The Humber seafood clustering efforts in Yorkshire, UK

European Cluster Mapping Project “Identification, analysis, and monitoring of business clusters in Europe”

Case study for the Commission of the European Communities Enterprise and Industry Directorate-General*

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*The opinions expressed are those of the authors, the consultancy Competitiveness (www.competitiveness.com), and do not represent the Commission’s official position.
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1. Objectives of the case studies

Under the 6th framework programme, the European Commission / DG Enterprise and Industry, has launched a range of projects related to clusters and innovation. One of them, under the Europe INNOVA programme, develops a comprehensive set of data and analysis around clusters, innovation and related policies. In December 2006, the importance of these studies was reinforced by the Competitiveness Council’s conclusions, which describe clustering as an area of priority where actions should take place in support of innovation.

Addressing the European innovation gap

There have been many other efforts to address the European innovation gap, and it is difficult to summarize the actions needed and proposed in one paragraph, but the report “Creating an innovative Europe” commissioned to former Prime Minister of Finland, Esko Aho, by the Hampton Court Summit, gives a clear message of the actions required and how clustering efforts could help close that gap.

The report states in its summary: “Achieving an Innovative Europe requires a combination of a market for innovative goods and services, focussed resources, new financial structures and mobility of people, money and organisations. Together these constitute a paradigm shift going well beyond the narrow domain of R&D and innovation policy.”

Understanding if clustering efforts are helping to close the gap

The Aho report gives as well a perspective of how clustering efforts can help that paradigm shift:

“Clusters and, more generally, regional agglomerations are often at the core of innovative development. It is widely recognised that new firms thrive in the proximity with other companies, investors, educational institutions and research centres afforded by clusters particularly in the presence of world class academic institutions. Mobility can be maximised when there is a local labour market that allows regular flows of people from one situation to another, with accompanying diffusion of

knowledge. As well as the greater opportunity range it is clear that barriers such as the need to move house or schooling for families are removed. However, it also emphasizes that minimising such barriers more generally will create a more functional society. **It is important to ensure that clusters are defined in terms of the new market and knowledge relationships needed for emerging sectors to thrive.** It is even counter-productive to reinforce traditional sectoral clusters as these may inhibit the necessary mobility. Firms in traditional sectors are far more likely to find innovative growth by forming new linkages and applying new technology to their existing products and services. This can be facilitated by opening the clusters to cooperation with and learning from other clusters in the same or other sectors.²

### Why the Humber seafood clustering efforts can be a useful example

The case studies of this European Cluster Mapping project place a special consideration to see if the clustering efforts analysed have helped move the companies towards *new market and knowledge relationships* or just to reinforce or defend acquired positions in traditional sectors.

The Humber seafood example allows us to see that kind of change in such a mature industry as fishing, in one of the more traditional locations in Europe, the cities of Grimsby and Hull, in the Humber estuary in England.

Have the clustering efforts been a driver for innovation in the Humber seafood industry?

Although it may not have been explicitly recognized from the outset, working with the seafood industry made sense for the newly created Regional Development Agency (RDA), Yorkshire Forward, not just because of its importance for employment in the region, but also because of the potential the RDA had for catalysing innovation.

Contribution to the development of lead markets

Fish as a mere source of protein, supplied in frozen form, is almost a commodity type product that can be sourced from any place in the world at lower costs than European processors can do. Instead, developing a whole new market for fish as a “natural” and healthy protein, brought to the consumer fresh and with all the ingredients already prepared to be cooked, requires a combination of technology and logistics that only the most innovative seafood processing clusters can afford.

The United Kingdom had the demand conditions for the development of that lead market, but lacked sufficient response from the seafood industry, that was accelerated through the clustering efforts initiated by the RDA.

Thirteen of the top 20 food manufacturers in Europe are based in the UK. British consumers are sophisticated and demanding buyers of convenience foods. Accordingly, their supermarkets lead Europe in developing new products and responding quickly to changing market demands. But to date, most of the innovation in fresh products and convenience foods has occurred at the retailer level then has been communicated downstream to processors. By supporting the activities identified through the clustering effort, the RDA encourages local seafood processors to take a stronger role in driving innovation rather than simply taking direction from retailers.

Help in focusing R&D&I resources

Prior to the clustering effort, most research and development in the industry was in the area of fishing or processing technology. The clustering efforts provided an opportunity for Yorkshire Forward to
The Humber seafood clustering efforts in Yorkshire, UK

Have the clustering efforts been a driver for innovation in the Humber seafood industry?

support R&D in other areas critical to the success of the seafood cluster that had not been explored in sufficient depth, for example logistics. That resulted in a significant reassignment of resources to support R&D from an industry-backed request to build a Seafood Institute in Grimsby, to a market driven need to develop a Logistics Institute at the University of Hull.

Unfortunately that focussing of resources did not have the same impact at the level of national and European policies, where resources continue to be dedicated to support old structures. The case shows how two large facilities have been build in the past decade, with extensive use of public funds, to handle fish in the ports of Hull and Grimsby, whereas the logistic needs for the future are in airports and fast land transportation. In the same way the Common Fisheries Policy does not seem to reflect learning from this example, that a world class logistics for fresh seafood could make Europe the world leader in seafood processing and marketing, the same way that has already happened in the cut flower market, where Holland is the world leader. The investments continue to be mostly in fleet and port facilities.

**Improvement of human, financial and knowledge mobility**

The early clustering efforts in the Humber were focussed in the Humber Seafood Group that involved everybody on the supply side and developed joint actions to promote fish consumption and defend the existing industry. It was a clear example of “defensive” clustering efforts that did not result in innovation.

It was later when the RDA launched a Competitiveness Reinforcement Initiative, and brought consultants from outside the industry, that the scope of the clustering efforts was broadened, involving specialised logistics operators (even form abroad, as KLM cargo), local airports as well as the main suppliers of fish, the Icelanders. A delegation of Humber industry and UK government institutions travelled to Reykjavik to engage the Icelandic industry in the clustering effort as well. In fact, they have resulted to be the first investor in the area as well as the first movers to change the market towards fresh ready meals.
The Humber seafood clustering efforts in Yorkshire, UK

Have the clustering efforts been a driver for innovation in the Humber seafood industry?

The clustering effort has contributed to the increased mobility of:

- Knowledge across industries; through the introduction of advanced logistics and IT tools for traceability.

- People across boundaries; the Icelandic, UK and Dutch combine the best skills in the world sustainable fishing, fish ready meal development and fresh logistics.

- Financial resources; private equity capital from all over the world has invested heavily in the industry, acquiring with high premium the best fresh ready meal producers (even one of the top companies in the cluster was recently selected as one of the among the top private companies in the UK by the Sunday Times).
3. Successes and failures of the clustering efforts in the Humber seafood industry

In defining the perimeter for the clustering effort

The original scope for the clustering efforts in the RDA, the “Food and Drink” cluster was clearly too wide and heterogeneous to have prompt actions of significant impact on innovation. Conversely the sectoral focus of the Humber Seafood Group, the typical “cluster” meta-association, that grouped all existing institutions (employer’s associations, local authorities…) was too narrow and resulted in defensive strategies.

It was necessary to have the RDA acting as a neutral player in an open perimeter initiative that defined and broadened the necessary players as the need aroused. That process was limited in time, no more than six months, but clearly needed to redefine the industry limits, by including new services and technologies.

In setting the strategies to build a sustainable competitive advantage

The needs expressed by the traditional industry representatives in such a mature sector, subject to a global challenge (European produced fish is already being sent to China for processing), resulted in defensive clustering efforts, while at the same time innovative companies within the same cluster were thriving, because they were addressing the new market opportunity, but with a completely new value chain.

It was important that the RDA had the capacity to understand the opportunity to help the development of a lead market for chilled ready meals, and switch the dialog from the “cluster that represented the whole industry”, to the innovative companies that expressed the needs for the future.

The strategies to build a sustainable competitive advantage for a new lead market are quite known, but rarely the traditional industry representatives will accept them, and will press the RDA for the status quo. Therefore, it is important to define this strategy in an independent way.
In managing the clustering efforts jointly

It was very simple to manage the “clustering efforts” in the defensive mood, everybody agreed on the actions and these were mostly funded with public funds. This has turned much more difficult once the strategy calls for change. Change in the cluster value chain, change in the industry power structure and change in the geographic scope.

This last point has proven the most difficult one, since the economic dimension of the new value chain does not coincide with the old administrative borders of the old one. In the past every local authority responded to its “industry needs” by promoting local facilities, that why we ended with two fish markets in the area, something that is impossible when trying to build a world class fresh logistics hub. It can only be one, and logically close to the existing Humberside airport, that happens to be in a third jurisdiction. Local authorities short-sightedness has been delaying the development of the necessary infrastructure that could guarantee the future of the area. The RDA has had to devote resources and energies not to encourage the companies, that requested the change in writing more than two years ago, but to overcome the resistance of local government.

In applying the learning to the whole economy

The learning from this clustering effort seems to have been stalled somewhere within the RDA, despite the fact that the UK Seafish Authority participated in the clustering effort, even attending the trips to Holland and Iceland, the importance of the new value chain does not reflect in UK policy for fisheries, where the “Joint UK response to the Prime Ministers Net Benefits report on the future of the fishing industry” does not even mention the possibility of becoming a world class fish processing cluster, based not on the UK capture fish, but on a sophisticated world wide logistics, and a leading consumer market.

 Needless to say that the learning does not seem to have been integrated in the Common Fisheries Policy of the European Union either.
4. Learning from the Humber seafood clustering process

This section wants to highlight points of learning that should be taken into account when extracting lessons from the 15 case studies of this project.

Implications for the local and regional support institutions

- Start the clustering efforts with an open perimeter, do not set up the cluster players from the beginning, first define the new business or service the cluster should address, and set the perimeter of the needed new value chain.

- Define the strategy to address the lead market together with the industry but independently from them, listen to the market.

- Have enough political authority to face the local authority interests.

Implications for the national and EU institutions

- Have a clear mechanism to pass the learning from clustering efforts to national and EU broader policies.

- Modify your policies to support lead market driven competitiveness and innovation that in turn will pull the industries and services behind.
5. **Appendix I: The clustering efforts in the Humber seafood industry, the UK**

**A - The seafood industry**

Fisheries production once associated with a particular location is now exported all over the world. Seafood is one of the most regulated sources of food\(^3\) that makes it more popular among population. Growing consumer demand for seafood that offers overwhelming health benefits makes global trade to be a safe and essential way of providing variety of products.

The global fisheries production remains relatively stable for the last several years reaching 143 million tons in 2007 (Figure 1). Of this total aquaculture accounts 34 percent whereas the rest brings capture fishery.

<table>
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<tr>
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<tbody>
<tr>
<td><strong>WORLD BALANCE</strong></td>
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</tr>
<tr>
<td>Production</td>
<td>141</td>
<td>141</td>
<td>143</td>
<td>1.4</td>
</tr>
<tr>
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<td>91</td>
<td>91</td>
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</tr>
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<td>50</td>
<td>52</td>
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<tr>
<td>Trade value (exports billion US$)</td>
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<td>86</td>
<td>93</td>
<td>8.1</td>
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<td>55</td>
<td>54</td>
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<td>112</td>
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<tr>
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<td>11</td>
<td>11</td>
<td>0</td>
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<tr>
<td>Per caput food consumption:</td>
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<tr>
<td>Food fish (kg/year)</td>
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<td>17.2</td>
<td>17.4</td>
<td>1.2</td>
</tr>
<tr>
<td>From capture fisheries (kg/year)</td>
<td>9.3</td>
<td>9.5</td>
<td>9.5</td>
<td>0</td>
</tr>
<tr>
<td>From aquaculture (kg/year)</td>
<td>7.4</td>
<td>7.7</td>
<td>7.9</td>
<td>2.6</td>
</tr>
</tbody>
</table>

*Figure 1 World fish market, 2007 (GIEWS)*\(^4\)

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\(^3\) From water to table, seafood must adhere to such regulations as safety hazards, good manufacturing practices including personal hygiene among workers, sanitary processing plants and clean water sources, control on medical treatments and drugs that can be used in aquaculture operations, standards on best aquaculture practices certifying social, environmental and food safety, inspections on fishing boats, in processing plants and at retail. According to many, sustainability is not just one option; it is the only option for long term competitiveness.

\(^4\) Food Outlook: Global Market Analysis, GIEWS
Over the period 1990-2003 the global fisheries production grew at an annual rate of 2.3 percent. Later the rate slowed down and remained stable over the last four years expanding the aquaculture trend in the production composition. The decrease in capture fisheries reflects over-fishing, reduced fish stocks and reduced anchovy catches in Peru during the last 2 years.

China, Peru and European Union are the top regions supplying fisheries production (Figure 2).

![Figure 2 World top seafood suppliers, 2005 (Glintir)](image)

Developing countries are playing major role in international trade of fish. Around 79% of the global production comes from these countries. China is the biggest fish exporter that is to some extent a result of outsourcing. The trade in China demonstrates steady growth both in exports and imports and with such rate it will be soon among the world’s largest importing countries.

Imports are done mainly by developed countries to which belongs about 80 percent of the total production value. The European Union is the largest market for fishery products having 27 percent of the world’s imports followed by Japan and the United States with the same share of 18 percent (Figure 3). It is explained both by the EU growing domestic consumption and by larger number of EU countries. In comparison to 2005 the 2006 imports (EU-25) grew up by 16 percent and reached 38 billion US Dollars.
European seafood business

The market for fish and fish products has changed in recent years. Supermarkets are now the main buyers of fish and expect steady supplies. Total fish sales have fallen, but the demand for processed fish and prepared meals has grown. However, the employment in fish processing has been falling, with 60 percent of the fish consumed in the EU coming from outside. This is partly due to the improvements in the ability to transport fresh fish internationally.

In response to depleting stocks, EU quotas have reduced the amount of legal fishing. Consequently, the catching sector has declined a lot across Europe. Spain, France, the UK, and Italy are the major contributors to farmed seafood / aquaculture, that will continue to play leading role in alleviating the pressure on fishery resources. Over the last decade, aquaculture has grown impressively throughout the EU, reaching a total production of 1.4 billion tons in 2005 and representing a value of over 3 billion Euros. Worldwide, aquaculture provides over 30 percent of total fish supplies.

Denmark and Spain are the leading fishing countries in the EU where Denmark specializes in sand eels, sprat and herring, whereas, tuna, crustacean and hake are the speciality of Spain (Figure 4). The two countries account to one third of the total catches of European Union.

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5 Excluding EU intra-trade

6 While farmed fish does play important role in the seafood market portfolio, currently and in the future, it is an industry that has its own environmental and sustainability concerns to address.
The volume of production of the EU seafood-processing\(^7\) sector (18 billion Euro) largely exceeds the volume of production of crops and aquaculture. The processing industry in Europe is still fragmented, with more than 135,000 people employed in about 4,200 firms. Spain is the main seafood processor, followed by the UK.

**B - The Yorkshire and Humber Region in the UK**

The clustering efforts of the Regional Development Agency (Yorkshire Forward)

In 1999, the UK’s Department of Trade and Investment launched nine Regional Development Agencies (RDAs) with the mission of improving local economic performance and reducing social and economic disparities. The statutory purposes of each RDA were set to:

- Proceed with further economic development and regeneration
- Promote business efficiency, investment and competitiveness
- Promote employment
- Enhance development and application of skill relevant to employment
- Contribute to sustainable development

\(^7\) Processed fishery products include preparations, preserving of fresh, chilled, frozen, smoked and dried fish, crustaceans and molluscs; fish filleting, salting, drying, smoking, cooking, freezing, canning.
The Humber seafood clustering efforts in Yorkshire, UK

Appendix I: The clustering efforts in the Humber seafood industry, the UK

Figure 5 Regional development agencies in UK

The RDA corresponding to the newly defined region of Yorkshire and the Humber was branded as “Yorkshire Forward”. It became an organization of more than 300 employees grouped from existing organizations, all funded by central government, based in five offices across the region. Yorkshire Forward was given very ambitious 10-year targets:

- Achieve above EU average increases in GDP
- Create 150,000 jobs
- Double the rate of business start ups
- Treble foreign manufacturing investment
- Train 3 million people in IT skills
- Halve the number of most deprived wards (in bottom 10% in England)
- Cut greenhouse gases by more than 20% (1990 to 2010)

During its first years of existence, up to 2005, Yorkshire Forward concentrated in the following actions:

- Manufacturing
- Enterprise, particularly young people and ethnic minorities
- Tourism

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8 Leeds, Hull, Bradford, York and Wath-upon-Dearne
The Humber seafood clustering efforts in Yorkshire, UK

Appendix I: The clustering efforts in the Humber seafood industry, the UK

- Public investment in health & education: supply chains & skills
- Connecting people to jobs
- Seven transport priorities
- City centres: Leeds, Bradford, Sheffield, Hull and York
- 20 urban and rural renaissance towns
- 5 clusters: Advanced engineering/metals, Bioscience, Chemicals, Digital, Food and drink

The set key goal of the RDAs was to support the development of clusters in their regions. The emphasis was intended to be on knowledge industries, but Yorkshire Forward chose to work with the Food and drink industry due to its economic significance for the area. Yorkshire Forward also felt that food exhibited many characteristics of clusters, such as being highly concentrated and linked through sales arrangements.

After the launch of the first cluster work in 1999, Yorkshire Forward determined that the food cluster was too broadly defined. There were surprisingly few similarities among the subsets of the food cluster and, as a result, the problems and recommendations to be developed run the risk of being too general to have meaningful impact. As a result of Food and Beverage Screening Diagnostic in Yorkshire done in 2005 by specialized cluster consultants, several more specific clusters within the food and drink industry, including seafood, were selected for cluster development projects (Figure 6).

<table>
<thead>
<tr>
<th>Sector</th>
<th>Companies</th>
<th>Jobs</th>
<th>Major Companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meat &amp; Poultry</td>
<td>68</td>
<td>20,000</td>
<td>2 Sisters Premier Division, F.W. Farnsworth, Farmers Boy, Grampian Country Food</td>
</tr>
<tr>
<td>Fruit &amp; Veg</td>
<td>42</td>
<td>12,000</td>
<td>Del Monte, Axgro, Daniels Chilled foods, Gordon Jopling</td>
</tr>
<tr>
<td>Seafood</td>
<td>120</td>
<td>10,000</td>
<td>Young’s, Seachill, Sealdor</td>
</tr>
<tr>
<td>Confectionery</td>
<td>21</td>
<td>7,000</td>
<td>Nestle, Dunhills (Haribo)</td>
</tr>
<tr>
<td>Beer</td>
<td>31</td>
<td>5,000</td>
<td>Carlsberg, Theakstons, Black Sheep, HB Clark</td>
</tr>
<tr>
<td>Water/Soft Drinks</td>
<td>18</td>
<td>4,500</td>
<td>Major Companies: Cott Beverages, Benjamin Shaw, Nestle Waters Pow wow, Coca Cola</td>
</tr>
<tr>
<td>Ethnic</td>
<td>10</td>
<td>1,500</td>
<td>Kwoks, King Asia, Mumtaz Food Industries</td>
</tr>
<tr>
<td>Ice cream</td>
<td>15</td>
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<tr>
<td>Tea</td>
<td>7</td>
<td></td>
<td>Limited data available</td>
</tr>
</tbody>
</table>

Figure 6 Main categories in the region’s food & drink cluster
The **food and drink manufacturing industry** is the single largest manufacturing sector in the UK, with a turnover of £70bn (approx. 103 billion Euro) accounting for 15 percent of the total manufacturing sector. The UK is world’s 4th largest food and drink manufacturing industry, employing some 500,000 people and representing almost 14 percent of the manufacturing workforce in the country. Even if the UK food and drink manufacturing and retailing industries contain many world leaders, the need to secure competitive improvement has never been more important.

**The Humber seafood cluster**

The *Humber estuary* cuts into the north-eastern coast of England. At its end is Immingham, one of the largest ports in UK, handling large amounts of container traffic annually and with two large oil refineries. The seafood industry is centred in *Hull* on the north side of the estuary and *Grimsby* on the south. Together, the Humber area processes 70 percent of the seafood eaten in the UK.

![Figure 7 The Yorkshire and the Humber region](image)

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9 Fishing remains a significant industry in the UK, particularly in Scotland and the south west. Some say that Grimsby’s frozen food factories is what is left of Britain’s fishing industry.

10 Catching firms are not area’s major employers. Most of the crews of fishing vessels are self-employed. Local catchers provide only a small fraction of the raw material for seafood processors; most is imported.
The Humber seafood clustering efforts in Yorkshire, UK

Appendix I: The clustering efforts in the Humber seafood industry, the UK

The cluster (Figure 7) is dominated by manufacturing and some of the largest European and UK food processing companies\(^\text{11}\) are located there. Food processing employs over 100,000 people and is the second largest manufacturing sector in the region.

The Humber seafood cluster has a developed structure including not only processing companies, raw material suppliers, packaging suppliers, retailers etc but also government agencies, training and research institutions (Figure 8).

![Figure 8 The Humber seafood cluster](image)

Two auctions serve the region: Grimsby Fishmarket and Fishgate in Hull. Both have been renovated and upgraded, with support from the EU. The Grimsby Fishmarket completed renovations in 1996 after £15 million (approx. 22 million Euro) of investment, including £10 million (approx. 14.7 million Euro) of European Regional Development Fund (ERDF) funds. More recently, the renovated Fishgate in Hull reopened in 2001 as one of the most technologically sophisticated markets in the world. It now offers temperature control throughout, an automated quality grading system, full traceability and an electronic auction theatre.

\(^{11}\) Young’s Bluecrest, Northern Foods, Hazlewood Foods, YBS, Rank Hovis, Bird’s Eye, Walls, and Nestle
There is no government port authority in the Humber region. Through a privatisation programme that occurred in the 1980s, all the land on the banks of the Humber is commercially owned and all port-related services are provided privately.

**C - The challenges of the Humber seafood industry**

In 1990, 80 percent of Humber fish was sold frozen to large retailers. There was little competition from overseas and nearly all processing was done locally. In 2005, only 15 years later, the frozen fish market was languishing and the seafood industry was in decline.

**Global competition, local markets**

Reduced catching quotas due to depleting fish stocks and demand from retailers for larger volumes of gutted and filleted product are further driving processors to seek new sources. *Increasingly, fish is coming from the developing world*, even from China.

The *processing sector* has undergone considerable restructuring since the mid 1990s. Consolidation has been greatest among firms engaged in secondary processing – the number of firms declined 25 percent, while the size of firms grew 50 percent and employment increased 15 percent. The *number of potential suppliers has expanded* due to decreased transportation costs, improved on-board processing capacity and reductions in tariffs. As secondary processors are sourcing semi-processed product from around the world, *small primary processors in the UK are increasingly going out of business*. Employment in primary processing has dropped 42 percent since the mid 1990s.

Increasingly, Icelandic investors are entering the UK seafood industry, and many UK supermarkets now source most of their cod from Icelandic, not local waters, stated the healthiest when compared to the battered state of other European stocks.

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12 Primary processing includes cutting, filleting, pickling, peeling, washing, chilling, packaging, heading and gutting. Secondary processing includes brining, smoking, cooking, freezing, canning, deboning, breading, battering, vacuum and controlled packaging, and producing ready meals.

13 At the same time, Iceland is cutting its cod quotas due to pressure from the major UK supermarkets, their main customer. It has been estimated that the UK producers will "end up saving the wild fisheries by essentially giving the industry no choice".
With a shelf life of months, frozen fish resembles a commodity product. Already small margins are being squeezed more as retailers take greater control over supply chains for their own brands. Staying profitable producing frozen fish requires highly efficient processes and economies of scale. High wage, low volume Yorkshire and Humber cannot compete on price with the developing economies. More and more, even fish that is caught in the North Sea is sent to China for primary processing and then shipped back. Furthermore, processors have little market power relative to the highly concentrated retail sector. The top five retailers account for almost 70 percent of the UK food retail market.

Shift in market demand from frozen to fresh perishable fish
Despite ongoing supply problems and rising prices, the consumption of fish and seafood is increasing in all major European markets. This is attributed to a number of factors, including the well-documented move towards healthy eating and lifestyles, the recent scares over meat safety, and the increased added-value opportunities for fish and fish products due to demographic and societal changes.

Historically, most Humber fish was sold frozen, but growth in this segment has stagnated. Demand for fresh fish, on the other hand, has grown rapidly as consumers have become more health conscience and improved logistics allow for more fresh fish options in supermarkets. The consequences of this shift in market demand have dramatic consequences for Humber processors. Frozen fish and fresh fish are less variations of one product than two entirely different products.

In fact, the market for fresh fish is much more encouraging than that of frozen fish. Demand is increasing rapidly and the perception of higher quality commands a premium price. Retailers are offering more choices to consumers, including more exotic varieties. The increased demand is being met by distant sources, such as the Indian and Pacific Oceans. Quick distribution is essential so retailers tend to work with only a small number of suppliers to ensure quality and to facilitate new product development. Since fresh fish is so perishable, the sophisticated logistics required to get it to market quickly is a significant barrier to entry.

There was an arising mandate from consumers to retailers and others that stock seafood to take responsibility for the sustainability of their products. Yet the traditional industry could not do it alone and
needed more information to make changes to their businesses and supply chains. In other words, in order to survive, the seafood industry in Yorkshire and Humber needed to switch from supplying frozen fish to fresh fish and invest in logistics to meet quality and traceability requirements. Long-term competitiveness required innovation in logistics and new product development for fresh fish, such as ready meals.

The questions asked by Yorkshire Forward were:

How to shift the seafood industry from a bad business (frozen long-distance and high volume product) to a better business (fresh medium-distance higher value added product)?

Who should lead the effort and with what resources? What should be the role, in the needed change management process, of all the different cluster agents (markets, processors, fishermen, importers, regional development agency, consultants, etc.)?

D - The Humber seafood cluster competitiveness reinforcement initiative

In order to get the clustering process for more competitive seafood business on right tracks, Yorkshire Forward contracted specialized cluster consultants to undertake strategic analysis on behalf of the industry and to facilitate the cluster’s further discussions and actions. The project had four objectives:

1. Gain an impartial evaluation of the cluster and determine which companies were driving the cluster forward, as well as what the appropriate strategies for the cluster were
2. Make companies aware of existing regional programmes
3. Improve the extent to which Yorkshire Forward programmes met the needs of the cluster
4. Coordinate policies with other institutional partners in the Yorkshire and Humber region with the aim of creating a competitive environment adapted to the companies within the cluster

The competitiveness reinforcement project began with structured dialogue between the consultants and local businesspeople in the cluster, followed by a presentation of the results of these discussions. Several key business leaders in the cluster were taken on reference trips to Spain and the Netherlands to learn about world class
seafood clusters first-hand. As the cluster participants and consultants began to better understand the nature of innovation in seafood and the requirements for remaining competitive, it became evident that major strategic change was necessary.

When work started with the seafood cluster, about 80 percent of the industry’s product was frozen fish, mainly in the form of frozen ready meals. The industry had initially requested government support for a filleting plant and for securing raw material supplies from the local catching industry and trade partners. The analysis done by the competitiveness reinforcement project revealed that the industry’s instincts were off beam.

Despite the compelling evidence, there was, and still is, significant resistance to change. For decades, the region thrived on frozen fish processing and boasted the largest concentration of cold storage facilities in Europe. Several companies had recently made large investments in freezing equipment and cold storage and did not want to acknowledge the threat from cheap imports. Centuries of tradition meant that most businesses were looking to the sea, without understanding that most of the seafood arrives by air to the biggest market places. Switching from frozen to fresh seafood required substantial commitment and investment that local businesses, often with CEOs nearing retirement, were reluctant to make.

Cluster actions to follow the new vision
The vision resulting from the cluster discussions was to become the leading value-added fresh/chilled fish hub serving Europe. The strategy for achieving this objective involved innovating both in the marketplace and on value-added production. The cluster initiative identified three specific activities to pursue: 1) improving incoming logistics 2) concentrating the market and 3) developing export products and logistics.

Improving incoming logistics: Humber hub for perishables
Although 70-80 percent of UK seafood processing is located in the Humber region, as much as 65-70 percent of the fish used is sourced through distant airports, such as London and Edinburgh, and then

14 A CEO of one of the region’s largest companies commented, “People originally thought the issue was about fishermen, but that’s not the case. The fishermen are already gone. It is now about fish processing. Shifting the issue has been a huge achievement.”
transported by road to Yorkshire. With a highly perishable product like fish, these inbound logistics delays place Humber area firms at a significant disadvantage.

The competitiveness reinforcement project resulted in a proposal to build up a state-of-the-art facility for handling perishable imports at the Humberside Airport, which would provide more reliable access to high quality raw materials. Products coming by sea would be directed to Immingham port.

**Concentrating the market: Humber seafood exchange**

With the decline in the local catching industry and primary processing activities, neither of the existing markets in Hull or Grimsby had the volume of buyers sufficient for sustainability. Most fish processors purchase raw materials on contract and use the markets only for procuring niche products or to supplement shortfalls in supply. A consolidated marketplace offering additional logistics and other services based on the model of the Dutch flower auctions was seen not only facilitating purchasing arrangements, but also establishing the Humber as the critical hub for fresh seafood in Europe.

Despite of high interest, such a seafood marketplace still does not exist in Europe. Whereas other perishables auctions such as flowers, fruits and vegetables have followed substantial consolidation, there are still more than 400 fish auctions in Europe, most working locally.
“Fresh convenience food” export initiative
In mainland Europe and like in the UK, consumers are demanding better tasting, higher quality, and healthier convenience food. The Humber seafood cluster has an opportunity to capitalize on the UK’s leadership in this market by developing products for export to European markets. An initiative to develop export products and logistics could help compensate for decreasing profitability as well as help seafood processors better understand the end market needs, an opportunity which is limited in the UK given the market power and the dominance of the supermarkets over the value chain.

E - Present situation
According to an official at Yorkshire Forward concerned about the necessary strategic change “from frozen to fresh”, “It is likely the changes would have happened anyway. The cluster work gave the industry an opportunity to anticipate coming trends. The strategy analysis was looking 10 years down the road, but most businesses were only looking 2-3 years down the road. It was a wake-up call. The businesses that had their eyes open are benefiting; the others are being forced out of the market.”

The cluster initiative can be credited with some success in increasing competitiveness, but this has largely occurred at the company level, not that much at cluster or local policy levels. Evidence suggests that considerable economy of scale can be achieved in the processing industry. Consolidation continued, led by large processing companies that shifted to serving primarily the fresh seafood segment. Numerous companies that continued with frozen fish products left the industry. However, the three activities proposed by cluster initiative have been partially implemented.

Until 2007, out of the three proposals, perishable hub has advanced the most. Despite widespread support for the initiative, the implementation of the project was slow due to unanticipated bureaucratic hurdles related to the airport’s location in a jurisdiction different from the rest of the cluster.

The most controversial proposal was the consolidation of the two existing auctions in Hull and Grimsby. Hull’s Fishgate is state-of-the-art but small whereas Grimsby’s Fishmarket has greater capacity but needs additional investment for modernisation. Although it is universally accepted that there is no need to support two auctions, negotiations have stalled on how to merge them. Parochial local inter-
The Humber seafood clustering efforts in Yorkshire, UK

Appendix I: The clustering efforts in the Humber seafood industry, the UK

...ests and a long-standing rivalry have distracted local participants that didn’t want to compromise from the main question what is best option for the region. .

The export initiative was the last to progress. Cluster participants identified France as a target market and conducted a research trip. However it is unlikely that the Humber seafood cluster will undertake specialised export programme15.

The progress to the consolidation of change has been hampered by two factors external to the industry:

- **Tension of geography.** The appropriate geographic scale for the cluster does not match the level of political authority. Yorkshire Forward has a broader perspective than local governments, but lacks their political authority. Regardless the affiliation of political party, the local governments tend to represent only narrow interests of their small communities, which sometimes conflict with neighbouring areas. Yorkshire Forward can provide incentives for cooperation, but often does not have political leverage to compel cooperation or influence the outcomes of difficult and contentious decisions.

- **Entrenched interests are blocking creative destruction.** An advantage to working at the cluster level is that special interests tend to be neutralised since opposing views cancel each other out. Overlapping of interests is one of the advantages of the work at the cluster level because opposite standpoints neutralize each other. However, such dynamic, cannot be taken for granted. It does not happen when groups may suffer losses from changing status quo. Such groups are more organised, outspoken and active. Associations and other groups that claim to speak “on behalf of industry,” may promote only narrow interests that can be in conflict with the majority of the cluster.

15 According to one cluster member, businesses in Yorkshire and Humber “don’t have the mindset to go abroad. They are too used to doing what the UK supermarkerts tell them.”
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