SEAFISH

Economics and Social Science

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This session:

- Economic data for fisheries management
- Data collection – how we do it
- Outputs – evidence bases – what they mean
- Bespoke analyses, Economic Impact Assessments
- Economic advice in fisheries management
- Economic principles in fisheries management

- Current data collection practices
- DCF – EU Data Collection Framework
- MMO / Marine Scotland / IFISH
- Seafish data collection
  - Review and discuss Seafish survey form for economic data

Interviewer: Date:

Location:

SEAFISH
the authority on seafood

Fishing Vessel Accounts Permission Form

Industry organisations, RACs and fisheries departments need accurate information on fleet economics to contribute to better fisheries management and be able to assess the impact of management measures on the fishing fleet.

To provide this essential information, Seafish conducts surveys to report on the financial performance of all major segments of the UK fishing fleet.

So that we get enough accurate information, it would help if you supply your year-end accounts. In return, we can offer a personal benchmark report for your vessel.

Your information will be used **anonymously**, for Seafish reports and in contribution to fisheries economics working groups in Europe and the UK. We will only ever publish averages and other aggregated figures and **no individual vessel will be identified in any of our outputs.**

Seafish is not a regulatory body and the purpose of this survey is not to record illegal activity, however as an arm's length government body, we are required to pass any notice of illegal activity to the relevant bodies.

VESSEL AND OWNER DETAILS

Vessel Name: _____ Vessel PLN: _____ Vessel Length: _____

Vessel Owner Name (print): _____

Vessel Skipper Name (print): _____

Tel no. of vessel owner: _____ E-mail of vessel owner: _____

FUEL CONSUMPTION – we want to estimate litres of fuel per day at sea for your vessel

1. How much fuel do you use per day? _____ litres/gallons

2. How many trips (a *trip = one landing*) did your vessel make in 2015? _____

3. How many days at sea was your **average** trip? _____

CREW – we want to estimate the number of full time equivalent jobs on board your vessel

4. How many on-board jobs, including skipper, did your vessel support in 2015? _____

4a. Full Time (over 37 hours per week) _____ **4b.** Part time _____

5. Did you employ any foreign crew in 2015? Yes / No **5a.** If Yes, how many? _____

5b. Which countries did any foreign crew come from? _____

6. How many workers, including skipper, were on board per trip? _____

7. On **average**, how many hours per day did each crew member work? _____

VESSEL – we want to estimate the capital value of the UK fleet, starting with your vessel

8. What year did you purchase this vessel? _____ **8a.** How much did you pay for the vessel? £_____

9. Was the vessel new or second hand when you purchased it? New / Second hand

10. What is the insured / balance sheet value of your vessel? £_____

11. Did you make any investment in your vessel in 2015, e.g. New engine, bulbous bow, etc.? Yes / No

12. What did you buy? _____ **12a.** How much did you spend? £_____

QUOTA & FISHING RIGHTS

13. Please estimate the value of your quota units at the end of 2015 £_____

14. Please estimate the value of your vessel licence (inc. entitlements) £_____

GENERAL

15. Currently, what are the major factors affecting the financial performance of your fishing business?

16. What are your expectations/ambitions for your fishing business over the next few years?

17. Did your vessel take part in any income generating activities other than fishing in 2015? If yes, what?

Some of the data for this survey is gathered from financial year end accounts.

All information obtained will be treated in strict confidence in line with Seafish policy.

*I am the vessel owner and I hereby give permission for Seafish to obtain from my accountant my complete financial accounts for **2015/2016** and the next three financial years (until **2018/2019**).*

Signature: _____ **Print Name:** _____

OR

*I am the vessel owner and I hereby give permission for Seafish to obtain from my accountant my complete financial accounts for **2015/2016**.*

Signature: _____ **Print Name:** _____

ACCOUNTANT CONTACT DETAILS:

Name of Accountancy firm: _____ Contact name: _____

Accountant Address: Accountant Tel: _____

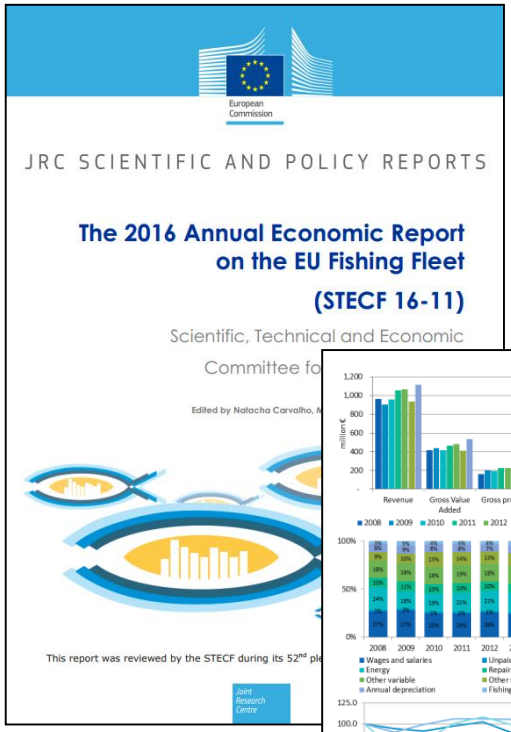
Accountant Email: _____

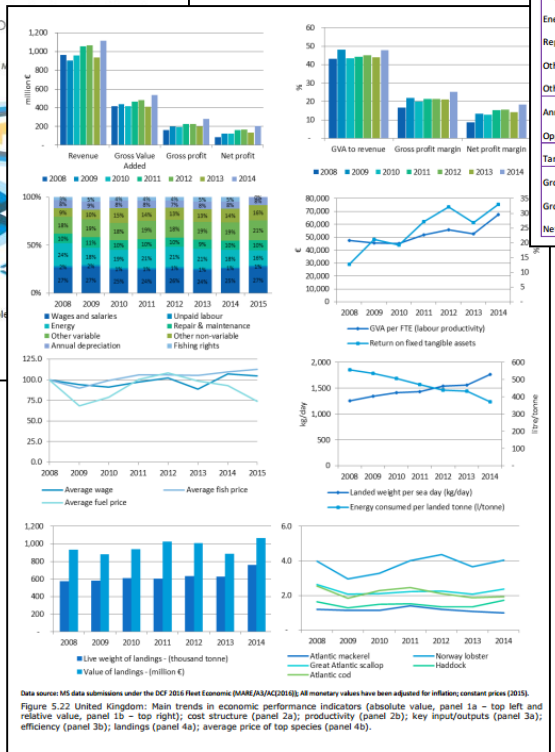
Would you like to receive the following?	To receive these outputs, please provide **full postal address**:
Personal vessel benchmark report: ☐	
2015 Economic report (email): ☐	
Quay Issues Magazine: ☐	

Animated film, followed by questions.

[Link to film]

• STECF Annual Economic Report





Data source: MS data submissions under the DCF 2016 Fleet Economic (MARE/A3/AC(2016)); All monetary values have been adjusted for inflation; constant prices (2015).

Figure 5.22 United Kingdom: Main trends in economic performance indicators (absolute value, panel 1a – top left and relative value, panel 1b – top right); cost structure (panel 2a); productivity (panel 2b); key input/outputs (panel 3a); efficiency (panel 3b); landings (panel 4a); average price of top species (panel 4b).

Table 5.100 United Kingdom: National fleet statistics and economic performance results based on fleet segment level data.

Data source: MS data submissions under the DCF 2016 Fleet Economic (MARE/A3/AC(2016)); All monetary values have been adjusted for inflation; constant prices (2015). Data for 2015 and 2016 are projected.

Variable / indictor	unit	2008	2009	2010	2011	2012	2013	2014	2015	2016	Trend	Δ2015 to 2014	Δ2016 to 2015
Total number of vessels	(#)	4899	4838	4774	4798	4762	4630	4565	4,536	4,509		-1%	-1%
Total employed	(person)	12614.01	12212.03	12703.01	12405.02	12445.01	12235	11845	11,850	11,756		0%	-1%
FTE	(#)	8,698	9,535	9,244	8,978	8,593	7,800	7,909	7,777	7,440		-2%	-4%
Days at sea	(day)	456,154	433,348	429,174	419,974	411,610	401,325	428,001	425,347	389,067		-1%	-9%
Energy consumption	(thousand litres)	319,771	313,370	308,895	285,094	278,419	271,552	281,356	272,298	268,536		-3%	-1%
Live weight of landings	(tonne)	575,003	582,817	608,441	603,743	634,405	628,468	758,848	705,714	750,234		-7%	6%
Value of landings	(thousand €)	932,749	880,252	938,736	1,026,755	1,010,594	887,847	1,068,817	1,008,330	962,581		-6%	-5%
Income from landings	(thousand €)	930,622	879,400	938,975	1,028,819	1,022,904	893,056	1,076,709	1,015,864	970,464		-6%	-4%
Other income	(thousand €)	30,755	23,554	20,102	26,889	41,952	44,052	41,282	41,244	40,675		0%	-1%
Wages and salaries of crew	(thousand €)	239,648	223,401	213,342	229,342	240,468	203,656	242,053	237,780	230,512		-2%	-3%
Unpaid labour value	(thousand €)	14,871	13,964	12,355	12,808	12,731	10,216	11,644	11,227	11,184		-4%	0%
Energy costs	(thousand €)	214,635	143,616	163,085	192,595	201,977	179,093	175,909	134,670	97,315		-23%	-28%
Repair & maintenance costs	(thousand €)	90,758	90,243	90,467	93,471	89,525	77,254	90,815	83,138	81,911		-8%	-1%
Other variable costs	(thousand €)	158,210	151,641	155,875	175,304	173,069	160,043	179,069	168,376	174,522		-6%	4%
Other non-variable costs	(thousand €)	82,910	82,460	133,211	127,203	119,263	109,222	136,825	114,552	115,289		-16%	1%
Annual depreciation costs	(thousand €)	72,154	69,207	67,793	71,924	68,834	67,153	72,990	66,725	66,394		-9%	0%
Opportunity cost of capital	(thousand €)	5,467	6,260	353	- 7,970	- 4,576	- 2,523	3,707	8,365	8,420		126%	1%
Tangible asset value (replacement)	(thousand €)	628,398	549,149	588,894	510,869	444,282	450,543	588,399	469,050	472,163		-20%	1%
Gross Value Added	(thousand €)	414,863	434,993	416,439	467,136	481,022	411,495	535,373	556,373	542,102		4%	-3%
Gross profit	(thousand €)	160,344	197,628	190,743	224,985	227,823	197,623	281,676	307,365	300,406		9%	-2%
Net profit	(thousand €)	82,723	122,161	122,596	161,031	163,565	132,992	204,980	232,276	225,592		13%	-3%

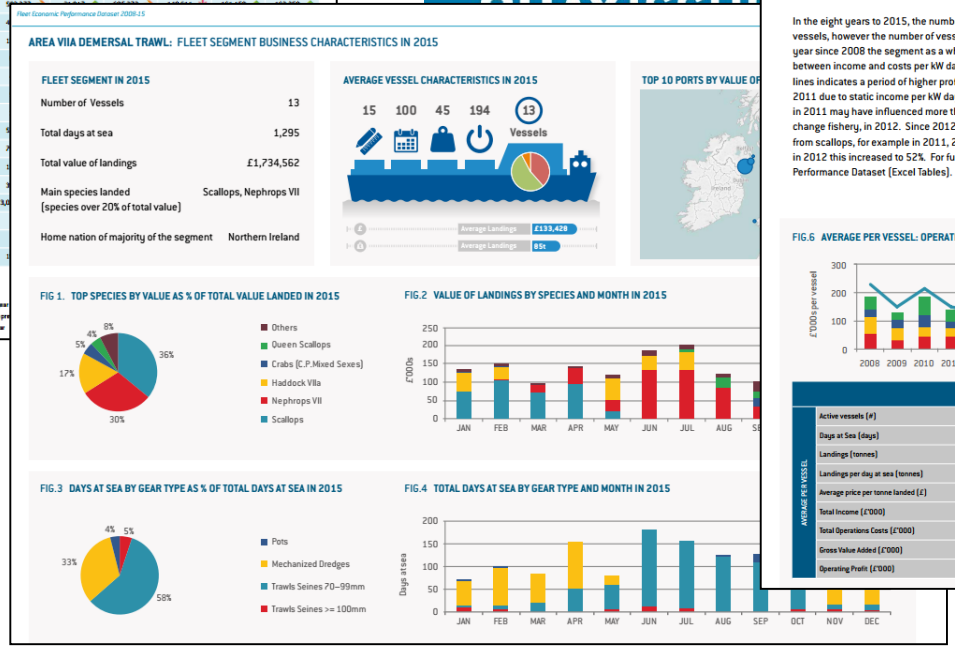
- Seafish time series
- Seafish single year report

DATA TABLES

TABLE 10: 2014 SEGMENT AVERAGES

SEGMENT	ACTIVE VESSELS	FISHING INCOME	NON-FISHING INCOME	TOTAL INCOME	FUEL COSTS	CREW SHARE COSTS	OTHER FISHING COSTS
Area VIIA demersal trawl	9	190,099	0	190,331	39,368	31,494	48,050
Area VIIA nephrops over 250kW	38	253,440	3	253,443	60,124	58,892	30,475
Area VIIA nephrops under 250kW	44	127,825	642	128,468	21,848	45,341	19,507
Area VIIBCDEFGHK 24-40m	12	1,765,645	4,989	1,770,633	354,900	381,745	631,830
Area VIIBCDEFGHK trawlers 10-24m	65	238,631	2,370	241,001	37,123	48,821	66,817
North Sea beam trawl over 300kW	11	1,585,516	4,851	1,592,084	732,831	228,383	419,190
North Sea beam trawl under 300kW	20	64,276	3,084	67,360	59,680	9,697	30,338
North Sea nephrops over 300kW	59	548,140	23,097	580,490	147,145	123,163	115,168
North Sea nephrops under 300kW	70	172,310	11,611	183,921	44,571	29,823	38,510
NSWDS demersal over 24m	37	1,699,942	89,080	1,797,180	406,821	389,556	465,362
NSWDS demersal pair trawl seine	29	1,199,814	166,531	1,367,575	118,039	267,680	436,674
NSWDS demersal seiners	18	1,034,227	57,727	1,116,826	101,577	281,466	266,224
NSWDS demersal under 24m over 300kW	36	808,022	27,209	842,772	164,935	165,010	204,016
NSWDS demersal under 24m under 300kW	15	205,011	16,487	223,206	36,312	51,703	52,724
WDS nephrops over 250kW	41	340,095	23,925	364,346	73,761	88,795	53,937
WDS nephrops under 250kW	91	166,849	15,876	182,725	32,655	47,407	21,300
South West beamers over 250kW	20	677,113	54,417	731,530	277,714	169,354	77,166
South West beamers under 250kW	23						
UK scallop dredge over 15m	100						
UK scallop dredge under 15m	189						
Under 10m demersal trawl/seine	202						
Under 10m drift and/or fixed nets	254						
Under 10m pots and traps	1,043						
Under 10m using hooks	149						
Gill netters	38						
Longliners	29						
Pots and traps 10-12m	166						
Pots and traps over 12m	92						
Miscellaneous	10						
Low activity over 10m	56						
Low activity under 10m	1,569						
Total active fleet	4,565						

Indicates an decrease of <-5% compared to previous year
Indicates a change in the range of +/-5% compared to previous year
Indicates an increase of >5% compared to previous year



AREA VIIA DEMERSAL TRAWL: FLEET SEGMENT BUSINESS CHARACTERISTICS IN 2015

FLEET SEGMENT IN 2015

Number of Vessels	13
Total days at sea	1,295
Total value of landings	£1,734,562
Main species landed (species over 20% of total value)	Scallops, Nephrops VII
Home nation of majority of the segment	Northern Ireland

AVERAGE VESSEL CHARACTERISTICS IN 2015

15 100 45 194 13 Vessels

Average Landings £133,428
Average Landings 85t

TOP 10 PORTS BY VALUE OF

FIG 1. TOP SPECIES BY VALUE AS % OF TOTAL VALUE LANDED IN 2015

8% 4% 5% 36% 17% 30%

Others
Queen Scallops
Crabs (C.P.Mixed Sexes)
Haddock VIIa
Nephrops VII
Scallops

FIG.2 VALUE OF LANDINGS BY SPECIES AND MONTH IN 2015

£'000s

JAN FEB MAR APR MAY JUN JUL AUG

FIG.3 DAYS AT SEA BY GEAR TYPE AS % OF TOTAL DAYS AT SEA IN 2015

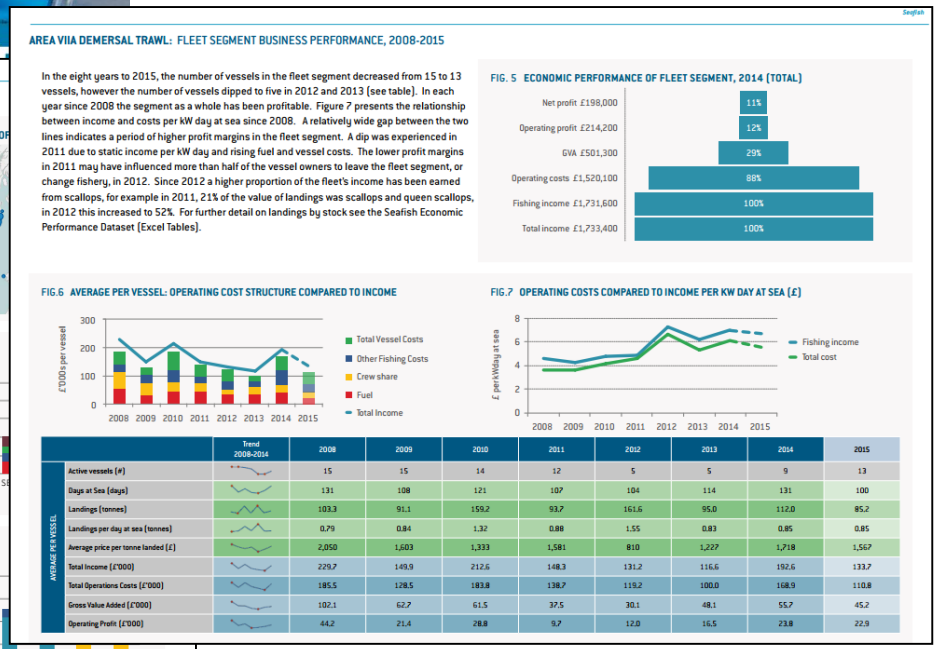
4% 5% 33% 58%

Pots
Mechanized Dredges
Trawls Seines 70–99mm
Trawls Seines >= 100mm

FIG.4 TOTAL DAYS AT SEA BY GEAR TYPE AND MONTH IN 2015

Days at sea

JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC



AREA VIIA DEMERSAL TRAWL: FLEET SEGMENT BUSINESS PERFORMANCE, 2008-2015

In the eight years to 2015, the number of vessels in the fleet segment decreased from 15 to 13 vessels, however the number of vessels dipped to five in 2012 and 2013 (see table). In each year since 2008 the segment as a whole has been profitable. Figure 7 presents the relationship between income and costs per kW day at sea since 2008. A relatively wide gap between the two lines indicates a period of higher profit margins in the fleet segment. A dip was experienced in 2011 due to static income per kW day and rising fuel and vessel costs. The lower profit margins in 2011 may have influenced more than half of the vessel owners to leave the fleet segment, or change fishery, in 2012. Since 2012 a higher proportion of the fleet's income has been earned from scallops, for example in 2011, 21% of the value of landings was scallops and queen scallops, in 2012 this increased to 52%. For further detail on landings by stock see the Seafish Economic Performance Dataset (Excel Tables).

FIG. 5 ECONOMIC PERFORMANCE OF FLEET SEGMENT, 2014 (TOTAL)

Net profit	£198,000	11%
Operating profit	£214,200	12%
GVA	£501,300	29%
Operating costs	£1,520,100	88%
Fishing income	£1,731,600	100%
Total income	£1,733,400	100%

FIG.6 AVERAGE PER VESSEL: OPERATING COST STRUCTURE COMPARED TO INCOME

£'000s per vessel

2008 2009 2010 2011 2012 2013 2014 2015

Total Vessel Costs
Other Fishing Costs
Crew share
Fuel
Total Income

FIG.7 OPERATING COSTS COMPARED TO INCOME PER KW DAY AT SEA (£)

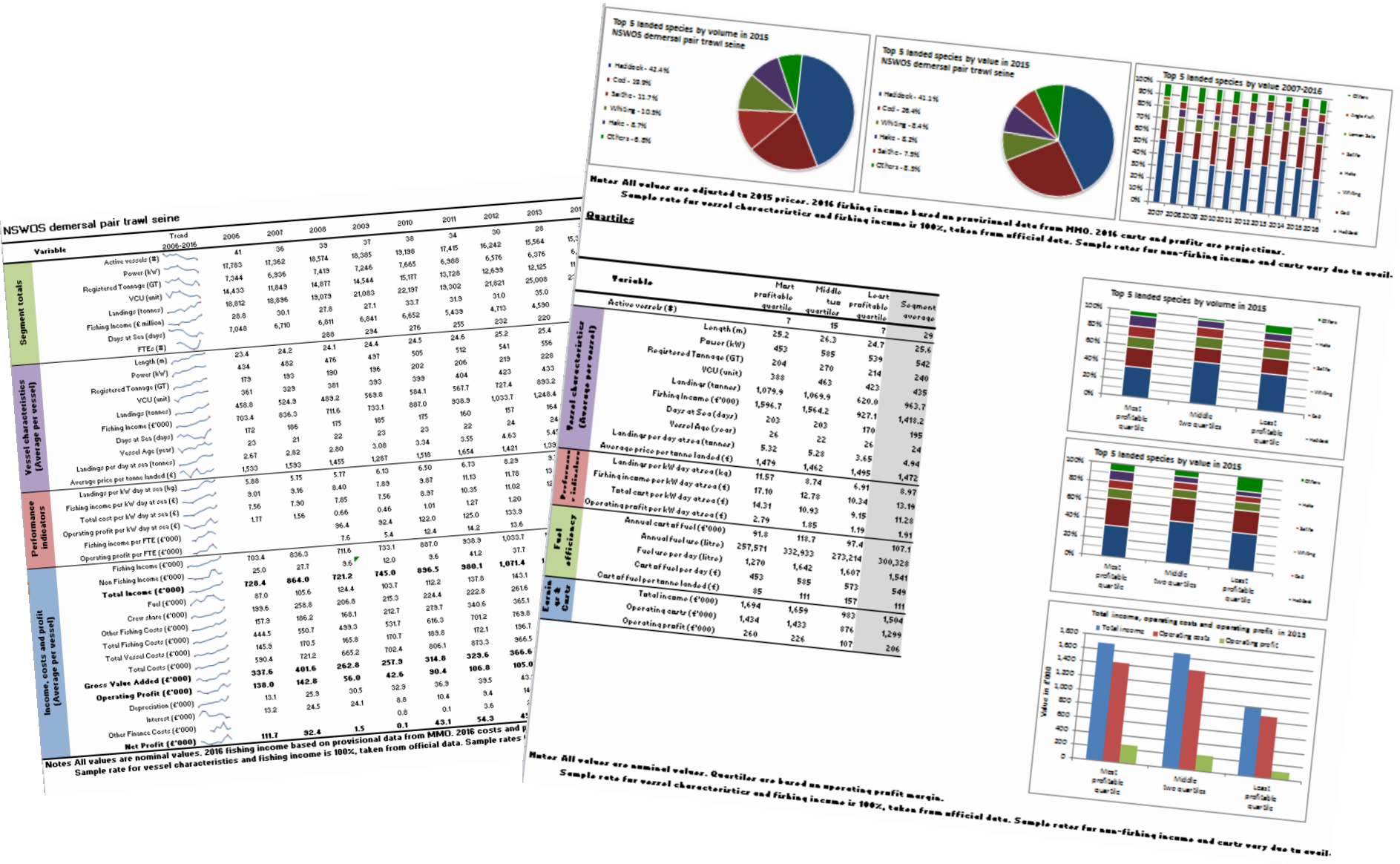
£ per kWday at sea

2008 2009 2010 2011 2012 2013 2014 2015

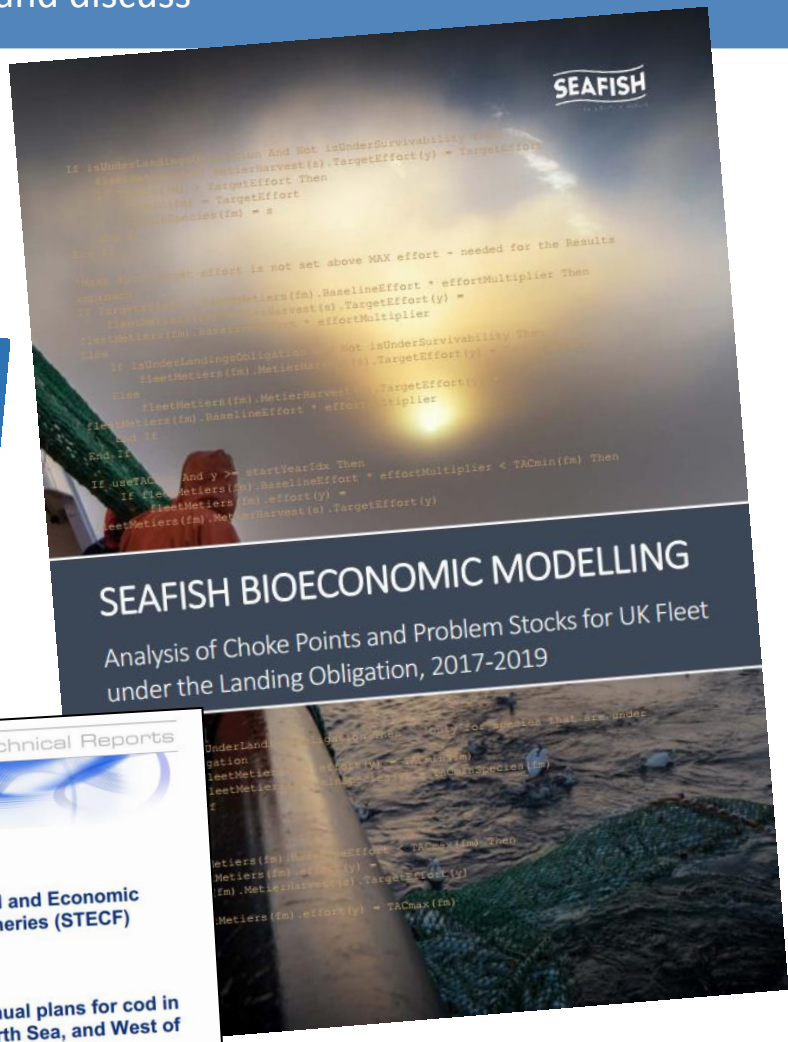
Fishing income
Total cost

AVERAGE PER VESSEL	Trend 2008-2014	2008	2009	2010	2011	2012	2013	2014	2015
Active vessels (#)		15	15	14	12	5	5	9	13
Days at Sea (days)		131	108	121	107	104	114	131	100
Landings (tonnes)		103.3	91.1	159.2	93.7	161.6	95.0	112.0	85.2
Landings per day at sea (tonnes)		0.79	0.84	1.32	0.88	1.55	0.83	0.85	0.85
Average price per tonne landed (£)		2,050	1,603	1,333	1,581	810	1,227	1,718	1,567
Total Income (£'000)		229.7	149.9	212.6	148.3	131.2	116.6	192.6	133.7
Total Operations Costs (£'000)		185.5	128.5	183.8	138.7	119.2	100.0	168.9	110.8
Gross Value Added (£'000)		102.1	62.7	61.5	37.5	30.1	48.1	55.7	45.2
Operating Profit (£'000)		44.2	21.4	28.8	9.7	12.0	16.5	23.8	22.9

- # Seafish time series in Excel – let's take a look
- http://www.seafish.org/research-economics/industry-economics/seafish-fleet-economic-performance-data



- Bespoke analyses
- Economic impact assessments



- **How we give advice**
  - STECF
  - Government working groups, projects, meetings
  - Enquiries, presentations, conferences
  - Industry meetings, workshops, discussions
  - Ad-hoc enquiry service
- **Informing decisions**
  - Evidence
  - Expert advice on “how to achieve…”
  - Expert advice on “what would happen if...”
  - Not advising what “should” be done

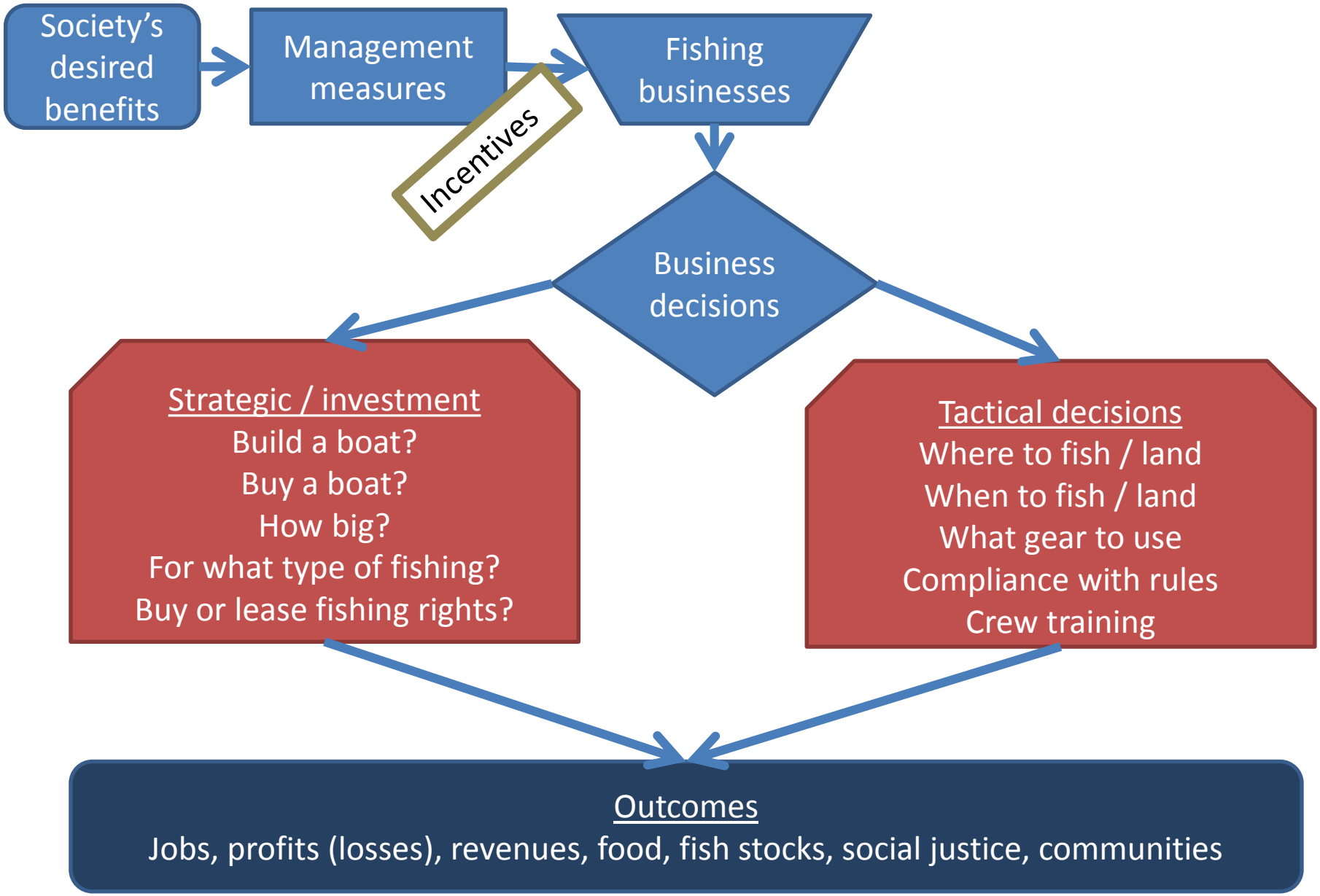
The harvest opportunities are agreed in total. Now…

- How do we make them come true?
- How do we ensure harvesting activities don't have negative side effects on the environment?

*** Ask the audience ***

What are we trying to achieve for society, what does society want from its fish stocks?

- Its own fishing industry? Good jobs.
- Revenues. Could sell our fishing rights to others?
- Food?
- Strong communities?


Society's desired benefits
Management measures
Incentives
Fishing businesses
Business decisions
Strategic / investment
Build a boat?
Buy a boat?
How big?
For what type of fishing?
Buy or lease fishing rights?
Tactical decisions
Where to fish / land
When to fish / land
What gear to use
Compliance with rules
Crew training
Outcomes
Jobs, profits (losses), revenues, food, fish stocks, social justice, communities

Incentives

- Strategic / investment decisions
- Tactical decisions

Game about incentives

Recap of today's session:

- Economic data for fisheries management
- Data collection – how we do it
- Outputs – evidence bases – what they mean
- Bespoke analyses, Economic Impact Assessments
- Economic advice in fisheries management
- Economic principles in fisheries management

SEAFISH

Thank you

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