

Economic performance of UK scalloping fleet: did new effort restrictions cause a downturn in profits?

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Why we did it?

Request from Scallop Industry CG and Government:

Has there been a negative impact on the operating profit of scallop fishing fleet following implementation of management measures?

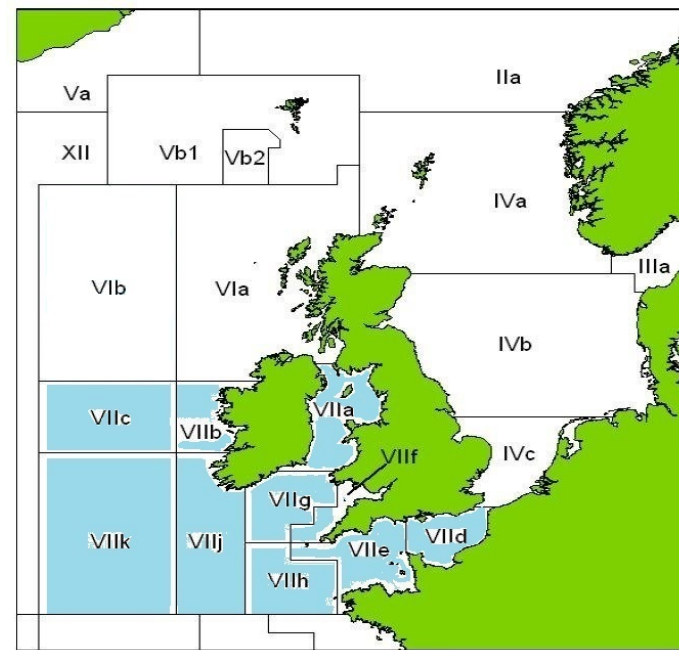
Data sources

Fishing data (trip level) for all vessels landed king scallops (SCE) caught in the Area VII in 2008-2015 from MMO.

Economic data collected by Seafish and estimated for all UK active vessels by fleet segment.

Scallop fisheries management

- Scallop fishery in UK is managed by licenses. 25% of UK fleet, or 309 vessel >10m in 2016 were holding the licence.
- No direct input/output management till 2012 when effort limitation been introduced in the Western Waters (WW), ICES Area VII;
- The management regime is applies to vessels >15 m, targeting king scallops (SCE);



	2012	2013	2014	2015
DAS allocation	166	150	199	221

Profit = revenue - costs



Revenues (fishing)

- Volume of landings
- Prices

- Stock density
- Vessel operations

- Quantity supplied
- Quantity demanded
- Species composition

- Mother nature (non-human factors)
- Areas fished
- Recent fishing effort
- Other human activity

- Days at sea
- Hours per day towing
- Number of dredges



Costs

Fishing costs (fuel, crew)

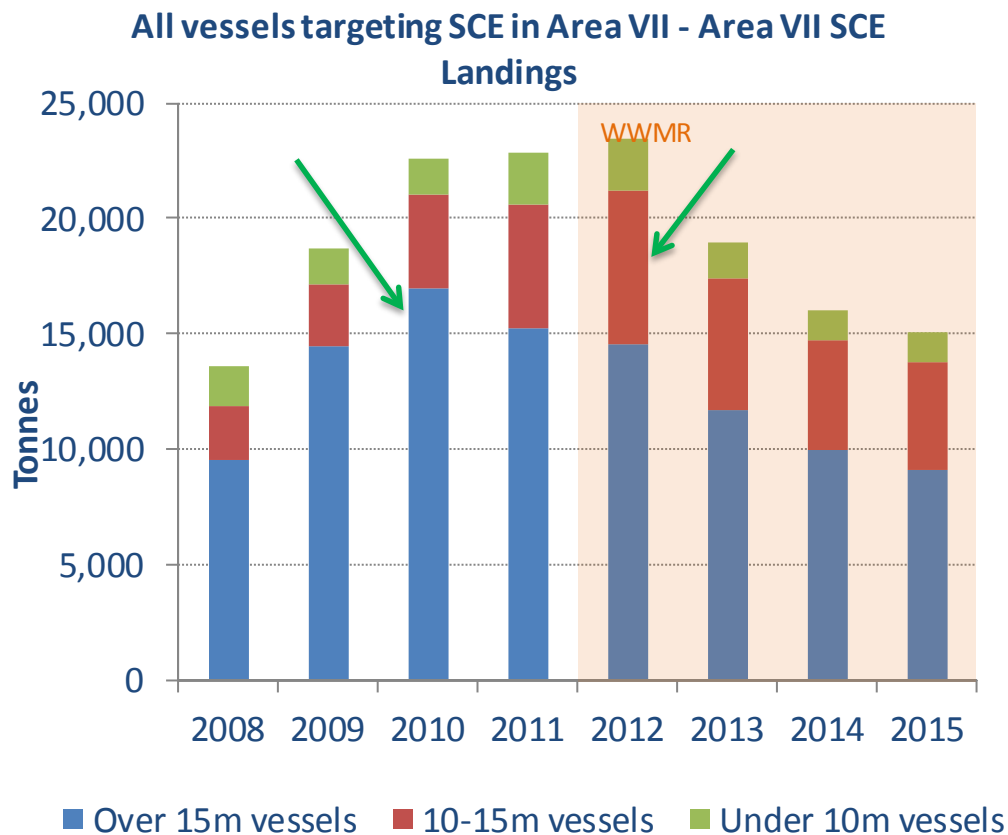
Vessel costs (repair & maintenance, gear)

- Days at sea
- Hours per day towing
- Number of dredges



Operating profit

Weight of landings

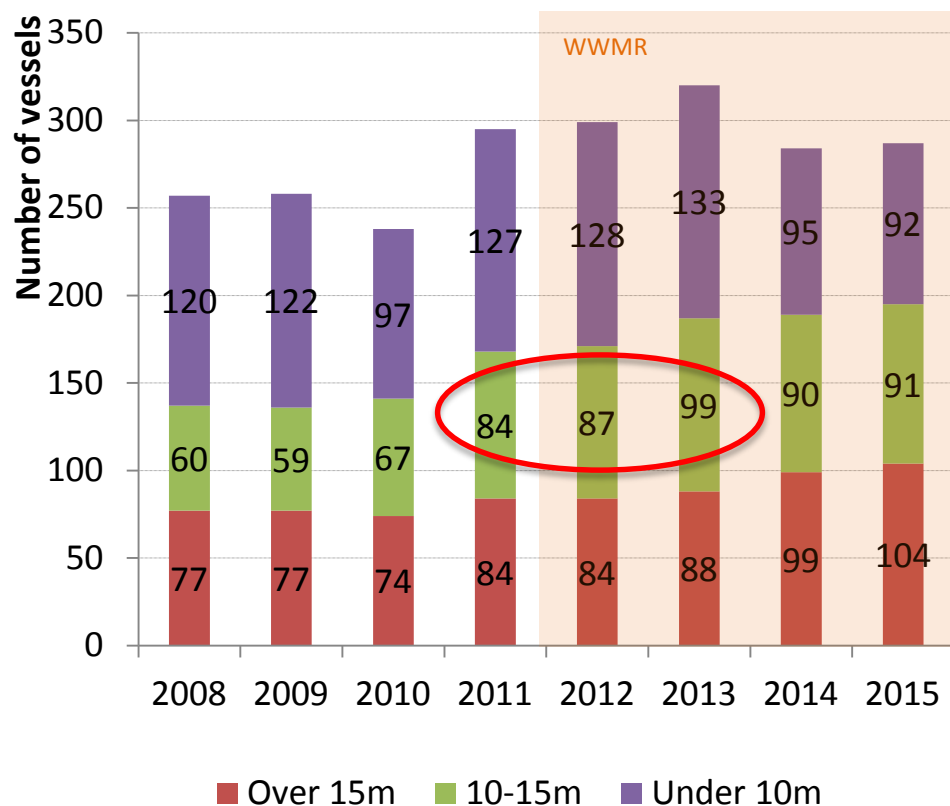


Increasing weight of king scallops (SCE) landings in Area VII driven by vessels >15 m till 2010

and < 15 m vessels, especially in 2012, when management regime was introduced.

Gradual reduction of landings after introduction of overall weight of king scallop landings after introduction of the management regime

Fishing capacity: number of vessels

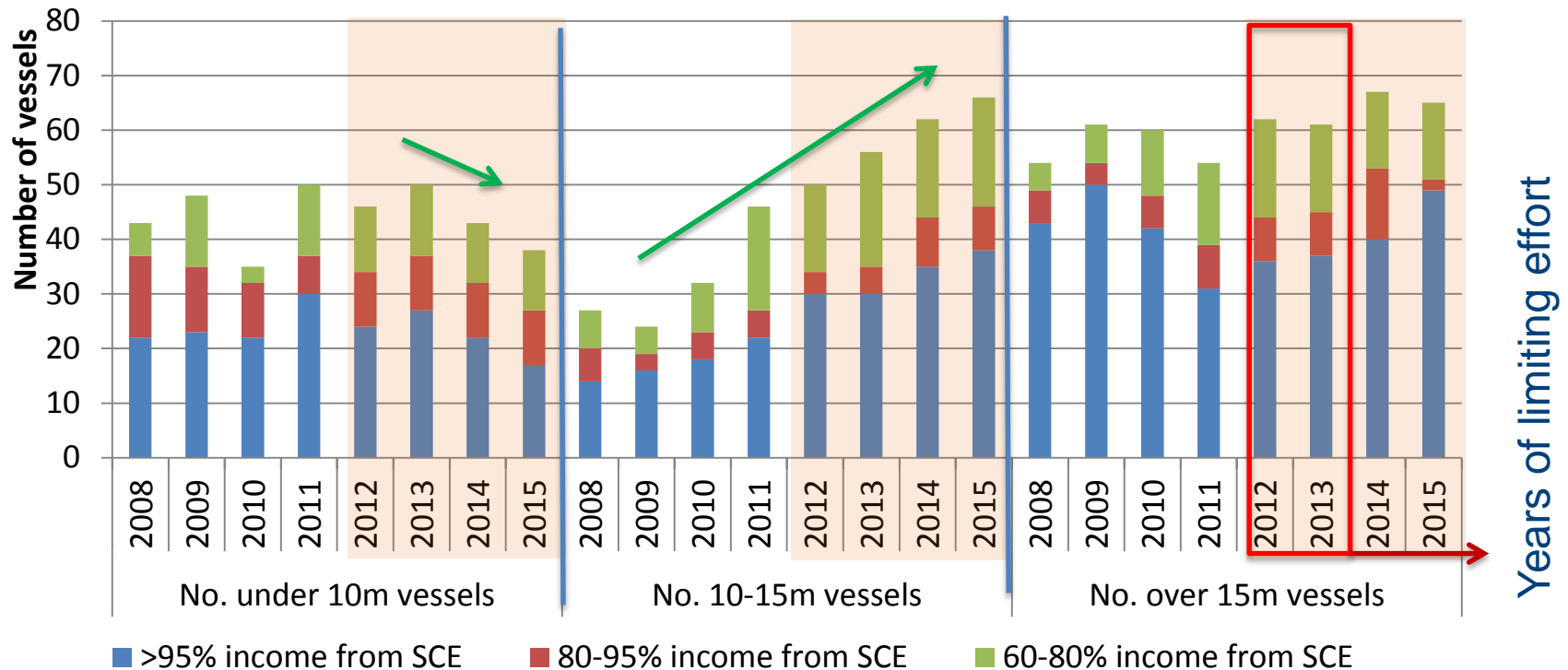


Significant increase of vessels 10-15 m length in 2010-12

Growing overall capacity of vessels >10 m involved in fishery.

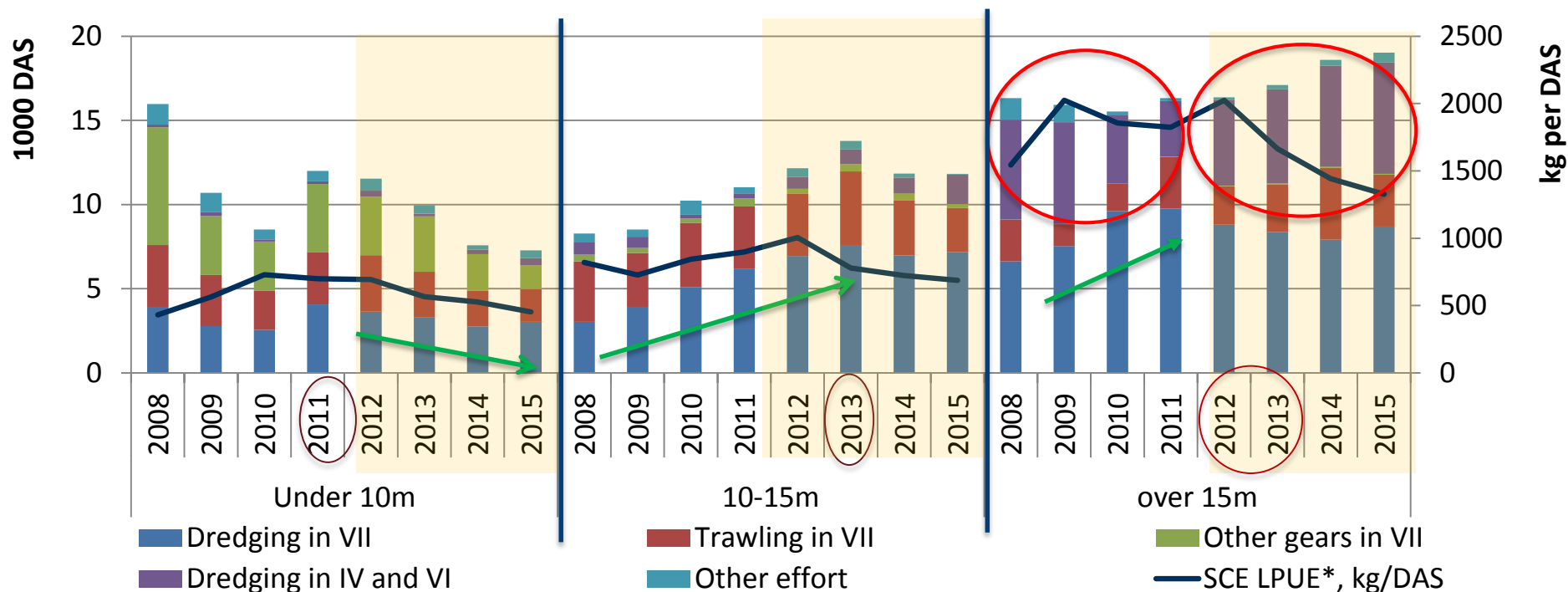
No clear trend in vessels <10 m group.

Fishing capacity: king scallop fishery economically dependent vessels



Adaptation of the fleet by increasing capacity of vessels 10-15 m within the groups of economically dependent vessels.

Fishing effort



Under 10m: decline of dredging effort in Area VII since 2011

10-15m: 2.5 times increased dredging effort in Area VII from 2008 to 2013

>15 m dredging in other areas, especially in 2012-13 when effort was limiting factor

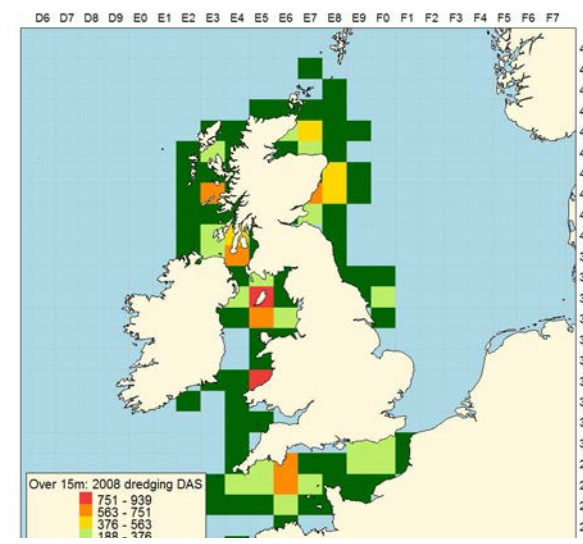
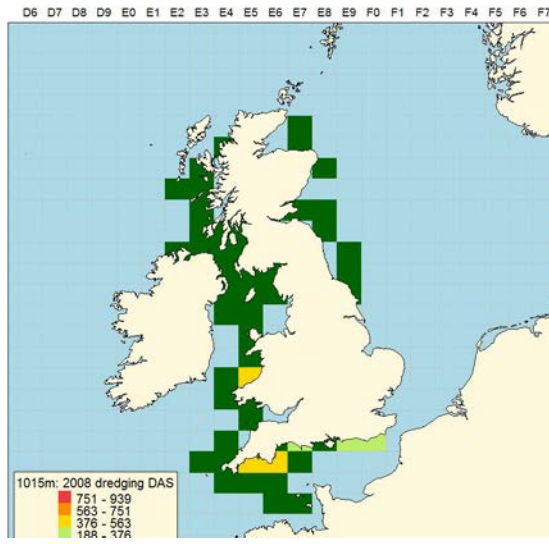
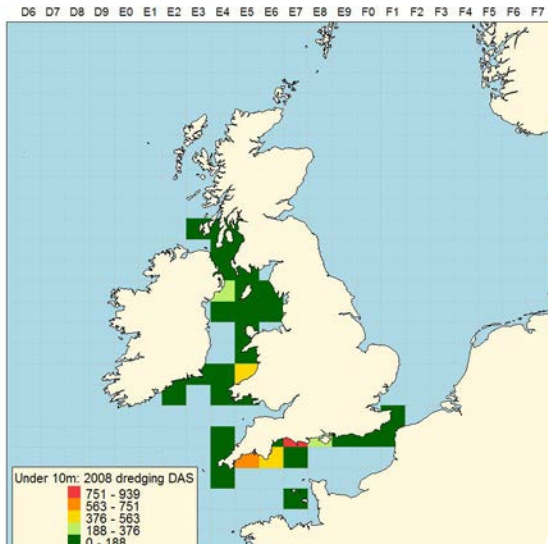
Fishing areas: spatial distribution

Under 10m, 2008-2015

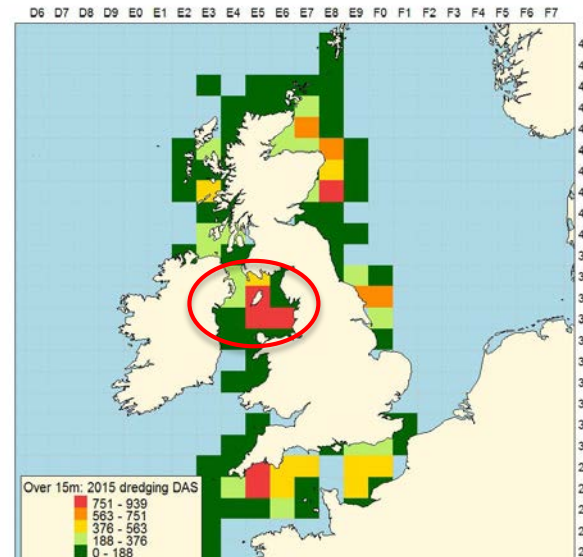
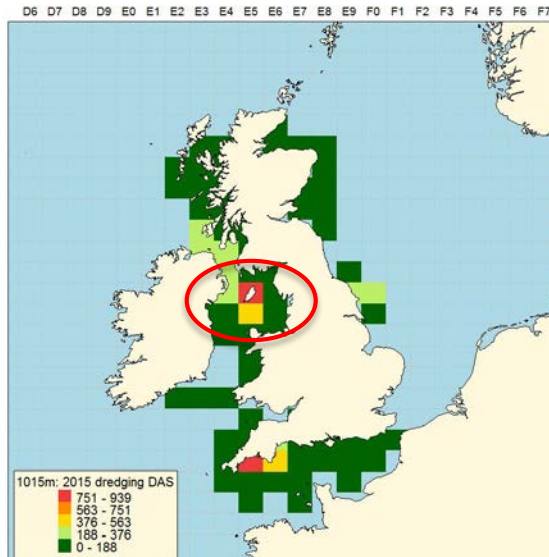
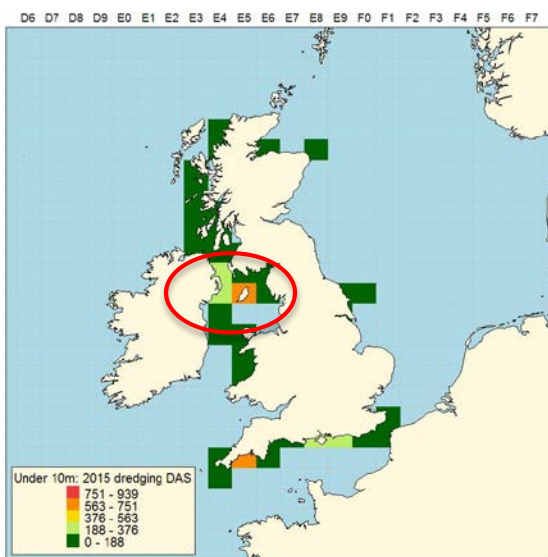
10-15m, 2008-2015

Over 15m, 2008-2015

2008

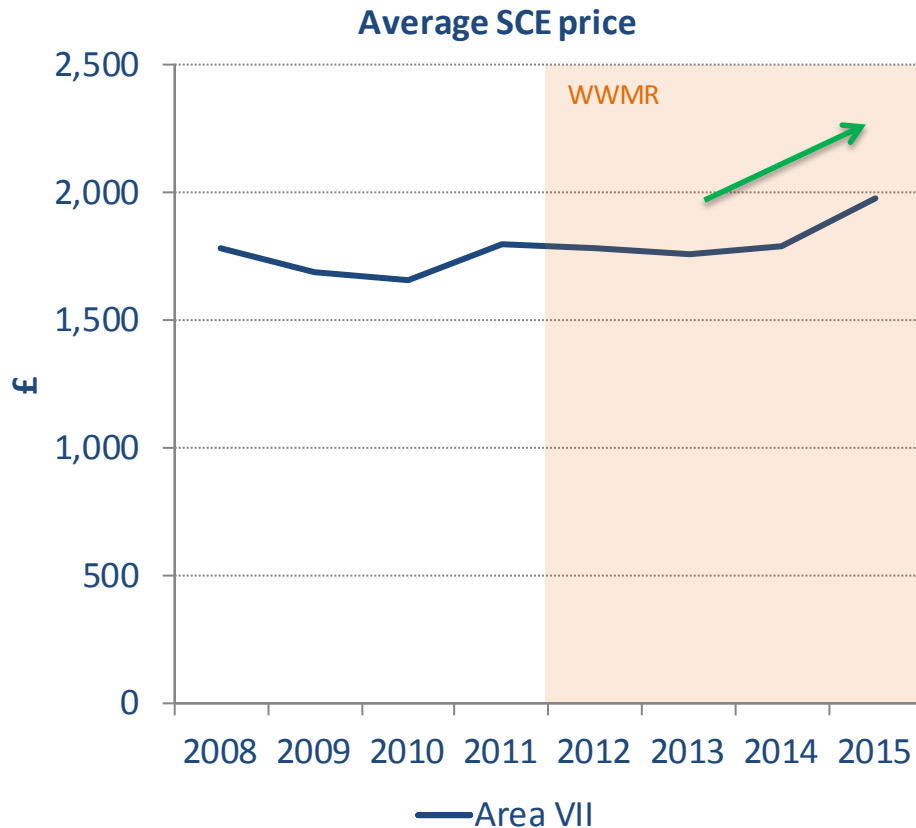


2015



Average price

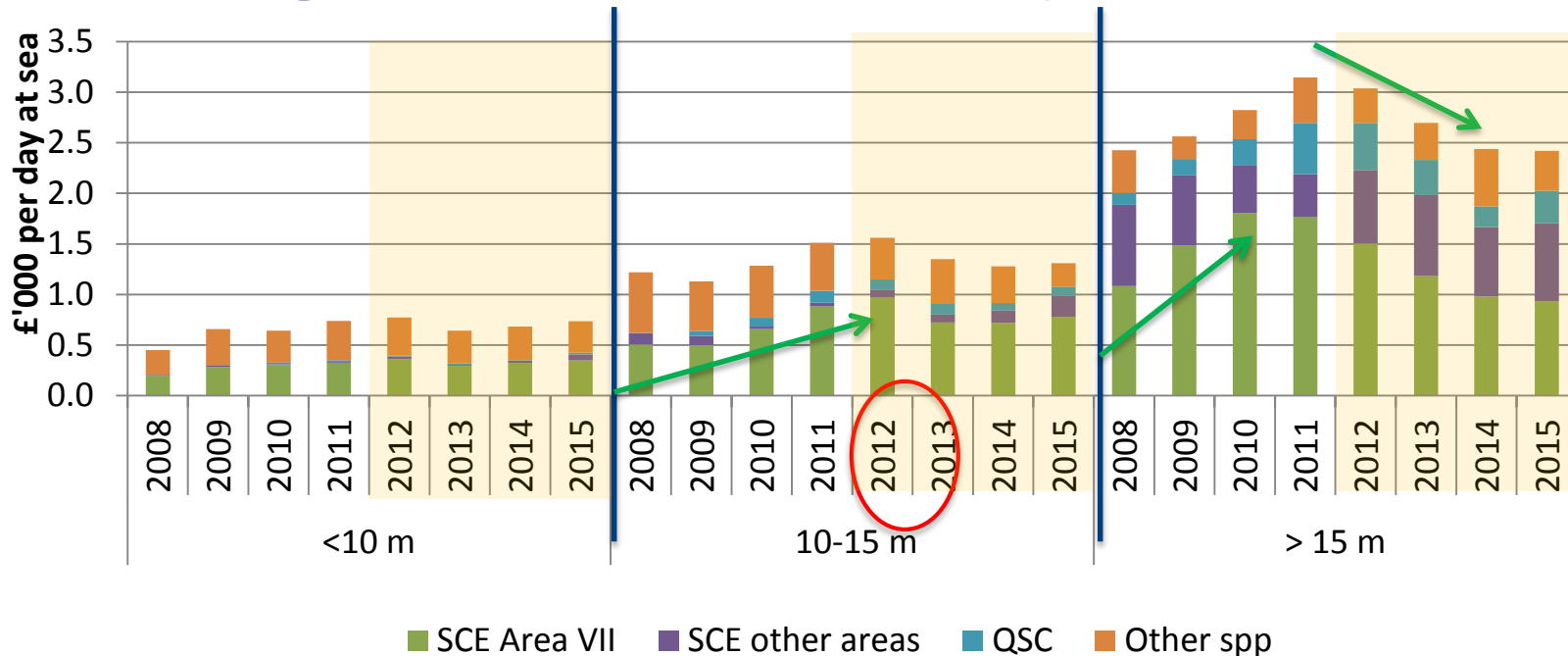
* adjusted to 2015 prices



Average Area VII king scallop price stable in recent years around £1,800 per tonne

Increased price in 2015

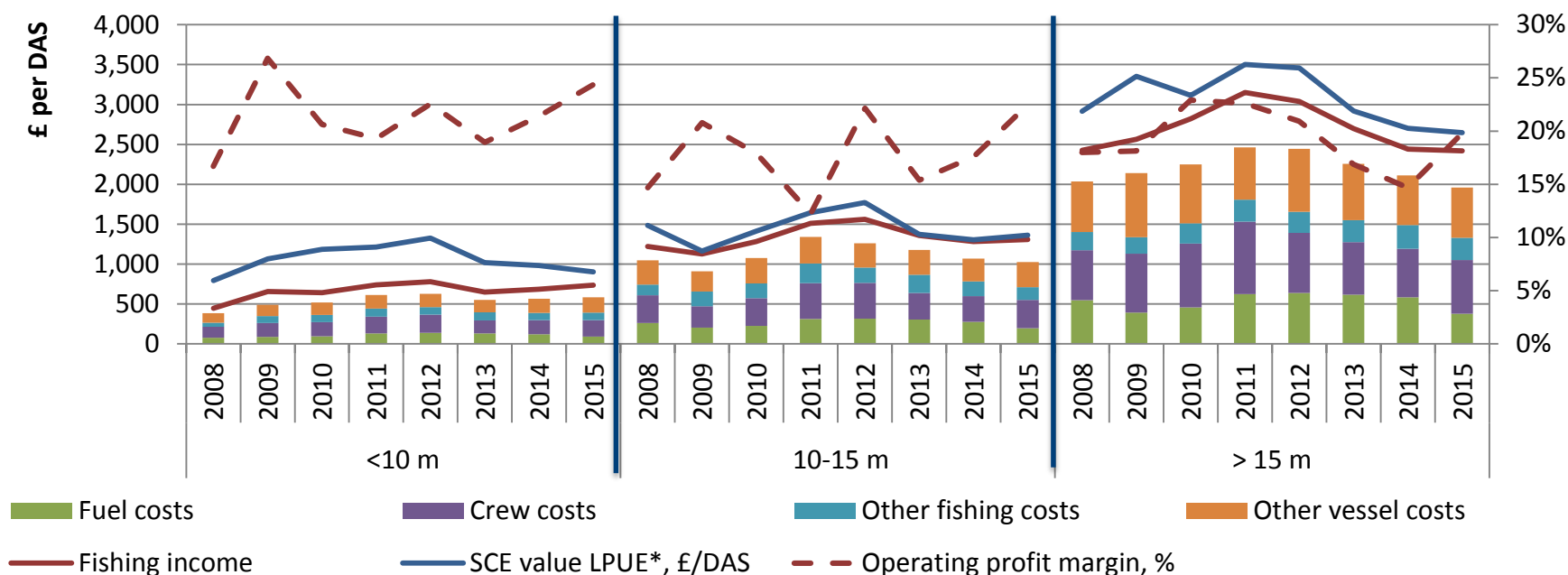
Average revenue per day at sea



Increase of landings of king scallops (SCE) per day at sea in 2008-12 of vessels 10-15 m length and till 2010 in case of >15 m vessels

Decreasing average revenue per day at sea from king scallop fishery in Area VII, have been partly compensated by fishing for the same specie in other areas and queen scallops (QSC), which have lower value, but not regulated.

Economic performance per day at sea



Increase of average fuel costs in 2010-2012/13, followed by reduction in 2014/15;

Crew costs: in UK fishermen are paid through crew shares, therefore evolution of crew costs is following evolution of revenues and don't have major effect on profitability;

Increased profitability 2014/2015 (higher SCE price, >10 m target SCE in other areas)

Summary

- As long as there is part of the fleet in a fishery not restricted by a management rules it tends to increase effort and capacity in unregulated part of it.
- Increase in dredging fishing effort in 2008-2011/13 by >10 m vessels in the Area VII, coincided with decline in scallop fishing productivity after 2013.
- Decline in economic profitability was mainly driven by the decline in fishing productivity.
- Increase in profitability in 2014-15 was partly due to reduction of fuel price and increase in scallop prices, which compensated reduction in productivity.

Thank you for your attention

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