

An analysis of a Mega fish-box scheme in France:

Prices and Margins along an Innovative Seafood Value Chain in France



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Introduction

Understanding how value added is shared across the value chain is a critical issue regarding the improvement of the competitiveness in the upstream stages of the chain.

This supposes to study price and margin formation mechanisms all along the value chain.

This paper presents an innovative value chain for fresh fish in the isle of Yeu (France), namely the Amap poisson (fish box-scheme).

1. The context



Main figures of the French fishing industry

490 000 t among which 200 000 t of fresh products in auction markets
(600 000 t and 300 000 t in 2000)

Competition with imports

(1 100 000 t lwe in 2013)

Competition with farmed products on the final market

(imported fresh salmon ranks first in the final fresh consumption)

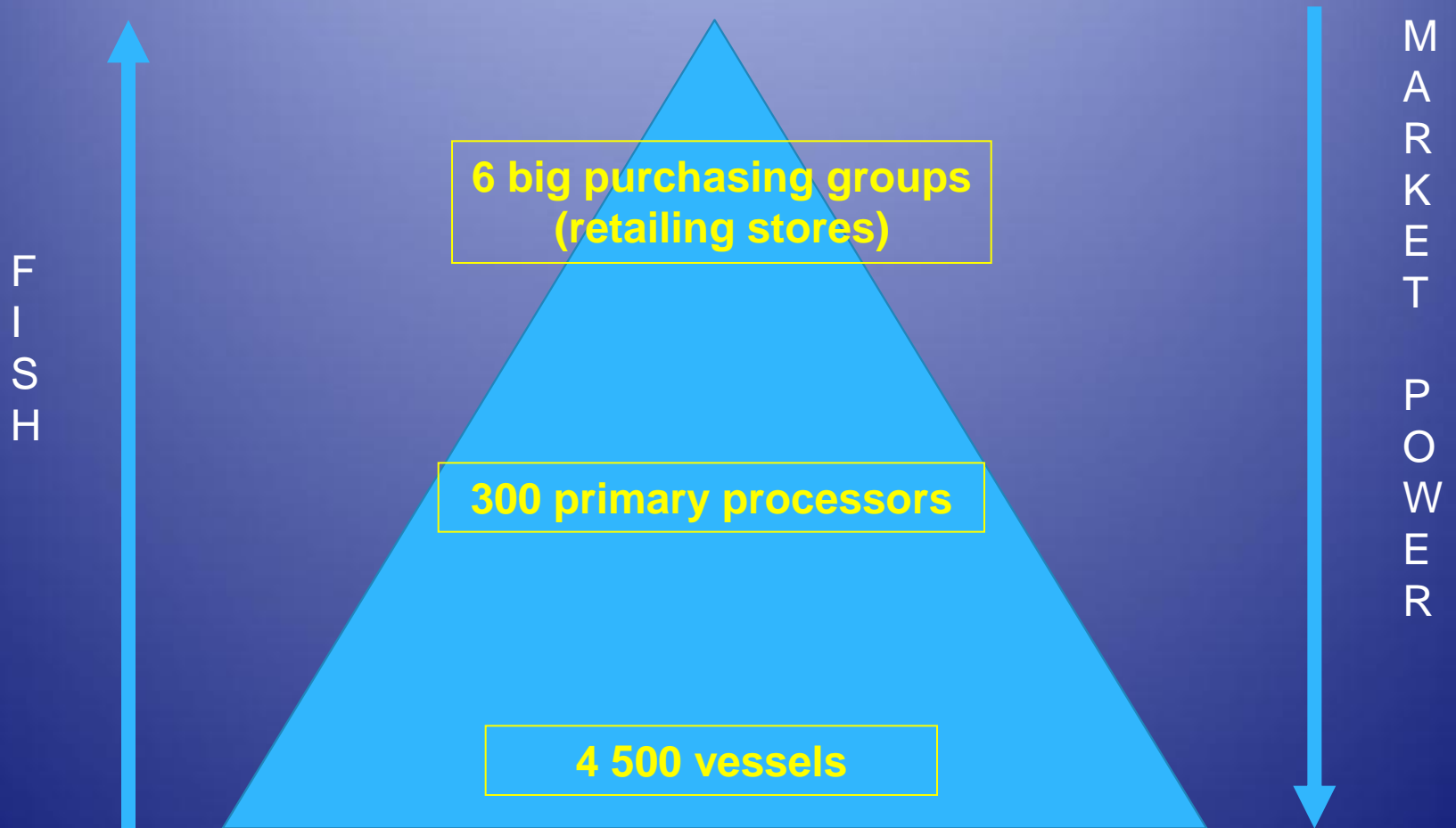
Market power of the big retailing stores

(market share for fresh fish: 75 %)



Source : FranceAgriMer)

The French fresh seafood industry: a double oligopsony



A declining job attractiveness

4 500 vessels and 15 000 fishermen in 2014

(5 800 vessels and 20 000 fishermen in 2000)

i.e.: -20 % in the number of vessels and
-25 % in the number of fishermen



Loss of attractiveness

Shortage of sailors

(Source : FranceAgriMer)

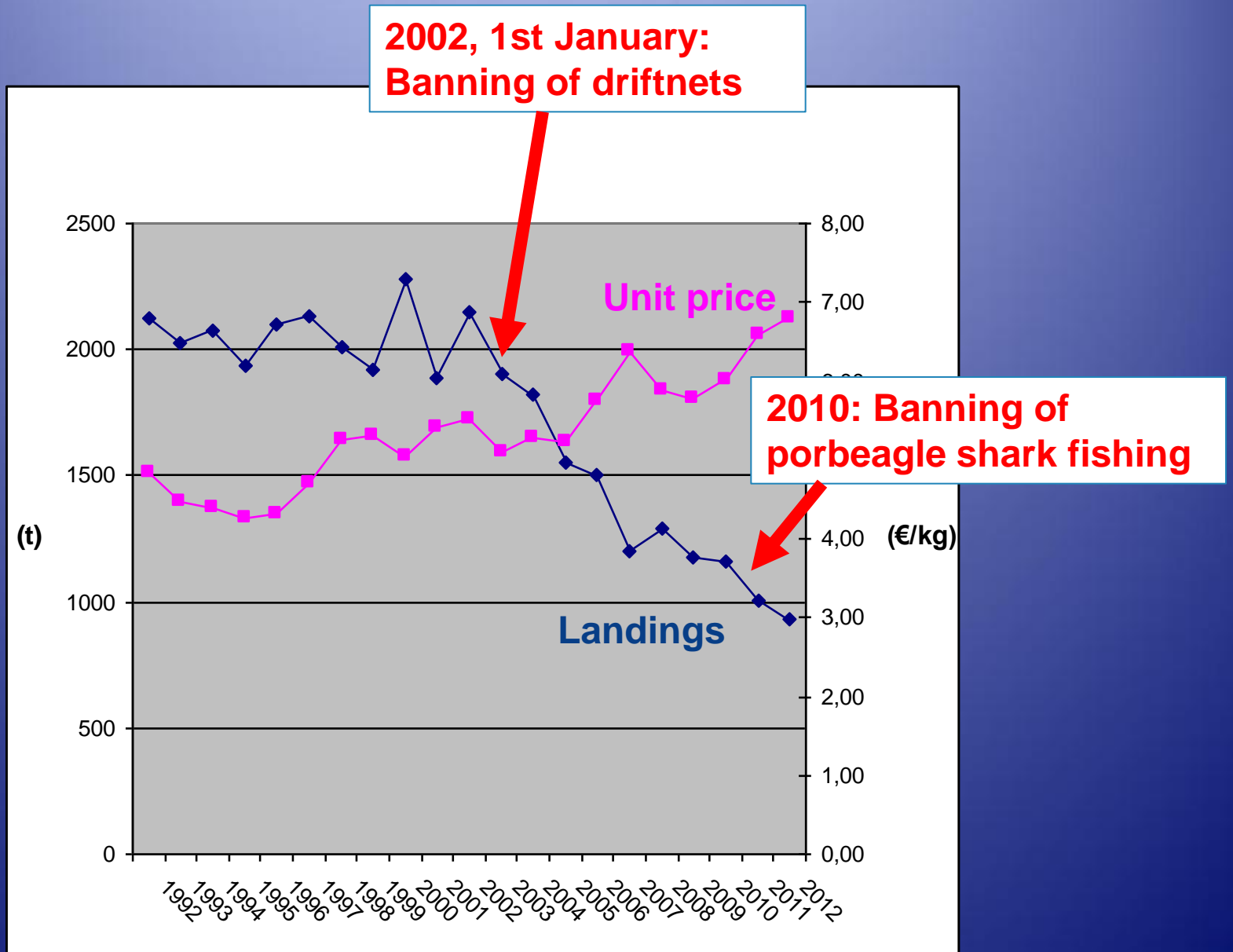
The local context



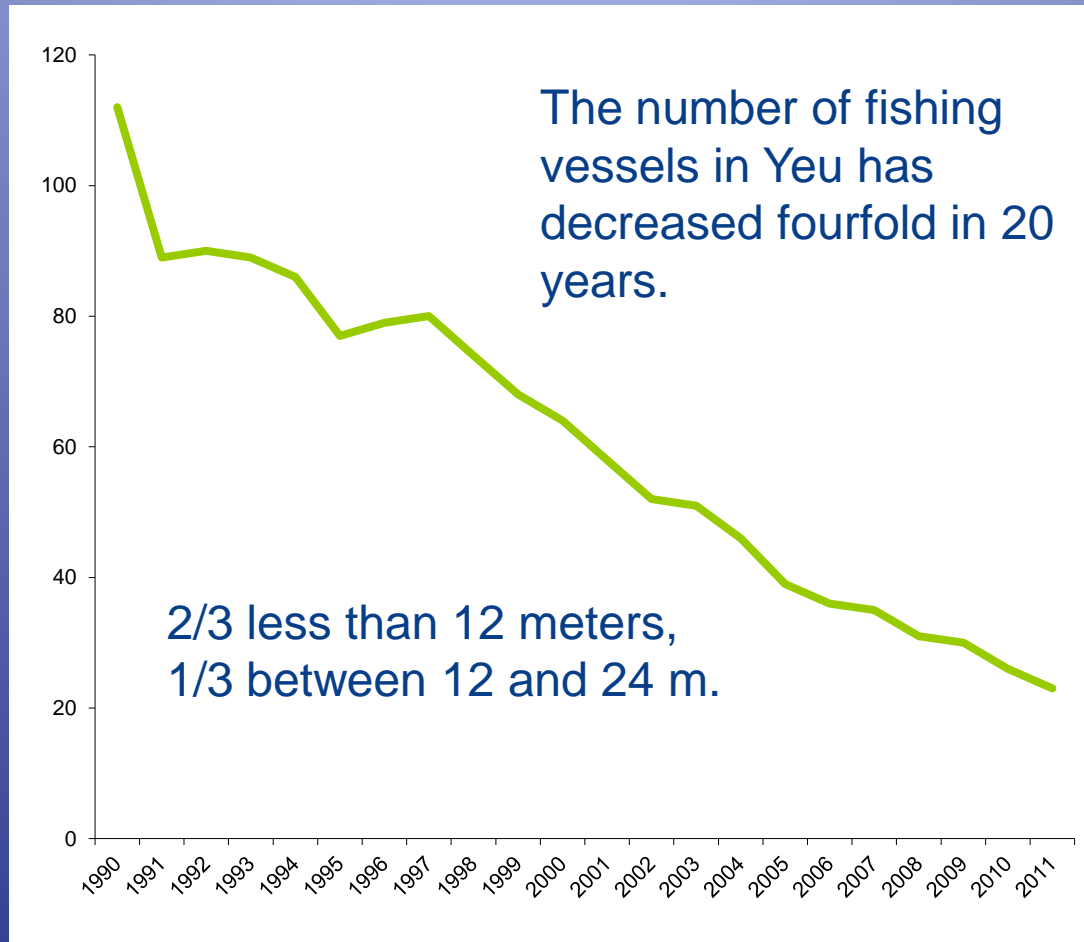
Location of the island of Yeu

(Source: http://www.cartesfrance.fr/carte-france-ville/85113_L%27Ile-d%27Yeu.html)

Island of Yeu: auction market



Number of fishing vessels in the island of Yeu



Source : Ifremer – Système d'informations halieutiques (SIH)

The remaining vessels suffer from a low bargaining power at the auction market...

...and their crew are attracted by the higher remuneration provided by trawlers:

Estimation of the average monthly wage (2010)

Netters	8 to 12 m	2 272 €
Trawlers	8 to 16 m	2 924 €
Trawlers	16 to 25 m	4 125 €



2. The “AMAP Poissons” fish-box scheme of Île d’Yeu

An Amap is an association of consumers supporting LOCAL small farmers by an agreement providing with a delivery of agricultural products:

- direct sales,
- on a regular basis (weekly or monthly...)
- price set in advance,
- quality and healthy products (organic...)
- productions environmentally friendly.



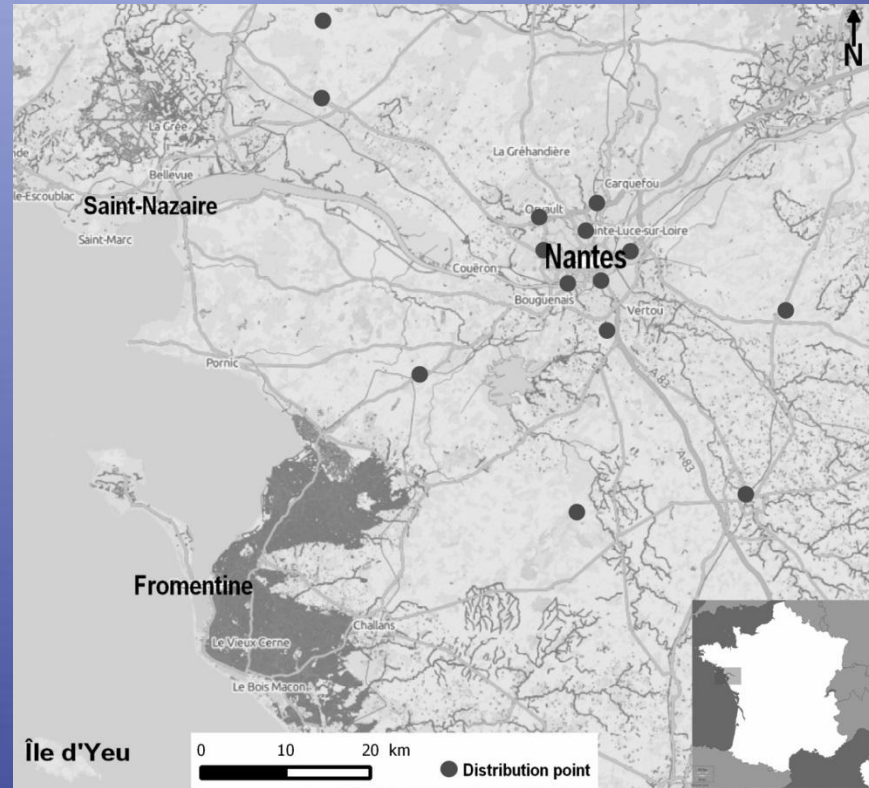
(based on the Japanese teikei principles)

- First “test” delivery of 240 boxes in spring 2010.
- 1400 contracts between households in the city of Nantes and surrounding region and five small-scale fishermen on the Isle of Yeu, off France’s Atlantic coast.
- These contracts provide for nine monthly deliveries of 2.5- to 3.5-kg packages of fish (33 euros per box).
- = 4 t/month and 36 t/year i.e. 4 % of the total auction sales in Yeu (933 t in 2012)



The fish-box scheme of the Yeu island

These 1400 contracts are divided into fourteen subgroups and the same number of delivery points, each of which handles at least eighty boxes.



Locations of the fish-box scheme's distribution points in January 2014

(source: Le Velly, Dufeu & Le Grel, 2014)

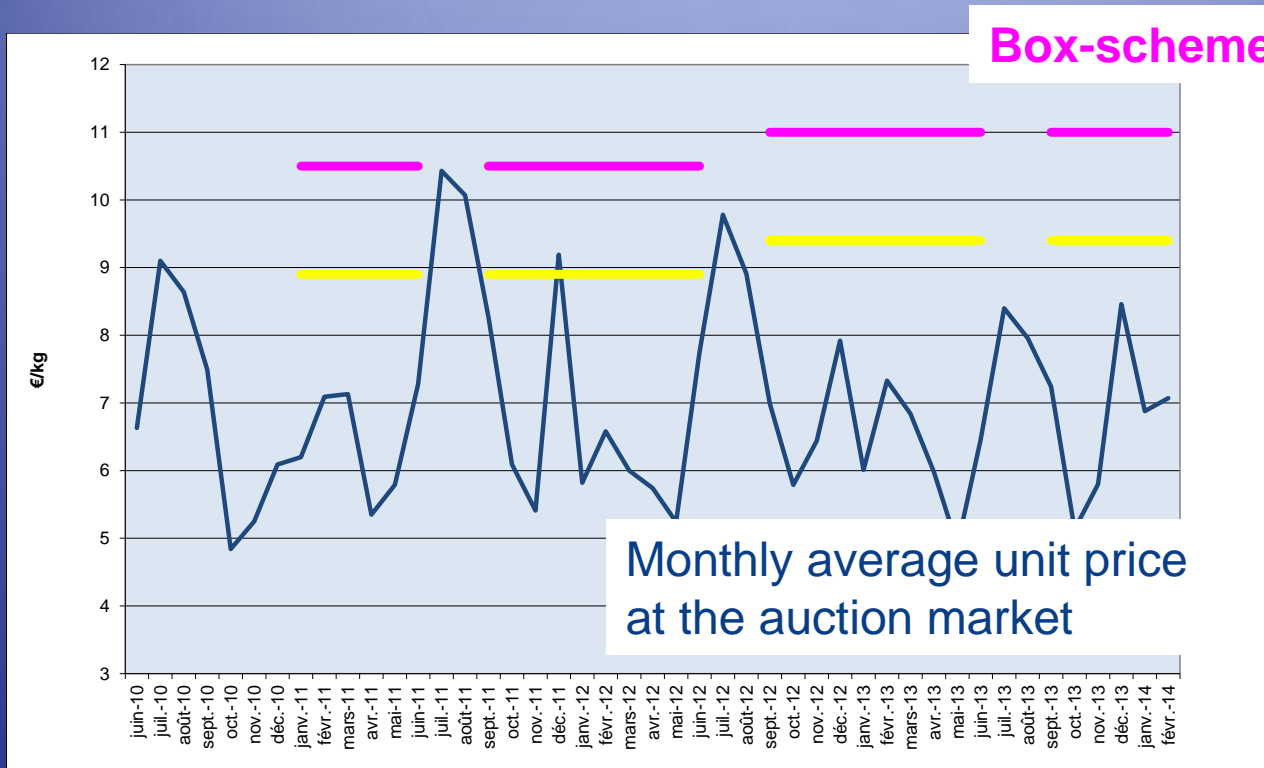
How it works?

- The association five vessels land their catches at the local auction market...
- ...where it is bought by the local seafood wholesaling cooperative (Yeu Marée)...
- ...which is in charge of the preparation and shipping of the fish boxes to the continent.
- Then the boxes are re-bought by the five fishermen and delivered in Nantes.
- The Amap is not active during summertime.



=> How do they cope with upstream price volatility and the constant final price?

Stability of price for the box scheme compared to the volatility at the auction market



Box-scheme price

Box-scheme price less the primary processor margin

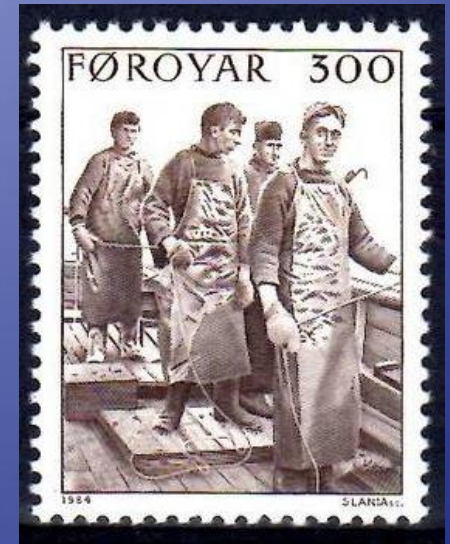
Monthly average unit price at the auction market

Source: from FranceAgriMer and Valpareso data

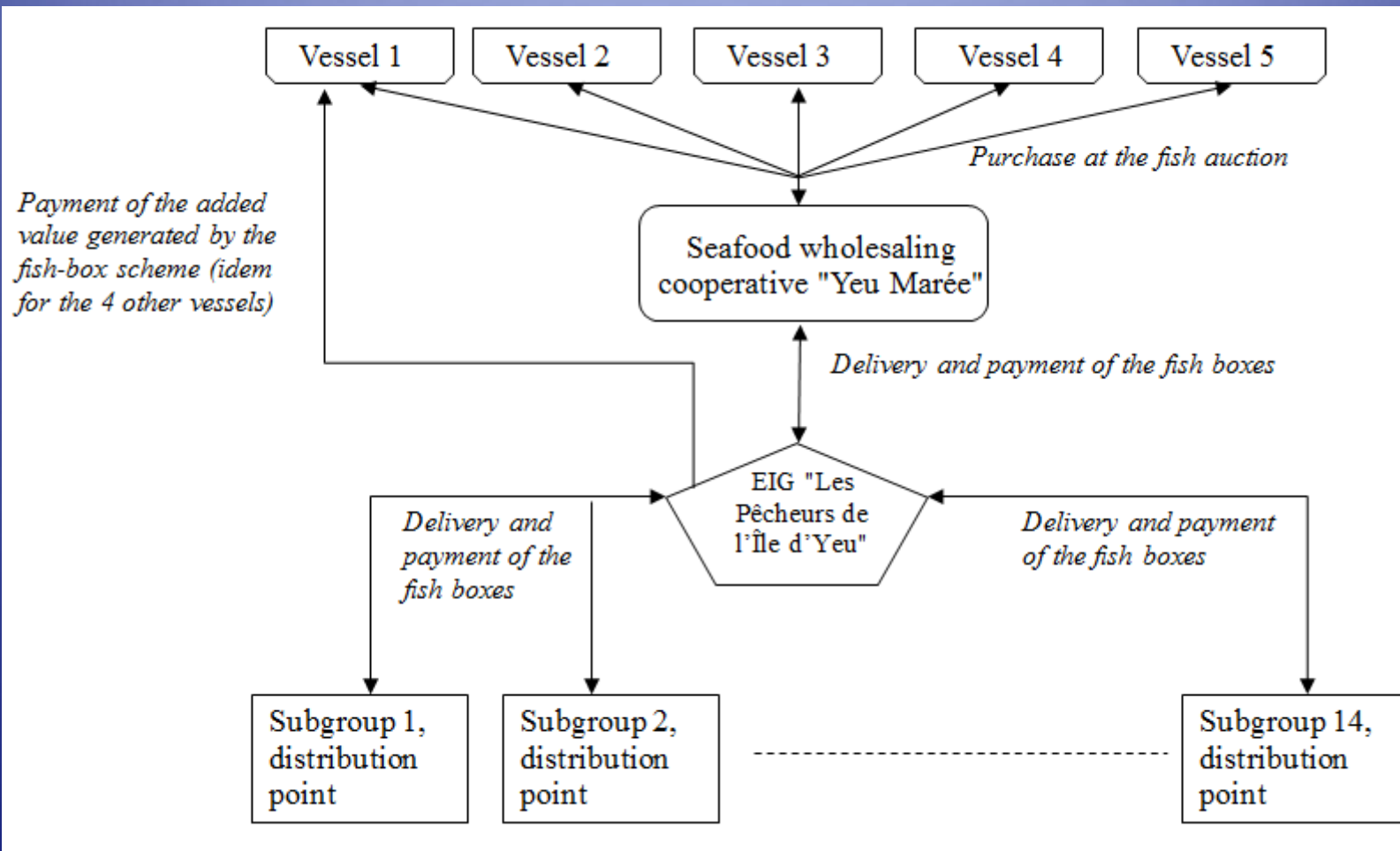
Price volatility

Since the box scheme is based on a fixed price for consumers, producers are not able to pass on the price variations that are observed at the upstream stage of the value chain.

The solution lies in the mix of several species whose prices and quantities are combined to fulfill the requirements of the final price. Finally the price is constant thanks to the adjustments made by the wholesale cooperative in terms of species and quantities.



The Amap poisson

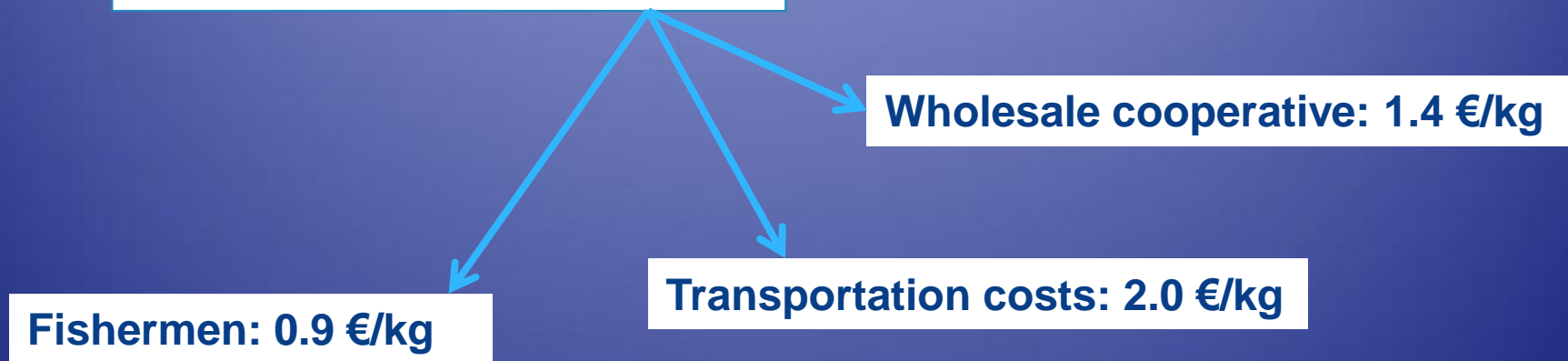


(Source: Le Velly Dufeu & Le Grel, 2014)

3. Margin formation and distribution

Note that the final price is not higher than the average price in the big retail stores (source : FranceAgriMer)

Final price:	11.0 €/kg
Auction price:	6.7 €/kg
<hr/>	
Margin	4.3 €/kg



$1\ 400\ \text{boxes} \times 3\ \text{kg} \times 9\ \text{months} \times 0.90\ \text{€/kg} = 6\ 800\ \text{€ par vessel}$

i.e. about 10 % of the total annual wages of a netter 0-12 m (71 000 € in 2010)

An egalitarian distribution rule specific to the fish AMAP's added value

Usually, the turnover is divided into two shares:

- 60% for the vessel ie the capital,
- 40 % for the crew (wages) among which two shares for the skipper , 1.5 share for the first mate and the engineer and one share for the sailors.

In the case of a small scale businesses, the skipper is also the owner of the boat. For a small 12 m netter with a crew of 3, the owner's share is 80 % while each sailor earns 10 %.



The fish Amap's added value distribution rule

In agreement with the consumers, the skipper have agreed to share out this profit margin equally among the crew members, giving one share to each crewman.

To take the case of a three-man crew, this will amount to an annual bonus of 2,600 euros for each man.

i.e. the equivalent of an additional month of wages for a sailor.



Conclusion

This case-study shows that it is possible to design a value chain leading to a better distribution of value added for the upstream stages of the chain.

Replication?

Niche market?

Not really a short supply chain: it still contributes to maintain the level of activity of both local auction market and seafood wholesale cooperative (local infrastructures of high importance for an island) but clearly an alternative food network (vs conventional).



http://www.amap44.org/gestionCommerciale.stp?ACTION=LISTE_LOCAL&FOURNISSEUR=1379111711442

Further works are needed:

Amap's impact on price level at the auction market (in terms of level – reported by stakeholders-) and volatility.

Market integration: days with Amap and days without Amap?

Compensation between a possible increase in the sailors' wage which would result from the reported increase in the auction price that would in turn reduce the Amap's margin.



Grazie per la vostra attenzione.

