

The Potential for Water Freight in the UK A Survey of Business Attitudes and Opinions



Commissioned by the Department for Transport and produced by Sea and Water

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Executive Summary

1. 70% of organisations had a positive attitude towards water-freight transport as an environmentally-sustainable alternative to road.
2. 59% would choose water when considering the environment whilst 5% of respondents already use water as a transport mode because of environmental concerns.
3. Reliability was more important than the cost in the choice of mode.
4. The greatest opportunity for water was perceived to be in the movements of containers, recyclable materials, waste and aggregates.
5. Pollution and safety were low ranking in the decision-making process for transport mode.
6. According to freight users the biggest barrier to water freight was speed of delivery and its effect on just-in-time practices.
7. The lack of commercial interest in water-freight opportunities is cited by operators as the most significant barrier to its growth.
8. There is a perceived need for the water-freight industry to promote itself in order to increase awareness of the opportunities as part of an integrated transport system.

1 Introduction

The use for water freight is very much dependent on the willingness of businesses and government to embrace a modal shift. This study analyses the attitude of the users of freight services with respect to water, road and rail. On the basis of a wide-ranging survey, it identifies the main drivers in the decision-making process and the barriers to the growth of water freight as perceived by the potential users of water. It further considers the types of potential new traffic.

The specific objectives of the survey are:

- 1 to determine the mode preference in the logistics chain;
- 2 to determine the factors that influence the choice of mode;
- 3 to assess the importance of environmental and social considerations;
- 4 to determine the perceived barriers to the use of water-freight transport;
- 5 to assess the growth potential for water-freight transport.

The questionnaire targeted 4,000 companies and government agencies from different industrial sectors around the UK. The companies were drawn from the manufacturing, retail, construction and shipping sectors.

The questionnaire consists of 15 questions compiled by Sea and Water (see Appendix). The questions aimed to identify the current practice with respect to:

- water in the supply chain;
- general attitude towards water-freight transport;
- potential from a business point of view;
- barriers to achieving this potential.

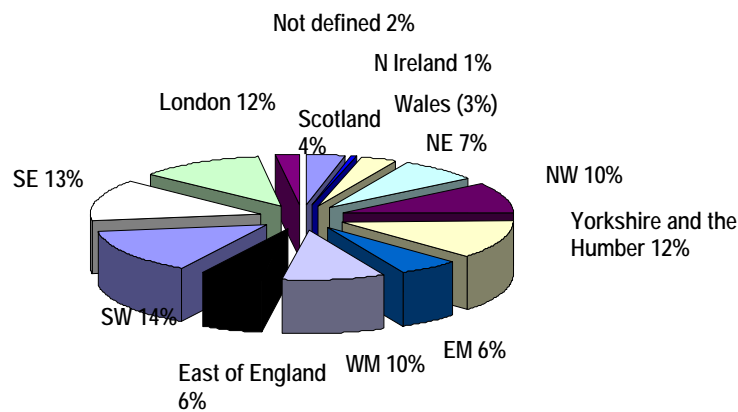
Opinions were sought from both the users of freight services and the ship and barge operators.

ICM Research was commissioned by Sea and Water to interview 100 companies using the questionnaire. Simultaneously Sea and Water ran the survey on-line and posted the questionnaires to 2000 businesses from its database which generated a further 87 responses. The results of this survey are based on the replies of these 187 companies which represents a 5% response rate.

2 The Sample

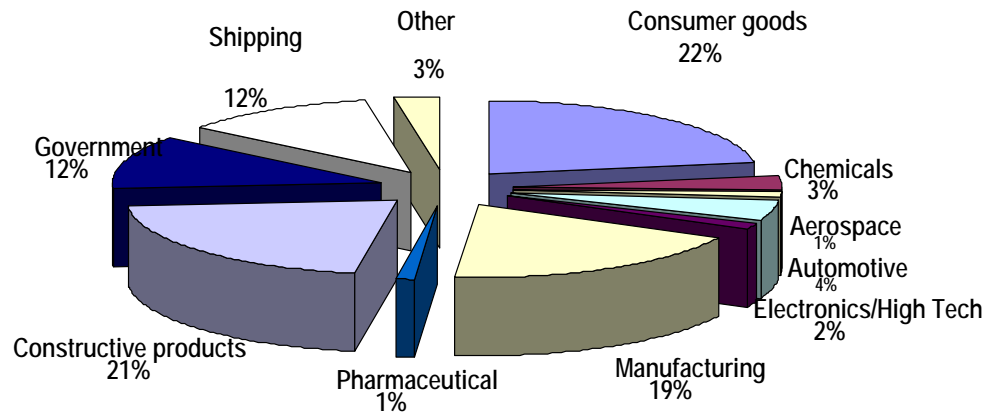
The regional diversity of the sample is demonstrated in Figure 1. Responses were received from all areas of the UK with a high percentage from London and the South East which reflects industries concentration in those regions.

Figure 1: Regional Diversity



By sector the sample covers a wide range of industries: manufacturing, consumer, pharmaceuticals, chemicals, electronics, shipping, aerospace, automotive, construction products. It also includes government departments. As shown in Fig 2 the highest concentration of sectors is in consumer goods, construction and manufacturing.

Figure 2: Sample Variation by Sector



Furthermore the sample polled a cross section of small, medium and large companies as measured by turnover and employment. Some 50% of these export to other EU countries, 3% to Scandinavia, 2% to the Mediterranean and 2% to Far East. About 10% export to other worldwide trade regions while 33% have no export trade.

The exporters in the sample primarily use road in the logistics chain to get to the port destination (see Table 1).

Table 1 The Primary Role of Road in the Logistics Chain

	Primary mode in logistics chain
Road	86%
Water	8.5%
Air	3.6%
Rail	1.2%
Other	0.7%

Source: Sea and Water

The export companies rely on the UK's port services to load, unload and discharge the goods. The ports that are regularly used by respondents were:

- 1 Southampton
- 2 Felixstowe
- 3 Hull
- 4 Dover
- 5 Liverpool
- 6 Portsmouth
- 7 Teesport
- 8 Thamesport
- 9 Belfast
- 10 King George V Terminal, Clydeport

Additionally these companies named other European Ports as important for their transport services:

- 1 Rotterdam
- 2 Antwerp
- 3 Zeebrugge
- 4 Amsterdam
- 5 Le Havre
- 6 Barcelona/Valencia
- 7 Dirdal
- 8 St Petersburg

Another feature that shapes the sample is the average increase or decrease of sea, road and rail volumes in 2005 compared to 2004. In this case the information about ship operators was excluded from the analysis. Table 2 indicates that 53 of the respondents increased their sea volumes in 2005 compared to 92 for road and 14 for rail. Nearly a quarter of the respondents had experienced a growth in sea volumes of more than 10% during this period.

Table 2: Average increase/decrease of transport volumes in 2005 compared to 2004

Customers of transportation services	Sea Volumes	Road Volumes	Rail Volumes
0-+5%	16	17	9
+6% -10%	13	38	1
+11% - 15%	9	11	1
+16% - 20%	8	13	2
20%	7	13	1
Total	53	92	14
Remained the same	31	52	79
- by 1-5%	0	2	0
-6% -10%	5	9	8
- > than 20%	4	2	1
Other	14	8	49
Did not use	58		14
Mean increase %	4.60	5.66	0.17
Standard Deviation	10.36	9.01	5.05
Standard Error	1.07	0.72	0.50

The remainder of the sample represents the shipping industry. Ship operators were questioned about their customers and identified the following primary industries which use their services (Table 3).

Table 3: Ship Operators

Primary Industry	% of operators
Consumer Goods	18%
Heavy Manufacturing	14%
Aggregates	9%
Construction products	9%
Automotive	5%
Chemical	5%
Electronics/High Tech	0%
Textile	0%
Other	9%
Don't buy	18%
Not specified	13%

Consumer goods represent the largest proportion of cargoes for those polled, closely followed by heavy manufacturing. Aggregates and construction products were also significant business for the ship operators.

Analysis of the vessels used to move these cargoes indicates a range of sizes up to 10,000 Gross Registered Tonnes (GRT). ¹ The size category used most frequently was up to 5,000 grt although there was a fairly even distribution across all tonnage (Table 4).

Table 4: Frequency of vessels used

Frequency	Up to 10,000grt	Up to 5,000grt	Up to 2,500grt
Very Often	32%	32%	32%
Often	18%	23%	14%
Occasionally	9%	14%	23%
Never	18%	14%	14%
Other	5%	5%	0%
Not specified	18%	14%	18%
Mean	2.18%	2.11%	2.22%
Standard Deviation	1.24	1.13	1.17
Standard Error	0.30	0.27	0.27

Source: Sea and Water

¹ Gross Registered Tonnes (GRT). *Gross Registered Tonnes
A measure of the total enclosed volume of a vessel in terms of cubic metres multiplied by a constant.

Table 5: Frequency and Type of Cargoes Transported

Frequency	Liquid Bulk	Dry Bulk	Semi-bulk	² Mobile Self-propelled	Mobile Non Self-propelled	Containers
Very Often	9%	50%	0%	14%	9%	27%
Often	0%	5%	0%	0%	9%	9%
Occasionally	14%	14%	9%	14%	0%	9%
Never	55%	23%	77%	59%	68%	41%
Not specified	23%	9%	14%	14%	14%	14%

Source: Sea and Water

Table 5 shows a bias towards dry bulk and container cargoes for operators' samples, with 55% transporting dry bulk and 36% containers on a regular basis.

The sample consists of organisations randomly chosen from all over the UK. It has both geographical and industrial diversity and elicits opinion from both the users of water freight and ship operators. Despite the clear preference for road in domestic transport, water and rail are used to a limited extent by those organisations polled.

3 Choice of a mode

An objective of the survey was to discover the factors that influence the choice of mode in existing logistics decision making. Existing academic research has proved that it is difficult to give a general insight into the importance of the various factors due to the differentiation of logistics services by industry types.³ Muilerman⁴ has measured time sensitivity in the food and service-parts industry. His work reveals that reliability appears to be very important when measured in terms of costs. For 1% reliability improvement, the average logistics manager is prepared to pay 5% higher transport costs. According to his conclusions, reliability becomes the most important attribute in the Dutch and British food industries, followed by transport costs, transit time and frequency respectively.

2

Mobile Self-Propelled Units

These include road-goods vehicles with or without accompanying trailers; passenger cars, motorcycles and accompanying trailers/caravans; passenger buses; import/export motor vehicles; live animals.

3

Leggate H., J. McConville and A. Morvillo, "International Maritime Transport: Perspectives", Taylor&Francis, 2005.

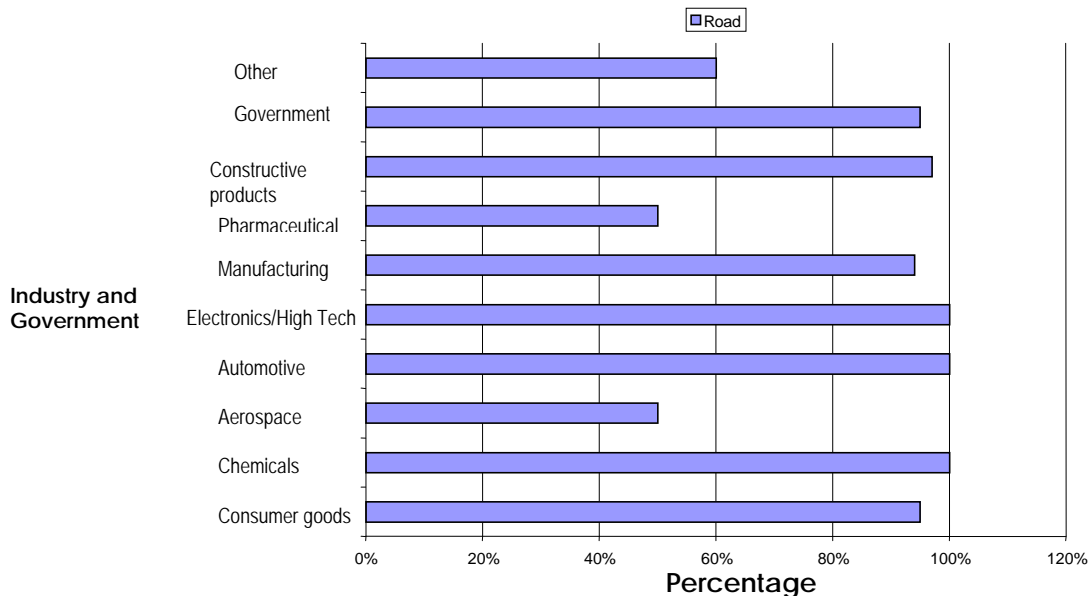
4

Muilerman, G.J., "Time-based logistics. An analysis of the Relevance, Causes and Impacts, Delft University Press, 2001.

3.1 Which Mode?

Section 2 highlighted the importance of road freight transport in the logistics chain. Before proceeding with the factor analysis it is important to consider the extent of this road usage and any sector variation. When asked what mode of transport was most frequently used in 2006, 90% of respondents indicated road. Furthermore the use of road is prevalent in both the private and public sectors in the UK. A sector analysis reveals that this is particularly the case for retailers (100%), manufacturers (97%), construction companies (97%) and government (95%). Only aerospace and pharmaceutical industries did not rely completely on road transport (see Figure 3).

Figure 3: Significant Use of Road Transport (2006)



Source: Sea and Water, 2006

3.2 Expectations of water-freight volumes

The organizations surveyed were asked about their expected increases or decreases in sea and waterway volumes in 2006. The average increase suggested by the results is just over 2% with some 30% of respondents expecting a similar level. Table 6 shows that 27% polled thought that the water element would increase in 2006.

Table 6: Expected increase/decrease in Sea and Waterway Volumes (2006)

Customers of transportation	Sea and Waterway Volumes
+ 0 - 5%	22
+ 6% -10%	20
+ 11% -15%	0
+ 16% -20%	1
> 20%	1
Remained the same	49
- 1% -5%	6
- 6% -10%	0
- > 20%	1
Other	7
Do not use	58
Mean	2.08%
Standard Deviation	4.97
Standard Error	0.50

Source: Sea and Water, 2006

3.3 Factors influencing modal choice

The questionnaire suggested a list of factors which may influence the choice of mode which had been derived from previous studies⁵ and asked the participants to rank them in order of importance. The results are analysed from the perspectives of both the users of water freight and ship operators.

⁵ Transport Intelligence, "Global Freight Forwarding", July 2005, p. 42-70

3.3.1 Users of water freight

The ranking of factors by the users of water freight services is shown in Table 7. Of the total sampled some 92% ranked reliability as very important while 70% put the transport cost as a very significant component in the decision making process. The table illustrates that reliability is far more important than cost. Almost the same number were of the opinion that “responding to problem notification” should also be considered very important in modal choice. These percentages were consistent across the various industrial sectors and also consistent with the results achieved by Muilerman⁶.

⁶ Op Cit Muilerman

Table 7: Factors important to users of freight services (2006)

Factors	Very Important (1)	Important (2)	Unimportant (3)	Very Unimportant (4)	NET: Importance	NET: Unimportant	Rank
Reliability	151	10	0	3	161	0	1
Transport Costs	116	40	5	3	156	8	2
Response to Problem Notification	118	36	3	4	154	7	3
Transit Time	84	69	8	3	153	11	4
Frequency	94	58	7	3	152	10	5
Personal Service	66	75	18	4	141	22	6
Quality of Infrastructure	69	68	15	6	137	21	7
Road Congestion	77	52	24	10	129	34	8
Trust in brand	68	60	23	5	128	28	9
Road Accidents	80	46	33	4	126	37	10
Air Pollution	62	60	44	9	122	53	11
Value Added Services	42	72	35	6	114	41	12
Trade Route	22	58	30	12	80	42	13

Source: Sea and Water

The rankings also demonstrate that road congestion, safety and air pollution are not the priority in decision making.

Industry and government are mainly interested in the economic drivers in choosing a transport mode, and the factors that indicate corporate and social responsibility are left far behind in this classification. Despite increasing 'green awareness' the private and public sectors do not appear to have incorporated these externalities into the decision-making process.

3.3.2 Suppliers of water freight services

On the supply-side, ship operators arranged the factors important to them. Consistent with the demand side, the supply side values the economic factors of reliability and transport costs as the top two factors but suggest that transit time and frequency are the next most important factors. Again pollution as an indication of attitude towards the environment is not regarded as very important to water freight operators.

Table 8: Factors important to ship operators in the UK (2006)

Factors	Statistical Mean	Ranking
Reliability	1.16	1
Transport Costs	1.26	2
Transit Time	1.47	3
Frequency	1.47	3
Accidents	1.69	4
Problem Notification from customers	1.79	5
Quality of Infrastructure	1.95	6
Personal Service	2.11	7
Pollution	2.32	8
Value Added Services	2.63	9
Trade Route	2.85	10
Brand strength	3.05	11

Source: Sea and Water, 2006

Clearly road is the preferred mode for domestic transport, with 90% citing it as the mode most frequently used. The factor analysis strongly suggests that the economic drivers of reliability and costs are important to both the users of water freight and suppliers of freight services.

In general corporate and socially responsible issues receive little or no consideration in the determination of the logistics provision. However, it was interesting to find that 5% of respondents use a particular transport mode because of environmental concerns while 59% said that they would choose water transportation if considering the environment.

4 Barriers to the use of Water Freight Transport

In order to promote the greater use of water freight-transport it is important to understand the perceived barriers which prevent its development. Participants, both users and suppliers of water freight services were asked to state problems in realising the potential of water. Table 9 ranks these barriers cited by the users (shippers).

Table 9: Market Barriers (shippers' perspective)

Barriers	Percentage	Rank
Speed/Timescale	27.27%	1
Infrastructure/Network	23.03%	2
Costs	15.75%	3
Reliability	6.06%	4
Accessibility	5.45%	5
Vessels/Equipment	5.45%	5
Size/weight	4.85%	6
Lack of Investment	4.24%	7
Security of loads	4.24%	7
Lack of markets to generate adequate traffic	4.24%	7
Lack of awareness of water opportunities	3.03%	8
Port congestion	1.81%	9
Other	19.39%	
Don't know	36.36%	

Source: Sea and Water

For users of water freight the major obstacles were the perceived lack of speed and required infrastructure. There was a strong feeling that the just-in-time principles of modern logistics would be compromised by the delivery times and reliability offered by water solutions.

Other comments related to an apparent absence of marketing strategies of water-freight operations. Businesses were of the opinion that there was a need to increase awareness of the opportunities and services.

Ship operators cited different barriers as causing difficulties in realising the potential for water freight transport. These are shown in Table 10:

Table 10: Barriers (ship operators' perspective)

Barriers	Percentage	Rank
No commercial interest in water freight opportunities	27%	1
Infrastructure/Network	27%	1
Lack of equipment/Vessels	18%	2
Cost of fees/timescale of government license approvals	18%	2
A need of haulage with or without water freight transport	9%	3
Lack of specialised shipping/trained personnel	9%	3
Lack of quay space	7%	4
Other	23%	

The lack of commercial interest in water-freight opportunities was thought to be the most significant barrier to its growth according to the ship operators. The lack of vessels was a significant concern of the ship operators. While they both shared a concern about the lack of good infrastructure. Such issues need to be tackled as a matter of urgency if the industry is to achieve its true potential.

5 Growth Potential for Water Freight Transport

The survey sought to assess the attitude of organisations towards water transport as an environmentally friendly alternative to road. The objectives here were to assess the growth potential of this mode. Given the green agenda this is a key objective in determining the growth potential.

Some 70% of the participants were positive towards water freight. Table 11 illustrates the results with 1: – very positive; 2: – positive; 3: – neither positive nor negative; 4: - negative.

Table 11: Ranking of industry attitude

Industry	Statistical Mean	Rank
Pharmaceutical	1.50	1
Aerospace	1.50	1
Electronics/High Tech	1.67	2
Automotive	1.88	3
Government	2.14	4
Consumer goods	2.15	5
Chemicals	2.17	6
Constructive products	2.24	7
Manufacturing	2.26	8
Other	2.75	

Source: Sea and Water

The attitude across the sectors was also encouraging with 73% of government departments, 77% of retailers, 64% of construction companies and 63% of manufacturers all positive about the idea of water freight transport.

According to the users the areas which are thought to provide the greatest opportunities were recyclable materials, containers, waste, heavy loads and aggregates (see Table 12). The attitude to the modern logistics solution is interesting. Increasingly in the rest of Europe there is a recognition of the need to integrate modes for a more efficient and reliable service and this concept does not appear to be as strong in the UK.

Table 12: Opportunities for Water Freight Transport (customers' perspective)

Traffic type	Percentage	Rank	Retail	Construction	Government
Recyclable materials	52.12%	1	93%	82%	68%
Containers	48.50%	2	85%	55%	64%
Waste	45.45%	3	80%	63%	64%
Heavy Loads	44.24%	4	70%	63%	55%
Aggregates	41.81%	5	60%	74%	64%
Modern Logistics Solution	39.39%	6	69%	55%	45%
Construction	37.58%	7	65%	63%	50%
Biomass	33.94%	8	65%	42%	55%
Other	0.6%	9	-	-	5%
Don't know	18.79%		10%	5%	14%

Source: Sea and Water

It was interesting to note that 93% of retailers think that recyclable materials provided the best opportunities for water freight with 85% citing container transport as a significant area.

Comparing these results with those of the ship operators it is clear that perceptions are different. Here the greatest potential is thought to be in aggregates and construction but the view of containers is shared by the operators.

Table 13: Opportunities for Water Freight (Ship Operators)

Area	Percentage	Rank
Aggregate	41%	1
Containers	36%	2
Construction	36%	3
Waste	27%	4
Recyclable materials	23%	5
Biomass	23%	5
Modern Logistics Solution	23%	5
Other	14%	6

Source: Sea and Water

These results provide valuable information about the attitudes towards the use of water in the future by the private and public sectors. Although organisations primarily use road they are positive about the potential of water freight transport as a potential environmentally-friendly alternative. The perceived areas for development are in recyclable materials, aggregates and containers. These cargoes are already transported by water but there is considerable opportunity for increased volumes particularly in the areas of recyclable materials, waste and indeed containers.

6 Conclusions

This study has sought to assess the attitudes to freight transport in the UK and in particular water transport. It set a number of objectives namely:

- 1 To determine the mode preference in the logistics chain;
- 2 to determine the factors that influence the choice of mode;
- 3 to assess the importance of environmental and social considerations;
- 4 to determine the perceived barriers to the use of water-freight transport;
- 5 to assess the growth potential for water-freight transport.

The results confirm the reliance on road transport for domestic delivery. This is mainly due to the fact that logistics decisions are based solely on economic factors drivers. However, it was interesting to note that reliability was considered more significantly more important than basic cost.

Social factors such as pollution, congestion and accidents do not appear to form a significant part of the decision making process. Having said this it is clear that environmental issues are becoming more important as companies develop more sophisticated corporate and socially-responsible strategies. Indeed there now incentives provided by capital markets indicators for social responsibility. Their function is to give the right signals to the market by highlighting those companies that meet the certain criteria⁷.

In terms of barriers to the future use of water freight, the users of water freight see the major problem as the inability of the water-freight industry to deliver a competitive transport service. They remain unconvinced that the speed and reliability of delivery fits in to the Just-In-Time approach to logistics. The ship operators on the other hand see the major obstacle as the lack of commercial interest in the mode. There is clearly a need to dispel some of the negative notions of the industry and promote the opportunities it affords as part of an integrated transport chain.

As far as attitudes were concerned, there was some encouraging news for the water freight industry. It was found that 70% of organisations had a positive attitude towards water-freight transport as an environmentally-sustainable alternative to road and that 59% would chose water as a mode of choice on environmental grounds. Surprisingly 5% of those surveyed said they already use water as a transport mode because of their environmental concerns. The survey also revealed that the greatest opportunity for water freight was perceived to be in the movements of containers, recyclable materials, waste and aggregates.

⁷ Three socially responsible investment indices have already been established where companies are included if they meet the following criteria: environment, human rights, supply-chain labour standards and stakeholder policies. These are the FTSE4Good index, Dow Jones Sustainability Index and the Calvert Social Index, which is a broad-based, rigorously constructed benchmark for measuring the performance of large, socially-responsible companies.

Appendix

Market Survey 2006 – Providers of services

I. General Information

Please circle a number

1. Where is your head-office located?

- Scotland 1
- Northern Ireland 2
- Wales 3
- North East 4
- North West 5
- Yorkshire and the Humber 6
- East Midlands 7
- West Midlands 8
- East of England 9
- South West 10
- South East 11
- London 12

2. What is the main region in which you transport short sea freight?

- EU + Eastern Europe 1
- North Africa 2
- Former USSR Republics 3
- Scandinavian Region 4
- Mediterranean 5
- Other (please specify) _____

3. Which are the main ports that you use regularly to depart from or arrive at?

Please order them by importance:

Load + Discharge

- 1. _____
- 2. _____
- 3. _____
- 4. _____
- 5. _____

Home

- 1. _____
- 2. _____
- 3. _____
- 4. _____
- 5. _____

Please circle a number

4. Please state how often you utilise the following vehicles:

	Very Often	Often	Occasionally	Never
Vessels up to 10,000 grt	1	2	3	4
Vessels up to 5,000 grt	1	2	3	4
Vessels up to 2,500 grt	1	2	3	4

5. Please state how often you transport the following cargo:

	Very Often	Often	Occasionally	Never
Liquid Bulk	1	2	3	4
Dry Bulk	1	2	3	4
Semi bulks	1	2	3	4
Mobile Self-propelled	1	2	3	4
Mobile non Self-propelled	1	2	3	4
Containers	1	2	3	4

6. Which is the primary industry from which you buy the services of freight forwarding?

- Consumer goods (retail) 1
- Heavy Manufacturing 2
- Automotive 3
- Aerospace 4
- Chemical 5
- Pharmaceutical 6
- Electronics/High Tech 7
- Textile 8
- Government Logistics 9
- Other (please specify) _____

Please circle a number

7. What proportion of the value of each shipment does the cost of sea freight account for?

0-5%	1
6-10%	2
11-15%	3
16-20%	4
More than 20%	5

8. Please state how important for you the following factors are on a scale of 1 to 4 with 1 being *very important* and 4 – *very unimportant*:

Transit time	1	2	3	4
Frequency	1	2	3	4
Reliability	1	2	3	4
Transport Costs	1	2	3	4
Trade road	1	2	3	4
Quality of Infrastructure	1	2	3	4
Personal Service	1	2	3	4
Value added services	1	2	3	4
Brand strength	1	2	3	4
Pollution	1	2	3	4
Accidents	1	2	3	4
Problem Notification from Customers	1	2	3	4

II. Transport Modes

9. Are you required to use a particular transport mode for reasons of environmental protection?

Yes	1
No	2
Other (please specify) _____.	

Please circle a number

10. Do you use a particular transport mode because of infrastructure constraints?

Yes	1
No	2
Other (please specify) _____.	

11. Will you use the water transport mode if you can choose between the three modes on a competitive basis?

Yes 1
No 2
Other (please specify) _____

12. Will you choose the water transport mode if you are aware of accidents, congestion and carbon emissions from road transport?

Yes 1
No 2
Other (please specify) _____

Please circle a number

III. Future Potential

13. There is future potential for expansion of the UK water freight market. Please indicate the areas that hold potential for such expansion:

Waste 1
Recyclates 2
Biomass 3
Aggregates 4
Containers 5
Construction materials 6
Modern Logistics Solutions 7
Other (please specify) _____

14. From your own experience, please state problems in realising the potential (such as a lack

of a coordination body, a lack of vessels or unawareness of water opportunities, etc.)

Please rank in order of importance:

1. _____
2. _____
3. _____
4. _____
5. _____

15. Is there something else that you would like to add?

Appendix – Users of transport Market Survey 2006

I. General Information

Please circle a number

3. Where is your head-office located?

Scotland	1
Northern Ireland	2
Wales	3
North East	4
North West	5
Yorkshire and the Humber	6
East Midlands	7
West Midlands	8
East of England	9
South West	10
South East	11
London	12

4. In which industry are you primarily involved?

Consumer goods (retail)	1
Manufacturing	2
Automotive	3
Aerospace	4
Chemical	5
Pharmaceutical	6
Electronics/High Tech	7
Constructive Products	8
Government Logistics	9
Other (please specify) _____	

5. What is the main region of short sea transport in your logistics chain?

EU + Eastern Europe	1
North Africa	2
Former USSR Republics	3
Scandinavian Region	4
Mediterranean	5
Other (please specify) _____	

Please circle a number

6. Which transport segment is primarily incorporated into your logistics chain?

Road	1
Rail	2
Sea and Waterways	3
Air	4
Other _____	

7. Please state how important for you the following factors are on a scale of 1 to 4 with 1 being *very important* and 4 – *very unimportant*:

Reliability	1	2	3	4
Frequency	1	2	3	4
Transit time	1	2	3	4
Transport Costs	1	2	3	4
Trade road	1	2	3	4
Quality of Infrastructure	1	2	3	4
Personal Service	1	2	3	4
Value added services	1	2	3	4
Respond to Problem Notification	1	2	3	4
Trust in brand	1	2	3	4
Air Pollution	1	2	3	4
Road Congestion	1	2	3	4
Road Accidents	1	2	3	4

6. Which are the main ports that you use regularly to load and unload freight?

Please order them by importance:

Load + Discharge

Home

1. _____
 2. _____
 3. _____
 4. _____
 5. _____

1. _____
 2. _____
 3. _____
 4. _____
 5. _____

II. Transport Modes

Please circle a number

7. By what percentage has your SEA volumes increased or decreased in 2005 compared to 2004?

0-5%	1
5-10%	2
10-15%	3
15-20%	4
More than 20%	5
Remained the same	6
-5 to 0%	7
Other_____	

8. By what percentage has your ROAD volumes increased or decreased in 2005 compared to 2004?

0-5%	1
5-10%	2
10-15%	3
15-20%	4
More than 20%	5
Remained the same	6
-5 to 0%	7
Other_____	

9. By what percentage has your RAIL volumes increased or decreased in 2005 compared to 2004?

0-5%	1
5-10%	2
10-15%	3
15-20%	4
More than 20%	5
Remained the same	6
-5 to 0%	7
Other_____	

Please circle a number

10. Which transport mode does your company use most significantly in 2006?

- | | |
|------------|---|
| Road | 1 |
| Rail | 2 |
| Water | 3 |
| Other_____ | |

11. What percentage of increase/decrease do you expect for your Sea and Water volumes in 2006?

- | | |
|-----------------|---|
| -5 to 0% | 1 |
| Remain the same | 2 |
| 0 to 5% | 3 |
| 5 to 10% | 4 |
| Other_____ | |

III. Future Potential

12. "Green" issues are on the political agenda. How do you view the growth potential of the water freight services as an environmentally friendly alternative?

- | | |
|-------------------------------|---|
| Very positively | 1 |
| Positively | 2 |
| Neither positive nor negative | 3 |
| Negatively | 4 |

13. There is future potential for expansion of the UK water freight market. Please indicate the areas that hold potential for such expansion.

- | | |
|------------------------------|---|
| Waste | 1 |
| Recyclates | 2 |
| Biomass | 3 |
| Aggregates | 4 |
| Containers | 5 |
| Construction materials | 6 |
| Heavy Loads | 7 |
| Modern Logistics Solution | 8 |
| Other (please specify) _____ | |

14. From your own experience, please state problems in realising the potential (such as infrastructure constraints, a lack of markets to generate adequate traffic, a lack of vessels, etc.)

Please rank in order of significance:

1. _____
2. _____
3. _____
4. _____
5. _____

15. Is there something else that you would like to add?
