may have created jobs, for instance:

- Staff of producer organisations[69].
- Staff for the coordination of pilot and coordination projects.

However, job creation was not an objective of measures under Axis 3 (see objectives of each measure detailed in annex 6.3), and this information, or the sustainability of jobs, has not been monitored by MS. Thus, the comparison of the cost per job for investment and non-investment operation is not possible with the information available.

Leverage effect is the amount of euros invested from other funds (private or public) for 1 euro invested from EFF. Each euro invested from EFF allowed the investment of EUR 1.03 from other funds: 0.83 from other public funds and EUR 0.20 from private funds. Among the different measures (see annex 6.3):

- The highest leverage effect was for pilot operations and collective actions (non-investments measures both) with EUR 1.12 to EUR 1.25 invested for one euro from EFF invested, notably coming from other public funds.
- The leverage effects of measures 3.4 (non-investments) and 3.2 (investments) ranged between 0.68 and EUR 0.69 for one euro of EFF invested (87% to 91% of other public funds).
- The leverage effect of measure 3.6 (investments) was the lowest with EUR 0.45 invested for one euros for EFF invested (71% of other public funds).

The following table presents qualitative costs / benefits analysis by measure under Axis 3.

[69] 48 new Producer Organisations registered during EFF period, see EQ1.

Table 13 - Qualitative costs / benefits analysis of common interest measures

Investment type	Measure / Action	Costs	Benefits
Non-investments	3.1. Collective actions	5,612 projects EUR 288 million granted from EFF	High leverage effect Positive impact on the collaboration between stakeholders, innovation and modernisation, plans or management, gender issue and products quality Limited impact on other topics, notably regional coordination.
	3.4. Dev. new markets & prom. Camp.	2,385 projects EUR 142 million granted from EFF	Significant leverage effect Positive impacts on new market development and differentiation on the market Difficulties to assess the impacts on fish consumption
	3.5. Pilot operations	710 projects EUR 103 million granted from EFF	High leverage effect Impact on gear selectivity and fuel efficiency No implementation in 9 MS
Investments	3.2. Prom. and dev. of aquatic fauna and flora	1,595 projects EUR 94 million granted from EFF	Significant leverage effect Impact on the protection of aquatic resources There is no clear contribution of the EFF to the establishment of protected marine area
	3.6. Mod. for reassignment of fishing vessels	190 projects EUR 12 million granted from EFF	Low leverage effect Low uptake

Source: costs based on data from article 40

Conclusion of the evaluation question:

- Non-investments operations gathered 83.5% of EFF granted and 83.0% of the number of operations.
- Investments operations gathered 16.5% of EFF granted and 17.0% of the number of operations.
- Investments and non-investments measures both contributed to EFF objectives.
- The efficiency of non-investment measures is considered as good compared to investments measures, with higher leverage effect.

4.5 *Community Development*

This spending category covered the only measure under Axis 4: sustainable development of fisheries areas.

This measure was intended to contribute to the following outcomes:

- Sustainable development and improved quality of life in areas with activities in the fisheries sector.
- Protection and enhancement of the environment and natural resources where related to the fisheries sector.
- Enhanced equality between men and women in the development of fisheries sector and of fisheries areas.

4.5.1 Common Questions

4.5.1.1 How many jobs (in FTE) have been maintained as a result of spending under these measures?

FARNET led a study in 2016 on "Jobs created, jobs maintained and businesses created under Axis 4 of the EFF".

Information on jobs created was available for 152 FLAGS (49% of the FLAG population). Based on the information collected, FARNET estimated that:

- 29.5 jobs were maintained per FLAG.
- 9,240 jobs were maintained by EFF support under Axis 4.

4.5.1.2 How many jobs (in FTE) have been created as a result of spending under these measures?

Information on jobs created was available for 177 FLAGs in the FARNET study (57.5% of the FLAG population). Based on the information collected, FARNET estimated that:

- 22 jobs were created per FLAG.
- 0.57 jobs were created per project.
- Each job created was related to an average EFF investment of EUR 78,644 under Axis 4.
- 6,776 jobs were created by EFF support under Axis 4.

4.5.1.3 How many beneficiaries have received funding under these measures?

Based on Managing Authorities data (source: FARNET), 11,316 projects were implemented under Axis 4 of the EFF by May 2015.

There are no details on the number of beneficiaries for these projects. Many projects were led by one beneficiary, the project leader, some other projects involved several partners: 2, 3… up to 8 partners based on lists available in some AIRs.

With the hypothesis of an average of 2.5 beneficiaries / project, the total number of beneficiaries is estimated at 28,403, rounded down to 28,000 beneficiaries (between 25,000 and 31,000 partners involved).

4.5.1.4 Of these how many were women?

Gender can be determined when the beneficiaries are natural persons (or individual companies).

The type of beneficiaries is highlighted in two AIRs and the share of natural persons remains low (the share of natural persons may be higher in other MS but no information is available), this makes an assessment of gender impacts problematic:

- Based on Danish AIR 2014, the beneficiaries of 37% of funds under Axis 4 were associations, 26% were public institutions, 20% were other organisations or institutions, 16% were small companies and 1% was natural persons.
- Based on French AIR 2014, 54% of projects leaders were public institutions, 45% were private organisation and 1% were natural persons.

Furthermore, based on a FARNET online survey among potential beneficiaries of Axis 4 measures (2016), 9% of potential beneficiaries were private companies between 1 to 10 FTE (see following table). A share of these 9% are individual companies.

Table 14: Type of potential beneficiaries of Axis 4 measure

Beneficiary type	% answers
NGO, association	41%
Researcher	19%
Local authority	16%
Private enterprises	10%
- incl. private enterprise (1 to 10 FTE)	9%
- incl. private enterprise (11 to 50 FTE)	1%
- incl. private enterprise (Above 51 FTE)	0%
Development agency	7%
Organization of Producers	4%
Others	3%

Source: FARNET online survey (2016)

Based on interviews with managing authorities, a gender dimension was taken into account in the implementation of Axis 4 measure in at least 8 MS: BG, CY, ES, FI, GR, IT, LT and SI. This gender dimension may be related to:

- The selection or validation of FLAGs strategies.
- The use of gender criteria in the selection of projects recommended in procedure guide.
- The aims of projects implemented.

Good practices have been identified, for instance in Andalusia with the implementation of a Women's Network Entrepreneurship which aims at fostering women entrepreneurship and the fishery related activities operated by women.

Furthermore:

- In ES, 49.23% of jobs created due to Axis 4 were female jobs (source: AIR).
- In ES: 45% of the people involved in diversification projects were women[70].
- In GR, 25% of beneficiaries of Axis 4 measure were women (source: AIR).

The case study on gender dimension highlights that women remain underrepresented on the FLAGs boards. ES seems to be an exception (29% of women in the FLAGS boards[71])

[70] Análisis de la participación de la mujer en la actividad pesquera y acuícola, CETMAR for Ministerio de Agricultura, Alimentación y Medioambiente, 2014.

[71] *Ibidem*

while only anecdotal evidence on women's role in other MS has been identified (BE, BG and SI).

As a conclusion for this question:

- A low number of natural persons were beneficiaries of Axis 4 measure, about 1% of the beneficiaries (about 280 individuals).
- Between 25% and 50% of these were women, thus, 0.25% to 0.50% of beneficiaries were women.
- These figures underestimate the gender dimension under Axis 4, because it was mainly been implemented through collective organisation (public or private organisation) and to a limited extent through individual persons.

4.5.1.5 How many existing firms have received funding under these measures?

Based on information available in AIRs:

- In FR, 5% of beneficiaries of Axis 4 measure were private companies.
- In FR, 16% of beneficiaries of Axis 4 measure were private companies (small companies).

Based on a FARNET online survey, 10% of potential beneficiaries of Axis 4 measures were existing private enterprises.

Thus, it is estimated that 10% of the 28,000 beneficiaries were existing private companies (between 5% and 16%), thus 2,800 beneficiaries were existing firms.

Furthermore, based on FARNET study, 2,000 new business were created thanks to Axis 4.

4.5.1.6 How many of these were SMEs and non-SMEs?

Based on FARNET online survey on potential beneficiaries, there were no private company with staff over 50 FTE. Thus, we estimate that all private companies involved in Axis 4 measure were SMEs.

Conclusion of the common questions:

- 9,240 jobs were maintained by EFF support under Axis 4.
- 6,776 jobs were created by EFF support under Axis 4.
- The total number of beneficiaries is estimated at 28,000.
- A low number beneficiaries of Axis 4 were natural persons (about 1% of the beneficiaries), and thus, a limited number of beneficiaries were women (between 0.25% and 0.50% of beneficiaries).
- It is estimated that 2,800 beneficiaries were existing firms and 2,000 new business were created thanks to Axis 4.
- All companies involved in Axis 4 were SMEs.

4.6 *Technical Assistance*

This spending category only included one measure, the Measure 5.1 (Chapter V): Technical assistance. It provided the support necessary to facilitate the implementation of the operational programme and to promote innovative approaches and practices for simple and transparent implementation. EFF support to technical assistance represented on average 3% of the total support (EUR 125 million). Four types of action were funded: management and implementation of programmes, studies (excluding evaluations supported under Action 1), publicity and information, and other technical assistance

measures. The bulk of technical assistance went to programme management and implementation (85% on average).

The figures in Annex 6.5 give an overview of the support granted for technical assistance to all MS and MS' individual share of the total support for technical assistance. Over the period, three MS were together granted more than half of the EFF total support for technical assistance: PL (25%), ES (16%) and IT (13%). The share of other individual MS in the total EFF support for technical assistance does exceed 5%.

4.6.1 EQ1: What were the most commonly financed actions under technical assistance, e.g. staff salaries, staff bonuses, IT, etc.?

Typology of actions funded

EFF support granted for technical assistance was capped at 5% of the total support. The breakdown by action type and by MS was as described in annex 6.5. Overall, technical assistance predominantly supported programme management and implementation (on average, 85% of the total for technical assistance is used on management and implementation). The share was even more important in seven MS (AT, PT, NL, IE, EE, FI and MT) which only used technical assistance for programme management and implementation. At the opposite of the spectrum, LT was the only country not to implement technical assistance for programme management and implementation. The amounts dedicated to the three other action types ere very limited: 6.17% for action type 4, 5.85% for action type 3 and 2.81% for action type 2 on average.

Looking at the number of operations implemented by action type gives the same trend. Out of 2,952 operations implemented, technical assistance for programme management and implementation prevailed but to a lesser extent (64%). Other technical assistance measures (action type 4) represented 20% of the total number of operations, publicity and information (action type 3) 12% and studies (action type 2) 4%. This indicates a greater number of relatively small operations under action types 4, 3 and 2 compared to their shares in the overall budget of technical assistance.

Conclusion of the evaluation question:

Overall, technical assistance was used largely to support programme management and implementation (85% of total spending) – with almost 25% of MS only implemented programme management and implementation actions.

4.6.2 EQ2: To what extent did the actions financed by technical assistance contribute to improving the implementation of the OPs?

There is only anecdotal evidence available on this indicator and on the relevance and effectiveness of the actions supported. For instance, MAs almost unanimously recognised difficulties in understanding the monitoring indicators (MA survey) and feedback collected from MAs on the trainings for monitoring officers indicated that the technical assistance measures indeed responded to identified needs. There was also limited evidence of synergistic effects and follow-up actions. In DE, a Land noted that support to the improvement of the monitoring system also improved implementation although that was not the initial focus of the technical assistance provided. HU provided an example of follow-up action where its monitoring system was improved on the basis of the recommendations of an audit financed through EFF technical assistance.

However, when asked to identify good practice for technical assistance measure, MAs did not make conclusive comments. On an individual basis, MAs considered respectively studies (BG), trainings in evaluation and audits (BE), information activities and dissemination (FR), as well as the creation of consolidated reporting databases (MT) as good practices to share. Only BE and HR reflected on technical assistance (but in different contexts with HR participating in a twinning project to build the capacity of its paying agency under the Instrument of Pre-accession Assistance which included staff training, and followed up by another twinning project on the preparation of the EMFF OP) as a way to overcome difficulties in the implementation of EFF and to accelerate the uptake to the end of the programming period.

Conclusion of the evaluation question:

There is only anecdotal evidence on the contribution made by technical assistance to improving the implementation of the OPs. Depending on the MS' individual situations, it seems that technical assistance contributed to capacity building and the setting of the systems to manage the programmes.

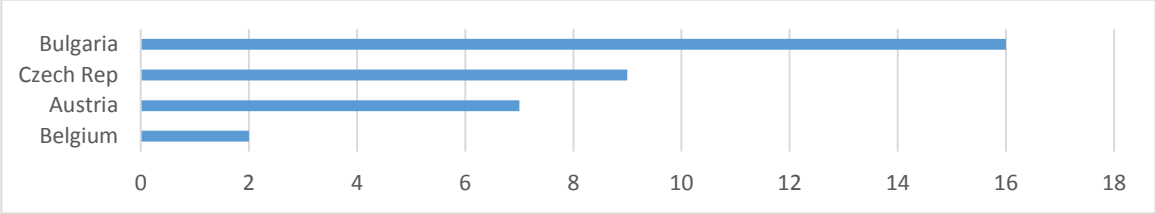
4.6.3 EQ3: What were the different costs of managing the OPs at varying stages of the programming cycle, e.g. OP adoption, closure, etc.?

Identification and quantification of certain costs if possible in some MS (e.g. based on the number of staff and average wages)

For these two indicators, evidence is extremely limited. Only an approximation on the basis of the estimated FTEs in MAs, Intermediate Bodies (IB) and monitoring is available – with major data gaps and four MS (EE, IT, NL and PL) not reporting any staff numbers. In addition, there are doubts about the reliability of the reported data when e.g. the total staff number reported for MA and IB is below the staff number for the MA.

The data gaps are even more problematic when it comes to estimating costs of monitoring systems since only four MS provided figures (see following figure).

Figure 23: there are disparities in the number of FTEs involved in the MS monitoring system but only 4 MS have data on the number of staff which is not representative



In the presence of data which are not comprehensive, are inconsistent and for which validity is questioned, it is not possible to conclude on the OP management costs. Overall, MS had mixed views on whether the resources allocated to the management, implementation and monitoring were sufficient. Only a few MS qualitatively assessed that their level of staff was enough for the implementation of EFF (DE, EE, HU, MT, PL, CY also – which is outlining that the staffing is sufficient because the staff is highly skilled). The UK also recognised that it has enough staff after it had to go through a restructuring phase to adjust to changing political priorities. The other MS, understaffed and facing important administrative costs (ES), reported different types of difficulties as follows:

- The general level of staffing was sufficient to cope with the workload of implementation but the needs in terms of staff was not regular and peaks of activity (around reporting deadlines) were difficult to manage (BE).
- Certain bodies or levels of administration were weaker than others (in IT, lack of capacities are identified by the MA at the level of the regions and for the FLAGs).
- The need for more technical expertise and support was a challenge often mentioned, in general to support the implementation (ES, GR, HR, PT) but also for specific issues (e.g. monitoring in the CZ and communication in SI). It was also noted that the recruitment process was a challenge when the technical expertise was not available (HR, PT).
- Lastly, ES and IE also mentioned that the economic crisis and budgetary constraints had a negative impact on staffing levels.

Conclusion of the evaluation question:

Overall MS have different views on whether the resources allocated to the management, implementation and monitoring of the programmes were sufficient. A minority only considers that the staffing is sufficient while most MS noted a number of different challenges ("internal" in terms of e.g. the monitoring of the OPs and "external" in terms of the impact of the economic crisis on the budget available).

4.6.4 EQ4: Was the 5% allocated enough for all of the MS? Which MS requested a derogation and why?

Share of the EFF used for TA by MS

There is only anecdotal evidence (interview with stakeholders in MT) that, for the MS with a relatively small OP, the support available for technical assistance was considered low because of the administrative costs of technical assistance no matter the size of the OP. There is no correlation between the ratio %TA/total EFF and the total EFF budget by MS, which tends to indicate that there is no minimum TA budget necessary to support the management and implementation of the OPs.

Among the seven smallest budget for EFF (first quartile, under EUR 27 million EFF granted for total OP):

- 4 MS are largely under the funding cap: AT (0.9%), HR (2.4%), CY (2.9%), BE (2.3%),
- 2 MS are around the funding cap: MT (4.8%) and SK (5.3%),
- 1 MS is largely above the funding cap: SI (7.9%),

Furthermore, the TA budget is above the funding cap for a total of 6 MS, the EFF budget for these MS ranges between EUR 11.7 million (24th largest EFF budget and 23th largest TA budget) and EUR 93.0 million (12th largest EFF budget and 8th TA budget). This shows that TA budget beyond the funding cap does not specifically concern the smallest OPs.

Other factors should explain the variations between MS but the evidence is not conclusive. Despite the reported difficulties in terms of resources available and staffing level (see section 4.6.3 above), there was no general qualitative feedback from MS on the insufficient level of the funding available for technical assistance, which would indicate that the funding cap constituted a particular difficulty. There were a number of situations where MS went beyond the funding cap but the different features of the countries going beyond this ceiling do not allow any firm conclusion on particular challenges faced across MS that would require a higher level of technical assistance.

Conclusion of the evaluation question:

The average spent on technical assistance is below the 5% ceiling which seems to indicate that the share of EFF support allocated was sufficient. However, the breakdown of MS utilisation reveals important disparities between MS. The reported challenges in the resources and staffing available do not explain these differences and the fact that MS which overspent on TA present many different situations does not allow us to draw any firm conclusion

4.6.5 EQ5: To what extent did the economic crisis affect administrative capacity (reduction in number of administration staff, other budget cuts, etc.) in managing and implementing the OPs?

Only one MS, the UK, indirectly alluded to the effect of the economic crisis on its administrative capacity. It outlined that austerity measures since 2008 and the corresponding reduction in public spending led to administrative restructuration. In particular, Regional Development Agencies were abolished which resulted in a loss of critical industry expertise and public match funding. The link to the management and implementation of the OPs was not made explicit but it is a possibility that this loss of institutional memory affected the OPs too.

Conclusion of the evaluation question:

Without it being systematically reported as a particular challenge in fisheries, the economic crisis has been affecting MS administrative capacity overall. The budgetary constraints have led to a reduction in staff numbers and cuts, which are likely to have had an impact on the management and implementation of the OPs – loss of institutional memory, weakened capacities, delays, etc.

4.6.6 Summary and lessons learned for Technical Assistance

On average, technical assistance represented 3.2% of EFF support to MS. As this rate is slightly below the 5% funding cap, it seems to indicate that on average the support available for TA is sufficient, but it actually hides great differences between MS. Nevertheless, it would be interesting to reflect on the administrative burden of TA: one small MS reported that the level of support available for too low for its relatively small OP which tends to show TA is disproportionately burdensome.

There is no conclusive evidence on issues systematically faced by MS and addressed by TA. Reported challenges include management and monitoring notably. Typically, looking at the breakdown of the support available for TA, there is a large focus on programme management and implementation. The number of operations supported also reveals that there was actually a larger number of operations, as a consequence relatively small operations, which could indicate that TA is not used for major capacity building but more for mitigating actions where a punctual need is identified.

Stakeholders' feedback shows that TA was effective in addressing these needs. Qualitative evidence on MS needs reflects very much the specificities of these, which combine both structural elements (e.g. issue of technical skills, need for training and capacity building) and contextual elements (e.g. the economic crisis and its impact on public spending and staffing levels in public bodies). Technical assistance supported MS' needs, especially in a context where the technical expertise was not available and/or budgetary discipline constrained capacity building. The double challenge of sparse and anecdotal evidence makes it hardly possible to draw general conclusions.

Data on technical assistance are sparse and do not provide an accurate picture of the MS' capacities, their potential weaknesses and corresponding scope to implement technical assistance, and the strengths and weaknesses of the support provided by EFF to technical assistance. Even if it represents the smallest share of EFF support to MS, technical assistance should be documented more comprehensively and monitored.

5 TRANSVERSAL ANALYSES AND IMPACTS (TASK 4)

The objective of this task is to assess the overall achievements of the programme in relation with the original objectives, with the current needs of stakeholders and the funds spent. The added value of the EU intervention is also assessed as well as the contribution to the socio-economic and environmental sustainability of the sector.

The analyses answer the evaluation questions recommended under the Better Regulation Package: effectiveness, efficiency, relevance, coherence, EU-added-value and sustainability.

5.1 *Effectiveness of the EFF*

Evaluation criteria: *Effectiveness considers how successful an intervention has been in achieving or progressing towards its objectives. Since Better Regulation normally involves a hierarchy of objectives for a given intervention, analysis of effectiveness should look at changes to outputs, results and impacts as appropriate, separately identifying these elements and clearly stating how each is covered.*

The objectives in this case encompass both the objectives of the regulation itself (cf. intervention logic) and the operational targets established at national level.

5.1.1 EQ1 - To what extent were the EFF specific objectives achieved?

The EFF regulation establishes six specific objectives for the programmes:

- Promote a sustainable balance between resources and the fishing capacity of the Community fishing fleet.
- Promote a sustainable development of inland fishing.
- Strengthen the competitiveness of the operating structures and the development of economically viable enterprises in the fisheries sector.
- Foster the protection and the enhancement of the environment and natural resources where related to the fisheries sector.
- Encourage sustainable development and the improvement of the quality of life in areas with activities in the fisheries sector.
- Promote equality between men and women in the development of the fisheries sector and fisheries areas.

Analyses have been carried out for each of these objectives based on specific questions.

5.1.1.1 To what extent has the EFF contributed to promote a sustainable balance between resources and the fishing capacity of the Community fishing fleet?

a) The EFF intervention has contributed to reduce the fishing effort and to address overcapacity

Table 5 quantifies the capacity reduction seen in the Community fishing fleet by MS in terms of kW and GT over the EFF programme period and the proportion of change directly attributable to permanent cessation under EFF. It is estimated that the net contribution of the EFF was around 66% of the total fleet capacity reductions.

As section 4.1.2 describes, all MS fleets show reductions in GT and kW between 2007 and 2015. The EFF-funded reduction accounts for 97% of net kW reduction but only 53% of net GT reduction, which reduced by 17% over the 2007-2015 period. The extent of capacity reductions and the level of EFF contribution varied greatly between MS and between fleet segments with most EFF being directed towards trawlers (79% of vessels exiting the fleet under measure 1.1). The rate of capacity reduction, including that supported by measure 1.1, slowed over the EFF programme period due to a number of factors:

- The main imbalances identified at the start of the programme had been addressed;
- Remaining imbalances would need to be justified with further analysis and/or could wait for EMFF.
- Funds allocated to Axis 1 were now committed and/or re-allocation to other Axes was proposed.
- Concerns over the value for money offered by decommissioning schemes (informed by the ECA report and Cessation evaluation).

STECF reports were used to establish if the first point can be corroborated. The STECF Expert working group on balance indicators identified indicators to determine the extent to which some fleet segments remain unbalanced, but all exhibit certain shortcomings and must be interpreted with care.

The sustainable harvest indicator (SHI) is designed to reflect the extent to which a fleet segment is dependent on stocks that are overharvested. 'Overharvested' is assessed with reference to F_{MSY} values over time, and dependency is based on fleet segment revenues (STECF, 15a). However, the SHI could be misleading as it does not take into account the level of dependency on stocks and some Management Plans propose a gradual reduction of F (fishing mortality) to achieve MSY (maximum sustainable yield) by 2020 (STECF, 15b).

Accepting the above caveats, STECF identifies a number of fleet segments where the SHI may be meaningful. For those MS fleet segments receiving most EFF funding, namely trawl segments and the ES hook and line segment, the STECF balance reports indicate that (STECF, 2015b):

- Fleet imbalance continues to reduce, but imbalance is still evident for most fleet segments.
- In ES (accounting for the largest reduction in fleet capacity in any single MS with 38% of total EU fleet's reduction in GT), 10 of 13 assessed fleet segments may not be in balance with fishing opportunities. The 3 that may be in balance are purse seine fleets. The hook and line fleet that was targeted by one FEAP does show improvement, but less than 40% of landings are from assessed stocks and so SHI is not considered representative.
- NL shows the second largest net fleet reduction over the EFF period, but only 22% of GT reduction was EFF-funded. 7 of 8 fleet segments may not be in balance with opportunities. Only large pelagic trawlers are considered in balance with opportunities. Most are moving towards the point where the fleet may be in balance with opportunities.
- IT also shows a large net fleet reduction with a high proportion of that being trawlers (73% EFF-funded). 9 of 10 fleet segments may not be in balance with their fishing opportunities; these are mainly demersal and pelagic trawl segments. The one segment that was considered could be in balance with fishing opportunities was purse seine over 40m.
- The 2 MS where EFF made the greatest contribution to GT reductions were IE and BG. For IE, 4 fleet segments may not be in balance, but 7 may be in balance. Only 2013 data is given for BG segments, but the SHI shows for 17 fleet segments all but one (pelagic trawlers 24-40m) may be out of balance.

The Vessel Utilisation Ratio (VUR) shows that large proportions of the fleet are inactive in some MS fleets (e.g. PT and SI >50%, BG and RO >40%). This latent capacity could make decommissioning less effective, as the removal of registered fleet capacity does not reduce potential fishing capacity to the same extent. Even where this issue is recognized and addressed via selection criteria requiring evidence of activity (e.g. the UK under 10m decommissioning scheme), the potential for non-active vessels to become more active undermines the impact of removing active vessels.

The most recent assessment of fleet capacity found steady progress in achieving balance across the EU fleet. The Commission reports that six MS[72] have identified overcapacity in segments of the fleet and have developed action plans to address these. Assessments in other MS identify over-capacity remains an issue, but action plans are still to be developed (EC, 2015a).

Poorly targeted decommissioning schemes can have a limited impact or can even be counterproductive. The cessation evaluation found that 46% of beneficiaries of scrapping with more than one vessel had reinvested the monies to some extent. However 75% of beneficiaries scrapped their only vessel and therefore most did not reinvest in other vessels (22% invested in fishing with only 6% purchasing a new vessel). As to the counterfactual element of the evaluation, only 12% of vessel owners surveyed said they would have scrapped their vessel anyway, without any subsidy. Therefore overall measure 1.1 made a significant contribution to fishing capacity reduction, and there would not have been such a reduction without EFF funding.

Quantifying the balance between fleet capacity and fishing opportunities remains a challenge despite extensive work by STECF expert working group to develop a variety of biological and economic indicators. These indicators have their limitations, but together they show an improving picture overall. Fleet capacity is now closer to being in balance with fishing opportunities even though over-capacity remains.

The requirement under EFF to identify over-capacity in FEAPs and then to target this with permanent cessation funds made the funds more effective than would otherwise have been the case. However, the difficulty in measuring the balance between fleets and resources continues to undermine effective targeting of decommissioning programmes.

While continued re-investment in the fleet is necessary for efficiency purposes, the entry-exit scheme ceilings are no longer a constraint on MS potential fleet capacity, making it possible that decommissioning funding could be re-invested in new fleet capacity. Therefore, while the EFF decommissioning schemes did contribute to re-balancing capacity with resources, imbalance still exists and decommissioning is an expensive tool to correct it. The more limited allocations available under EMFF should be used for priority cases where over-capacity clearly exists in specific fisheries and decommissioning can be expected to have a lasting impact alongside other management tools.

b) The EFF intervention has contributed to a progressive implementation of an eco-system-based approach to fisheries management?

According to the FAO's interpretation, 'The overarching principles of ecosystem-based management of fisheries...aim to ensure that, despite variability, uncertainty and likely natural changes in the ecosystem, the capacity of the aquatic ecosystems to produce food, revenues, employment and, more generally, other essential services and livelihood, is maintained indefinitely for the benefit of the present and future generations.....to cater both for human as well as ecosystem well-being. This implies conservation of ecosystem structures, processes and interactions through sustainable use. This implies consideration of a range of frequently conflicting objectives and the needed consensus may not be achievable without equitable distribution of benefits.'[73]

[72] CY (<12m fleet), ES (not specified), FR (6 Eel segments & 6 operating on *Posidonia* beds), HR (4 purse seine and 4 demersal trawl segments), IT (3 fleet segments – no further detail), LV (gill net targeting Baltic cod).

[73] The ecosystem approach to fisheries. FAO Technical Guidelines for Responsible Fisheries. No. 4, Suppl. 2. Rome, FAO. 2003. 112 p.

The need for an ecosystem-approach to fisheries management was stated in the reformed CFP (1380/2013). Therefore when MAs were asked, some MAs (CY, DE, HR) responded that the objectives for the 2007-2013 EFF did not explicitly refer to an ecosystem-based approach, but that the current EMFF OP does recognise this objective.

Despite this objective emerging towards the end of the EFF programme, there is some evidence of EFF supporting implementation of an ecosystem approach. The pilot operations measure 3.5 included an action to 'develop and test alternative management techniques'. Measure 3.5 only accounted for 2.6% of total EFF spend and only 15% of pilot operations related to this action. Axis 3 assistance in drafting management and recovery plans has therefore supported the progressive implementation of the ecosystem approach to a limited extent. The development of management and recovery plans, such as for the European eel fisheries, is one instance where the EFF contributed to the progressive implementation of the ecosystem approach to fisheries management.

Less directly, the EFF supported implementation of the ecosystem approach through collective actions, such as the funding of fishery and aquaculture certification schemes which has meant that those schemes encourage consideration of the wider environment. In DK and NL this was supported by a government policy to encourage fisheries to seek sustainable seafood certification. In the UK a large-scale project, Project Inshore, was implemented to benchmark English fisheries against environmental standards and prioritise where management improvements were required. As these environmental standards require consideration and management of fishery impacts on wider ecosystem elements, these can be seen to be moving towards an ecosystem approach.

5.1.1.2 To what extent has the EFF contributed to promote a sustainable development of inland fishing?

Sustainable development is understood here in its three dimensions: economic, social and environmental. Previous analyses by spending category indicate that only in FI was a clear correlation observed between the EFF intervention and the development of inland fisheries both in volumes and value of catches. Results in other MS were mitigated, either because there was not any significant development of the activity despite the EFF intervention, or because the lack of reliable data on the sector and from the EFF monitoring system do not allow an assessment of the effect of the intervention.

The main improvement regarding the environmental performance came from the Recovery and Management Plan for the European Eel.

The effectiveness of the EFF for the sustainable development of inland fisheries was very limited at EU level, but there were some achievements in MS where with a focus on inland fishing, such as FI, EE and RO, with the MA for RO stating that EFF had contributed to reducing pressure on inland resources.).

5.1.1.3 To what extent has funding spent under these measures contributed to efficient fishing activities within an economically viable and competitive fisheries and aquaculture industry, providing a fair standard of living for those depending on fishing activities and taking into account the interests of consumers?

a) The EFF intervention has contributed to increase the competitiveness of operating structures

Competitiveness can be improved through reduced production costs in order to reduce prices and/or through improved quality of the product, in a broad sense (including image, new products, packaging, etc.). In both cases, the ultimate goal is to improve profitability.

The results of EFF projects on the competitiveness of the beneficiaries were analysed in Section 4 for the different spending categories (fisheries, processing and aquaculture). The text below examines the overall trends of the industry, and in particular the

evolution of production costs, productivity and profitability, and analyses to what extent these evolutions can be attributed to the EFF intervention.

Competitiveness of the fleet

Total production costs remained fairly stable with a 1% increase between 2008 and 2013[74], but there were significant year-to-year variations, especially for energy costs and crew wages costs (respectively 21% and 27% of revenues on average between 2008 and 2013). Taking 3-year averages for 2008-2010 and 2011-2013, to limit the year-to-year variations effect, energy costs exhibited the greatest increase between the first half and the second half of the EFF period (from 20% to 22% of revenues[75]). The increase is entirely attributable to fuel price increases as the analysis of energy consumption over landings weight and value shows a clear improvement over the period (-23% for fuel consumption/ t landed when looking at three-year averages and -41% for fuel consumption / EUR 1,000 landed).

All other operating costs have decreased in proportion to the revenue.

Labour productivity is assessed through the ratio Gross Value Added (GVA)[76]/FTE. STECF data show that it increased continuously over the EFF period as the number of FTEs decreased while landings income increased. However, STECF data show significant differences among MS:

- Over 20% increase between the two periods in RO, FI, PL and IE.
- Between 0% and 20% increase in a majority of MS (ES, DK, SE, UK, FR, LV, EE, PT, BE and DE).
- A decrease in NL, LT, IT and SI.

For the EU fleet overall, revenues (*i.e.* operating income) increased by 8% between 2008 and 2013 while operating costs increased by only 2%. As a result, the gross profit margin increased between 2008 and 2013 from 15% to 20%.

Considering three-year averages to limit year-to-year variations effect, the gross profit margin increased from 16% on average for the first period of EFF implementation (2008-2010) to 19% on average for the period 2011-2013.

Six MS reported an improvement of +5 to +15 points of gross profit margin between the two periods (DK, LT, RO, SI, ES, UK) and three reported an improvement between 0 and +5 points (DE, FR and IE). In contrast, eight MS show a deterioration of the gross profit margin between the two periods (EE, FI, IT, LV, NL, PL, PT and SE[77])[78].

According to the PO survey, POs considered that the main impacts of the EFF was related to competitiveness, with a positive impact on added value and prices (moderate positive impact for 56% of the respondents, significant positive impact for 6% of them), on market development and increased innovation (moderate – 41%, significant – 22% for both), on the improvement of energy efficiency (moderate impact – 47%, significant impact – 13%), on the improvement of productivity (38% for moderate, 22% for

[74] Based on STECF data.

[75] The STECF definition is used here to obtain revenues: Revenues = Landings Income + Other Income (excluding Fishing Rights income and direct subsidies).

[76] The STECF definition is used here to obtain revenues: Gross Value Added = Landings Income + Other Income – energy costs – repair costs – other variable costs – non variable costs

[77] In SE, the gross profit margin is abnormally high in 2010, so this evolution may not be accurate.

[78] Data is incomplete or considered by the STECF as unreliable for BG, CY, GR, HR and MT. Other MS are not included in the fleet economic reports (land-locked MS).

significant), and on the reduction of other production costs (50% for moderate, 9% for significant).

The correlation between MS strategies and observed trends in profitability is difficult to establish at MS level as the fleet segments, the species targeted, and the evolution of the fleet activity over the period differ considerably from one MS to the other. For instance, in SI, where the strongest increase in profitability is observed, it mainly came from the increase of "other income", *i.e.* from opportunities outside fishing, such as tourism, which could be partly related to Axis 4 projects (9% of EFF granted in SI), while landings income decreased over the period, despite the EFF funding in the fisheries sector. In RO, profits also increased significantly, as a result of a major restructuring of the fleet, partially subsidised by the EFF.

In DK, the increase in profitability was mainly attributed by the STECF to the implementation of the Vessel Quota Share (VQS) system[79] introduced in 2007, although decommissioning through the EFF also contributed. In ES, the top MS in terms of EFF funding, profitability increased by 9% between the two periods, but the trends are different depending on the fleet segments and cannot be directly linked to specific measures or types of projects without detailed data on the fleet segments targeted by those measures.

The most negative trend is observed in LV (-13% between the two period). According to the STECF analysis, the country was hit hard by the economic crisis in 2009 and the reduction of its quota in the Baltic Sea for sprat. Landings income dropped in 2009 and have increased continuously since then. Profitability started to improve again in 2013. Significant decommissioning and investments in the local processing industry, both partly funded by the EFF, contributed to the recovery. In that case, the EFF may have contributed to the recovery, even though the overall trend is negative.

Overall assessment of the EFF contribution to the EU fleet competitiveness

At EU level, the competitiveness of the fleet improved thanks to the increase in both production volumes and value, the reduction of production costs/revenues, and the improvement of labour productivity.

The above examples illustrate the diversity of economic contexts and of the strategies deployed by the industry and by the MS to adapt to those specific contexts. The impact of the EFF on competitiveness of the fleet therefore varied at MS level.

Analyses by spending category and case studies showed that the EFF intervention contributed to this improved competitiveness through:

- A significant decrease in fishing capacity (net contribution is estimated at 66% of the total decrease in capacity) and therefore a better balance between capacity and resources.
- A significant leverage on the modernisation of the fleet (20% of the fleet investments funded under the EFF), with investments in particular on fuel efficiency.
- Improvements in product quality (although not quantifiable and probably moderate) through investments on board and in ports infrastructures, and to a less extent through collective actions (innovation, product quality and organisation of the sector).
- Modernisation/ structuring of auctions and investments in marketing establishments and in processing equipment, including by fishermen organisations.

Fisheries measures have contributed to the overall improvement of fleet competitiveness mainly by removing vessels (in some cases reducing unprofitable fleets and also enabling

[79] System for Individual Transferrable Quota rights

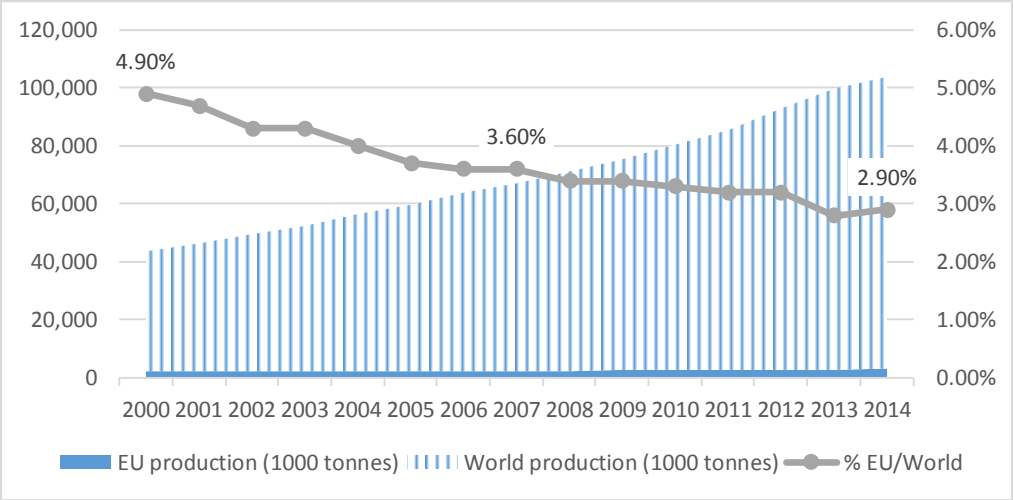
catching opportunities to be shared amongst fewer remaining vessels) and by supporting the modernisation of the remaining fleet and of landing sites. Investments in marketing and processing, especially when through fishermen's organisations, may also have contributed to improve competitiveness by adding value to landings.

Competitiveness of aquaculture

The case study on aquaculture and the analyses by spending category show that the EFF contributed to improve the economic resilience of beneficiaries. However, data available on the aquaculture production and even more on the economic performance of the operators remain very partial, especially when it comes to time series and are often inconsistent between different sources[80], which limits the possibility to assess the improvement (or lack of) of the EU aquaculture competitiveness as a whole and the potential contribution of the EFF.

Overall, EU aquaculture production increased between 2007 and 2013, but this increase was far slower than the increases in global aquaculture production.

Figure 24: Evolution of EU and global aquaculture production since 2000



Source: Evaluators from FAO data

The weaknesses identified in the 2007 study on the Economic performance of the EU aquaculture[81] remain and have been worsened to some extent by the economic crisis, which hit some of the main aquaculture producers hard (in particular GR, ES, IT and IE), and include:

- Difficulty to access stable licences.
- Difficulty to access private funding and especially bank loans.
- High production costs compared to third countries.
- Complex regulatory environment and lack of harmonisation among, and sometimes within, MS.
- Diseases and predators.
- Lack of organisation of the sector.

These factors make it difficult for EU farms to compete with third countries on mass products.

[80] See the Data coverage section of the 2014 STECF Report on Aquaculture

[81] Economic performance of the EU aquaculture (2007), etc. Ernst & Young et al (2008) Etude des performances économiques et de la compétitivité de l'aquaculture de l'Union Européenne - Etude 3 dans le cadre du contrat cadre Lot 3 – études relatives à la mise en œuvre du FEP, pour la Commission Européenne

The 2008 study also stated that the EU subsidies under the FIFG could have led to over production in some sectors (e.g. sea bass and seabream production in GR), jeopardizing the economic viability of previously viable farms. There is no evidence of this under the EFF, most likely because of reduced public co-funding and to some extent because of the economic crisis which have limited the possibility of economic operators to invest without a viable business plan. Restrictions of the eligibility criteria to enterprises below 750 employees or EUR 200 million of turnover may also have limited the risk of generating over-capacity as access to private funding tends to be more difficult for SMEs (close to 100% of beneficiaries, including nearly 80% of micro and small companies).

This difference with the FIFG is particularly visible for the marine finfish sector, for which the EFF was only moderately used for structural reasons limiting the opportunities in the sector (licence issues, economic crisis) and because the leading companies in salmon production and to a smaller extent in seabass and seabream production are large companies, including multinationals, that were not eligible to the EFF. It is interesting to observe that the value of the aquaculture production increased mainly in this segment, which indicates that it is probably more related to external factors than to the EFF.

Overall assessment of the EFF contribution to the EU aquaculture competitiveness

The case study and analyses by spending category indicate a general consensus from beneficiaries and MAs that the EFF contributed to the economic resilience of the beneficiaries, especially in the shellfish sector. Other measures such as investments in processing by fish farmers, quality scheme certifications etc. contributed to the competitiveness of the project holders as well. However, the impact of the EFF on the competitiveness of the EU aquaculture as a whole seems at best marginal and the main weaknesses identified in the beginning of the EFF remain.

Competitiveness of the processing sector

Production costs

The STECF processing industry dataset only covers the 2008-2012 period as there has not been any data calls since 2014 for the processing industry within the framework of the DCF. Total operating costs experienced an increasing trend of 13% from 2008 to 2012[82] (largest increases of energy costs, crew wage costs and purchase of raw material)..

Labour Productivity

Labour productivity is assessed through the ratio Gross Added Value (GVA)[83]/FTE. STECF data show that globally it increased over the 2008-2010 period, and decreased in 2011 and 2012 but overall the ratio was 9% higher in 2012 than in 2008.

Profitability

The analysis focuses on the Gross Profit Margin[84], *i.e.* on operating income and costs. While revenues (*i.e.* operating income) increased by 14% between 2008 and 2012, operating costs increased by 13%. As a result, gross profit margin stayed relatively stable between 2008 and 2012, increasing from 25% in 2008 to 30% in 2009 and 2010 and decreasing to 26% in 2012.

[82] Based on STECF data.

[83] The STECF definition is used here to obtain revenues: Gross Value Added = Turnover + other income – energy costs – purchase of raw material – other operational costs

[84] Based on the STECF definition : Gross Profit Margin = (Revenues – Operating Costs)/ Revenues i.e GVA/turnover.

Overall assessment of the EFF contribution to the EU processing sector competitiveness

The impact of the EFF on the profitability of the processing sector is not clear. However, task 2 analyses (by spending category) indicate that the EFF contributed to the development of the processing and marketing sector, in particular through increased capacity and increased throughput of processed products (including by stakeholders for which processing is not the primary activity). The share of processing firms having increased their production capacity under the EFF could have reached approximately 30%.

The overall improvement of labour productivity and the relative stability of profitability tend to confirm the feedback from MAs and from the sector that the increase in capacity did not result in overcapacity.

Analyses by spending categories showed that competitiveness was the primary objective of the measure 2.3. However, the quantitative assessment of the EFF impacts on competitiveness are difficult to assess. Industry trends on production costs and GVA and analyses on improvements in terms of product quality and innovation suggest that competitiveness of the processing and marketing sector did not improve significantly over the period but did not deteriorate either despite increasing competition from third countries and that the EFF contributed to remain competitive.

b) The EFF intervention has contributed to foster and disseminate innovation

The question aims at analysing to what extent the EFF had a leverage effect on the development and dissemination of innovation in the fisheries sector.

Innovation in the EFF is the focus of measure 3.5 (pilot projects), but is also supported under measure 3.1 (partnerships between scientists and the industry), on-board investments (M1.3), the aquaculture measure (M2.1) and through Axis 4. Innovation is less evident in processing (M 2.3) and the fishing ports and landing sites measures (M 3.3).

Findings from the case study on pilot projects established that the implementation of the measure was greatest in MS that identified innovation as a priority and implemented it via a strategy, involving increased collaboration between the industry and scientists.

Indeed, in most MS, innovation strategies were not clearly defined and applicants only had to justify what they considered as innovative about their project. Nevertheless, some MS, in particular NL and DE, took a more active role in promoting and disseminating innovation. In NL, the North Sea fisheries task force highlighted the need for innovation in the sector and a strategy to deliver this in its 2006 report. A Fisheries Innovation Platform was established to act as a catalyst and selection committee for innovation proposals. Knowledge circles were also established for a number of sector topics, which established a forum for industry and researchers to discuss needs and potential collaborations. In DE, relevant research institutes were identified by the MA and informed of the availability of funding to address fisheries sector needs. The large number of aquaculture innovation projects in DE may therefore have resulted from the research interests in those institutes.

Overall, over the EFF period, innovation for fisheries mainly focused on gear selectivity, due to regulatory requirements and landing obligation, and on fuel efficiency, due to high fuel costs. Innovations in the fisheries sector were primarily environment-oriented but they also benefitted to the competitiveness of the fleet, in particular as regards fuel-efficiency progresses.

Support to innovation through the EFF also benefited the aquaculture sector, mainly by supporting more environmental production methods (e.g. innovative land-based projects

using solar energy in ES and HU, use of RAS in finfish farming in CZ and SK)[85]. More broadly, in the UK, IE and BE, the EFF contributed to an increased collaboration of operators involved in the sector, through the creation of collective organisations or innovation platforms.

Axis 4 has supported innovation both directly and indirectly. FLAGs provided direct support to innovative marketing approaches for local seafood supply chains (e.g. PT Oeste FLAG's innovation in goose barnacle traceability[86]). Axis 4 also indirectly supported innovation through its theme of diversification and by encouraging social entrepreneurship within FLAG strategies and via events (e.g. in Vigo, ES[87]) which itself fosters innovation.

In the processing sector, the EFF contribution to innovation seems to be relatively limited. Measure 2.3 certainly supported the introduction of modern processes, products and new packages, but this is the application of proven technology rather than innovation.

In general, dissemination of innovation is considered as having been higher when state agencies and research institutes are involved, rather than when the innovation is supported by private companies alone, but that also depends on the existence of a culture of collaboration between the research world and the industry. The relevance of projects and the dissemination was also more effective when it relied on a real innovation strategy for the sector. In that regard, the obligation of establishing a National Plan for the Development of Sustainable Aquaculture under the EMFF should contribute to foster innovation in this sub-sector as long as this dimension is taken into account in the national plans.

Finally, MAs' feedback on the relevant innovations in the sector (regardless of whether they are funded by the EFF) showed that the potential impact of the EFF on innovation depended on the existence of innovations in the sector. In a sector where there was no major innovation (as for processing), there were only a few projects related to innovation. In fisheries, where the need for innovation was strong, because fuel efficiency and selectivity are major issues and at the same time there are important research centres, there were more innovation projects under the EFF.

c) The EFF intervention has contributed to create or maintain jobs in the EU

According to STECF data:

- The total number of FTEs in the fleet decreased by 9% between 2008 and 2013 with significant decreases in all MS but FI, MT and PT[88]. This was a result of both the reduction of the fleet capacity and the improvement in labour productivity.
- The total number of FTEs in aquaculture decreased by 16% between 2008 and 2012, in MS where data are available for the whole period (they represent 68% of the FTEs in the sector in 2012), with significant year-to-year variations and differences among MS[89]. Among the main MS, number of FTEs increased by 17% in FR (the increase mainly comes from the shellfish sector but the data may not be fully reliable), they decreased respectively by 13% and 55% in ES and in the UK, and they are not known in GR.
- The total number of FTEs in the processing sector decreased by 4% between 2008 and 2012, in MS where data are available for the whole period (they represent

[85] See section 4.2.6 on aquaculture and Aquaculture Case Study Report.

[86] See https://webgate.ec.europa.eu/fpfis/cms/farnet/innovation-goose-barnacle-traceability

[87] See https://webgate.ec.europa.eu/fpfis/cms/farnet/innovation-fisheries-areas-conference-october-19th-vigo-es

[88] EE, GR and HR are excluded from the analysis as data were not provided in the beginning of the period.

[89] Based on STECF data.

95% of the FTEs in the sector in 2012), also with significant differences among MS. Among the main MS, number of FTEs increase by 5% in FR, they decrease respectively by 3%, 9% and 11% in PL, ES and the UK.

Little information on the contribution of EFF to jobs maintained and created is available.

Based on analyses led in task 2, two measures had a significant impact on jobs: measure 2.3 (processing and marketing, which created jobs also in the aquaculture sector and in the fisheries sector, in primary processing) and Axis 4 (including jobs in other sectors, in particular tourism). Other measures are considered not to have created jobs or only marginally. In total, it is estimated that the EFF contributed to the creation of about 20,000 jobs.

Figures on jobs maintained are not available except for Axis 4, which is estimated to have contributed to maintaining about 9,000 jobs.

Other measures that are assessed to have an impact on jobs are:

- Measure 1.1: scrapping clearly contributed to the destruction of jobs in the fleet, but may contribute to maintain jobs in the long-run by having a positive impact on the remaining fleet's profitability;
- Measure 1.2: temporary cessations contributed to maintain jobs during temporary closures;
- Investment measures (Measure 1.3, Measure 2.1, Measure 2.3, and Measure 3.3) in general are considered to have contributed to maintaining jobs, especially in a difficult economic context by improving profitability or improving the economic resilience of companies;

The impact of other measures was marginal at best, either because of the low uptake (e.g. Measure 1.4 and 2.2, or public health and animal health actions for aquaculture) or because the types of projects supported were expected to create or maintain jobs even if that may happen in some projects (e.g. pilot projects, collective actions, etc.).

Based on MA responses (informed by information from beneficiaries) in relation to all measures, the EFF is estimated to have contributed to the creation of about 17,000 jobs (mainly in processing and under Axis 4) and to have maintained at least 9,000 jobs, but it hasn't prevented the overall reduction of jobs in all three subsectors and it significantly contributed to the removal of jobs in the fleet.

Some fishers retired (possibly with the non-renewable compensation) and therefore entirely exited the job market. There was also a transfer of fisheries jobs into the processing industry and into projects under community-led local development initiatives (Axis 4). In ES, the only MS that provided figures by measure on jobs created and destroyed, the total number of jobs created (based on applicants' declarations) reached 4,278 jobs against 2,425 jobs lost as of December 2014; a net addition of 1,853 jobs. This result from the top MS in terms of total employment in the fisheries industry (including aquaculture and processing), plus the assessment on jobs maintained and the exit of part of the fishermen from the labour market, suggest overall a positive contribution of the EFF to the number of jobs.

d) The EFF intervention has contributed to better taking into account the interests of consumers

The question aims at analysing the extent to which the interests of consumers in terms of product quality and market transparency have been better taken into account through the EFF intervention.

Several EFF measures included an objective related to the enhancement of product quality:

- Measure 1.3 on investments on board fishing vessels with action 3 on the improvement of hygiene and action 4 on the improvement of quality.

- Measure 2.3 targeted to fish processing and marketing, including investments that aimed to improve product quality, public health and hygiene.
- Collective actions (measure 3.1) include operations contributing to the transparency of markets in fisheries and aquaculture products, including traceability and improvement of quality and food safety.
- Measure 3.3 targeted to fishing ports, landing sites and shelters, with investments which could relate to improve the conditions under which fisheries and aquaculture products are landed, processed and stored in the ports.
- Measure 3.4 on the promotion and development of new markets may support the implementation and promotion of quality schemes.

As regards measure 1.3, only BE and NL reported significant commitments on action 3 (quality), with a number of operations corresponding to 50% of the fleet for BE and 12% of the fleet for NL. In other MS, investments related to product quality remain very limited (the total being equal to 1% of the EU fleet). The uptake for action 4 (hygiene) was relatively low. It can therefore be concluded that with the exception of BE and to a lesser extent NL, the contribution of measure 1.3 to the improvement was very limited.

As for investments targeted to processing and as described in task 2, the EFF contributed to the modernisation of the equipment, which should result in quality improvements, for example in terms of the regularity or freshness of the product.

Collective actions may have contributed to the improvement of quality but article 40 data do not permit to distinguish related operations. According to MA interviews, it appears that collective actions did not focus on products quality. Only LV seems to have significantly committed collective actions for operations improving fish production, storage facilities and equipment.

Measure 3.3 mainly concerned investments in existing ports. Main reported investments relating to the improvement of the quality of products are ice availability, clean and temperature controlled storage, and better landing conditions. Although it is not possible to precisely identify the extent to which restructured facilities have favoured the improvement of final products quality, there is a clear consensus of the MAs interviewed about the positive contribution of the measure to product quality.

Measure 3.4 supported the implementation or the promotion of quality schemes in several Member States: FR (implementation of MSC and 2 official quality labels), CZ (promotion targeted to 2 PDO/PGI products), and RO (promotion targeted to premium quality products). Nevertheless, most promotion campaigns were generic and referred to the general objective of increasing fish consumption or specific methods of production or species, without reference to quality schemes. Moreover, the development of quality schemes for seafood products in general remain limited (PDO/PGI) or concentrated in a few Member States (MSC). It can be concluded that the contribution of measure 3.4 to the improvement of product quality remains limited to a few cases, and was marginal at the EU level.

As regards the transparency of the market, it must also be highlighted that EU rules on the provisions of information to consumers on fishery and aquaculture products rely on the Common Market Organisation regulation which complements the general rules on food information to consumers established in Regulation (EU) No 1169/2011. The EFF is therefore not the primary policy EU policy instrument to achieve this objective.

5.1.1.4 To what extent has the EFF contributed to foster the protection and the enhancement of the environment and the natural resources in relation with the fisheries sector?

a) The EFF intervention has contributed to protecting and conserving marine biodiversity

EU Biodiversity Strategy 2020 Target 4 is to make sustainable use of fisheries resources and to achieve Good Environmental Status (GES). These objectives emerged during the EFF programme and are supported by the CFP and the Marine Strategy Framework Directive, which recognises the status of commercial fish stocks, the state of biodiversity, food chains and seafloor integrity among other indicators (termed 'descriptors') to define the status of Europe's seas.

The Biodiversity Information System for Europe (BISE)[90] references actions to protect cetaceans and seabirds, protect vulnerable benthic habitats, reduce by-catch and discarding as key efforts towards achieving these goals. There are limited instances of EFF-funding being used to support mitigation measures in relation to vulnerable by-catch species e.g. reduction of seabird by-catch in long-line fisheries. The EFF was used more widely to contribute to the implementation of habitat protection through the management of Natura 2000 sites, which helped to protect and conserve marine biodiversity.

With the actions related to these vulnerable organisms in addition to the ongoing implementation of the Birds and Habitats Directives through the Natura 2000 network, the protection and conservation of marine biodiversity has certainly improved during the EFF programme period. By the end of 2012, MS had designated 4% of their seas under the Natura 2000 network with a further 1.9% under national designations (nearly 6% in total).

A 2015 report by the European Environment Agency (EEA)[91] identified that European networks of marine protected areas is not being used or designated to the same extent across regional seas. In areas such as the Greater North Sea and the Baltic Sea, marine protected area coverage reached almost 18% and 12% in 2012, respectively. In other regional seas such as Macaronesia and parts of the Mediterranean Sea, coverage is significantly lower, particularly in the offshore waters. By 2012, only four MS had met Natura 2000 requirements for all relevant marine species[92].

The measure 3.2 is the most explicit EFF support to biodiversity projects with the objective of protection and development of aquatic flora and fauna. DE and DK spent the most on measure 3.2 with BE, SE, CZ and CY also showing significant spend under 3.2 in relating to the rest of their EFF programmes.

While DE has the largest area of designated marine sites and had the highest spend under measure 3.2 there is no clear correlation across MS between MPA coverage and spend under measure 3.2.

MA interviews highlighted the main project areas for these countries where spend was significant:

- For DE: Many operations were associated with the eel management plans along with river and inland waters restoration. Some were also associated with the extensive marine Natura sites established in DE waters.
- For BE: Half of the operations were implemented by the public services of Wallonia in charge of improving the migration of fish in streams and rivers by removing obstacles to their free movements (resulting in a new indicator from 2013 on km of restored riverbanks).
- For CY: Construction of artificial reefs and the creation of protected areas was the main focus of spending.

[90] http://biodiversity.europa.eu/mtr/biodiversity-strategy-plan/target-4-details/#_act14a

[91] EEA Report Reference Marine Protected Areas in Europe's Seas (2015). http://www.eea.europa.eu/publications/marine-protected-areas-in-europes

[92] EC, 2013a, 'Conclusions on the representativity of habitats and species in Natura 2000', (https://circabc. europa.eu/w/browse/0c011fbc-edd4-49a6-8f3d-b67901a2084d).

- For CZ: All CZ projects were focused on the restocking of European eel in the rivers (Elbe and the Oder River).

Pilot fisheries projects in FI and CY also contributed to the protection of biodiversity. FI developed a fishery (and market) for low-value species such as cyprinids and this fishery helps to remove nutrients from waterbodies. CY supported a project seeking to remove a poisonous invasive fish species with targeted fishing activity.

While most MAs recognise that the EFF contributed to reducing environmental impacts of fishing, the uptake of projects to specifically protect and conserve biodiversity was comparatively small under the EFF. This is to be expected as the programme focused on fishery and aquaculture development (that either reduced environmental impact or at least ensured impacts were not at unacceptable levels) rather than biodiversity objectives. There were also other funding sources such as LIFE, with a more specific remit on biodiversity protection and conservation.

With the exception of a few MS such as DE and SE, biodiversity protection under EFF was *ad hoc* rather than strategically implemented. This situation is understandable as (i) the economic crisis caused EFF programmes to focus on efficiency improvements and emergency support; (ii) clearer biodiversity objectives emerged during the programme and are not reflected in the OPs; and (iii) development of the Natura 2000 network, one of the main tools for protecting EU biodiversity, has been more limited in the marine environment[93].

The experiences with EFF show a residual need for the EMFF programme to support fisheries or aquaculture projects with biodiversity enhancement objectives. Delivery against those objectives should be via a well-defined strategy, which would mostly be delivered via collective or co-operative projects actions rather than individual beneficiaries.

b) The EFF has contributed to providing for a sustainable exploitation and to minimising the impact of fishing (and aquaculture) activities on marine eco-systems

In the open public consultation, when respondents were asked for the key achievements of the EFF, the top two answers selected were:

- Encourage sustainable development and the improvement of the quality of life in areas with activities in the fisheries sector (48%).
- Fostering the protection and the enhancement of the environment and natural resources where related to the fisheries and aquaculture sectors, in particular the objectives of Common Fisheries Policy (39%).

Table 28 in Annex 7 summarises the MA responses when asked about the contribution that the EFF made towards the pre-reform CFP objectives of 'sustainable exploitation of marine resources and 'minimise the impact on marine ecosystems'.

In relation to the first objective, sustainable exploitation, 79% believed that fisheries funding (Axis 1) made some contribution to sustainable exploitation, with 42% thinking fisheries funding made a major contribution. Similar levels of impact were perceived for aquaculture funding with 82% recognising some contribution by EFF towards sustainable exploitation and 44% seeing aquaculture funding as making a major contribution. 87% considered that collective actions (Axis 3) had some contribution to sustainable exploitation, with 31% suggesting the contribution was major, slightly less than the fisheries and aquaculture measures.

[93] The Birds and Habitats Directives do not reflect a comprehensive understanding of the marine ecosystem as it is currently implemented, and do not embody the principle of an ecosystem-based management approach so as to build resilience for the system as a whole (EEA, 2015).

Fisheries

MAs mainly evidence their opinions on the contribution of EFF funding to the fleet reductions as described above. EE cited more selective gears supported through EFF as better ensuring sustainable exploitation in the Baltic. The MAs suggested other EFF spending categories also contributed to more sustainable exploitation of marine resources, but the impacts were less significant. Aquaculture funding was not referred to explicitly, except for MT which suggested that the contribution of aquaculture funding helped to reduce the pressure on wild stocks.

MAs also considered the EFF to have made a positive contribution to the second CFP objective, minimising the impact on marine ecosystems, but this is considered to have been less significant than in relation to sustainable exploitation. For fisheries measures, 44% of respondents considered the EFF made a moderate contribution to minimising impacts. The main contributions cited are changes to fishing gear that were supported either directly through funding gear with reduced impact or through innovation support. Other actions included PT training fishers on low-impact fishing practices, while the UK supported inshore vessel tracking systems to aid management in relation to Natura sites and other Marine Protected Areas.

Reducing gear impact was in part a positive consequence of the fuel price rises seen in 2008, which led to more fuel efficient towed gear with less seabed impact. Gear selectivity operations increased in prominence in the latter stages of the EFF as MS sought to mitigate the predicted impacts of the Landing Obligation. Until that point gear selectivity was focused on reducing cod-bycatch, but in the last two years of the EFF many MS funded gear trials and projects seeking wider by-catch reduction.

In terms of reducing the negative impacts of aquaculture, 41% considered the EFF contribution to be moderate. Examples given include integrated flood plain management in HU and the uptake of environmentally friendly techniques in CZ, FI, LV. In RO the EFF was used to help compensate aquaculture operations for losses resulting from Natura 2000 site management.

In PL, collective action projects (Axis 3) developed tools for marine ecosystem protection; increased qualification of employees responsible for exploiting ecosystems, and increased the conditions of ecosystems for aquaculture.

In SE the MA claimed that the whole EFF programme was delivered with an environmental focus; projects were implemented to address ghost fishing by lost gear; spawning area restoration and increasing protection of aquatic habitats.

With the recently improved discard data it is too early to see a clear trend in discard levels across fleet metiers as many variables still contribute to discarding. The main contribution of the EFF in this regard was on a pilot basis as there was not the regulatory compunction to adopt improved selectivity measures. This will emerge during the EMFF with the phasing-in of the Landing Obligation, which will still focus on commercially fished resources, and can be expected to result in reductions of non-commercial by-catch.

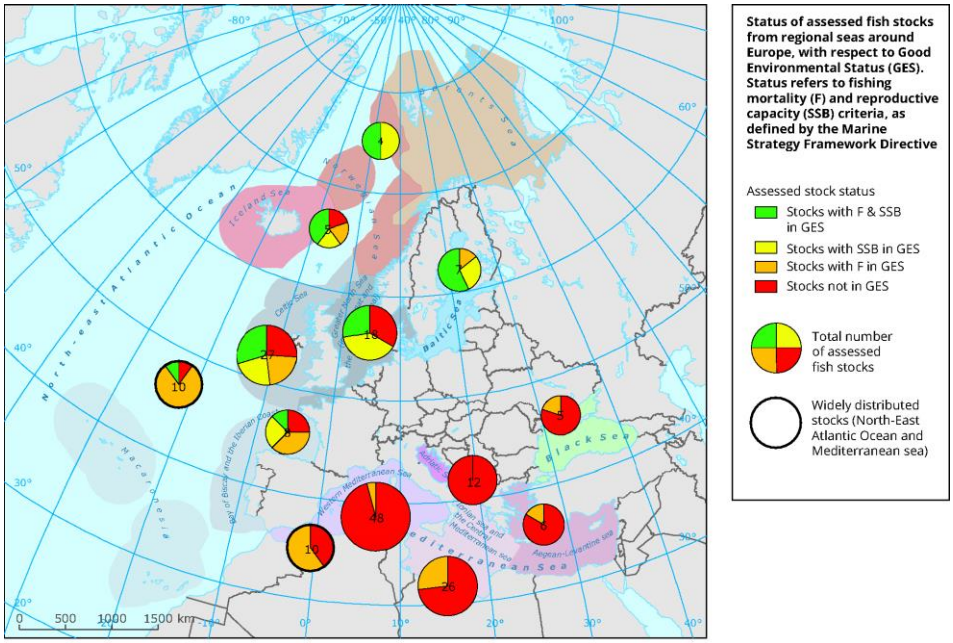
Progress on sustainable exploitation of fisheries is more evident, as is the contribution of EFF funding. In 2014 the EC reported that '61% of assessed stocks are fished consistently with MSY, up from only 2% in 2005, 12% in 2008 and 53% in 2012[94]. The sustainable exploitation of fish resources has therefore progressively improved over the EFF programme even if there is more work to be done, particularly in certain regional seas like the Mediterranean. Figure 25 illustrates that the proportion of stocks considered in Good Environmental Status (GES) is better in the Northern European regional seas compared to those in the south. It should also be noted that while the number of stocks

[94] https://ec.europa.eu/dgs/maritimeaffairs_fisheries/magazine/en/policy/state-fish-stocks

in the south is greater, the proportion that remain un-assessed is still greater in the south.

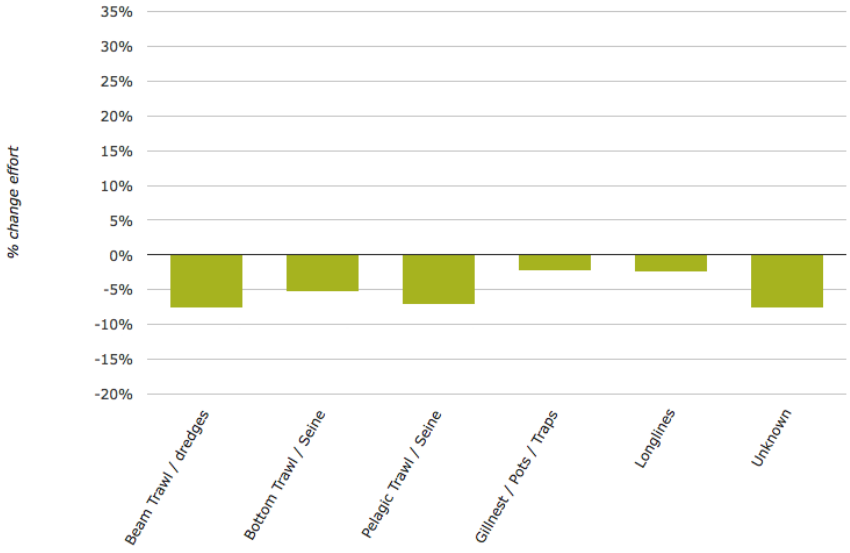
The improvements in EU fish stocks over time can to an extent be attributed to reductions in fishing mortality applied to each stock and more generally through the overall reduction in effort across EU fleets. That effort reduction has come about through management action (limiting the TAC and days at sea that vessels are permitted to fish), but also through the reduction in fleet capacity, to which the EFF contributed to (see above).

Figure 25 Status of commercial fish stocks in relation to Good Environmental Status (GES)



Source: EEA, 2015

Figure 26 Change in EU fishing effort between 2004 and 2011 by gear types



Source: EEA, 2015

The reduction in effort described above is the primary contributor to a reduction in the impact of fishing on marine ecosystems. The most significant driver for gear adaptations that reduce habitat impact was economic. The high fuel price led to the need for alternatives to fuel-intensive gears, which generally meant gears with less ground contact and so reducing benthic impact. The EFF supported many of these developments and provided further incentive to invest under the fuel regulation. This is most striking in the beam trawl fleet and in fact NL had planned for such a change via its 2006 innovation strategy. Both NL and BE supported the development of and investment in novel gears such as the sum-wing, which significantly reduced fuel consumption by the beam trawl fleet. In CY gear replacement was supported to aid implementation of the Mediterranean Sea Regulation[95], which mainly sought sustainable exploitation of resources, but with associated reduction in environmental impact.

Overall, EFF fisheries funding made a significant contribution to the more sustainable exploitation of resources by complementing the management measures and to an extent contributing to an overall reduction in fishing effort. This reduced fishing activity has in turn led to reduced environmental impact. There are also environmental benefits resulting from EFF fisheries funding that go beyond its contribution to re-balancing target resources, but these are often a by-product of efficiency gains. Change has primarily been in response to regulatory drivers to reduce by-catch or economic drivers to reduce fuel cost. The latter resulting in the additional benefits of reduced benthic impact and reduced carbon emissions.

Aquaculture & Processing

The direct contribution of measures outside of fishing (aquaculture and processing) has been more limited. Efficiency improvements have often had the benefit of reduced environmental impact, either through more efficient resource or energy use, or with the adoption of cleaner technology.

Aquaculture

Move to less-intensive, traditional aquaculture: discussions with the national fish and shellfish farming associations indicated that there was little interest in improving

[95] Council Regulation (EC) No 1967/2006 of 21 December 2006

traditional aquaculture, with only 16% of committed funds spent on 'aqua-environmental measures', as the main focus was on modernisation (42%) and new farms (38%). Furthermore, expenditure in this area was mostly in PL (65%) and RO (15%), with only 9 other MS spending minor amounts in this category. The Polish FLAG '*Bielska Kraina*' in the touristic area of Silesia includes over 180 small-scale carp and trout farms and noted that EFF funding lead to both a diversification of activities and new but smaller production sites with traditional processing methods such as fish smoking. When the MAs were asked about the reasons associated with the uptake of 'environmentally-friendly' aquaculture, the main concerns were over accessing bank loans and public co-financing to support this, and to a lesser extent the associated administrative burden (such as water abstraction permitting)

Aquaculture in environmentally-sensitive areas: of the 10 MS MAs who responded, only ES and PL reported that aquaculture development had taken place in Natura 2000 areas. The PL FLAG '*Bielska Kraina'* noted that specific actions had been funded to ensure that aquaculture did not compromise the conservation objectives of Natura 2000 sites e.g. through flooding or stock loss. In FR, where there is already considerable spatial overlap between shellfish farming and SACs / SPAs, the main focus was on improving water quality, reducing wastes and developing measures to counter the risk of pollution incidents. None of the CZ operators interviewed had investments in Natura 2000 areas.

Conversion to organic and / or EMAS certified aquaculture: despite the introduction of a specific action under Measure 2.1 to fund aqua-environmental projects in aquaculture, there is very little reliable quantified data on the contribution of EFF funding to the environmental performance of aquaculture. It is evident that uptake of both organic farming and EMAS certification was very low and limited to two or three Member States. This stems to a certain extent from the limited interest noted during OP design, and may also reflect the challenging financial environment over 2008 onwards when consumer spending was curtailed, esp. for more expensive organic produce. During this time, the focus of many EFF applicants was on improving productivity, profitability and competitiveness, rather than diversifying into organic or other environmentally-friendly production. This is unfortunate, as organic / environmentally certified production is one approach to value-adding, especially in a buoyant market. The poor economic climate over much of the funding period will certainly have prevented both investments in both organic aquaculture and EMAS certification. There was very little support for organic certification, with six of nine MS MAs thinking that conversion to organic farming was unnecessary.

Impact of incorporating Environmental Impact Assessment (EIA) into aquaculture-related activities: the majority of respondents felt that including an environmental impact assessment (EIA) promoted sustainability. That said, 42% of projects were extension / modernisation where an EIA was not considered necessary and derogations to this effect were easy to obtain, especially in HR and MT. In some countries (e.g. SI), the aquaculture projects were too small to warrant an EIA. In SE the EIA process was external to the EFF, but was included in EFF project selection e.g. only 'environmentally approved farms received 100% funded support. One MS (BE) stated that had EIAs been mandatory for all projects, it would have severely curtailed their programme under this measure. FR was the only MS to state that the requirement for EIAs caused significant extra cost and delay.

Processing

As analysed under Task 2, the EFF contributed to improved environmental performance in the processing industry (mainly through energy efficiency and treatment of residual waters), although it cannot be quantified. In most cases improvements occurred as a positive side-effect of modernisation and were not the primary objective. There are however a few examples of projects focusing on environmental aspects (e.g. project processing mussel shells for the ceramic industry in Galicia).

5.1.1.5 To what extent has the EFF encourage sustainable development and the improvement of the quality of life in areas with activities in the fisheries sector

Based on the indicators reported in Eurostat to measure the quality of life, what is under analysis here encompasses the number and quality of jobs, income, discrimination and equal opportunities and the natural and living environment (related to pollution rather than marine resources here). Analyses of the Leader programmes also identified strengthening of local identities, landscape diversity and cultural endowments as elements of the quality of life.

The monitoring data available at EU level do not allow for an analysis at regional or local level, but it is reasonable to assume that the main impacts of the EFF occurred in 'areas with activities in the fisheries sector'.

Impacts of EFF on job in areas with activities in the fisheries sector

MA interviews show that impacts on the standard of living are mainly attributed to the maintaining and creation of jobs and improvement on working conditions. 51.6% (N=89) of the people who participated to the open public consultation also indicated that the intervention was efficient for the sustainable development of fisheries areas, primarily in relation to the impact on jobs (e.g. to support diversification of the local economy).

Impacts of the EFF on the number of jobs have been analysed under Task 2 and summarized above. Overall, the EFF intervention is assessed to have had a positive impact on this indicator, although the data are lacking to measure the actual contribution.

The EFF also contributed to improve the quality of jobs, mainly through investments in equipment improving safety and working conditions (the largest share of the investments on board as well as investments in aquaculture, processing and fishing ports and landing sites).

Finally, the quality of jobs can also be assessed through wage trends. Data available for aquaculture are too incomplete to be analysed here, but STECF data on cost of wages[96] and FTEs suggest an improvement of wages in both the fisheries and the processing sector, respectively by 14% between 2008 and 2013 and 9% between 2008 and 2012). The contribution of the EFF is difficult to establish and MAs generally stressed the impact of the EFF on the number of jobs and working conditions rather than increase income or wages. However, it seems reasonable, at least for the fleet, to consider that the improvement in profitability, which is partially related to the reduction of the fleet size, especially with the removal of non-profitable vessels, had a positive effect on wages, in a context of increased unemployment and more difficult labour market for workers. As far as the processing industry is concerned, this cannot be attributed to any improvement in profitability but some beneficiaries mentioned that modernisation often implies more automated processes and therefore more qualified jobs.

Projects related to upgrading skills and training under Measure 1.4, 1.5 and 3.1 could also have had a positive impact on the quality of jobs, but Task 2 analyses have shown that they remain marginal and there is no information on actual improvements for the participants, so the impact is considered marginal at best here.

Qualitative analysis on the quality of life in fisheries areas

Improvements of the quality of life beyond the number and quality of jobs can mainly be expected from Axis 4 projects.

[96] The evolution could be partially related to changes in social security charges, which are included in the cost of wages

The Study on the implementation of Axis 4 of the European Fisheries Fund [97] provides the following breakdown by type of operations, from a sample of 1,700 projects:

- 27% focused on adding value, creating jobs and promoting innovation.
- 26% focused on promoting social well-being and cultural heritage.
- 19% focused on supporting diversification and job creation.
- 17% focused on strengthening the role of fisheries communities in local development.
- 10% focused on enhancing and capitalising on the environmental assets.

Article 40 data for some MS shows the number of operations in the breakdown by type of project is lower the total number of operations, while in others it is significantly higher, suggesting that one project could be recorded under more than one category. The typology under Art. 40 data also differs from the breakdown provided by the above study, making it difficult to compare the results and assess any change since 2014. Both sources however indicate that the main impact of the measure was the number of job created or maintained. The projects focusing on the role of fisheries communities included projects to improve capacity of the FLAGs themselves, so with possible long-term impacts for the territory, but no direct impact on the quality of life in the area in the short run. The projects having an impact on other aspects than jobs therefore were mainly the projects focusing on well-being and cultural heritage, as well as the projects focusing on capitalising on the environmental assets. Together they represented 36% of the projects carried out, according to the 2014 study, but there is no information available to assess the actual impact on the area.

5.1.1.6 To what extent has the EFF contributed to promote equality between men and women in the development of the fisheries sector and fisheries areas?

The gender case study aimed to assess the effectiveness of EFF support in promoting gender equality in fisheries. Although it is not always formally recognised, women's contribution to fisheries is instrumental. The situation is different across subsectors given the adverse employment trends in fisheries, but the aquaculture and processing sectors are also by nature more open to women's work.

A 2013 study for the European Parliament estimates that female employment accounted for 12.6 % of the overall workforce in the fisheries and aquaculture sector in 201298. which is as a result of 28 % of all those employed within the aquaculture sector and 57 % of all those employed within the processing sector being female. The proportion of women employed in the fishing sector is much less. However, even here their role is underestimated as women are also responsible for many tasks within family businesses, such as paperwork, sales of fish or shellfish, preparing nets and lines and cleaning vessels.

Women form the majority of processing employment (in FTE) and the share is relatively stable over time (54%) despite a decrease in total employment (-9%). Data for aquaculture are more fragmented with inconsistencies in the figures reported by the MS. Between 2008 and 2012 (caveated with the inconsistencies in the data reported), women represented a relatively constant share of 25% of total employment and between 17% and 27% of FTEs at least, but reflecting a decrease in real terms (-3%) and the number

[97] Study on the implementation of Axis 4 of the European Fisheries Fund, Capgemini Consulting et al. for DG MARE, 2014

[98] European Parliament (2013) Women in Fisheries: A European Perspective. https://webgate.ec.europa.eu/fpfis/cms/farnet/files/documents/Women-in-fisheries-EN.pdf

of FTEs has increased (6%). Overall, it is notable that data underestimate women's shadow role in often small business structures.

The promotion of gender equality – as one of the EFF horizontal objectives – is considered an integral part of the sustainable development of fisheries, to be achieved through gender mainstreaming.[99] This soft approach supported by the EFF consists of the promotion of gender-relevant exchange of experience and professional development, namely Art. 37(k) *Networking, exchange of experience and best practice*, and Art. 44.2 *Promotion of professional skills, worker adaptability and access to employment*. The EFF Regulation also provided for support measures, namely information and publicity on the funding available (Art. 51.2(a)), as well as MS monitoring data broken down by gender (Art.66.3) to increase information about the role of women in fisheries and raise awareness of their contribution to the sector. In addition, this evaluation also aimed to consider EFF indirect support to the promotion of gender equality through measures targeting at improving working conditions, employability and supporting sustainable economic development in particular.

The extent to which the EFF's contribution to gender equality can be determined is limited by a lack of reliable and comprehensive data on the situation of women's in fisheries in general, as well as on women's access and take up of EFF support in particular. In addition, the available data only cover women's employment in aquaculture and processing (but not in fisheries) and its evolution between 2008 and 2012 (i.e. not the entire funding period).

The evaluation found that the EFF did little to promote gender equality directly. The main reason for this is that none of the MS (except BG) consider gender equality to be a key issue, and presumably this is reflected in poor interest, data and uptake of funding. There are systemic reasons why women's role in fisheries is not fully recognised or developed:

- Despite increased awareness and recognition of women's multiple roles in fisheries, the traditional mentality and division of labour confine women to certain roles despite some recent evolutions, which go towards a more positive view of women's informal and formal economic contribution.
- The physical harshness of the work, the conditions and times of work make it less likely that women will apply or be selected for fishing jobs.
- Maintaining employment is a key challenge in an industry where employment levels are facing structural decline, so the promotion of gender equality is often not considered relevant or not as important as other objectives.
- The lack of recognition of women's legal status in fisheries (including the recognition of their training and qualification acquired through their professional experience) leads to women's economic insecurity as well as to a lack of self-perception of the role they are actually playing. The creation of the collaborative spouse status (EU directive 86/613) for instance is a step in the right direction, but is still not available to all qualifying women in the EU.
- The weaknesses of women's representation still structurally inhibits the promotion of gender issues (see question below).

There are also practical reasons why the EFF was less likely to support women directly:

[99] "Gender mainstreaming (…) is not an end in itself but a strategy to achieve the goal of gender equality. Mainstreaming involves ensuring that gender perspectives and attention to the goal of gender equality are central to all activities – policy development, research, advocacy/dialogue, legislation, resource allocation and planning, implementation and monitoring of programmes and projects"; UK International Climate Fund (n.d.), International Climate Fund Sectoral Review

- In many measures support is granted to companies only and not to individuals. Gender is not therefore recorded and gender is not a specific focus of support.
- As other stakeholders, individuals or operators of micro enterprises, women faced the challenges to access EFF support in those situations.

Despite this generally challenging situation, the evidence suggests that the EFF contributed to gender equality in an indirect way, at several levels, for example: information and awareness raising on the available support; participation in planning and improvement to working conditions and environment. Several operations under Axis 4 were implemented to promote the role of women in fisheries through events and publications.

With the exception of the local development strategies under Axis 4, the looser connection between EFF-supported measures and this gender equality objective compared to some of the other EFF objectives dilutes the support actually available for the promotion of gender equality, which is also not adequately monitored.

Conclusion of the evaluation question:

EQ1 - To what extent were the EFF specific objectives achieved?

In relation to the EFF's six specific objectives:

- **Promote a sustainable balance between resources and the fishing capacity of the Community fishing fleet.**

The sustainable exploitation of fish resources progressively improved over the EFF programme (in 2014 the EC reported that '61% of assessed stocks are fished consistently with MSY compared to 12% in 2008) even if there is more work to be done, particularly in certain regional seas like the Mediterranean. While much of this improvement is down to implementing effective management controls, the EFF made a significant (estimated to be 66%) contribution to the reduction in fishing capacity seen over the programme period, which has moved the fleet closer to a balance with available resources.

- **Promote a sustainable development of inland fishing.**

The effectiveness of the EFF for the sustainable development of inland fisheries was very limited at EU level, but there were some achievements in MS where with a focus on inland fishing, such as FI, EE and RO, with the MA for RO stating that EFF had contributed to reducing pressure on inland resources.

- **Strengthen the competitiveness of the operating structures and the development of economically viable enterprises in the fisheries sector.**

Fisheries measures have contributed to the overall improvement of fleet competitiveness mainly by removing vessels and by supporting the modernisation of the remaining fleet and of landing sites. Investments in marketing and processing, especially when through fishermen's organisations, may also have contributed to improve competitiveness by adding value to landings.

The EFF contributed to the economic resilience of the beneficiaries, especially in the shellfish sector. However, the impact of the EFF on the competitiveness of the EU aquaculture as a whole seems at best marginal and the main weaknesses identified in the beginning of the EFF remain.

The impact of the EFF on the profitability of the processing sector is not clear. However, EFF contributed to the development of the processing and marketing sector, in particular through increased capacity and increased throughput of processed products.

- **Foster the protection and the enhancement of the environment and**

natural resources where related to the fisheries sector.

The EFF was used extensively in association with the implementation of habitat protection through the management of Natura 2000 sites, which helped to protect and conserve marine biodiversity. There are also instances of EFF-funding being used to support mitigation measures and reduce by-catch of vulnerable species. The direct contribution of measures under aquaculture and processing has been more limited. Efficiency improvements have often had the benefit of reduced environmental impact through more efficient resource or energy use and with the adoption of cleaner technology.

- **Encourage sustainable development and the improvement of the quality of life in areas with activities in the fisheries sector.**

The only reported social impacts of measures is on the number of job created or maintained. There is no information on actual improvements for the participants, so the impact is unknown. Projects having an impact on aspects other than jobs were mainly the projects focusing on well-being and cultural heritage, as well as the projects focusing on capitalising on the environmental assets. These represented 36% of the projects carried out under Axis 4, but there is no information available to assess the actual impact on the area.

- **Promote equality between men and women in the development of the fisheries sector and fisheries areas.**

Overall, the overall contribution of the EFF support to the gender promotion objective has been neutral or very marginally positive. The evaluation lacks a comprehensive and reliable evidence base on women's situation in fisheries and on the take up of EFF support by women, it is not possible to conclude on the evolution of this situation or to link it to EFF support.

5.1.2 EQ2 - To what extent were the OP (and modifications over time) objective and indicators of the MS achieved?

To assess whether objectives and targets were achieved by MS, and at EU level for those set at EU level too (e.g. reduction of EU fishing capacity), analyses of quantified targets in the MS and cumulated targets at EU level are used (data originated directly or indirectly from the EU MS annual implementation reports[100]). Modifications of targets during the programme, especially in 2014/2015, and the rationales behind those changes are also analysed (see Task 1 analysis). Qualitative analyses are provided when quantitative indicators cannot provide an answer to the evaluation question.

Most *OP modifications* were for unutilised budget in one axis to be transferred to another with more demand. Several amendments were made to support the catching sector in coping with the fuel crisis. Commission Regulation (EC) n° 744/2008 provided an enhanced support package to help the EU fishing fleet adapt to the crisis.

OP Modifications involving changes of targets: MS often adjusted their targets to correspond to the new budget allocations and to the actual situation of the sector, especially in the end of the programming periods. GR changed its targets for example in 2014 and 2015: the Member State reduced them in aquaculture in terms of companies assisted and number of new jobs (Aquaculture case study, MA survey).

Fisheries – harvest sector (axis 1):

Adapting and restructuring the EU fishing fleet to reduce overcapacity: the Common Fisheries Policy (2003 version - repealed by the 2013 version) had for an objective, amongst others, to adapt the EU fishing fleet by restructuring the fleet and scrapping fishing vessels. At the end of the EFF period, adapting the EU fishing fleet capacity with the EFF support was an objective met in terms of reduction of fleet power and gross tonnage (see 4.1.2). The majority of MS met or exceeded capacity reduction targets set in their Ops (e.g. NL, the 15% reduction of the flatfish fleet capacity has been achieved; in ES, the fishing fleet capacity reduction was met both in GT and kW), some of which were revised upwards (along with reallocation of funds to Axis 1) following the fuel Regulation. However, in the Open Public Consultation (OPC), 30% of respondents suggested permanent cessation should not be funded by the public sector; more than any other measure. To an extent, MAs agreed: they suggested that capacity re-balancing was complete, therefore permanent cessations may not be the most cost-effective way to address remaining capacity. According to the case study, engine replacement had low impact in decreasing the fleet power capacity in ES and FR but had a major one in BE (27% kW decrease; see case study report for more details)). Temporary cessation (measure 1.2) was found not to reduce fishing capacity as funding was associated with regulatory requirements to stop fishing reduction (Task 2 analysis of the spending category 'Fisheries').

Socio-economic compensation for the management of the Community fishing fleet (measure 1.5): where the levels of uptake of measure 1.5 were recorded by MS, it was usually below the objectives. In many other EU MS, Measure 1.5 was not implemented at all (Socio-economic Measures, Case Study Report).

Aquaculture – production sector (Axis 2- Measure 2.1): the results achieved were slightly below the expected objectives (analysis of EU MS AIRs). However, some EU MS (20 % of the 16 respondents within the 27 surveyed MAs) considered that the results went beyond their plans. Reasons for falling below targets were administrative barriers to water permits (SI) and that many of the larger companies were ineligible for EFF support

[100] Targets met according to baselines are to be provided by EU MS in their annual implementation reports (EFF implementation regulation n° 498/2007 – annex XIV 3.1. and Article 65). Indirectly from the MA surveys and the case studies.

especially those in marine aquaculture. The European Court of Auditors report (ECA, 2014)) noted that one underlying weakness of measure 2.1 was that the MS National Strategic Plans failed to link with the financial resources required to achieve the support measures (see case study aquaculture).

Inland fishing (axis 2 – measure 2.2[101]*):* the expected result of keeping the inland fishing sector viable was reached in EU MS having supported inland fishing. Actions under this measure, although marginal compared to the volume of funds committed on other measures, certainly improved energy efficiency and contributed to maintain the economic viability of these small sectors_in countries where the Fund was active under this measure (NL for eel recovery, FI, AT and HU mostly). Note that 1% of total Axis 2 EFF was committed to supporting inland fishing (see Task 1, Figure 14: Breakdown of EFF granted for Fisheries).

Processing and marketing (measure 2.3): the output and results of the measure are coherent with its objectives, which were to increase quantity and added-value of fish processed, develop innovative products, enhance quality, develop new markets, reduce waste, reduce the negative impact on the environment, reduce inputs consumption (e.g. energy and water consumption), maintain and create jobs (10,000 jobs estimated to be created with this measure, see section 4.3.1.2). The measure also contributed to foster and accelerate the modernisation of the industry. However, the implementation data did not allow to precisely measure those results due to problems of interpretation of the only quantified result indicator (increase in production capacity) and the absence of indicators to establish a relevant typology of projects (Task 2).

Collective actions (measures 3.1 collective actions and 3.2 aquatic fauna and flora development and promotion[102]*):* With regards to measure 3.1, Member States (MAs) responded globally that the measure had positive results except in reaching a greater organisation of the sector (Annex 7). Concerning measure 3.2, MA opinions on the results of measure 3.2 on the protection of aquatic resources were mixed although 50% of MA interviewed considered that the measure had positive results.

Improvement and modernisation of fishing ports and shelters (Axis 3 – Measure 3.3): overall, this measure was considered successful where implemented_in full accordance with the Intervention Logic of the EFF for this measure: an economically viable sector and a fair standard of living (Port Infrastructure Case Study Report).

Development of new markets and promotion campaigns (Measure 3.4): objectives at MS level often remained fairly generic and with no quantified targets, or only by increasing consumption per habitant, which is not a direct result target (Development of new markets and promotional campaigns, Case Study Report).

Pilot Operations (Measure 3.5): nine MS did not fund projects under the pilot operations measure. In the other Member States, gear selectivity pilot operations showed significant by-catch reduction in participating vessels. The measure initially focused on reducing cod

[101] Two main areas of intervention were eligible under this measure: investment in inland fisheries infrastructure, for instance lakeside storage and equipment in SE and FI, and compensation for fisheries management, particularly relating to the eel recovery plans developed during the EFF period. The largest number of operations and total spend was in FI and NL (Task 2 analysis, fisheries spending category – EQ10).

[102] Measure 3.1 had several distinct objectives requiring heterogeneous actions to meet them: 1. increasing the value added through the whole value chain; 2. increasing collaborations between industry and scientists; 3. developing innovative gear and modernize of equipment/capacities; 4. new plans or management approaches tested; 5. enhance regional coordination; and 6. Improve balance between capacities and resources. The objective of measure 3.2 was to increase the protection of the aquatic fauna and flora by rehabilitation of inland waters and improvement of fish Migration routes. DE, DK, ES and PL, accounted for almost two thirds of total EFF granted under measure 3.2.

by-catch and, more recently due to the landing obligation, on undersized target and other by-catch species (Pilot Operations, Case Study Report)

Reassignment of vessels for historical heritage/teaching/research purposes (Measure 3.6) for instance in SE reassigning a fishing vessel to a fisheries research one): there was a very low uptake of this measure (operations in SE and ES). In terms of the indicator in SE the objective of reassigning a fishing vessel was met.

Sustainable development of local areas (FLAG actions; Axis 4 – Measure 4.1): the measure enabled maintaining and creating employment as a result of EFF support (section 4.5.1. for details). The measure also had a positive impact on the gender dimension in 8 Member States, BG, CY, ES, FI, GR, IT, LT and SI (see section on common questions on Axis 4).

Conclusion of the evaluation question:

The objectives of the MS, reported in their operational programmes, were achieved but to a lesser extent in the spending category supporting the aquaculture sector.

Results were particularly met by Member States:

- In the spending category 'Fisheries' (fishing sector) in adapting and restructuring the EU fishing fleet to reduce the EU fleet overcapacity and in maintaining inland fishing viable for EU MS having supported it (NL, FI, AT and HU mostly). Nevertheless, the fisheries sector had to face the global financial crisis and fuel crisis, which had to be taken into account by several EU MS by modifying their operation programmes to maintain, first, the viability of the sector throughout the all supply-chain;
- In the spending category 'Processing' in fostering value-addition and innovation and maintain or create employments;
- In the spending category 'Common interests', except in reaching a greater organisation of the sector, by maintaining the viability and a good life standard by modernising fishing ports and shelters; and
- In the spending category 'Community development' in maintaining and creating local employment in supported local areas.

In the spending category 'aquaculture', the results met were overall slightly below the expected objectives, the sector having to face and manage the financial crisis in priority. In particular, the key objective to increase the aquaculture production in volume was not met at EU level: the EU aquaculture production stagnated over the EFF period. Exceptions occurred obviously such as in BG where the mussel production increased certainly partly as a result of the EFF support to the fish farming sector.

5.1.3 EQ3 - To what extent did the observed effects (results and impacts) correspond to the original objectives?

Correspondence of the observed effects to the original objectives of the European Fisheries Fund

By the end of the EFF period, the results of the Fund globally corresponded to the original objectives:

- To promote a sustainable balance between resources and the fishing capacity of the Community fishing fleet (EFF objective 1) mostly by reducing the EU fleet capacity in the EU to a sustainable level for the resources (section 5.1.1.1);
- To promote a sustainable development of inland fishing (EFF objective 2) by maintaining viable the EU inland fishing sector although the effects, either economic or environmental, were local (section 5.1.1.2)

- To strengthen the competitiveness of the operating structures and the development of economically viable enterprises in the fisheries sector (EFF objective 3). However, the impact of the Fund on the overall competitiveness of the EU aquaculture was at best marginal (see section 5.1.1.3);
- Foster the protection and the enhancement of the environment and natural resources where related to the fisheries sector (EFF objective 4) although being limited in the aquaculture and processing sector (see section 5.1.1.4);
- To encourage sustainable development and the improvement of the quality of life in areas with activities in the fisheries sector (EFF objective 5) by maintaining employments, improving working conditions (see section 5.1.1.5).

The results and impacts of the Fund did correspond to a small extent to the objective 'to promote equality between men and women in the development of the fisheries sector and fisheries areas (EFF objective 6) for EFF projects were mostly not directly targeting women. Also, it is to be taken into account that women's contribution to the fishing sector is rather low being by nature more open to women's work in the aquaculture and processing sectors (see section(s) 5.1.1.6). Nevertheless, axis 4 on local community development had a positive impact on the gender dimension in 8 Member States, BG, CY, ES, FI, GR, IT, LT and SI (section 4.5.1.4).

Unexpected effects of the European Fisheries Fund

Also, the evaluation question aims to assess whether EFF interventions resulted in any unexpected, unintended or undesired effects contributing to low efficiency or failure of the EFF supported actions by deadweight effects and distortion effects but also to positive collateral effects of the EFF intervention. When unexpected or unintended effects were noticed in MA interviews and case studies, drivers (causes) were to be identified and characterised if available.

Two EU MS, BG and PL, raised the positive effects of modernisation of fishing ports on tourism (Axis 3):

- In BG, modernisation of four fishing ports (Measure 3.3) provided benefits to tourism as a knock-on effect (Task 2 analysis of the spending category 'Fisheries' – Table 1 Description of measures (Fisheries)).
- PL raised the same positive effect in the case study on fishing ports.

The UK stressed positive effects of modernisation of fishing ports on fish landing and fish marketing in the Tor Bay (England), the Fund co-supported the development of a new fish market, related accommodation such as cold storage, and fish separation i.e. cuttlefish processing units (case study – axis 3). The action increased unexpectedly fish landings and fish prices due to improved facilities, which was a local pride within the fishing industry (case study on axis 3). Also, under collective actions, Recreational Fishing Grants for habitat improvement work proved to be particularly successful, given that farmers had previously considered it did not work (MA survey).

SE assumed that collective actions (axis 4) targeting environmental actions may result in unexpected changes in the spatial use of the targeted maritime zone (effect onto fishing for instance; MA survey).

No other unexpected effects[103] were pointed out by EU MAs or recorded by the evaluators during the MA surveys (analysis of the 27 MA surveys; MAs were asked for 'unintended

[103] Unexpected situations that faced the fisheries and aquaculture sectors over the EFF implementation period were risen by some MAs during the MA surveys. They included a likelihood of overcapacity in the processing sector for some farmed species (e.g. rainbow trout) in FI, the global financial crisis impacting the EU aquaculture sector (ES) or the Russian ban on EU products impacting mostly eastern EU MS, such as EE and LV. However these situations are not caused by EFF interventions.

or undesired effects' of measures under axis 2 processing and marketing, axis 3 collective actions, axis 3 other measures and axis 3 ports and shelters).

Conclusion of the evaluation question:

Observed effects (results and impacts) corresponded to a large extent to the original objectives of the EFF (cf. the objectives of the Fund under the introduction of the 'effectiveness' evaluation question 1). EFF interventions did not result in numerous and major unexpected or unintended effects either: a few unexpected positive effects occurred on fish landing, fish marketing and tourism in some EU MS – BG, PL and the UK - through modernisation of fishing ports and shelters (evaluation team analysis).

Nevertheless, the observed effect of the Fund on the overall competitiveness of the EU aquaculture was at best marginal. Also, the effects of EFF to promote equality between men and women was less visible due to EFF projects not focusing directly on gender equality improvements and the women's presence in the fishing sector being low and more open to women in the aquaculture and processing sector. Axis 4 on local community development had however a positive impact on the gender dimension in 8 Member States, BG, CY, ES, FI, GR, IT, LT and SI (section 4.5.1.4).

5.1.4 EQ4 - What factors influenced the achievement observed (both successes and failure and unintended)?

5.1.4.1 What external factors influenced the achievement observed?

External factors have either caused, amplified or hindered the observed impacts of the EFF.

Previous analyses by spending category and on competitiveness already highlight a number of external factors.

The following table summarizes how those factors have impacted the EFF results.

Description of external factor	Impact on EFF results
Peak of **fuel prices** in 2008, then drop in 2009 and increasing trend since then to the end of the EFF period[104]	Accelerated the scrapping of vessels (and as a result the reduction of capacity) but may have impacted the profitability of many fleets. However, it also led to innovation for more fuel efficient towed gear with less seabed impact.
Evolution of **fish prices** (increasing trend leading to increasing value)	May have encouraged the industry's willingness to invest in increasing capacity/modernization of production units. However, it could have hindered processing and aquaculture sectors profitability by increasing raw material prices
Evolution of fish and seafood **consumption patterns** (less volume but more quality and valuable products)	May have encouraged the industry's willingness to invest in improvement of products quality, new products, innovation and certification/ecolabels
Overall **economic context** and in particular the **attractiveness** of the fishery sector in a context of fleet adjustment, few alternative opportunities for jobs, age of	May have hindered the increasing of jobs in the sector despite of the increasing trend in value.

[104] The 2015 Annual Economic Report on the EU Fishing Fleet (STECF 15-07)

fishermen.	
Evolution of EU and national **management** tools and measures: TAC and quotas, preparation to landing obligation, implementation of new management systems including ITQs, and increased control	Reduced fishing effort and as a result, encouraged reducing capacity on overharvested stocks, and on sensitive species/habitats; Moreover, it improved fishing gear selectivity and in general promoted more sustainable fishing and farming practices. Long-term benefits on competitiveness and profitability still to be monitored.
Other **environmental policies**	Better protection of sensitive species and habitats, creation of Marine protected areas, reduction of activities impacts, etc.
Biological factors affecting the status of fish stock, or causing high mortality rate in shellfish farms	Hindered the level of production, jobs, and profitability for certain fleets/sub-sectors despite of the increasing trend of prices and demand for seafood.
Available **technology** and **research**, culture of partnerships between scientists and industry in the different MS. National sources of funding for innovation. Capacity (and interest) of the industry in innovations uptake.	Innovation and technological improvements may have happened outside the EFF framework in these MS. In this case the contribution of the Fund to the modernization of the fleet/farms/processing/units may have been limited.
Institutional framework, National/regional/local specific organization of the sector + experience with EU funds	Differences in level of uptake for certain measures may have led to differences of revenues for producers and so impact their standard of living. The level of innovation and technological improvements could have been hindered in MS or regions where administration and fishing industry are not used to cooperate.

5.1.4.2 What factors related to the implementation of the OPs influenced the achievement observed?

Some practices in the implementation of the OPs have contributed to improve or have hindered the achievements of the EFF

Task 1 analyses showed that main implementation issues were related to the administrative burden, the understanding of eligibility criteria and the implementation of the monitoring system. These issues caused delays in implementation and sometimes de-certification but they were more related with the general implementation rules of the EFF or the administrative capacity of the MS, including past experience with EU funds than with specific practices. A few MAs had difficulties with public procurement procedures that led to actions being decertified by the Commission (e.g. for the Promotion campaigns under M3.4 in CZ and SK).

As regards good practices, most examples provided are more related to examples of interesting or innovative projects rather than good practices as far as implementation is concerned. Nonetheless, there are three types of implementation practices that have been identified as having a positive impact on achievements:

- Communication from the MAs to raise awareness among potential beneficiaries: this was used for example in Galicia to promote fuel-efficiency investments (other than engine replacement) or to inform fishermen about socio-economic measures or in the UK with the 'See you home safe' campaign.
- Implementation of measures under an integrated strategic approach on specific topics: this is what FI did to support small-scale fishermen with a clear strategy

relying on several measures (M1.4 and other measures under Axis 3) or in NL with the Strategy for Innovation in the fisheries sector.
- Coordination with other funds: this specifically applies to Axis 4 and the potential synergies with the Leader programme (see question on Coherence).

5.1.4.3 To what extent did the economic crisis, which began in 2008 contributed to accelerating or decelerating the EFF programme implementation?

As analysed under the analysis of the financial execution (task 1) the economic crisis had two major effects on the implementation of the EFF:

- Accelerating and amplifying the adjustment of the fleet, mainly by increasing the budget allocated to permanent cessations, and to some extent by increasing the focus of socio-economic measures on facilitating the exit of the fishing activity and in many cases of the labour market as a whole (non-renewable compensation and early retirement) rather than supporting diversification, training and young fishermen.
- Decelerating the implementation of investment measures, especially in aquaculture and processing and marketing because of the budget reallocation in some MS or Regions and of the increased difficulty to access private funding and in particular bank loans for SMEs. This difficulty was more important in the aquaculture sector that already faced structural difficulties to access bank loans because of a general lack of knowledge on the part of the banking sector and the reluctance to consider fish stocks as an asset.

Conclusion of the evaluation question:

- The main factors which had an impacted the EFF results are: evolution of fuel price, evolution of fish price, economic context, attractiveness of the fishery sector, evolution of EU management tools and measures, other environment policies, research and innovation context and institutional framework.
- Administrative burden, the understanding of eligibility criteria and the implementation of the monitoring system caused delays in the implementation of the EFF at national level. In addition, a few MAs had difficulties with procurement procedures.
- Three types of implementation practices have been identified as having a positive impact on achievements: communication from the MAs to raise awareness among potential beneficiaries, implementation of measures under an integrated strategic approach and coordination with other funds.
- The economic crisis which began in 2008 contributed to accelerating and amplifying the adjustment of the fleet. It also decelerated the implementation of investment measures.

5.1.5 EQ 5 - How have the horizontal principles of environmental sustainability, gender mainstreaming and gender promotion integrated into the different phases of the programme life cycle

5.1.5.1 How has environmental sustainability been integrated into the different phases of the programme life cycle

Environmental sustainability was considered within the EFF via the EFF objectives seeking sustainable development of the various sub-sectors making up the fisheries sector

(catching, aquaculture, processing) and coastal communities. The environment was therefore an active consideration in the EFF measures.

To ensure this consideration was maintained during implementation, the EFF programmes included representatives of environmental groups within monitoring committees and applied environmental criteria within the selection process. A number of MS introduced these measures during the programme in light of recommendations to this effect from the interim evaluation.

Many measures under EFF targeted improved environmental performance, either indirectly though resource efficiency gains or directly through the adoption of clean technology or environmental procedures. Under the aquaculture measure (2.1), developments in many MS required environmental impact assessment to receive licensing.

There are very few examples of specific environmental indicators referenced in projects, with the exception of reduced fuel use and reduced by-catch. As has been experienced with the EMFF common indicator on by-catch, the latter is often misinterpreted (for example, are positive or negative changes intended and is change in relation to baselines derived the same way?) making it difficult for the MA to assess and collate project results.

Where environmental improvements were cited in an application, these tended to be general which prevented the monitoring of achievements.

In relation to post-implementation, the monitoring and control systems mainly focused on financial aspects. Ex post spot-checks (on 5% of projects in some MS) explored the evidence provided that purchases were made and actions implemented. The assessment of whether expected results and impacts were achieved was limited. In the few instances when this was undertaken, information related to improved economic performance and employment, rather than the environment.

5.1.5.2 How have gender mainstreaming and gender promotion been integrated into the different phases of the programme life cycle (1/2 p max)

EFF support was expected to ensure that gender perspectives and attention to the goal of gender equality are central to all activities throughout the different phases of the programme life cycle. The evaluation explored three dimensions/instruments: the participation of organisations promoting gender equality in consultative / decision-making bodies, women's awareness of the available support and their participation in EFF-supported projects, and the use of gender criteria for the selection of projects to be supported. This evaluation has only found anecdotal evidence of effectiveness.

Women's representation and participation in the planning phase is instrumental for enhanced consideration for gender-related issues and the promotion of gender equality. Out of the answers received to the MA survey, 50% of the Monitoring Committees counted organisations promoting gender equality, either directly (women's organisations) or indirectly (labour unions). However, the weaknesses of women's representation and the lack of resources, including the insufficient professionalisation of the representatives inhibited the promotion of gender issues. It was also impossible to conclude on the actual participation of organisations promoting gender equality in meetings or to undertake a qualitative analysis of their input into the planning of the implementation.

Raising women's awareness on the EFF support available was also critical. Information and publicity activities – as supported under the EFF, would have helped to address obstacles to their participation such as the fact that they are more likely than me to be in a smaller structure, with less resources, or not to be formally recognised as an economic actor. However, there was no data available on women's actual level of awareness and the information activities supported – with the exception of ES which implemented targeted communication activities.

Lastly, the use of gender-based selection criteria was slightly more widespread than at the time of the EFF interim evaluation, while very few respondents also specifically noted that the gender dimension was taken into account in the selection and validation of FLAGs strategies. However, the evidence presented is not conclusive.

Conclusion of the evaluation question:

Environment sustainability

The environment was therefore an active consideration in the EFF measures (EFF objectives).

To ensure this consideration was maintained during implementation, the EFF programmes included representatives of environmental groups within monitoring committees and applied environmental criteria within the selection process. Many measures under EFF targeted improved environmental performance.

Where environmental improvements were cited in an application, these tended to be general which prevented the monitoring of achievements.

Gender mainstreaming and gender promotion

EFF support was expected to ensure that gender perspectives and attention to the goal of gender equality are central to all activities throughout the different phases of the programme life cycle.

Overall, the lack of awareness and information about women in fisheries reveals that EFF support has not been successful in mainstreaming gender and promoting gender equality in the different phases of the programme cycle.

5.2 *Efficiency (programme objectives, and delivery system)*

Evaluation criteria. Efficiency considers the relationship between the resources used by the intervention and the changes generated by the intervention i.e. the extent to which the costs involved were justified and the impacts achieved cost-effectively. Typically, efficiency analysis also includes an analysis of the administrative and regulatory burden and looks at aspects of simplification, and those aspects i.e. on 'economy' are dealt with under a specific evaluation of the delivery system (see below).

5.2.1 EQ6 - To what extent were the desired effects of the EFF achieved at a reasonable cost?

5.2.1.1 What were the estimated costs of maintaining and creating additional jobs in the fisheries sector and in the fisheries communities?

Fisheries

Job creation was not an intended outcome of fisheries measures. Given the focus on re-balancing fleet capacity through permanent cessation, job losses could be expected to result. Temporary cessation and socio-economic compensation were intended to maintain fishing sector jobs during fishery closures. These were implemented and monitored differently between MS, making comparative analysis of amounts paid meaningless. The cessation evaluation survey found that in most cases (69%) the amount paid to vessel owners for temporary cessation did not cover the fixed costs of the vessel (MRAG et al, 2013).

Other fisheries measures such as engine replacement and on-board investments could be expected to indirectly support maintenance of catching sector jobs through enhancing competitiveness, but this cannot be assessed as job maintenance was not reported as an indicator.

Aquaculture

Only four out of 27 EU MS assessed quantitatively the number of jobs (in FTE) at expanded farms supported by EFF: ES, 240; HU, 1947; BG, 216 and AT, 140. Overall the impact of EFF support was to maintain jobs in the sector through ensuring the sector remained viable. DCF data report 69,000 people employed in 2012, a decrease of 9% from the 76,000 estimated employed in 2011 (STECF, 2014a). Applying this total employment to total spend gives an average of EUR 8,113 spent for every job in aquaculture in the EU.

Although it is difficult for most of the MAs to quantitatively assess where the EFF had a positive impact on employment in the sector, a couple of MS estimated that the EFF slowed down the trend of decreasing employment (BE and ES) and to a lesser extent created employment in the aquaculture sector within these years (BG, CY and ES). In ES the number of employees decreased below the reference level of 2005 and the objective was to recover that, i.e. reaching 6,587 FTEs and by 2014 they were close to achieving this (5,946 jobs). Applying this to overall spend gives a figure of EUR 9,205 spent per 'maintained job' in ES.

Processing

Based on data collected, EFF support in processing and marketing contributed to create around 10,000 jobs. Based on the data available, the average EFF spend for each job creation is EUR 58,521, with large differences among MS: EUR 14,873 in BG, EUR 16,239 in IE, EUR 64,438 in ES and EUR 322,773 in GR. There are great differences in the number of job creation in each of these MS, while ES reported 3,420 jobs created, BG reported 452 jobs, IE reported 337 jobs and GR reported 52 jobs.

Community development

Based on FARNET study, the average EFF spend for each job created is EUR 66,614. There are great differences among MS: EUR 8,668 in IE (9 jobs created) to EUR 1 million in SI (2 jobs created). For most of MS, the EFF spend by job created ranges between 41,000 and EUR 190,000 for most of MS. These differences may be related to the implementation of Axis 4 in each MS: types of projects implemented, objectives of projects, number of FLAGs and experience in local development.

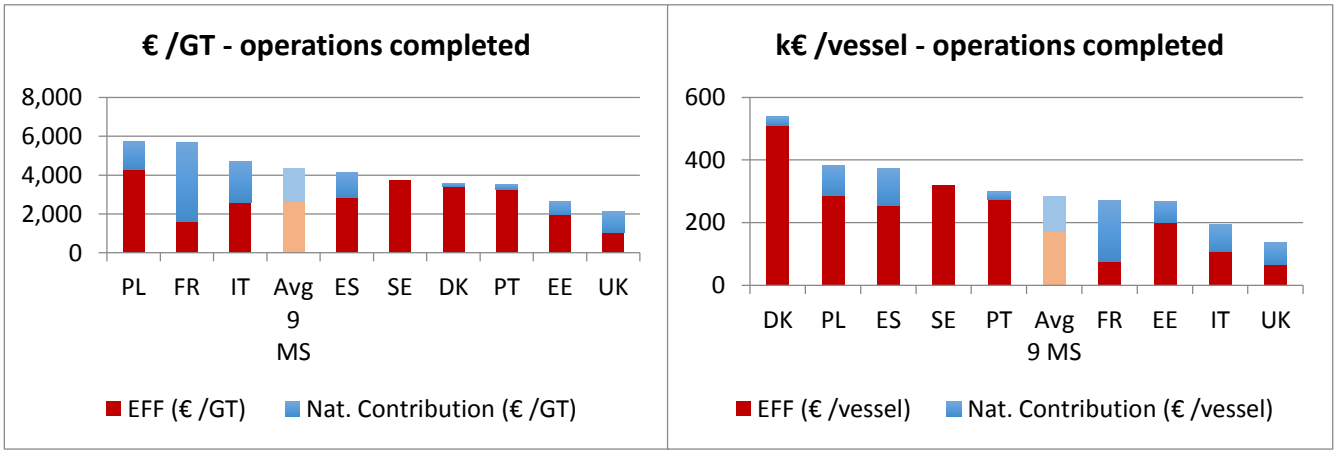
Employment data collated under EFF monitoring systems are not comprehensive enough to provide any detailed analysis or confidence in the estimates that are possible. In the most general terms considering total spend under fisheries, aquaculture and processing spending categories in relation to total employment in these sub-sectors results in average spend per maintained job of EUR 18,696 in fisheries; EUR 8,113 in aquaculture and EUR 5,592 in processing. The greater average cost for fishing operations is not surprising given the emphasis on capacity reduction with inevitable consequences for employment, while aquaculture and processing measures both sought to increase production and where possible associated employment.

5.2.1.2 What were the estimated costs of increasing the volume and value of production in the fisheries, aquaculture and processing sectors as a result of the EFF intervention?

Fisheries

An increase in volume and value was not an objective of fisheries measures, instead a reduction in fleet capacity was sought. The cessation evaluation found that there were significant differences between MS in terms of the proportion of EFF paid compared to the national contribution and per GT or kW removed as illustrated in the graph below.

Figure 27 Cessation spend per GT and per vessel (as of July 2012)



Source: Analysis from CFR and Art. 40 data

Differences in the overall amount of public cost per vessel largely depend on the structure of the fleet targeted by adjustment plans. Premium calculations generally relied on a scale per GT class, with a fixed and a proportional part (see implementation part in the case studies). Therefore the public spend per vessel tended to be lower in MS where smaller vessels were scrapped whereas the public spent per GT tended to be lower for MS where larger vessels were scrapped.

The figure above shows that the size of vessels scrapped by itself does not explain all the differences. The UK and EE for instance have among the lowest public cost per vessel and per GT. In both cases, they have implemented bidding systems rather than applying a pre-determined premium. The analysis does not take into account the potential additional administrative burden for the administration and for beneficiaries, but it tends to indicate that this system allows reductions to the gross public cost.

Aquaculture

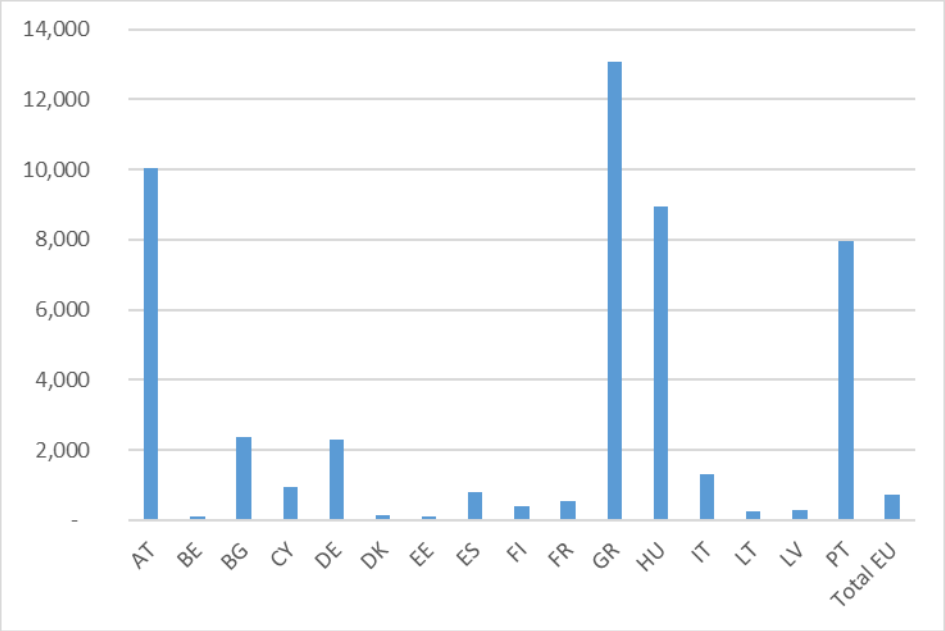
Increases in production volumes are reported by species, however spend per species under measure 2.1 is not, making an inter-species comparison impossible. The differences seen between MS are in part expected to relate to differences in the species cultured; investment in an additional tonne of intensively cage-cultured seabass is likely to be higher than extensive bottom-cultured mussel.

Based on article 40 data for those MS reporting aquaculture production increases, the total aquaculture spend resulted in production increases amounting to around 37,400t, which equates to an average of EUR 40,000 per additional tonne of production. The accuracy of the data makes this estimate questionable as some MS report total production rather than changes in production or equate all spend to contributing to maintaining total production volumes. There are no figures on aquaculture production value associated with EFF spend.

Processing

In terms of total project costs, the average cost of creating an additional tonne of capacity across the EU was EUR 732. Figure 28 presents the average costs per tonne increase per MS (see Annex 9 for a breakdown by MS). Even after removing those MS where data were derived from extrapolation and from SI which appears to be an outlier, the average costs vary considerably between MS. The highest was GR with over EUR 13,000 per tonne and the lowest BE, DK and EE with just over EUR 100 per tonne. The focus on high volume pelagic species may explain the low costs per tonne seen in DK and EE, but this is unlikely to explain the inclusion of BE.

Figure 28 - Processing projects average cost per tonne increase per MS (Euros)



Source: Art. 40 data & MS analysis

There are no figures on the impact on production value, but just over half of OPC processing sector correspondents claimed that the investment resulted in an increase in production value.

5.2.1.3 What were the estimated costs for softer (non-investment) measures as a result of EFF intervention?

Investment measures, understood as 'physical investment' measures, represented a significant share of the EFF spent. Compared to the FIFG, the EFF intended to develop more innovative types of support through 'softer measures', or non-investment measures. These measures focussed on creating the right conditions in the sector to reach the CFP objectives rather than providing direct support to economic operators. Measures focusing on 'compensation' (including scrapping) are not considered here as they serve a completely different purpose.

Soft measures considered in this analysis are listed below:

- Measure 1.4: Small-scale coastal fishing
- Measure 3.1: Collective actions
- Measure 3.4: Development of new markets and promotion campaigns
- Measure 3.5: Pilot operations
- Measure 4.1: Development of fisheries areas

These 5 measures represented EUR 1.01 billion of EFF committed, it accounts for 25.6% of total EFF commitment.

The main features of these measures are displayed in the following table.

Table 15 - Main features for soft measures

	Expenses	Results
Small-scale coastal fisheries	The measure accounted for **22% of the number of projects** (5,708 projects) for soft measure but only for **3% of total costs** due to a low **costs/project** (EUR 11,000). **The leverage effect remains among the lowest** of the soft measures (same level as measure (3.4) with EUR 0.70 from other funds for each euro invested from EFF.	**Uptake of the measure remained low across the EU**, notably due to administrative burden and a lack of private funding. There are mixed views about the results of the measure (more positive in PL or FI than in IT and SE.).
Collective actions	This measure accounted for 2**2% of the number of projects** (5,612 projects) and **30% of the total costs** for soft measures. The **average costs/project** and the **leverage effects** were the second highest (after pilot operations), and EUR 109,200 per project and EUR 1.12 respectively invested for each euro invested from EFF.	Based on interviews with MAs, this measure had **positive impacts** on collaboration between industry and scientists, development of innovative gear and modernisation of equipment/capacities, modernisation of equipment and infrastructures, new plans or management approaches, more skilled workers/ increased awareness of gender issues and enhanced product quality. However, the **MAs were less clear** about the benefits regarding the impact on regional coordination, the balance between resources and capacities, the development of innovative products, the organisation of the sector, and the reduction of ghost fishing.
Development of new markets and promotion campaigns	This measure accounted for **12% of the projects** (2,385 projects) and **12% of the costs** of soft measures. The **average costs/project** was EUR 100,900 and the **leverage effect** was the lowest of the soft measure EUR 0.69 invested from other funds for each EFF euro invested).	The **impacts** of these projects on **fish consumption** are difficult to assess due to importance of external factors (consumer habits, competition with meat, price and availability of products, stakeholder strategies…) and the **results of promotional operations** carried out with EFF support have **rarely been measured**. Based on MA interviews, 69% of respondents considered the measure contributed to new markets development and 57% of respondents that the measure contributed to increased differentiation in the market.
Pilot operations	This measure accounted for **3% of the number of projects** (710 projects) and **11% of the total costs** for soft measures. The average **costs/project** was the highest with 326,600 and the **leverage effect** was also the highest with EUR 1.25 invested from other funds for each EFF euro invested.	Based on the analysis led in the case studies, the issues on which pilot projects had the most impact were **gear selectivity** and fleet **fuel consumption** while there was less evidence of genuine innovation for management plans and systems. The analysis highlights the **importance of public supports to implement innovative projects** and that nine MS funded no projects under this measure.
Development of fisheries area (axis 4)	This measure had the **largest number of projects** (11,331 projects) and largest **share of costs** for soft measures (44% each). The **average costs/project** was the second lowest after small-scale coastal fisheries (EUR 79,700) and the **leverage effect** ranked third among the five measures with EUR 1.05 invested for each EFF euro invested.	FLAGs have been established in 21 MS. Based on FARNET estimates, axis 4 measures **maintained 9,240 jobs** and **created 6,776 jobs**.

Conclusion of the evaluation question:

Estimated costs for job maintained

Euros spent (EFF) for each job maintained or created is estimated to be:

- Fisheries: EUR 10,019 spent for each job **maintained**,
- Aquaculture: EUR 8,113 spent for each job **maintained**,
- Processing: EUR 5,592 for job **maintained** and EUR 58,521 spent for each job **created**,
- Axis 4: EUR 66,614 spent for each job **created.**

Estimated costs for each GT removed

Costs for each GT removed in the fishery sector highly vary between MS (average: 4,364 euros of public funds / GT removed), it depended on the structure of the fleet and the system implemented at national level. For instance, the UK and EE, which implemented bidding systems rather than applying a pre-determined premium, have among the lowest public cost per vessel and per GT.

Estimated costs for increasing volume of production

In aquaculture, based on article 40 data, EUR 40,000 were spent per additional tonne of production.

In the processing sector, the costs per additional tonne of capacity is EUR 732, with high differences among MS (EUR 13,000 in GR and EUR 100 in BG, DK and EE).

Softer measures (non-investment)

Based on information available, positive impacts have been identified for most of the softer measures but some limits or lack of information on results also have been highlighted. The exception is small-scale coastal fishery which has limited impacts (base on uptake and interviews of MAs).

Among the different measures:

- Pilot operations (Measure 3.5) and axis 4 (Measure 4.1) showed significant efficiency with high budget committed, medium leverage effects and significant results achieved.
- Development of new markets and promotion campaigns (Measure 3.4) also showed significant efficiency: results are assessed to be positive, however leverage effects and EFF budget committed were lower than for measures 3.1 and 4.1.
- Small-scale coastal fishing measure (Measure 1.4) showed lower efficiency due to lower results achieved and leverage effects.

5.2.2 EQ7 - To what extent was the EFF delivered as reasonable cost? – Delivery systems

The evaluation of EFF efficiency also assessed whether the delivery of the support was provided at a reasonable cost and in a timely manner through the following sub-questions:

- What were the average costs to the beneficiaries and to the MS to apply and receive funding from the EFF (feasibility studies, application forms, etc.)?
- What was the average length of time in each Member State between for the following:

  - Selecting an operation (from the date of submission up until the decision made by the Managing Authority)?
  - concluding a contract (from the decision on a project up until signing the financing contract)
  - payment to the beneficiary (from the submission of a payment claim until payment has been transferred to beneficiary's account)
- What difficulties were encountered by the Managing Authorities in delivering the EFF programmes? Examples could include a) lack of administrative capacity have on the implementation (delegation, monitoring, computerised system, links between AA, CA, MA etc.) of the EFF; b) lack of public or private funding (or access to financing) and how this was addressed (through advances, financial instruments, etc.); c) or the impact of management verifications (administrative verification and controls on the spot) have on the implementation of the programme and detection of irregularities.

The following quantitative and qualitative indicators were considered for the efficiency of the delivery of the programme):

- Extent to which costs to beneficiaries and MS were proportionate.
- Extent to which selection / contracting and payments take too much time.
- Extent to which there were capacity problems, including funding gaps and management irregularities.

Both MS administrations and EFF beneficiaries found it difficult to provide quantitative or even qualitative information on the costs associated with the delivery of the programme. The findings and conclusions on efficiency are therefore based on qualitative anecdotal evidence, complemented by quantitative data where available.

The administrative burden associated with the delivery of the programme was considered too high in several ways. At the application stage, for potential beneficiaries, such as small-scale coastal fishing or for young fishermen considering socio-economic compensations for the management of the fleet notably, the administrative burden acted as a disincentive to application. At the outset of projects related to the development of fisheries areas, delays were observed that reflected the difficulty for beneficiaries to meet EFF organisational requirements. The delivery of supported projects was also considered too costly. Anecdotal evidence suggest that obstacles included the complexity of the projects, especially when a (large) network of partners was involved (e.g. for collective actions or pilot operations). Such projects assumed significant administrative and coordination capacity on the part of the beneficiaries, which was not systematically available. Answers also indicated that implementation of these projects took longer than expected due to these challenges. Respondents having implemented fleet adaptation schemes observed that these schemes were very costly to implement, while other measures were available to reach the same results at a lower cost. Difficulties specific to monitoring were also reported. Respondents considered the multiple changes and potential inconsistencies between different monitoring frameworks under the successive instruments as challenging, signalling how resource-intensive these changes can be, and that the consolidation of institutional memory (by opposition to rapid changes) would be instrumental in strengthening the quality of the monitoring data available.

To mitigate the administrative burden and improve the uptake of the support, MS implemented a number of measures, ranging from the simplification of the regulatory framework and the publication of guidelines for applicants (BG), the standardisation of procedures (FI), and twinning projects to train implementing administrations (HR) for instance. Support was also provided to applicants in a number of MS, by different organisations (paying agencies in LT, the intermediate body in MT and IE) and at different levels (the intermediate body in LV support potential beneficiaries at national

and regional level). With a few exceptions (15 FTEs in FR, 6 FTEs in IE, 5 FTEs in the UK), the cost of this assistance was not available – also because the provision of assistance is included in the regular description of many administrative bodies.

Delays in project selection and payment disbursement also impacted the efficiency of programme delivery. Different types of delays have been reported by MS and stakeholders. The issue of the speed of the selection process was raised in the EFF interim evaluation. By the end of the implementation period, 20% of the MAs reported that the selection process was quicker than it used to be. This change was part of the effort to improve the selection process in general, which was achieved mostly through lesson learning, implementation of recommendations made by the Monitoring Committees, and gains in transparency.

In terms of the time lag between the approval of a payment and the disbursement to the beneficiaries, it varied between MS. Answers indicated that it could vary from a few days to a few weeks, particularly for MS relying on an electronic and integrated payment systems (HR, FI), up to the maximum limit under the national law of the MS concerned.

Only eight of the 27 MS provided (partial) explanations for these differences and delays. They were mainly due to (1) the coordination between the different authorities involved in controlling the payment claims (GR, SE), (2) the verifications on the invoices submitted before payment and a challenging economic situation such as that of PT, which also led to major cash-flow issues at the level of IB in some autonomous communities in ES, (3) the bottlenecks created by an increase in the number of applications (UK-England), (4) the failure of applicants to submit all the requested documentation (CY, SE) and (5) investigations of potential irregularities (SK and LT). These delays were not only inefficient because they generated funding gaps but also because they may have led to de-commitments, thereby jeopardising the whole implementation of projects.

The level of co-financing required was also perceived as an issue. For instance, respondents on the measure targeting small-scale coastal fishing notably highlighted the challenges they faced to access finance. The level of co-financing was an essential determinant for the most fragile categories of stakeholders, which were also the most exposed to the economic and financial crisis. ES seemed to have considered this issue in particular as its MA noted that the maximum co-financing rate was increased to tackle funding issues encountered by applicants.

Stakeholder consultations also provided evidence on the costs of monitoring for irregularities. Despite the difficulty to assess these costs, some MS also provided information on the number of staff involved in the processing of the applications received and in control. Annex 5 presents the quantitative and qualitative data collected in the MS on the:

- Costs of dealing with management verifications
- Costs to address irregularities.

Conclusion of the evaluation question:

Overall, we have found evidence that the EFF was delivered at too high a cost for the different categories of stakeholders. The complexity of the projects notably seemed to have created disincentives for potential beneficiaries. MS have themselves faced relatively high administrative costs but they have also implemented a number of measures to reduce the administrative burden. MS focused EFF support for technical assistance on management and implementation, a probable indication of their own difficulties and insufficient capacities in programme management and implementation. For instance, HR improved its administrative capacity with the introduction of a

payment system and SE improved its IT system. Respondents provided illustrations in the different areas where EFF support is granted of a relatively heavy administrative burden associated with the delivery of the programme. That led them to question not only the added value of the programme for them (see questions on effectiveness and added value) but also its value for money. Yet, this evaluation can only draw partial conclusions on technical assistance from the quantitative and qualitative evidence gathered. Particular challenges were noted by different MS, across different measures. The administrative burden, for both national administrations and (potential) beneficiaries, throughout the programme life cycle, delays (in the selection process and payments) as well as the challenges of beneficiaries to secure the full amount of the funding necessary, were important obstacles.

5.3 *Relevance*

Evaluation criteria: Relevance assesses the extent to which objectives and other aspects of the initiative correspond to the needs of the EU and other key stakeholders.

From an ex-post point of view, relevance relates to how and the extent to which the needs of the EU and other sector stakeholders have been properly addressed (or not), due to an adequate regulatory toolbox and financial framework.

5.3.1 EQ8 - To what extent does the EFF Regulation (still) correspond to the needs, problems and issues to be addressed?

6.3.1.1 To what extent have EFF programmes contributed to achieving the (pre-2014) CFP objectives, in particular fisheries management, aquaculture, and processing/market?

The EFF Regulation (1198/2006) notes that the principle objective is to support implementation of the CFP, as laid out in the CFP Regulation 2371/2002. The overarching objectives of the two regulations are aligned and aim for sustainable exploitation of living aquatic resources whilst providing sustainability in economic, environmental and social terms. The specific objectives stated in the two regulations are presented in Annex 10 along with a summary of the main contribution to these regulations from EFF. This illustrates the focus of the EFF objectives on support to the fishing, aquaculture and processing sectors, and this is reflected in the allocations made to those key sectors throughout the programme. The original allocation to Axes 1 and 2 amounted to 57% of the total EFF programme and committed funding at May 2015 amounting to 58% shows the continued relevance of these Axes. The other spending category showing major spend is under Axis 3 relating to ports and harbours which also supports the fisheries sector.

The EFF regulation specifically recognises the need to regulate the development of the Community Fishing Fleet in line with the CFP's objectives of sustainable exploitation, and this was an early priority for the EFF programme. Mid-way through the programme, spend on Axis 1 amounted to 36% of total spend with the great majority of this allocated to cessation measures. Even though spend on cessation slowed during the EFF programme cycle, the CFP and EFF objectives remained relevant to the need to continue the process of rebalancing the fleet.

No EFF objectives are identified in relation to the specific CFP objectives to 'progressively implement the ecosystem-based approach to fisheries management' or to 'take into account the interests of consumers'. These were supported through certain measures such as 3.5 on pilot operations and 3.4 on developing new markets and promotional campaigns, but the uptake of these was limited in most instances and only amounted to 5% of total EFF spend.

The Managing Authorities concur with this interpretation of the EFF's focus; most felt that the EFF made the largest contribution to 'sustainable exploitation of aquatic resources' and 'enterprises that are economically viable'. The contribution to minimising impacts on marine ecosystems was considered to be moderate, and most spending categories only made a minor contribution to 'ensuring a fair standard of living' and 'gender equality' according to the MA responses.

6.3.1.2 To what extent do the original objectives of the EFF (and the EFF programmes) still correspond to the needs of fishing, processing and aquaculture sectors, as well as coastal communities across the EU?

This sub-question directly addresses relevance through assessing how well-matched the objectives were with sector needs. This is achieved mainly using qualitative assessment of responses from Managing Authorities and other stakeholder. The utilisation of funding for the various measures is also considered, based on the assumption that low uptake may reflect low relevance.

Council Regulation (EC) No 1198/2006 was intended to support the implementation of the CFP and the objectives as stated in the 2002 CFP Regulation, however a new CFP was developed during the EFF period and is now in place. It is clear that the priorities of the CFP have therefore changed since the EFF Regulation in 2006, as has the EMFF programme to support its implementation.

The EFF interim evaluation in 2011 described how the Regulation was adapted within the programme period. In particular, Regulation 744/2008 was introduced to better ensure that the EFF would help the sector to address the issues created by the fuel crisis.

Tackling fleet overcapacity was a key objective of the EFF and while the situation has improved overall, this remains a relevant objective where specific instances can be clearly shown (see analysis on effectiveness – section 5.1.1.1).5.1.1.1). However, the key fishing sector issue as recognised in the objectives laid out in the current CFP and the EMFF is tackling unwanted by-catch.

For aquaculture the priority during the EFF programme period was to maintain viability and increase productivity. Many operators considered that the introduction of more efficient production techniques and an increase in scale were important for improving competitiveness. EFF funding did contribute to this and to some extent counteracted or at least slowed the stagnation in production levels seen in the European aquaculture sector overall. Therefore, these competitiveness measures were and still are very relevant to the sector. EFF funding was not accessible to non-SME operators, which inevitably limits EFF's relevance to this portion of the sector.

The need for environmental measures remains pertinent to the aquaculture sector, but operators viewed such measures as being of secondary importance compared to economic viability. Environmental improvements are most relevant to commercial operators in the aquaculture sector where they are linked to efficiency gains such as reducing feed, energy use or mortality rates.

The EFF's contribution to competitiveness in the processing sector appears substantial during what was a very difficult trading period for processing enterprises. It is estimated that the EFF supported around 30% of production capacity increases in the sector over the course of the programme. As with aquaculture, competitiveness was the focus rather than environmental performance, unless both were achieved through efficiency savings by reducing energy use and waste. The scale of uptake suggests that the measures were highly relevant for the sector and the beneficiary survey respondents in the processing case study confirm this. However, the most popular EFF measures were to increase production, which does not necessarily contribute to the objective of increased competitiveness and the development of economically viable enterprises. Increased competitiveness mainly resulted from increased productivity, rather than just increases in

production volumes. This issue remains relevant for the EU processing sector facing stiff competition from processing centres outside the EU such as South East Asia and China.

The aquaculture and processing sectors are still faced with many of the same operational challenges that they faced during the EFF programme. It is logical that the most popular and (if uptake is viewed as an indicator) relevant support to commercial operators related to economic objectives. This does not mean that environmental and social objectives are not relevant, but that these are less likely to be prioritised by enterprises unless compelled by legislation or customer requirements. Recognition of this when planning implementation should ensure better uptake of measures to deliver environmental and social improvements, e.g. in relation to selection criteria, promotion methods and facilitating collective actions.

The need for operators to show sustainable production and good environmental performance emerged during the EFF and that demand is growing. There is a need for measures that support the fisheries and aquaculture sector in improving performance and engaging with processes such as certification that reports that performance to the market.

Conclusion of the evaluation question:

The principle objective of EFF is to support implementation of the CFP. The overarching objectives of the two regulations are aligned and aim for sustainable exploitation of living aquatic resources whilst providing sustainability in economic, environmental and social terms.

No EFF objectives are identified in relation to the specific CFP objectives to 'progressively implement the ecosystem-based approach to fisheries management' or to 'take into account the interests of consumers'. However, these were supported through certain measures such as 3.5 on pilot operations and 3.4 on developing new markets and promotional campaigns.

- Fishery: tackling fleet overcapacity was a key objective of the EFF and remains a relevant objective. Selectivity of the fishery is also a key issue, as recognised in the current CFP.
- Aquaculture: for aquaculture the priority during the EFF programme period was to maintain viability and increase productivity. These objectives remain relevant. The need for environmental measures remains relevant to the sector, but operators considered them as secondary compared to economic viability.
- Processing and marketing: competitiveness appears to be a substantial objective in the economic context of the programming period. Environment was as secondary objective even if achievement have been identified.

In addition, the need for operators to show sustainable production and good environmental performance emerged during the EFF and that demand is growing.

5.4 *Coherence*

Evaluation criteria: Coherence considers how well interventions which share common objectives work together. Depending on the scope set, it can look at coherence within the intervention, coherence within interventions of the same policy area, within a wide area including possibly in international agreements/declarations.

5.4.1 EQ9: To what extent were there complementarities, synergies, overlaps, demarcation issues, etc. with other EU funding instruments (e.g. EARDF, ESF and ERDF or LIFE)?

The evaluation question aims at analysing the coherence of the EFF with other EU funding instruments, specifically the European Agriculture and Rural Development Fund (EARDF), the European Social Fund (ESF), and the European Regional Fund (ERDF) and LIFE. Coherence refers to complementarities, synergies, overlaps and other demarcation issues.

Overall, MA interviews showed that in most cases, demarcation principles between EU structural funds were relatively clear and did not lead to major difficulties. Complementarity between funds were specifically defined in a section of the EFF Operational Program. In some Member States, coordination between authorities in charge of the different funds was carried out through coordination committees or through the participation of representatives for the different funds in the monitoring committees.

The main areas of potential complementarity or overlaps between the EFF and the other EU funds can be roughly described as follows:

- EFF/ERDF: ERDF may support port infrastructures, port connectivity, accessibility and quality of services in ports, or other investments relating to tourism development or transport networks.
- EFF/EAFRD: Both funds support the development of local communities (EAFRD through Leader and EFF through axis 4) and rely on similar tools with the Local Action Groups (LAGs). Another area of potential overlap is the EAFRD support to the food processing industry, which could include the fish processing industry.
- EFF/ESF: both funds support training actions.
- EFF/LIFE: Some LIFE projects focused on the preservation of aquatic ecosystems and on the development of the Natura 2000 network, which is also targeted by the EFF measure 3.2 on the promotion and development of aquatic fauna and flora.

Coherence between EFF ERDF

The coherence between the EFF and the ERDF was analysed for the case study on Measure 3.3 (ports infrastructures)[105].

When asked if there had been some guidance as regards articulation with other sources of funding, 85% of the MAs reported a negative answer or no answer at all. Overall, the demarcation line seems to have been clear enough (see case study).

Several MAs (SI, FR, EE, PL, GR, UK, PT, SE) reported unintended positive effects on tourism, through agro-tourism, and increased areas dedicated to direct sales to final consumers. Field interviews in PL also confirmed a positive effect on tourism. No significant mis-use of the EFF money was reported (e.g. investment with no relation to fishing activities).

Regarding possible synergy between the two funds, some MS have reported a loss of synergy compared to the previous programming period when it was easier to carry out integrated projects with ERDF funding the superstructure and the EFF funding infrastructure.

Coherence between EFF and EARDF

Axis 4 is a transposition for the areas dependent on fisheries of the LEADER programmes undertaken since 1991 as part of the EARDF for the development of local communities in rural areas. The objectives are therefore similar and the distinction lies in the territories targeted (coastal areas with fishing activities vs rural areas). Some areas fall under both definitions and according to FARNET estimates, approximately 30% of FLAGs were in some way connected with LAGs, sometimes through common management bodies, possibly with different territory delimitations for the FLAG and the LAG. The interim

[105] See Port Infrastructure Case Study Report

evaluations of the EFF[106] and the study on the implementation of Axis 4 of the European Fisheries Fund[107] showed evidence that the LEADER experience was one of the main success factors for the implementation of Axis 4. This approach will be reinforced under the EMFF, which encourages synergies between funds in a common local development strategy.

The demarcation line between the EFF and the EARDF for support to the food processing industry is clearly laid out in both regulations:

- COUNCIL REGULATION (EC) No 1698/2005 of 20 September 2005 on support for rural development by the European Agricultural Fund for Rural Development (EAFRD): Article 28 - Adding value to agricultural and forestry products "concerns: the processing and/or marketing of products covered by Annex I to the Treaty, except fishery products, and of forestry products; and/or the development of new products, processes and technologies linked to products covered by Annex I to the Treaty, except fishery products, and to forestry products;".
- COUNCIL REGULATION (EC) No 1198/2006 of 27 July 2006 on the European Fisheries Fund: Article 34 - Investments in processing and marketing states that "The EFF may support investments in processing and marketing of fisheries and aquaculture products".

Field interviews carried out in ES and the UK also confirm this clear demarcation line, as none of the interviewed beneficiaries mentioned the EARDF as a possible source of funding when asked about alternatives to the EFF.

Coherence between EFF and ESF

Both funds include in their objectives the improvement of professional skills, employability, lifelong learning and gender equity, with the EFF stating the focus on the specific needs of the fisheries sector. The ESF stresses the specific needs of low-skilled workers, which is also relevant for the fisheries sector. The table in Annex 8 presents the references made to lifelong learning and upgrading skills in both regulations.

The objectives between the two funds are totally coherent but the demarcation line is not so clear. Field interviews, in particular for the socio-economic measures in ES where the uptake of training actions was particularly low, showed that the ESF is often perceived as the primary funding instrument for training actions, as budgets are greater and the training institutions are more used to the ESF procedures.

However, the demarcation between the two funds seems more 'opportunistic' than 'strategic' under the 2007-2013 programming period. In other words, relevant stakeholders pick the source of funding that they know better or that seems more relevant but there is no clear demarcation line in programming documents. The risk here is that the specific needs of the fisheries sector may be overlooked, especially in regions where fishing is not considered as a strategic activity.

The new Partnership Agreements that have to be drafted for the 2014-2020 programming period and which cover all the European Structural and Investment Funds should contribute to improve the coordination between the two funds and make sure that the needs of the fisheries sector are adequately covered.

Coherence between EFF and LIFE Programs

LIFE is the EU's financial instrument supporting environmental work, nature conservation and climate action projects. The specific objectives of LIFE Nature and Biodiversity (one

[106] Interim evaluation of the EFF, Ernst & Young et al., February 2011; Synthesis of the 26 national evaluation reports, Ernst & Young et al., December 2011

[107] Study on the implementation of Axis 4 of the European Fisheries Fund, Capgemini Consulting et al., July 2014

of the three components of LIFE focused on nature conservation) as established in Reg EU 614/2007 are as follows:

- Contributing to the implementation of Community policy and legislation on nature and biodiversity, and to support the Natura 2000 network, including coastal and marine habitats and species.
- Contributing to the development of the knowledge base on nature and biodiversity.
- Supporting the design and implementation of policy instruments for the monitoring and assessment of nature and biodiversity.
- Providing support for better environmental governance.

According to the LIFE projects database and on the EFF period (2007 to 2014), 53 projects relating to marine and aquatic environments have been funded by LIFE (See table in Annex 8).

- 12 projects relating to the preservation of aquatic ecosystems have been funded in total, referring to the restoration and conservation of habitats or species, or to the control of invasive species.
- 26 projects referring to marine ecosystems, with the preservation of endangered species, inventories of biodiversity, sometimes linked to the development of Natura 2000 areas.
- 14 projects aiming at reducing the environmental impacts of activities in marine areas and several projects supporting fisheries and aquaculture methods which are more respectful of the environment:
    - Knowledge-Based Innovative Solutions to Enhance Adding-Value Mechanisms towards Healthy and Sustainable EU Fisheries, led by ES in 2013.
    - LIFE-AQUASEF – Eco-efficient technologies development for environmental improvement of aquaculture, led by ES in 2013.
    - ECOSMA - Ecological Certification of Products from Sustainable Marine Aquaculture, carried out by DE in 2007.

No specific synergies or overlaps between the EFF and LIFE programmes have been highlighted during the study. According to MA interviews, LIFE, as well as Horizon 2020, are more relevant for projects led by research institutes. Firstly, these funds are better known by these institutions than the EFF, and secondly the funding is greater in quantity and more adapted to large projects. The EFF refers to smaller projects and usually with greater industry involvement.

Assessment of coherence with other EU funds at MS level

The table in Annex 8 provides a synthesis of the feedback from MA interviews and the information gathered in the analysis of national documents during the evaluation of the coherence question.

Conclusion of the evaluation question:

The main findings at MS level are:

- The demarcation lines between the different funds were predominantly clear.
- Complementarity between the different funds could be improved through coordination committees or cross-participation of monitoring committee members in the monitoring committees of the different funds.
- In general, a shared strategy encompassing the use of the different funds does not exist, but there could be some complementarity on specific issues (e.g. common environmental objectives for the EARDF and the EFF in specific areas).

- Synergies are considered most relevant and mainly occur in territorial approaches (Axis 4 and Leader, and in some cases including other possible sources of funding).
- There is one example mentioned of an integrated strategy relying on the EFF alongside other sources of funding: the Danube Strategy, which encompassed Axis 4 projects; aqua-environmental measures related to the restocking of sturgeon; EFF Measure 2.2 for inland fishing; Measure 3.1, Measure 3.5 and Technical Assistance.

5.5 *EU Added-value*

Evaluation criteria: EU added-value looks for changes which can reasonably be argued are due to EU intervention, rather than any other influences at work. In many ways, the evaluation of EU added value brings together the findings of the other criteria, presenting the arguments and causality and drawing conclusions, based on the evidence to hand, about the performance of the EU evaluation.

5.5.1 EQ10 - What is the additional value resulting from the EFF, compared to what could be achieved by MS at national and/or regional level without any EU action?

European added value has been analysed for various policy areas in the Commission Working Paper SEC (2011) 867, including for the Cohesion Policy and the Common Agricultural Policy (CAP). As for the CAP, the fisheries policy is a uniform policy of the EU, providing a common market, common environmental rules and common safety and sanitary rules (e.g. for aquaculture) therefore requiring policy instruments at EU level. There is therefore an intrinsic EU added-value of the EFF as it aims to achieve EU objectives.

The open public consultation indicates that this perception is shared by a large majority of stakeholders, with more than 70% of respondents considering that the EFF had provided added value to fisheries, aquaculture and processing sectors. The EFF was seen to provide support to policies and stakeholders that would not have been sufficiently addressed on a national level, in particular through equitable financial support (not always available at national level), encouraging innovation in the fisheries sector, and through the implementation of FLAGs.

A few MAs did not answer the question regarding the EU added-value of the EFF, or declared that they could not answer it as they had not analysed an alternative scenario. However, the vast majority of MAs (21 out of 27) stated that there was a clear added value in having an EU fund. The additional value was assessed to result from:

- **The financial leverage and equity of financial support among MS**, especially in small countries and land-locked countries, which would not have dedicated such substantial funds to the fisheries and aquaculture sector under a solely national policy, this is also considered to contribute to a fair market situation through common rules and eligibility criteria.
- The improvement of management and monitoring process, in particular the enforcement of a more strategic and planned approach.
- The coherence with EU environmental policies.
- The incentive to focus investments on common objectives.

Analyses of the intervention results and impacts also highlight achievements that are directly related to the EU intervention, whilst others could have been reached under national policies assuming similar objectives and a similar level of funding, which would

frequently not have been the case according to MA feedback. The achievements that are assessed to have been supported the most by the EU-level action are:

- **The reduction of the fleet capacity**, which could only be achieved to this extent under a common policy to avoid unfair competition between MS.
- The **achievements of Axis 4 with regard to jobs and improvement of the quality of life** in areas with fisheries activities. This type of community-led local development would not have existed at all in most MS without an EU policy and even in MS where this type of approach already existed, it was certainly boosted in coastal areas by the available funding under Axis 4 and the existence of an EU network.
- The focus on SMEs, which is clearly related to the EU Regulation.
- The streamlining of gender issues through increased awareness, selection criteria, etc.
- The improvement of environmental performance through selection criteria for the investment measures would have occurred to the same extent in some MS, but overall the EU intervention certainly encouraged it.
- The achievements of collective actions and pilot projects in coherence with the CFP, and in particular the focus of innovation projects on selectivity and the organisation of the sector through POs.

The only drawback mentioned regarding the EU support was the administrative burden which comes with EU structural funds and which could be avoided, or at least reduced under a purely national scheme.

Conclusion of the evaluation question:

There is a clear added value for EFF intervention, notably:

- the financial leverage and equity of financial support among MS,
- the improvement of management and monitoring process,
- the coherence with EU environmental policies,
- the incentive to focus investments on common objectives.

The achievements that are assessed to have been supported the most by the EU-level action are:

- the reduction of the fleet capacity,
- the achievements of Axis 4 with regard to jobs and improvement of the quality of life in areas with fisheries activities,
- the focus on SMEs, which is clearly related to the EU Regulation.
- the streamlining of gender issues through increased awareness, selection criteria, etc,
- the improvement of environmental performance,
- the achievements of collective actions and pilot projects in coherence with the CFP.

5.5.2 EQ11 -To what extent do the underlying needs of the sector(s) addressed by the EFF continue to require action at the EU level?

The open public consultation shows that stakeholders consider the main priority need for the new programming period to be support for sustainable economic growth, which implies both common environmental policies (as the resources cannot be managed on a regional or even national level), and fair competition amongst MS, an objective which is supported through the Common Market Organisation.

The MAs which answered this question (23 out of 27) unanimously declared that the EU intervention was still relevant for the same reasons as mentioned above, which still apply under the objectives of the new CFP.

Although the reduction in fleet capacity is assessed to be one of the main added values of the EU intervention under the EFF, the need for additional reduction is generally considered to be limited in the new programming period. All other aspects of the additional value resulting from an EU intervention remain valid and are even stronger under the new CFP objectives because of the reinforced environmental focus.

Under the EMFF, the EU intervention will be particularly important in terms of supporting the zero discards objectives, improved control and data collection systems, implementation of a common monitoring system, focusing innovation and modernisation strategies on the CFP objectives, and continuation of support to community-led local development initiatives.

Conclusion of the evaluation question:

The main priority for stakeholder is sustainable economic growth. This objective requires an EU action as it is both related to environmental policies and fair competition among MS.

Almost all aspects of the EU added value resulting remain valid and are even stronger (environmental focus). The only exception is the reduction of fleet capacity, the need for additional reduction is considered to be limited.

5.5.3 EQ12 - What would be the most likely consequences of stopping or withdrawing EU funding for the fisheries, aquaculture, and processing sectors?

The answers given by MA respondents to this question are coherent with the above analyses. Only four MAs clearly answered that EU funding would be replaced by national funds (DK, ES, FR and SE) and probably not to the same extent or through more indirect support (*i.e.* without direct support to firms). In general MAs answered as if they assumed the EFF would not be replaced by an equivalent national funding.

Based on MA feedback and the above analyses, the main consequences foreseen from the evaluator's assessment are:

- An increased difficulty in reaching the new CFP objectives as the financial support provided by the EFF represents an incentive for both the MAs and the sector to progress towards the common objectives.
- An increased competition among MS, inducing in the long term a likely concentration of activities in the few MS where the industry has more competitive advantages and where the most public support at national level will be received.
- An increased concentration of the sector to the benefit of larger companies, as SMEs are the primary beneficiaries of direct support and would probably have less access to innovation than larger companies.

- The likely shutdown of the majority of FLAGs, with the loss of the benefits provided by these organisations.

Conclusion of the evaluation question:

Only four MAs answered that EU funding would be replaced by national funds and probably not to the same extent or through more indirect support.

The main consequences foreseen are:

- An increased difficulty in reaching the new CFP objectives,
- An increased competition among MS, inducing in the long term a likely concentration of activities in the few MS,
- An increased concentration of the sector to the benefit of larger companies,
- The likely shutdown of the majority of FLAGs.

5.6 *Sustainability*

According to the Better Regulation package, the sustainability criteria refer to the likelihood that observed impacts will last over time. Here the evaluation therefore assesses the long-term perspectives of observed achievements.

This question looks into both:

- Likely long-term socio-economic effects of the EFF,
- Likely long-term effects of the EFF for the environment.

5.6.1 EQ13- Are the socio-economic achievements of the EFF likely to last over time?

Feedback from the MAs shows a majority consideration that the achievements of the EFF are likely to broadly last over time, especially when referring to job creation, improved competitiveness and innovation. A few MAs however raised factors that could prevent or limit the sustainability of those achievements:

- External economic factors, mainly the evolution of fuel prices which could significantly impact the long-term prospects of the fisheries sector and the fleet in particular. The wider economic context was also mentioned as a potential factor.
- The continuity of support for some measures (e.g. aqua-environmental measures or Axis 4).
- The lack of generation renewal in coastal communities (mentioned in FI about the aging of the small-scale fisheries community).

The above analyses suggest that the improved competitiveness of the fleet is likely to persist, assuming there is no major unforeseen crisis, considering that this measure is based in part on the permanent removal of a significant share of the fleet, including non-profitable vessels, and in part on investments in fleet modernisation. The STECF data also indicates a decreasing trend in the proportion of direct subsidies in the fleet income over the period, which confirms that those improvements are not just a short term result of the support provided.

The achievements regarding the economic resilience of the aquaculture sector in the long term are more uncertain as certain weaknesses of EU aquaculture remain. The long-term achievements of the sector will depend on the ability to overcome those weaknesses (e.g. access to licences, clearer strategies, diseases, etc.). The obligation for a national

strategic plan and the introduction of a measure to implement spatial planning for aquaculture under the EMFF should contribute positively to strengthening the sector and building on the achievements of the EFF.

The creation of jobs in the processing sector can be considered as sustainable considering that there is no evidence of overcapacity created as a result of the EU support and that the profitability of the sector is stable.

Finally, the achievements of Axis 4 on the creation of jobs and the quality of life in coastal areas should be sustainable; the definition of "job created" being jobs still existing for 2 years after the last day of project implementation. .

Conclusion of the evaluation question:

The achievements of the EFF are likely to broadly last over time, especially when referring to job creation, improved competitiveness and innovation.

Several factors may limit the sustainability, notably external economic factors (for instance fuel price) and continuity of support (for compensation measures).

5.6.2 EQ14 - Are the environmental achievements of the EFF likely to last in time?

One of the key environmental achievements of the EFF is the partial re-balancing of fishing capacity with resources. This has contributed to the harvesting of fish resources at a more sustainable level and it has also reduced the wider environmental impacts of fishing. There is, however, the concern that the reductions in fleet capacity achieved through EFF may not last. As the national fleet capacity ceilings are no longer limited, capacity could increase once again. The cessation evaluation concluded that: 'The analysis of the trend in fishing fleet productivity (measured as catch / GT) shows that catch of scrapped vessels are only partly "recuperated" by remaining vessels, partly because fishing and/or market opportunities continue to decrease, and partly because some vessels remaining in activity do not have the technical capacity for exploiting the same areas and species as scrapped vessels (e.g. deep-sea fisheries).' (MRAG et al., 2013).

Permanent cessation can only contribute to lasting reductions in fishing capacity if those schemes are operating alongside other fisheries management measures such as quota or effort management regimes. Without these additional measures, scrapping funding could contribute to re-investment that results in an over-capitalized fleet. As many fisheries are subject to such controls, there is a low risk of this particular environmental achievement being eroded over time.

In relation to other measures, most of the environmental achievements were driven by motivations of efficiency. This applies to fishing (engine replacement), aquaculture and processing (new production techniques). With the win-win of reduced costs as well as reduced environmental impact, there is no logic in returning to previous methods and re-investment would be expected to at least maintain, if not increase the environmental gains made as a result of these measures.

Conclusion of the evaluation question:

One of the key environmental achievements of the EFF is the partial re-balancing of fishing capacity with resources.

There is the concern that the reductions in fleet capacity achieved through EFF may

not last. Permanent cessation can only contribute to lasting reductions in fishing capacity if those schemes are operating alongside other fisheries management measures such as quota or effort management regimes. As many fisheries are subject to such controls, there is a low risk of this particular environmental achievement being eroded over time.

In relation to other measures, most of the environmental achievements were driven by motivations of efficiency. These achievements are expected to last.

6 MAIN FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

6.1 *Conclusions by spending category*

This section focuses on the financial execution and analyses by spending category (Task 2) so mainly on outputs and results. Conclusions and recommendations on overall effectiveness, efficiency, relevance, coherence, EU added-value and sustainability of the EFF achievements (Task 4) are provided in the second part of this chapter.

6.1.1 Fisheries

Main findings

The fisheries spending category accounts for the largest proportion of EFF spend (38%) amounting to nearly EUR 1.5 billion across 96,000 operations (including around 63,000 operations under the temporary cessation measure). It includes all of the measures under Axis 1 (cessation, on-board investments, small-scale coastal fishing and socio-economic compensation) as well as *inland fisheries* (2.2) and *support to fishing ports and landings sites* (3.3), which are considered to support the fisheries sector. The main MS were: ES (30% of spend under this category), PL (16%), IT (13%), and FR (7%).

Measures to adjust fleet capacity (1.1, 1.2 and 1.5) accounted for the majority of spend (58.5%) under these fisheries measures and in four MS (ES, IT, IE and SE) fleet capacity adjustment accounted for 74% or more of fisheries spend.

Twenty MS implemented the **permanent cessation** measure and socio-economic compensation was given by 19 MS. However, only 6 MS used the **temporary cessation** measure with ES, PL and IT accounting for 90% of temporary cessation spending (FR, PT and SE being the other MS using the measure).

On-board investments (measure 1.3) accounted for 8% of spend within this category with BE and the NL showing the highest as a proportion of total fisheries spend at 55% and 42% respectively.

Small-scale coastal fishing (measure 1.4) accounted for 2% of spend with only EE, PL and FI spending 10% or more of total fisheries spend on this measure. Sixteen MS did not implement measure 1.4, while for FR, DE, SE and the UK the level of uptake was very low.

Socio-economic compensation (measure 1.5) amounted to less than 2% of overall spend. Only IT significantly exceeded this with 6% of total EFF spend. Uptake was generally low with ES and IT accounting for 60% of the operations under measure 1.5, mainly using the measure for non-renewable compensation monthly early retirement payments to fishermen.

Inland fishing (measure 2.2) accounted for 1% of overall fisheries spend. For HU and AT, this measure accounted for 100% of fisheries spend. There was also significant spend by LT (47% of total fisheries spend) and FI (43%).

Investments in fishing ports (measure 3.3) and landing sites, used by 21 MS, accounted for 30% of fisheries spend. In four MS (SI, DE, BG and the UK) the EFF investment in fishing ports and landing sites was 70% or more of EFF spend under the fisheries spending category.

Conclusions

The intention to reduce fishing capacity and to ensure supported investments did not increase fishing capacity suggests that job creation via fisheries measures is limited. Only measures 2.2 and 3.3 can realistically be expected to have enabled job creation, but funding for ports and landing points would mainly contribute to maintaining rather than creating employment.

The catching sector employed around 150,000 fishers across the EU in 2014, an increase since 2008. Monitoring data do not provide the contribution of fisheries measures to the maintenance of jobs in the sector, but it can be expected that the substantial funding paid directly to beneficiaries for temporary cessation, investment or compensation, helped maintain their activity in the sector. The contribution of measure 1.1 to maintaining jobs is debateable as jobs on the scrapped vessels are inevitably lost, but it can be argued that the decommissioning of vessels contributes to maintaining a viable fleet in the long run.

Permanent Cessation

The permanent cessation of vessels funded through the EFF made a significant contribution to the overall reduction in EU fleet capacity during the EFF programme period. The 2013 evaluation of this measure estimated that the net contribution of EFF to fleet capacity reduction was around 66%. The dead-weight effect of measure 1.1 was limited: a survey of skippers found that only 12% of vessels would have been scrapped anyway (MRAG et al, 2013).

The extent of capacity reductions and the level of EFF contribution varied greatly between MS and between fleet segments with most EFF being directed towards trawlers (79% of vessels exiting the fleet under measure 1.1).

The majority of MS met or exceeded capacity reduction targets set in their OPs. The fuel regulation further incentivized scrapping and resulted in the peak scrapping levels seen in 2009 and 2010. However, the incentive to scrap vessels was already strengthened by the poor economic performance resulting from high fuel costs and low fish prices.

Large-scale fleets are costly to decommission and small-scale fleets often have a lot of inactive capacity in the licensed fleet (which undermines the impact of decommissioning in reducing fishing capacity).

In the Open Public Consultation (OPC) 30% of respondents suggested permanent cessation should not be supported; more than any other measure. MAs agree to an extent, suggesting that capacity re-balancing is mostly complete and that permanent cessation is not the most cost-effective way to address remaining capacity reduction.

Temporary cessation

In most instances this measure was applied when fishing activity was stopped by regulation. The funding made the measures more acceptable to industry; it did not result in a reduction in effort over and above that required by regulation, but encouraged compliance.

Investments on board

Overall the investment in on-board equipment levered by EFF funding was significant at around 20% of total fleet investments during the EFF programme. In some MS the contribution from EFF was far more significant than this with BE and CY in particular supporting substantial fleet modernisation.

'Investments in safety and working conditions' is the action showing the highest number of operations (47%) and level of investment (35%). This is perhaps surprising given the economic crisis, but uptake benefitted from group schemes. It can also be argued that nearly all modernisation investments made to vessels improve safety and therefore it may be seen as the simplest action to allocate investments to.

Investments in fuel efficiency provided benefits to competitiveness and environmental performance.

Small scale fishing

Those that did not implement the measure reported either the absence of a small-scale fleet or a lack of interest from the small-scale sector. Others cited the fact that other EFF

measures were open to the small-scale fleet and in some instances the small-scale fleet was already prioritised in selection criteria.

In those MS where investment per small-scale vessel was highest (PL and FR), fleet numbers were stable and in the case of EE and CY, numbers increased. For the EU as a whole, employment in the small-scale fleet increased over the EFF programme, suggesting that EFF investment did help to maintain the small scale fleet.

Small-scale fleets are faced with the same issues and have the same needs as the wider catching sector, but their ability to access funds can be constrained by access to credit for co-financing and/or a lack of organisation.

Socio-economic compensation

The limited attraction of the sector for young people, the limited alternative opportunities for diversification and the level of co-financing (for diversification and premium for young fishermen) were as the main reasons identified for the limited uptake of actions other than non-renewable compensation and early retirement.

Inland fishing

Inland fishing is of critical importance to a small number of MS and significant support was provided to the sector in these MS, which resulted in the development of the production in both volume and value in FI, but mixed results in other MS. The largest contribution made by EFF to the sustainable development of inland fishing outside of those key MS was associated with the EU-wide recovery of the European eel.

Ports and shelters

Overall the measure was successful for MAs (in delivering large investments with clear, tangible results) and the sector (as shared facilities benefit the whole sector). Several EFF-supported developments support the fishing industry and provide tourism benefits, which contribute to income diversification for fishing communities.

Recommendations

Permanent cessation has been concluded to be ineffective and inefficient to adjust fishing capacity to resources. It is recommended to discontinue this form of public support as soon as possible and in the meantime to restrict it to well identified circumstances.

Compensation for temporary cessation is used as a mitigation tool. It is recommended to maintain it only if directly linked to conservation measures and an appropriate structural adjustment of fishing capacity, thus limited in time.

Widespread increase of crew health, safety and working conditions should be encouraged via all possible means – including public support - and should be complemented by adequate training.

Public support to the small-scale and inland fishing fleets should be revisited and alternatives should be sought to better support these fleets (specific measures, conditions with increased aid intensity).

Possible future support should maintain and increase the focus on innovation and environmentally sustainable solutions.

6.1.2 Aquaculture

Main findings

The EFF commitment under measure 2.1 amounted to just under EUR 600 million, 14.2 % of the total EFF committed. The total cost of operations supported amounted to nearly EUR 1.6 billion with and the average total cost of operations was EUR 204,540 with about 8,130 operations supported. Projects focused mainly on increasing production capacity

through investments in construction and modernisation of existing fish farms and construction of new farms (except in PL, which focused mainly on aqua-environmental projects).

Most (over 70%) of EFF funds committed were in MS where aquaculture is dominated by inland fish farming such as PL and RO (mainly carp and to some extent freshwater trout). Consolidation in the marine finfish sector has resulted in most production being by a few large companies, many of which were ineligible for EFF support.

The analysis of Measure 2.1 has been weakened by the limited role national EFF monitoring committees played in monitoring aquaculture, limited comparability between data on aquaculture from different EU sources and the insufficient collection of economic data by the DCF.

The EFF contributed to improve the economic resilience of beneficiaries in difficult times. Other measures such as investments in processing by fish farmers, quality scheme certifications etc. also contributed to competitiveness. However, this competitiveness was blunted by a number of EU-wide issues such as difficulties to (i) access stable licences, (ii) access private funding and especially bank loans, (iii) high production costs compared to third countries and (iv) a complex regulatory environment and lack of harmonisation among, and sometimes within, MS.

Although it is difficult for most of the MAs to quantitatively assess where the EFF had a positive impact on employment in the sector, BE and ES MAs estimated that the EFF slowed down the trend of decreasing employment and to a lesser extent some MS (BG, CY and ES) suggested it created employment in the aquaculture sector.

The European Court of Auditors report (ECA, 2014)) noted that one underlying weakness of measure 2.1 was that the MS National Strategic Plans failed to link with the financial resources required to achieve the support measures (see the Aquaculture Case Study Report).

Conclusions

EU aquaculture volume and value is dominated by the marine species, but production is mainly led by large companies that were not eligible for EFF support targeting SMEs. The EFF was therefore mainly utilised to modernise traditional farming operations such as, extensive carp farming operations in freshwater environments.

EFF funding did increase the productivity of the EU aquaculture, but this must be seen in the light of the effects of the financial crisis on investment and modernisation during the funding period. Intensive farming methods, such as marine cage culture, suffered particularly over this period. The financial crisis also impacted the willingness to invest in new species – one of the aims of the measure. There is a widespread view that EFF funding was essential during this difficult period from 2008 onwards that reduced investment and borrowing activity in the aquaculture sector.

Although the measure was designed to foster innovation, EFF funding was rarely used for this purpose. There has been a small increase in the use of RAS in finfish farming, often combined with other innovations such as new feeding systems and species. None of the respondents specifically mentioned the use of low trophic farming systems, although French shellfish farmers indicated that farming densities had decreased in response to disease risk.

The achievements regarding the economic resilience of the aquaculture sector in the long-run are more uncertain as monitoring data is limited and the weaknesses of the EU aquaculture sector remain (access to licences, clearer strategies, etc.).

The obligation of a national strategic plan and the introduction of a measure to implement spatial planning for aquaculture under the EMFF should contribute positively to strengthen the sector and to build on the achievements of the EFF.

Recommendations

There is a strong need to improve and expand marine and coastal aquaculture both in terms of production and competitiveness though simplifying administration, integration into spatial planning and coordinated multi-annual planning. Much of this is reflected already in MS EMFF OPs, but further work is needed to assist MS to utilise findings in an efficient manner and to promote EU aquaculture development, knowing that increased production capacity does not necessarily increase competitiveness and the development of economically viable aquaculture enterprises.

Possible future support should maintain and increase the focus on innovation and environmentally sustainable solutions.

6.1.3 Processing

Main findings

This spending category includes only measure 2.3 – Fish processing and marketing – and accounted for 18% of total EFF commitments with EUR 688 Million committed as of May 2015. The main MS involved were ES (32% of the total spending category), PL (15%), PT (10%) and IT (10%). Projects related to processing activities account for most of the measure with about 88% of EFF granted for increasing processing capacity in existing units or construction of new units.

In total, there were over 5,000 operations implemented across the EU by approximately 2,700 beneficiaries, under measure 2.3, for a total number of processing companies estimated at 3,400 in 2012 by the STECF. Beneficiaries were mainly processing companies, but also included aquaculture companies, fisheries companies, POs and other trade organisations that invested in processing. Based on available monitoring data and industry statistics, SMEs are estimated to represent 96% of the beneficiaries[108]. About half of the projects were related to an increase in processing capacity.

There is a general consensus among a majority of MAs and the industry that the measure contributed to maintain jobs. However, there are no available data to support this view. The number of jobs created is estimated to reach about 10,000 jobs based on data provided by four MS, representing 28% of the total commitments.

The reported increase in production capacity seems over-estimated and probably does not always take into account the production capacity removed as a result of investments. In total, it is estimated that between 1.5 million and 1.8 million tonnes of production capacity was modernised (including new capacity) for a total production of around 4 million tonnes of processed products (EUMOFA) in the EU. Surveyed and interviewed beneficiaries also indicated an increase in production between 5% and 50% depending on the projects.

Conclusions

The output and results of the measure were coherent with its objectives to increase quantity and added-value of fish processed, develop innovative products, enhance quality, develop new markets, reduce waste, reduce the negative impact on the environment, reduce inputs consumption (e.g. energy and water consumption), and maintain and create jobs.

The monitoring system does not allow precise measurement of those results due to problems of interpretation of the only quantified result indicator (increase in production capacity) and the absence of indicators to establish a relevant typology of projects.

[108] Companies with over 750 employees and EUR 200 million of turnover were not eligible for this measure.

However, the available data and the qualitative information gathered from the MAs and from the industry indicate that the most tangible result was the increase in production capacity (it is estimated that the share of processing companies across the EU that increased their capacity through the measure could have reached 30%), which in turn generally contributed to an increase in production, in the total value of the production, and in the creation of new jobs in the subsidised processing units. In total, it is estimated that the measure could have contributed up to about 10,000 jobs.

There is no evidence of a major change in production methods but feedback from MAs and stakeholders indicated that modernisation supported by the EFF generally contributed to improved product quality, mainly through improved products characteristics (e.g. improved freshness, regularity, etc.) and in some cases, through new products or market niche (e.g. free-gluten products), and to improved environmental awareness and performance. The increase in production value for the beneficiaries may have been related to new products, but as often a more direct consequence of the increase in production volume.

The measure clearly contributed to foster and accelerate the modernisation of the industry (the modernised production capacity is estimated to represent between 30 and 40% of the 2013 actual EU production), resulting in many cases of increased productivity, improvement of the quality of products, introduction of new products, better working conditions, and/or improvement in environmental performance. The results in terms of innovation (e.g. use of patented process) and the development of niche markets are less clear, but there are some interesting examples of projects that had such results.

Recommendations

Possible future support should maintain and increase the focus on innovation and environmentally sustainable solutions.

6.1.4 Common interest measures

Main findings

This spending category includes all Axis 3 measures except measure 3.3 – Fishing ports, landing sites and shelters. It accounted for 16% of total EFF commitments with EUR 636 million committed as of May 2015. The main MS involved were ES (31% of the total spending category), then PL (9%), FR (9%), DE (8%), DK and IT (6% each), and UK and PT (5% each). This spending category was dominated by collective actions (45%) and marketing and promotion (22%). Pilot operations, protection and development of aquatic environment and construction and modernisation of marketing establishments measures each represented about the same share (11-14%). Projects related to modification for reassignment of fishing vessels accounted for only 2% of the spending category.

In total there were about 10,500 projects under this spending category (EUR 61,000 /project). The number of actual beneficiaries is not known. Some projects involve multiple beneficiaries (e.g. collective actions) but the same beneficiaries can also participate in several projects. Beneficiaries were mainly public bodies or other institutional entities (POs, other professional organisations or cooperatives, research institutes, etc.). Private companies could be involved in projects but generally not as project leads. The same holds for individuals which participation is assessed to be even more marginal. There is no data on the size of companies or gender of beneficiaries for the measures under this spending category, but it is therefore barely relevant.

The following implementation issues were identified:

- Issues with public procurement procedures under measure 3.4 (promotional campaigns);
- Possible de-certification of some projects ("Contrats Bleus" in FR under measure 3.1 - collective actions);

- Difficulties in the collaboration between research institutes and private businesses in some MS.

Impacts on jobs maintained or created are assessed to be neutral (creation and restructuring of POs) or hypothetical (all other measures and actions).

The main results identified for this spending categories are:

- The creation of 48 POs and the restructuring of 73 POs (measure 3.1);
- Increased investment of the small-scale coastal fisheries through collective investment (e.g. to improve safety on board or in processing and marketing equipment – measure 3.1);
- The improvement of networking among the different stakeholders and collaboration between research institutes and the industry through both collective actions (measure 3.1) and pilot projects (measure 3.5), especially on topics related to fuel efficiency and selectivity;
- The rehabilitation of inland waters as well as spawning grounds and migration routes (measure 3.2), on coherence with some conservation measures (e.g. the Eel management plan) ;
- Only very few projects related to Marine Protected Areas were implemented : only 1.5% of the projects under measure 3.2, mostly in ES, where 29.56 km^2 of protected marine area were created since 2007, from a total of 2,075.08 km^2;
- The implementation of large publicity campaigns and other initiatives (e.g. tasting events) in several MS to promote national products and improve the image of fisheries and aquaculture products, with focuses on specific methods of production, labelled products, under-commercialised species or specific targets, such as children (measure 3.4);
- The increased participation of companies, in particular SMEs, to trade shows and international business fairs (measure 3.4);
- The uptake of measure 3.6 for the reassignment of fishing vessels for research and educational purposes remained extremely low.

Conclusions

The qualitative information gathered shows that projects carried out were generally coherent with the objectives of the EFF. However, it remains difficult to provide a precise assessment of achievements based on the available monitoring data. Output and result indicators are often incomplete and unreliable, and not fully relevant as they do not indicate the focus of the projects (e.g. selectivity, fuel efficiency, product quality, etc.) The available information on the nature of the projects through AIRs, MA interviews and other stakeholders feedback gives some insights about the types of projects carried out, but it is likely that only the most relevant projects are mentioned, hence not providing information on possible unintended effects. Achievements in terms of general impacts, such as increased value, fish consumption, uptake of an innovation are also difficult to assess due to the importance of external factors (global fish prices, consumer habits, stakeholder strategies, impacts of other measures, investment capacity in the industry…) and the fact that the type of measures concerned tend to have an indirect and/or more long-term impact.

'Success' in pilot operations for example can be difficult to define. Research and development findings can be useful, whether they lead to positive results or not. This also emphasizes the added value of EFF to implement projects for which there is not necessarily a direct return on investment for stakeholders.

Yet, based on the main findings, it is possible to say that the main achievements relate to:

- strengthening the competitiveness of the sector through a better organisation of the sector (including networking and partnerships), modernisation (innovation projects and investments in collective equipment), improved fuel efficiency, increased differentiation of products (through promotional campaigns), increased added-value (collective equipment for processing and marketing) and development of new markets (promotional campaigns, labels and participation in business fairs); and
- sustainable balance between resources and the fishing capacity, mainly through improvement in selectivity and to a lesser extent, through projects like testing new management and fishing effort plans;

The measures also contributed, but to a lesser extent, to strengthening the protection and enhancement of the environment, mainly in inland waters through measure 3.2 for the protection of the aquatic fauna and flora, and to the improvement of the quality of life through training and collective investments in safety.

In the case of innovation-related projects, the case study on pilot projects showed the importance of the existence of a clearly identified and shared innovation strategy in the sector and to some extent on the history of collaboration between research institutes and the industry.

Recommendations

Possible future support should maintain and increase the focus on innovation and environmentally sustainable solutions.

6.1.5 Community-led local development (Axis 4)

Main findings[109]

This spending category corresponds to Axis 4, which only included one measure and one action, measure 4.1 – Development of fisheries areas. It accounted for 11% of total EFF commitments with EUR 441 million committed as of May 2015. The main MS involved were PL (43% of the total spending category), then RO and ES (9%), GR (6%), EE and DK (4% each). The measure, which is a transposition to fisheries areas of the Leader programme under the EU Rural Development policy, was new under the EFF. The implementation mainly occurred during the second half of the programme (92% of commitments occurred after 2010) due to delays in the selection of the FLAGs and the validation of the strategies in the beginning of the programming period.

In some areas, the newly created FLAGs could benefit from the experience of local actors with similar community-led development, in particular with the Leader programme, sometimes relying on a shared board, but in other cases there was also a necessary learning time to build capacity. FARNET is considered to have been a useful in tool in that regard.

In total, about 11,500 operations were implemented by May 2015, for an estimated number of about 28,000 beneficiaries, including NGOs and associations, researchers, local authorities, SMEs (mainly under 10 FTEs), development agencies, POs and others.

The Study on the implementation of Axis 4 of the European Fisheries Fund [110] shows that projects mainly focus on adding-value and promoting innovation, well-being and cultural

[109] This section also includes findings from the effectiveness question as T2 (analysis by spending category) only focused on jobs

heritage and diversification. The typology used was different from the one under Art. 40 data, which makes it difficult to compare the two sources. Art. 40 data from MS where it can be assessed as fairly reliable also shows a significant number of operations related to small fisheries communities and tourism infrastructure.

At this stage and considering the late implementation of this measure, the most tangible results are the number of jobs created or maintained, respectively estimated by FARNET at 6,776 jobs and 9,240 jobs. Furthermore, FARNET estimated that 2,000 new business have been created thanks to Axis 4 support.

Conclusions

The implementation of Axis 4 really took off in the second half of the programming period. Projects implemented are assessed overall to be coherent with the objectives of the measure to improve quality of life in fisheries areas and the achievements in terms of jobs maintained and created are positive.

Other achievements in terms of the quality of life in coastal areas, such as quality of jobs, strengthening of local identities, enhancement of the natural and living environment, cultural endowments, etc. are more long-term achievements that cannot be assessed at this stage.

Recommendations

Future Community Led Local Development support should strengthen the involvement of local communities, in particular fishermen communities, share experiences and where possible capacity with Leader Local Action Groups, strengthen networking and experience sharing among FLAGs.

A review of main achievements by FLAG, for example in the form of a simple (mandatory) questionnaire should be implemented on an annual basis without increasing the administrative burden. This would improve visibility (and therefore legitimacy) of FLAGs actions.

6.1.6 Technical assistance

Main findings

On average, technical assistance represents 3% of EFF support to MS. This rate remains below the 5% funding cap, but it hides differences between MS.

Almost all MS focused on Management and implementation (85% of spend on TA overall); only LT spent less than 50% of its technical assistance budget for this action. 5 MS used less than 70% with three using other technical assistance measures, such as improving the administrative capacity (e.g. payment system in HR) and the IT system (SE) and two MS commissioned a number of studies)

Conclusions

Some MS with a relatively small OP find the level of technical assistance to be low, which could indicate that there is a critical budget for technical assistance to have results.

Technical assistance meets MS' needs, especially in a context where the technical expertise is not available and/or budgetary discipline constrains capacity building.

Recommendations

[110] Study on the implementation of Axis 4 of the European Fisheries Fund, Capgemini Consulting et al. for DG MARE, 2014

Although the current 5% funding cap for Technical Assistance seems to be appropriate, it is recommended

a. to put a transparent mechanism in place to allow MS to go beyond this capping in duly justified circumstances and
b. to introduce a minimum budgetary amount to allow MS with a small allocation to address adequately monitoring, reporting and evaluation requirements.

See a summary of the main findings, conclusions and recommendations by spending category in annex 11.

6.2 *Conclusions by evaluation criteria*

6.2.1 Effectiveness

Main findings

Effectiveness regarding the environmental objectives of the EFF

The EFF objectives with a clear environmental element are:

(a) support the common fisheries policy so as to ensure exploitation of living aquatic resources and support aquaculture in order to provide sustainability in economic, environmental and social terms;

(b) promote a sustainable balance between resources and the fishing capacity of the Community fishing fleet;

(c) promote a sustainable development of inland fishing;

(e) foster the protection and the enhancement of the environment and natural resources where related to the fisheries sector.

At the end of the EFF period, the objective of adapting the EU fishing fleet capacity with the EFF support in terms of reduction of fleet power and gross tonnage was met. The majority of MS met or exceeded the fleet capacity reduction targets set in their OPs, some of which were revised upwards (along with reallocation of funds to Axis 1) following the fuel regulation. It is estimated that the net contribution of the EFF was around 66% of total fleet capacity reductions.

All MS fleets show reductions in GT and kW between 2007 and 2015[111]. The EFF-funded reduction accounted for 97% of net kW reduction but only 53% of net GT reduction, which reduced by 17% over the 2007-2015 period. 7 MS were above this level of EFF contribution: in IE and BG, EFF-supported GT removal accounts for 98% and 91% of net GT reduction respectively.

The rate of capacity reduction, including that supported by measure 1.1, slowed over the EFF programming period as the main imbalances were addressed; allocated funds were committed and value for money concerns were raised.

Progress on the sustainable exploitation of fisheries is evident: in 2014 the EC reported that '61% of assessed stocks are fished consistently with MSY, up from only 2% in 2005, 12% in 2008 and 53% in 2012[112]. While this is mainly due to management controls, the EFF has supported fleet capacity reduction which has contributed to this improving situation.

[111] The PL fleet is considered against the 2008 baseline, which saw a 37% increase in gross registered tonnage 2007-2008, and GT was still to reduce below this by 2015.

[112] https://ec.europa.eu/dgs/maritimeaffairs_fisheries/magazine/en/policy/state-fish-stocks

In terms of wider environmental impacts of EFF funding, the impact of fishing on the environment has lessened mainly as a result of the reduced fishing effort.

Gear selectivity has contributed to significant by-catch reduction in participating vessels with regulation driving uptake throughout fleet segments. Pilot projects initially focused on reducing cod by-catch which were taken up across fleets. More recently, due to the landing obligation, projects looked to address undersized target and other by-catch species. However, with the phased implementation of the Landing Obligation, most of these gear innovations are yet to be adopted across fleets.

There is some evidence of EFF supporting implementation of an ecosystem approach through Axis 3 assistance in drafting management and recovery plans, such as for the European eel fisheries, or indirectly through the funding of fishery and aquaculture certification schemes, encouraging consideration of the wider environment.

The effectiveness of the EFF for the sustainable development of inland fisheries was limited at EU level, but there were some local achievements (both economic and environmental) in MS with significant inland fisheries and in support to European eel recovery.

Measure 3.2 on 'protection & development of aquatic flora and fauna' is the most explicit EFF support to biodiversity projects. Uptake of this measure focused on inland waters and was barely used in marine protected areas.

Effectiveness regarding the socio-economic objectives of the EFF

The EFF objectives with a clear environmental element are:

(a) support the common fisheries policy so as to ensure exploitation of living aquatic resources and support aquaculture in order to provide sustainability in economic, environmental and social terms;

(c) promote a sustainable development of inland fishing;

(d) strengthen the competitiveness of the operating structures and the development of economically viable enterprises in the fisheries sector;

(f) encourage sustainable development and the improvement of the quality of life in areas with activities in the fisheries sector;

(g) promote equality between men and women in the development of the fisheries sector and fisheries areas.

Based on the available statistics at EU level[113] and the feedback from MAs and the sector, it is assessed that the competitiveness of the fleet has improved overall over the period despite very different situations depending on fleet segments and national contexts, partly as a result of the reduced capacity and exit of a large number of unprofitable vessels, and partly as a result of increased landing value and labour productivity and a reduction of production costs, all of which the EFF contributed to.

The competitiveness of the EU aquaculture did not improve over the period, mainly because of external factors (difficult access to stable licences, economic crisis, difficult access of fish farms to bank loans, etc.). The EFF therefore contributed to improve the economic resilience of aquaculture companies and especially SMEs, but did not enable the sector to overcome their structural weaknesses.

The EU output of processed fish significantly increased over the EFF period (by 12% between 2008 and 2013 according to EUMOFA data) and the EFF clearly contributed to this increase as it is estimated that the share of processing firms having increased their

[113] Taking into account the limits highlighted by the STECF Reports on the EU fleet, aquaculture and processing sectors about data completeness and reliability.

production capacity under the EFF could have reached approximately 30%[114]. Feedback from the sector and data available on the profitability of processing companies indicate that the EFF intervention did not result in overcapacity, despite a difficult economic context. Beyond the increased capacity, investments supported by the EFF are generally assessed by the sector and by beneficiaries to have contributed to improve productivity and product quality.

The total number of FTEs decreased in all three sub-sectors over the period, despite the creation of jobs supported by the EFF, in particular in the processing sector and under Axis 4 (in part through diversification activities). It is assessed that only two measures contributed to significantly create new jobs: measure 2.3 (processing and marketing), with approximately 10,000 jobs created[115] and Axis 4, with a little less than 7,000 jobs. Measure 1.1 (permanent cessation) contributed to job destruction in the short run but could contribute to maintain jobs in the long run by improving the overall profitability of the fleet. The EFF is also assessed to have contributed to maintain jobs, especially through investment measures and Axis 4, but except for the latter (approximately 9,000 jobs maintained) there is no data available to measure the impact. The EFF also contributed to improve the quality of jobs, mainly through investments in equipment improving safety and working conditions (the largest share of the investments on board as well as investments in aquaculture, processing and fishing ports and landing sites).

There is also evidence that the EFF contributed to gender equality in an indirect way, for example through information and awareness raising on the available support, participation in planning and improvement to working conditions and environment.

Finally, the EFF contributed to some extent to the interest of projects related to product quality, including certification schemes. However, the article 40 data do not provide an exact number of such projects. According to additional information gathered, product quality was mainly supported through measure 2.3 (marketing and processing) and measure 3.3 (fishing ports, landing sites and shelters) and more marginally, or only in a few MS under other measures.

Conclusions

The objectives of the EFF were particularly achieved in MS where the programmes focused their funding, on reducing fleet overcapacity, supporting the processing sector and modernising fishing ports and shelters.

These results contributed to the overall *improvement of the fleet competitiveness. This* was mainly achieved by accelerating the exit of part of the unprofitable fleet. In addition, facilitating the modernisation of the remaining fleet also contributed, as did the modernisation of landing sites. Investments in marketing and processing, especially when initiated by fishermen organisations, also contributed to increasing the added-value of fish products.

In the *aquaculture* sector, the results met were below the expected objectives. In particular, the key objective to increase the volume of aquaculture production was not met at an EU level: the EU aquaculture production stagnated over the EFF period. Certain

[114] The number of firms having benefitted from Action 1 is estimated from the number of operations/1.2 (this ratio comes from the analysis of detailed data provided by the Spanish MA as this is the only MS where we can analyse the average number of operations/ beneficiary for this measure). It is also consistent with the numbers provided by MS for the breakdown of operations by size of companies. Considering that at least in Galicia, where the processing industry is the most important, there was a selection criteria to favour companies that applied for the first time (to limit the concentration of the funds on the same companies), this ratio is considered as a minimum. The total share or companies estimated is therefore a maximum.

[115] Based on data provided by four MS, representing 36% of the EFF committed to the measure.

MS were exceptions to this, such as BG where mussel production increased with the EFF support.

For *Processing and marketing* the output and results of the measure are coherent with its objectives, particularly to maintain and create jobs. The measure also contributed to foster and accelerate the modernisation of the industry.

Investments in fishing ports and shelters are considered by MAs to be successful where implemented, helping to support an economically viable sector and improve quality of life through improved working conditions, along with wider socio-economic gains for fishing communities, such as through tourism.

Sustainable development of local areas enabled to maintain and create employment and the measure was reported by MAs to have had a positive impact on the gender dimension in several MS.

Maintaining the viability of operators throughout the all supply-chain became a priority with the economic crisis facing the fisheries sector. As a consequence some MS reduced targets; for example GR reduced its fishing fleet modernisation and aquaculture targets in 2014 and 2015. Most OP modifications were for re-allocating budget to axes with greater demand, which was also a consequence of the economic crisis as investment plans changed.

Implementation of integrated strategic approach on specific topics (e.g. innovation, seal-damage for the small-scale fisheries, fuel efficiency) and communication from MAs to raise awareness among potential beneficiaries on specific measures or groups of measures can improve achievements.

Sustainable exploitation

The sustainable exploitation of fish resources has progressively improved over the EFF programme even if there is more work to be done, particularly in certain regional seas like the Mediterranean. Fleet capacity is now closer to being in balance with fishing opportunities even though over-capacity remains.

EFF fisheries funding complemented EU management measures (limiting the TAC and days at sea that vessels are permitted to fish) by contributing to an overall reduction in fishing effort. This reduced fishing activity has also reduced other environmental impacts of fishing.

The requirement under EFF to identify over-capacity in FEAPs and then to target this with permanent cessation funds made the funds more effective than would otherwise have been the case. However, the difficulty in measuring the balance between fleets and resources continues to undermine effective targeting of decommissioning programmes.

Continued re-investment in the fleet is necessary for efficiency purposes, but the entry-exit scheme ceilings are no longer a constraint on MS potential fleet capacity, making it possible that decommissioning funding could be re-invested in new fleet capacity.

While the EFF decommissioning schemes did contribute to re-balancing capacity with resources, imbalance still exists and decommissioning is an expensive tool to correct it.

Protecting and conserving biodiversity

The EFF contributed to reducing the environmental impacts of fishing (mainly through fleet capacity reduction), however the uptake of projects to specifically protect and conserve biodiversity was comparatively small under the EFF. This is to be expected as the programme focused on fishery and aquaculture development (to either reduce environmental impact or at least ensured impacts were not at unacceptable levels) rather than biodiversity objectives. There were also other funding sources such as LIFE, with a more specific remit on biodiversity protection and conservation.

With the exception of a few MS such as DE and SE, biodiversity protection under EFF was *ad hoc* rather than strategically implemented.

Environmental benefits were often a by-product of efficiency gains. Change has primarily been in response to regulatory drivers to reduce by-catch or economic drivers to reduce fuel cost. The latter resulting in the additional benefits of reduced benthic impact and reduced carbon emissions.

The direct contribution of measures outside of fishing (i.e. in aquaculture and processing) has been more limited. Efficiency improvements have often had the benefit of reduced environmental impact, either through more efficient resource or energy use, or with the adoption of cleaner technology.

Competitiveness of the fisheries sector

The competitiveness of the fisheries sector depends to a large extent on external factors as shown by the impact of the 2008 economic crisis on all three sub-sectors or by the difficulties of the aquaculture sector to remain competitive with third-countries that have lower production costs and easier regulatory environment, in particular for globalised productions like salmon or to a less extent seabass and seabream.

Nevertheless, beyond the reduction of the fleet capacity, the EFF could contribute to improve the competitiveness and the economic resilience of firms, by supporting modernisation, the promotion of EU products and methods of production, innovation to some extent (more tangible for the fleet than for aquaculture and processing), the organisation of the sector and an increased collaboration between the different stakeholders.

Jobs and quality of life in fisheries areas

The positive impact of investment measures on jobs regarding the number of jobs and improvements of the quality of jobs exceed the potential negative impacts resulting from increased labour productivity. New jobs mainly come from increased capacity (in particular in processing) or diversification (Axis 4). The quality of jobs can be improved through modernisation resulting in increased safety, working conditions and in some cases more qualified jobs (as a result of increased automation). Axis 4 is the main policy instrument to improve other aspects of the quality of life (improvement of the natural and living environment, strengthening of local identities, etc.) but results are more difficult to assess especially at a still early stage of implementation.

Recommendations

Public support should respond to the needs identified in the SWOT analysis and reflected in the MS strategy for the sake of coherence and EU added value, however, this public support should also be focussed to ensure greater effectiveness and efficiency.

National strategies should contain output and result indicators allowing to monitor progress and to assess the adequacy of these strategies. For results difficult to quantify, the monitoring system should consider qualitative impacts.

The lack of context, result and output indicators in the EFF has increased the difficulty of the analysis of its impacts. Comprehensive sets of relevant (meaningful and useful) context, results and output indicators should thus be identified to monitor progress and to measure the impacts of public support. To ensure consistency these indicators should be harmonised across MS.

6.2.2 Efficiency

Main findings

In terms of whether the EFF was achieved at a reasonable cost:

Fisheries: The main objectives that the EFF sought to achieve through fisheries support were to rebalancing the fleet capacity with available fishing opportunities and to improve the viability of the fleet. In terms of the first objective on capacity, the CoA report and 2013 cessation evaluation both concluded that the public funding of permanent cessation schemes does not represent good value for money compared to achieving reductions in fishing effort via management controls. The cessation evaluation also found significant differences between MS in terms of the proportion of EFF paid compared to the national contribution and per GT or kW removed. The use of permanent cessation does not achieve objectives at a reasonable cost and in most instances the method in which it was applied was less efficient than through competitive bidding.

In more than two thirds of cases, the level of temporary cessation funding was reported to not fully cover the fixed costs of the vessel (MRAG et al., 2013). In this regard it was applied at reasonable cost. However, temporary cessation funding was also found to be inefficient in maintaining the viability of the fleet (e.g. small scale and inland fleets); it could only support the operators to remain within the sector over fishery closure periods, and did not influence the viability of the fleets supported.

Onboard investment under the EFF programme was substantial and this did lever additional private investment in the fleet, which may have contributed to improving the viability of those vessels.

Aquaculture: The level of uptake for aquaculture measures, along with the resulting impact was lower than expected. The estimated EUR 40,000 per additional tonne produced could be considered high when compared to the average price per tonne of EUR 3,314 (2013) for European aquaculture production as a whole, particularly as support was mainly for comparatively low value inland species. There are very large differences seen between MS, which are expected to mostly relate to differences in the culture methods.

Processing: Average total project cost for creating an additional tonne of capacity across the EU was EUR 732, which vary considerably between MS. The focus on different species may in part explain some of the low costs per tonne seen.

Conclusions

Permanent cessation does not reduce fleet capacity 'at a reasonable cost' compared to the implementation of management measures supported by control systems.

Differences in the overall amount of public cost per vessel removed largely depend on the structure of the fleet targeted by adjustment plans, but the lowest public cost per vessel and per GT for equivalent fleet segments were achieved by MS implementing competitive bidding systems rather than applying a pre-determined premium.

The costs of achieving an additional tonne of aquaculture production or processed output vary considerably between MS depending on the culture methods employed.

The average total cost of an additional tonne of processing capacity is much lower than the estimates for producing an additional tonne through aquaculture, which might be expected when comparing a primary industry of aquaculture with processing as a downstream sector. These costs again vary considerably between MS depending on the species processed and level of technology applied.

Better monitoring data is needed to enable analysis of the reasons for these differences, i.e. determining if these are mainly due to different culture and processing systems.

Recommendations

MS should select the measures to be included in their strategies and allocate appropriate budgets for these measures on the basis of documented context indicators.

Public support should respond to the needs identified in the SWOT analysis and reflected in the MS strategy for the sake of coherence and EU added value, however, this public support should also be focussed to ensure greater effectiveness and efficiency.

6.2.3 Relevance

Main findings

The EFF regulation explicitly recognises the need to regulate the development of the Community Fishing Fleet in line with the CFP's objectives of sustainable exploitation. This was an early priority for the EFF programme.

No EFF objectives are identified in relation to the specific CFP objectives to 'progressively implement the ecosystem-based approach to fisheries management' or to 'take into account the interests of consumers'. These were supported through certain measures such as innovation through measure 3.5 (pilot operations) and measure 3.4 (developing new markets and promotional campaigns), but the uptake of these was limited in most instances and only amounted to 5% of total EFF spend.

Most Managing Authorities felt that the EFF made the largest contribution to 'sustainable exploitation of aquatic resources' and 'enterprises that are economically viable'. The evidence supports this conclusion regarding 'sustainable exploitation', but is less clear in relation to latter point. The EFF certainly contributed to maintaining fisheries operators during a very difficult trading period, but small-scale sectors (in coastal fishing, inland fishing and aquaculture) continue to show marginal profitability.

There was a moderate contribution to minimising the impact on marine ecosystems and most spending categories only made a minor contribution to 'ensuring a fair standard of living' and 'gender equality'.

The need for operators to show sustainable production and good environmental performance emerged during the EFF and that demand is growing.

Conclusions

Even though spend on cessation slowed during the EFF programme cycle, the need to continue the process of rebalancing the fleet remained relevant to CFP and EFF objectives.

For aquaculture and processing, competitiveness was the focus rather than environmental performance, unless both were achieved through efficiency savings by reducing energy use and waste. The scale of uptake suggests that the measures were highly relevant for the sector and the beneficiary survey respondents in the processing case study confirm this. Increased competitiveness mainly resulted from increased productivity, rather than just increases in production volumes, which remains relevant for the EU processing sector facing stiff competition from processing centres outside the EU such as South East Asia and China.

There is a need for measures that support the fisheries and aquaculture sector in improving performance and engaging with processes such as certification that reports that performance to the market. In doing so under EMFF, it addresses a number of objectives including taking into account the interests of consumers, which was not explicit under the EFF.

Recommendations

The continuation of EU support to the sector, and if so its scope, size and contents, should be based on a thorough analysis of its necessity from the point of view of effectiveness, efficiency, coherence, EU-added value and sustainability..

Public support should respond to the needs identified in the SWOT analysis and reflected in the MS strategy for the sake of coherence and EU added value, however, this public support should also be focussed to ensure greater effectiveness and efficiency.

6.2.4 Coherence

The evaluation question aims at analysing the coherence of the EFF with other EU funding instruments, EARDF, ESF, ERDF and LIFE. Coherence refers to complementarities, synergies, overlaps and other demarcation issues.

Main findings

MAs and stakeholders (in particular under the case study on measure 3.3 – fishing ports, landing sites and shelters) did not raise any specific issue regarding the coherence of the EFF with other EU structural funds as regards coherence of the objectives or demarcation issues.

Several MS noticed a spill-over effect of the measure 3.3 on tourism, which could be complimentary to ERDF projects.

Some MS mentioned the existence of coordination committees or cross-participation of some of the monitoring committee members between the different funds but this was not systematic. In general the funds were implemented with little coordination. The only real synergies identified occurred with Axis 4 when FLAGs were implemented with the support of existing Local Action Groups under the Leader Programme (EARDF).

There was no coordination between the EFF and the LIFE fund but 53 projects implemented under LIFE between 2007 and 2014 were considered relevant to the EFF objectives. Programmes like LIFE or Horizon 2020 are mainly used by research institutions to fund larger projects than those implemented under the EFF.

Conclusions

The objectives of the EFF Regulation are coherent with the objectives of EU structural funds (ERDF, ESF and EARDF) and other EU funding instruments such as LIFE and demarcation lines are generally clear in the regulations.

Except for Axis 4, the complementarities and synergies with other funds remain limited.

Recommendations

National strategies should address complementarities and synergies with other EU funds including all ESIF, EFSI and other programmes managed by the Commission such as LIFE, COSME or Horizon 2020. They should also establish safeguards to avoid overlaps.

6.2.5 EU added-value

Main findings

The vast majority of MAs and stakeholders consider that the EU intervention is legitimate and necessary.

Based on MAs and stakeholders feedback, the EU added-value mainly comes from the financial leverage and equity of financial support among MS, the improvement of management and monitoring processes, in particular the enforcement of a more strategic and planned approach, the coherence with EU environmental policies and the incentive to orient the investments in a common direction.

Most MAs assess that the total financial allocation would be reduced under a fully national fund.

Conclusions

The added-value of the EU intervention can mainly be perceived in the extent of the reduction in the fleet capacity, the achievements of Axis 4 and the focus of innovation projects and collective actions on issues like fuel efficiency and selectivity, as well as in more transversal issues such as the focus on SMEs and the streamlining of gender and environmental issues.

Recommendations

Public support should respond to the needs identified in the SWOT analysis and reflected in the MS strategy for the sake of coherence and EU added value, however, this public support should also be focussed to ensure greater effectiveness and efficiency.

6.2.6 Sustainability

Main findings

Feedback from MAs show that most MAs consider the achievements of the EFF as likely to last over time, especially when it comes to job creation, improved competitiveness or innovation, assuming however that those achievements are not hindered by external factors in the near future. In some cases, especially for new measures like aqua-environmental measures and Axis 4, long-term achievements are assessed to mainly depend on the continuity of the support in the short-to-medium term.

One of the key environmental achievements of the EFF is the partial re-balancing of fishing capacity with resources. This has contributed to the harvesting of fish resources at a more sustainable level and it has also reduced the wider environmental impacts of fishing.

In relation to other measures, most of the environmental achievements were implemented for efficiency reasons. This applies to fishing (engine replacement), aquaculture and processing (new production techniques). With the win-win of reduced costs as well as reduced environmental impact, there is no logic in returning to previous methods and re-investment would be expected to at least maintain, if not increase the environmental gains made.

Conclusions

The main long-term risk, as regards socio-economic achievements, comes from external factors.

There is a slight risk that the reductions in fleet achieved through EFF may not last. As the national fleet capacity ceilings are no longer limiting, capacity could increase once more. As most fisheries are subject to management controls, there is a low risk of this particular environmental achievement being eroded over time.

Recommendations

The resilience of projects beyond their launching and implementation phases should be a consideration in the evaluation of EU public support, irrespective of the difficulty of introducing a quantifiable indicator.

See a summary of the main findings, conclusions and recommendations by evaluation criteria in Annex 12.

7 References

Cap Gemini (2014) Study on the implementation of Axis 4 of the European Fisheries Fund, Cap Gemini Consulting, Wageningen UR, Ramboll, for DG MARE, 2014

EC (2013) COM (2013) 921 Report from the Commission. 6th Annual Report on the Implementation of the European Fisheries Fund (2012)

EC (2015a) COM (2015) 563. Report From The Commission To The European Parliament And The Council on Member States' efforts during 2013 to achieve a sustainable balance between fishing capacity and fishing opportunities.

EC (2015b) Report from the Commission. 8th Annual Report on the Implementation of the European Fisheries Fund (2014)

EC (2016) CFP Facts and Figures 2016 Edition.

ECA (2014) The effectiveness of European Fisheries Fund support for aquaculture. Publications Office of the European Union, Luxembourg: 69 p. European Court of Auditors (2014)

EMSA (2014) Annual overview of marine casualties and incidents, 2014

EP (2014) Inland Fisheries and the Common Fisheries Policy. Stephanie Newman report to the European Parliament Fisheries Committee. January, 2014.

EU intervention in inland fisheries (2010), Ernst & Young et al – EU Commission, Framework contract N° FISH/2006/09 (Lot N°3) "Studies linked to the implementation of the European Fisheries Fund".

EUNETMAR (2014) Studies to support the development of sea basin cooperation in the Mediterranean, Adriatic and Ionian, and Black Sea – Country fiche: Bulgaria. Report 1 – annex 2.3A. Studies funded by the European Commission. 40 p. URL: https://webgate.ec.europa.eu/maritimeforum/sites/maritimeforum/files/Bulgaria_cf.pdf (accessed on: 16 July 2016).

Ernst & Young et al (2008) Etude des performances économiques et de la compétitivité de l'aquaculture de l'Union Européenne - Etude 3 dans le cadre du contrat cadre Lot 3 – études relatives à la mise en œuvre du FEP, pour la Commission Européenne

Ernst & Young et al (2011) Interim evaluation of the European Fisheries Fund (2007-2013), for the EU Commission (February 2011)

Ernst & Young et al (2011) Interim evaluation of the European Fisheries Fund (2007-2013) – Synthesis of the 26 National Reports, for the EU Commission (October 2011)

Eurostat (2016): Fishing fleet statistics: http://ec.europa.eu/eurostat/statistics-explained/index.php/Fishery_statistics

FAO (2010) Commercial inland fishing in member countries of the European Inland Fisheries Advisory Commission (EIFAC): Operational environments, property rights regimes and socio-economic indicators. Country Profiles. May 2010. Mitchell, M., Vanberg, J. & Sipponen, M. EIFAC Ad Hoc Working Party on Socio-Economic Aspects of Inland Fisheries

Kraak, et al (2013) Lessons for fisheries management from the EU cod recovery plan. Sarah B. M. Kraak, Nick Bailey, Massimiliano Cardinale, Chris Darby, José A. A. De Oliveira, Margit Eero, Norman Graham, Steven Holmes, Tore Jakobsen, Alexander Kempf, Eskild Kirkegaard, John Powell, Robert D. Scott, E. John Simmonds, Clara Ulrich, Willy Vanhee, Morten Vinther. Mar Pol 37: 200-2013. http://oar.marine.ie/bitstream/10793/793/1/Kraak%20et%20al%202012-Lessons%20from%20EU%20cod%20recovery%20plan.pdf

Metis GmbH et al (2010) Ex-post evaluation of LEADER +, for the European Commission

MRAG et al. (2013) Retrospective Evaluation Of Scrapping And Temporary Cessation Measures In The EFF. Final Report October 2013.

Slovak Republic (2013) National Strategic Plan for the development of aquaculture in the Slovak Republic for 2014–2020. 33 p.

STECF (2011) The 2011 Annual Economic Report on the EU Fishing Fleet (STECF-11-16) Scientific, Technical and Economic Committee for Fisheries (STECF) JRC 67866. EUR 25106 EN. ISBN 978-92-79-22326-6

STECF (2012) Economic Performance of the EU Aquaculture Sector (STECF-OWP-12-03). Publications Office of the European Union, Luxembourg, EUR 25285 EN, JRC 70424, 340 p.

STECF (2014a) The economic performance of the EU aquaculture sector (STECF14-18). Publications Office of the European Union, Luxembourg, EUR 27033 EN, JRC 93169, 451 p.

STECF (2014b) Scientific, Technical and Economic Committee for Fisheries (STECF) – The Economic Performance Report on the EU Fish Processing (STECF-14-21). 2014. Publications Office of the European Union, Luxembourg, EUR 27029 EN, JRC 93340, 355 pp.

STECF (2015a) Scientific, Technical and Economic Committee for Fisheries (STECF) – Assessment of balance indicators for key fleet segments and review of national reports on Member States efforts to achieve balance between fleet capacity and fishing opportunities (STECF-15-02). 2015. Publications Office of the European Union, Luxembourg, EUR 27134 EN, JRC 94933, 147 pp.

STECF (2015b) Scientific, Technical and Economic Committee for Fisheries (STECF) – Assessment of balance indicators for key fleet segments and review of national reports on Member States efforts to achieve balance between fleet capacity and fishing opportunities (STECF-15-15). 2015. Publications Office of the European Union, Luxembourg, EUR 27555 EN, JRC 97991, 160 pp.

STECF (2015c) Scientific, Technical and Economic Committee for Fisheries (STECF) – The 2015 Annual Economic Report on the EU Fishing Fleet (STECF-15-07). 2015. Publications Office of the European Union, Luxembourg, EUR 27428 EN, JRC 97371, 434 pp.

KL-01-17-039-EN-N

ISBN:978-92-79-65193-9
doi:10.2771/798734