Transport Infrastructure and Services: Industry Views

Final report for
Scottish Enterprise
Highlands and Islands Enterprise
Scottish Government
Transport Scotland

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Background and methodology

The Scottish Government's Economic Strategy identifies transport as one of the key factors in promoting economic growth in Scotland and commits the Government to "focus investment on making connections across and within Scotland better, improving reliability and journey times, seeking to maximise the opportunities for employment, business, leisure and tourism"[1].

The meeting of these objectives requires a detailed understanding of the ways in which transport infrastructure and services impact on business location, productivity and growth. To improve such understanding Scottish Enterprise, together with Highlands and Islands Enterprise, the Scottish Government and Transport Scotland, commissioned Ipsos MORI and Steer Davies Gleave to conduct research aimed at obtaining the requisite information, focusing in particular on key growth sectors.

The specific aims of the study were to:

- gain a better understanding of how businesses in Scotland – particularly those in the key sectors identified in the Scottish Government's Economic Strategy – view the current level of transport infrastructure and services
- identify how businesses use transport infrastructure and services
- determine how well current infrastructure and services meet business needs and where they act as a constraint.

The research comprised three main components: A review of the existing literature on businesses' perceptions of transport infrastructure and services in Scotland; in depth interviews with key stakeholders; and a telephone survey of 1,700 businesses across Scotland.

Key findings

Context: the business climate

Around a third (31%) of respondents say their business' prospects will improve over the next 12 months while a similar proportion (33%) say things will get worse[2]. Another third anticipate no change. The creative industries are more likely than average to say that things will improve while the food and drink, and tourism sectors are more likely to give a negative forecast.

[1] Scottish Government (2007), *The Government Economic Strategy*, Scottish Government: Edinburgh

[2] It is important to note that the survey was conducted in June 2008 during a major economic slowdown characterised by a falling housing market and rising food and fuel prices.

The main challenges businesses face at present are rising costs (mentioned by 38%), the state of the economy (16%), a downturn in consumer demand (14%), access to credit or funding (10%) and increased competition (8%). The quality of transport infrastructure and services is mentioned less frequently (by 4%) suggesting that while it is a concern for some businesses, it is not among their top priorities at the current time.

However, when *asked directly* about any transport-related challenges facing their business, a majority of respondents mention at least one such challenge, with the cost of fuel emerging as the top response by far.

Perceptions of transport networks

The most important considerations for businesses when they are evaluating and comparing travel options are reliability and cost. Indeed, these factors are twice as important as the next highest ranking considerations: knowing how long a journey will take, whether public transport is available and total journey time. The frequency of a journey and the impact on the environment rank as much lower issues for businesses.

Perceptions of Scotland's six main transport networks are generally positive, with all but one network - local roads - rated as very or fairly good by at least seven in ten users. The rail network and air travel services receive the highest rating (75% and 74% respectively rate these as good), followed by the trunk road network (71%), local public transport (70%) and the water-based network (70%). In respect to local roads, roughly equal proportions of respondents give positive and negative ratings (43% and 42% respectively).

Notwithstanding these results, it is important to note that none of the networks are rated *very* good by more than a quarter of respondents. Indeed, for local roads the figure is just 8% and for the trunk road network and the rail network it is only slightly higher at 12% and 15% respectively.

There is a clear regional dimension to perceptions of transport networks. Ratings of the trunk road network, local public transport and air travel services are lower in the Highlands and Islands Enterprise (HIE) area than elsewhere in Scotland. The reverse is the case for local roads and the water-based network, with businesses in the Scottish Enterprise (SE) area giving the more negative responses. There is little variation by sector, although respondents from the tourism sector are among those most likely to rate the water-based network as poor.

Respondents identified specific problems with each of the six networks. In relation to local roads and the trunk road network, the main problems identified are poor road conditions, traffic congestion and excessive roadworks. For local public transport and the rail network, the reliability and frequency of services are the main areas of grievance, while for air travel services, concerns about the cost of fares and the availability of routes – both within Scotland and between Scotland and other countries – are foremost. Among the small proportion of

respondents who rate the water-based network as poor there is particular dissatisfaction with a perceived lack of services between the Scottish islands and the mainland, and with the reliability of services which do exist.

In terms of area-based differences, poor conditions on both local roads and trunk roads are mentioned by more respondents in the HIE area than elsewhere in Scotland. Mention of excessive roadworks on local roads is higher than average in the South East of Scotland Regional Transport Partnership (RTP) area[3]. Again, no sector-based differences are apparent.

Impact on businesses

Respondents who rated a network as poor were asked to consider what impact the problems with that network have on their business' performance. The most common responses are a loss of man hours, a loss of business and increased operating costs. Problems with the trunk road network and local roads also appear to be contributing to delays in the delivery of goods, while problems with local public transport and the rail network are identified as a key cause of staff lateness.

HIE area businesses are more likely to say they experience increased operating costs because of poor local roads. There is also some sector variation with respondents from the food and drink sector being more likely than average to say problems with local roads result in goods not being delivered on time.

Priorities for improving transport infrastructure and services

When respondents are asked (unprompted) to identify priorities for improving transport infrastructure and services, two-thirds of all responses relate to the road networks (compared with 17% for the public transport network, 15% for the rail network and 4% for each of the water-based network and air travel services). The specific improvements businesses would most like to see very much mirror their main complaints about roads, noted above, and include: improving the condition of local roads and trunk roads; reducing congestion; and minimising roadworks and disruption. Priorities for improvement that are *not* related to roads include improving public transport and reducing the cost of fuel. The need to improve the condition of local roads receives higher than average mention in the Strathclyde RTP area, while minimising roadworks and disruption is most commonly mentioned in the South East.

Impact of IT on businesses' transport use

In addition to exploring businesses' experiences and perceptions of Scotland's transport networks, the survey sought to assess the extent to which developments in IT have impacted on their use of transport. Almost half (46%) of respondents say that IT has enabled themselves

[3] Further sub-group analysis of these findings is not possible due to small base sizes.

and their colleagues to make fewer work-related journeys, while just over a third (35%) say it has had no impact in this respect. Seven per cent say it has increased the number of journeys they and their colleagues make. Respondents from the financial and business, life sciences and creative sectors are more likely than average to say they make fewer journeys.

Transport use and the environment

The survey also looked in detail at the extent to which businesses consider environmental issues in decisions on transport policy or transport use. In several respects the findings are encouraging. Significant proportions of businesses have adopted 'greener' transport policies, including the preferential use of local suppliers (61%), home working (45%) and promoting public transport use in their marketing materials (31%). However, relatively small proportions have adopted other policies such as carbon offsetting (11%), and providing company loans for bicycles (8%) and season tickets (6%). Further, 40% continue to provide company cars, with three-quarters providing free parking at their premises.

This picture looks set to remain static in the near future, with relatively small proportions of businesses saying that they will be adopting greener policies they don't already have.

There are few sector-based differences in the findings but respondents from the financial and business, life sciences and creative sectors are more likely than average to have introduced home working. Meanwhile, larger businesses are more likely than smaller ones to have adopted greener transport policies, including car-sharing schemes, travel plans and carbon offsetting.

Conclusions

In sum, the research findings clearly support the emphasis in the Scottish Government's Economic Strategy on the reliability, efficiency and cost of transport for businesses. These were prominent themes throughout the research and clearly underpin businesses' evaluations of individual transport networks. The research also highlights some clear future priorities for improvement, both in relation to infrastructure and services as a whole and to individual transport networks. The need for improvements to roads is by far the most pressing issue as far as businesses are concerned.

Beneath the aggregate level findings, the survey also provides important evidence concerning the ways in which use and perceptions of transport networks vary in different parts of the country. This evidence, too, should help to inform any improvement efforts, ensuring that, as far as possible, Scotland's transport infrastructure and services fully reflect the needs and priorities of all businesses, wherever they are based. The fact that there are so few sectoral differences in the findings is notable and suggests that any improvements made will have the potential to benefit all types of business and therefore the economy as a whole.

1 Background and objectives

1.1 Strategic Context

The Scottish Government's Economic Strategy sets out its plans for enabling Scotland to grow sustainably and economically in the future. It identifies five Strategic Priorities that are most critical to economic growth in Scotland. These are: Learning, Skills and Wellbeing; Supportive Business Environment; Infrastructure Development and Place, which includes transport; Effective Government; and Equity.

Within the Economic Strategy, transport is recognised as one of the key factors in promoting economic growth in Scotland and commits the Government to "focus investment on making connections across and within Scotland better, improving reliability and journey times, seeking to maximise the opportunities for employment, business, leisure and tourism".[4]

Enhancing Scotland's transport services and infrastructure is "key to supporting business and employment opportunities in pursuit of a wealthier and fairer Scotland".[3] Transport is not only a business sector which contributes to the economy in itself but also has a broader impact on all business activities through, for example, the ability to access labour, suppliers or to transport products.

Scotland's National Transport Strategy[5] also identifies the important role transport has in the economy in fostering "an accessible Scotland that supports economic growth". The strategy identifies the need to "build, enhance manage and maintain transport services, infrastructure and networks to maximise their efficiency" to promote economic growth. It aims to achieve this through improving journey times and connections, reducing emissions and improving the quality of transport services.

1.2 The Role of Transport in the Economy

An efficient transport system is believed to be one of the key enablers for enhancing productivity and delivering faster, more sustainable growth. Enhancing transport infrastructure and services can open up new markets, increase access to employment and help to build a critical mass of businesses that drive up competitiveness and deliver growth.

The exact role that transport has in encouraging economic growth is by no means easy to pinpoint, however. Transport problems can be a constraint but are often accompanied by a

4 Scottish Government (2007), *The Government Economic Strategy*, Scottish Government: Edinburgh
5 Scottish Government (2006), *Scotland's National Transport Strategy*, Scottish Government: Edinburgh

need to address other constraints such as labour force skills. It is vital that the links are fully understood in order to develop a clear future path.

Additionally, it is generally recognised that the impact of transport can vary between sectors. The service sector, for example, tends to place a higher value on accessing labour whereas manufacturing industries are more concerned with transporting raw materials. It is important to identify the nature and extent of any such differences between the key sectors of business growth highlighted in the Economy Strategy.

An appreciation of how transport influences business location decisions is also crucial if Scotland is to provide the right conditions for encouraging new investment in an increasingly competitive global economy.

In short, it is important to understand the ways in which transport and infrastructure support economic performance beyond the simple statement that good transport is important to businesses.

Accordingly, Scottish Enterprise, together with Highlands and Islands Enterprise, the Scottish Government and Transport Scotland, commissioned Ipsos MORI and Steer Davies Gleave to undertake research aimed at improving this understanding.

The research comprised three main components: a review of the existing literature on businesses' perceptions of transport infrastructure in Scotland; in depth interviews with key stakeholders; and a telephone survey of 1,700 businesses across Scotland. Further details on the methodology are provided in Chapter 2.

1.3 Aims and objectives

The specific aims of the study are to:

- gain a better understanding of how business in Scotland – particularly those in the key sectors identified in the Scottish Government's Economic Strategy – view the current level of transport infrastructure and services
- identify how businesses use transport infrastructure and services
- determine how well they meet business needs and where they act as a constraint.

To meet these aims the research looked at a number of issues, including:

- the type of transport links that businesses value
- the different purposes for which transport links are used
- the relative importance of cost, journey time and reliability
- perceptions regarding the quality of different modes of travel

- perceptions regarding the integration of transport services, both within and between modes and the importance placed upon this
- identifying whether or not the valuation of transport refers to the direct benefits of transport (e.g. reduced time or costs) or also to its indirect benefits (access to skilled labour markets, or retention of staff etc.)
- whether or not the existing level of transport is a (perceived) inhibitor to the economic performance of business
- the role of transport in location decisions
- how advances in technology have impacted on travel usage
- the extent to which environmental issues are considered in decisions on transport policy or transport use of an organisation.

A review of literature shows that previous research has looked at specific areas of Scotland, transport services or infrastructure – for example studies into the impact of the A9 on businesses along the route[6] or the effect that removing air services between Inverness and Heathrow had on businesses[7] - but there has been little research on the effect transport has on Scottish businesses. This research is strongly focused on the Scottish Government's Economic Strategy and, in particular the sectors that have been identified as having significant growth potential for the Scottish Economy. These are:

- Energy
- Financial and business services
- Food and drink
- Life sciences
- Tourism, and
- The creative industries.

Understanding the extent to which transport has a significant and disproportionate impact on the growth and development of these sectors is important for the future development of economic policy priorities for Scotland.

In addition there is a focus in this study on obtaining and comparing the views of businesses in different parts of Scotland and specifically in the main Enterprise and Regional Transport Partnership areas.

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6 HITRANS and Higlands & Islands Enterprise (2007), *A9 Perth to Inverness Economic Appraisal Study, Business Surveys Report.*

7 Reference Economic Consultants, (2008) *Inverness to Heathrow Air Services Research*

1.4 Structure of the report

The next chapter sets out the methodology that was adopted for the research. Chapter 3 seeks to contextualise the survey findings by considering how respondents perceive their business' prospects for the next 12 months and looking at the main challenges facing them – both generally and in relation to transport infrastructure and services specifically. Chapter 4 builds on these findings by looking in detail at businesses' perceptions of the six main transport networks in Scotland: the trunk road network, local roads, local public transport, the rail network, air travel services and the water-based network. It also considers the main improvements businesses would like to see made to these networks in the future. Chapter 5 explores the link between transport infrastructure and services, and businesses' choices of location, while Chapter 6 considers the extent to which developments in IT have impacted on businesses' use of transport. Finally, Chapter 7 considers the extent to which environmental issues are considered in businesses' decisions on transport policy and transport use.

2 Methodology

The research comprised three main components: a literature review, a series of in depth interviews with key stakeholders and a telephone survey of businesses across Scotland. This section describes each of these elements in turn.

2.1 Literature review

A review of the existing literature on businesses' perceptions of the transport infrastructure in Scotland was conducted by Steer Davies Gleave between March and June 2008. A full listing of the materials consulted is provided in Appendix A.

The purposes of the literature review were to inform the design of the questionnaire for the telephone survey and to provide context for the survey findings. Evidence from the literature review is presented in the report where appropriate.

2.2 Key stakeholder interviews

A series of in depth interviews were conducted with key stakeholders between 24 April and 15 May 2008. These interviews were designed primarily to explore in detail the specific transport issues faced by businesses in Scotland and to further inform the design of the survey questionnaire.

A total of ten 30 minute interviews were conducted; six among representatives of each of the key growth sectors identified by the Scottish Government (energy, financial and business services, food and drink, life sciences, tourism and creative industries) and four among general business representative organisations. All interviews were conducted by telephone for the convenience of participants.

A topic guide was developed to facilitate the interviews. This was designed by Ipsos MORI in consultation with Scottish Enterprise, Highlands and Islands Enterprise, the Scottish Government and Transport Scotland. The main areas covered in the discussion guide included:

- perceptions of the transport infrastructure and services in Scotland
- business purposes served by each transport mode
- integration of the transport system
- impact of IT developments and environmental considerations on business transport usage
- future improvements to the transport network.

A copy of the topic guide is provided in Appendix B.

The interviews were conducted by Steer Davies Gleave and Ipsos MORI. All interviews were recorded with the permission of respondents and transcribed for analysis and reporting purposes.

Findings from the interviews with stakeholders are cited throughout the report to add depth to key findings emerging from the survey.

2.3 Survey of businesses

A telephone survey of 1,700 businesses across Scotland was undertaken between 9 and 27 June 2008.

All interviews were conducted by Ipsos MORI Telephone Surveys using Computer Assisted Telephone Interviewing (CATI).

2.3.1 Sampling

The sample was selected from The Business Database owned by Experian. The sample was designed to allow analysis by both Enterprise Area (Scottish Enterprise and Highlands and Islands Enterprise) and key growth sector. A full discussion of the sampling strategy is provided in Appendix C.

Within each business, the target respondents were senior managers or equivalent. In small firms, interviewers were instructed to speak to the owner or manager of the business.

2.3.2 Questionnaire Design

The questionnaire for the survey was designed by Ipsos MORI in close consultation with Scottish Enterprise, Highlands and Islands Enterprise, the Scottish Government and Transport Scotland. The main topics covered in the questionnaire were:

- use and perceptions of the different transport networks
- the importance of different considerations when choosing between transport modes
- impact on businesses of problems with transport networks
- the role of transport infrastructure and services in location decisions
- the impact of IT developments on the use of travel
- businesses' adoption of greener transport policies
- future improvements to the transport infrastructure.

To ensure that the questionnaire was clear and easy for respondents to understand it was piloted among 25 businesses (a copy of the final questionnaire is provided in Appendix D).

In the main-stage fieldwork, the average interview length was just under 15 minutes.

2.3.3 Analysis

Due to the disproportionate allocation of interviews to the six key growth sectors and the HIE area, data had to be weighted so they are representative of all Scottish businesses. The data was weighted by sector, business size and location of business using known profile data for Scotland's business population.

Computer tables were produced in order to facilitate sub-group analysis. For each question the results were analysed by a number of key variables, namely:

- business sector (energy, financial and business services, food and drink, life sciences, tourism, creative industries and other businesses)
- number of employees (0-5, 6-20, 21-50 and 51+)
- Regional Transport Partnership (RTP) area (Highlands and Islands, North East of Scotland, Shetland, South East of Scotland, South West of Scotland, Strathclyde and Tayside and Central Scotland)
- Enterprise Area (Scottish Enterprise and Highlands and Islands Enterprise).

2.3.4 Interpretation of the findings

All survey results are subject to sampling variability which means that observed differences between sub-groups may not always be statistically significant i.e. they may have occurred by chance. Throughout the report, we have **only** commented upon differences which are statistically significant at the 0.05 level.

It is worth noting that where percentages do not sum up to 100%, this may be due to computer rounding, the exclusions of "don't know" categories or multiple answers. Throughout the report, an asterisk (*) denotes any value less than half a per cent, while a dash (-) denotes zero. Where base sizes are less than 30 the number of respondents (N) rather than the percentage is given.

3 Context: the business climate

Summary

Around a third of respondents say their business' prospects will improve over the next 12 months, while a similar proportion say things will get worse. Another third anticipate no change. Respondents from the creative industries are more likely than average to say their business' prospects will improve while those from the food and drink and tourism sectors are more likely to give a negative forecast.

The main challenges businesses say (unprompted) they face at present are rising costs (mentioned by 38%), the state of the economy (16%), a downturn in consumer demand/recession (14%), access to credit or funding (10%) and increased competition (8%). The quality of transport infrastructure and services is mentioned less frequently (4%), suggesting that while the issue is a concern for some businesses, it is not among their top priorities at present.

However, when *asked directly* about any transport-related challenges facing their business, a majority of respondents mention at least one such challenge, with the cost of fuel emerging as the top response by far. Half of the remaining top ten responses relate to the road network and include traffic congestion, poor road conditions and excessive roadworks. The cost of fuel receives higher than average mention in the Highlands and Islands Enterprise Area.

3.1 Prospects for businesses over the next 12 months

To provide some context for the survey findings, respondents were asked about business prospects over the next 12 months. Views were divided, with 31% of businesses anticipating improved prospects, a third saying things will stay the same and the same proportion saying things will get worse. These findings are more positive than results from the latest quarterly Business Opinion Survey from the Institute of Directors, in which 25% of company directors said they were more optimistic about their company's prospects that they were three months previously, and 42% said they were less optimistic.[8]

There is no variation in the current findings by Enterprise area or RTP area but some sector-based differences are apparent. As can be seen from table 3.1, respondents from the creative industries are more likely than average to say their business' prospects will improve while respondents from the food and drink and tourism sectors are among those most likely to give a negative forecast (table 3.1).

Table 3.1: Business prospects by sector

	Improve	Stay the same	Get worse	Don't know	*Base*
	%	%	%	%	
All businesses	31	33	33	3	*1,700*
Energy*	54	28	18	-	*65*
Finance and business services	37	34	26	3	*180*
Food and drink	24	34	41	2	*175*
Life sciences	52	38	7	3	*100*
Tourism	34	25	38	3	*293*
Creative industries	49	30	18	4	*160*
Other businesses	30	34	33	3	727

* At first glance, the results for the energy sector also look more positive but these differences are not significant and the figures are simply a function of the small base size for this sector.

There are further differences by size of business, with more small businesses than larger organisations saying their prospects will get worse over the next 12 months (35% of businesses with five or fewer employees compared with 24% of businesses with 21-50 employees and 23% of those with 51+ employees).

3.2 Key challenges facing businesses

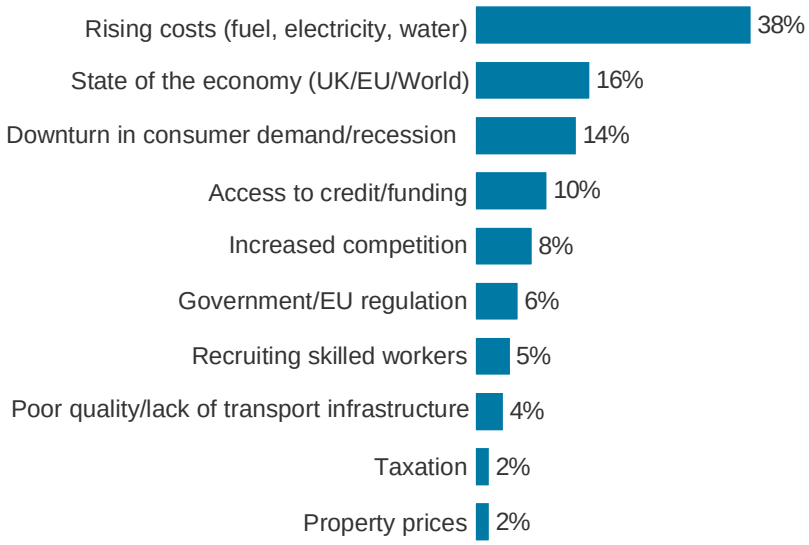
To explore perceptions in more detail, all respondents were asked (unprompted) about the main challenges facing their business at present. The most common responses are: rising costs; (mentioned by 38%), the state of the economy (16%), a downturn in consumer demand/recession (14%), access to credit/funding (10%) and increased competition (8%). To some extent these findings are unsurprising as the survey was conducted during a major economic slowdown characterised by a falling housing market and rising food and fuel prices. The associated "credit crunch" has received extensive coverage in the media and dominated political debate during the survey fieldwork.

Against this backdrop, transport infrastructure emerges as a relatively low salience issue for businesses and is cited spontaneously by only 4% of respondents in total (figure 3.1). In other words, transport is a concern for some businesses but it is not among their top priorities at the current time.

[8] Business Opinion Survey from the Institute of Directors, May 2008. Press release: http://press.iod.com/newsdetails.aspx?ref=331&m=2&mi=62&ms=

Figure 3.1: Challenges facing businesses over the next 12 months – top ten responses

Q. What would you say are the main challenges or problems facing your business at present?



Base: All businesses (1,700)

Rising costs appear to be more of a concern for businesses in the Highlands and Islands Enterprise (HIE) area than in the Scottish Enterprise (SE) area (mentioned by 47% and 37% respectively). The RTP area analysis reinforces this finding and also points towards higher than average concern about rising costs in the South West of Scotland (59%).

Transport-related challenges are mentioned by more businesses in the Highlands and Islands and South East of Scotland RTP areas (both 8%) than elsewhere.

Table 3.2 shows the top five challenges facing businesses *overall* and the extent to which mention of each varies among the different sectors of the economy. The main significant differences to emerge are that the food and drink sector is more likely than average to cite rising costs as a challenge, while the finance and business services sector is more likely to cite the state of the economy. The issue of increased competition is most commonly mentioned by respondents from the tourism sector.

Table 3.2: Challenges facing businesses – top 5 responses among businesses overall, with sector comparisons

	Rising costs	The economy	Downturn in demand	Access to credit/funding	Increased competition	*Base*
	%	%	%	%	%	
All businesses	38	16	14	10	8*	*1,700*
Energy	51	27	11	6	3	*65*
Finance and business services	21	29	13	9	4	*180*
Food and drink	83	7	8	1	2	*175*
Life sciences	15	10	12	34	4	*100*
Tourism	42	18	14	4	12	*293*
Creative industries	25	12	15	7	7	*160*
Other businesses	36	15	14	12	8	727

*Rows do not sum to 100 as the table includes the top five most common responses only.

Problems relating to transport infrastructure similarly receive higher than average mention among the tourism sector (7%).

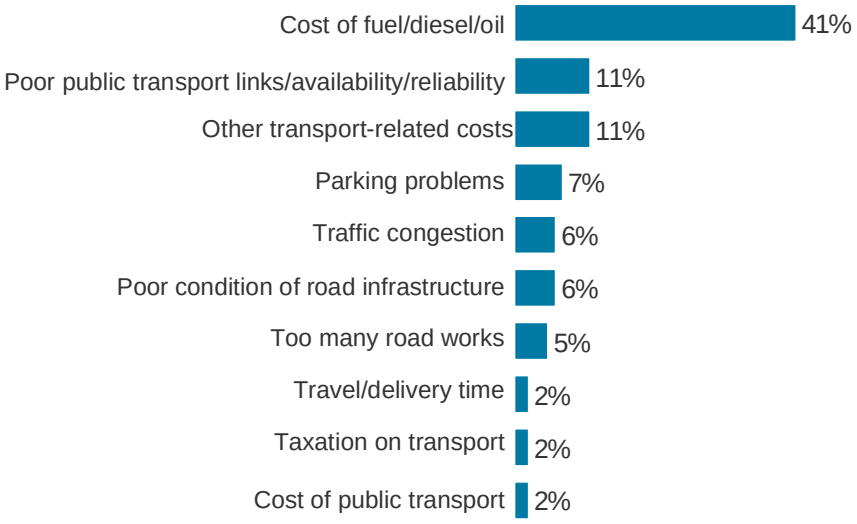
While there is little variation by size of business, smaller businesses are more likely than larger organisations to cite rising costs as a challenge (40% of businesses with five or fewer employees compared to 30% of those with 51 or more employees).

3.3 Transport-related challenges facing businesses

Respondents were also asked (unprompted) to consider the main *transport-related* challenges or problems facing their business at present. As figure 3.2 shows, the top response is the cost of fuel, mentioned by 41%, followed by poor public transport provision (11%), and 'other' transport related costs (11%). No other single challenge is mentioned by more than one in ten respondents but it is notable that problems relating to the road network – including poor road conditions, roadworks and congestion – constitute almost half of the top 10 responses. An emphasis on roads is one of the dominant themes to emerge from the survey and is evidenced more fully in the next chapter.

Figure 3.2: Transport related challenges and problems facing businesses

Q. Thinking just about transport issues, what would you say are the main challenges or problems facing your business at present?



Base: All businesses (1,700)

The cost of fuel is mentioned by a higher proportion of businesses based in the Highlands and Islands and South West of Scotland RTP areas (47% and 64% respectively), and those working in the food and drink sector. It also appears to be more of a concern among smaller businesses than among larger organisations (mentioned by 42% of businesses with five or fewer employees and 41% of those with six to 20 employees, compared with 26% of businesses with 21 to 50 employees and 36% of those with 51 or more employees).

> "The cost of fuel is a continuing issue for small businesses… half of all small businesses do most of their business within the local area and for most, roads are the only practical option."

Poor public transport provision is also most commonly mentioned by businesses in the HIE area (16% compared with 11% of those in the SE area) and also by the tourism sector (16%).

4 Use and perceptions of transport networks

Summary

The key considerations for businesses when choosing between alternative modes of transport are reliability and cost. These considerations are twice as important as the next highest ranking factors: knowing how long a journey will take, whether public transport is available and the total journey time. The frequency of a journey and the impact on the environment emerge as the least important considerations.

Perceptions of Scotland's different transport networks are generally positive with around seven in ten of those who use them rating all but one network - local roads - as either very or fairly good. The rail network and air travel services receive the highest rating, followed by the trunk road network, local public transport and water-based transport respectively. However, none of the networks are rated as *very* good by more than a quarter of respondents. Indeed, for local roads, the figure is just 8%.

Ratings for the trunk road network, local public transport and air travel services are lower in the HIE area than in the SE area. For local roads and the water-based network, the reverse is the case. There is little notable variation by sector.

There are perceived problems with each of the networks and these appear to impact on the performance of significant proportions of businesses. This is most commonly manifest in a loss of man hours, a loss of business and increased operating costs.

The improvements businesses would *most* like to see made to transport infrastructure and services in Scotland relate mainly to the roads networks, and include improving road conditions, reducing congestion and minimising roadworks.

While there is no variation by Enterprise Area or sector, differences by RTP area are apparent. Improving the condition of local roads and reducing congestion are more of a concern for businesses in the Strathclyde area than elsewhere, while minimising roadworks and disruption is most important for businesses in the South East. Businesses in the North East are more likely than average to say they would like to see more frequent rail services between cities or towns.

Building on findings presented in the previous chapter, this section explores in detail businesses' use and perceptions of transport infrastructure and services in Scotland. Six different transport networks are considered: the trunk road network, local roads, local public

transport, the rail network, air travel services and the water-based network. For the purposes of the survey the networks were defined as follows:

The trunk road network: major motorway and most major A roads across Scotland.

The local roads network: all other roads and the services associated with them including traffic management, maintenance and parking.

The local public transport network: local buses, taxis, and the underground as well as their stations.

The rail network: passenger and freight train routes, timetables and train stations.

The air network: passenger and freight flights within Scotland and connections to other countries, as well as airports and associated amenities.

The water-based network: ports and harbours, ferry services and inland waterways.

4.1 Key considerations when planning a journey

To help contextualise findings on the use and perceptions of the six networks, the survey included a question aimed at gauging, in a general sense, which considerations are most important for businesses when planning a journey. Respondents were read several pairs of considerations (from a list of seven) and for each pair, asked to select the one that would be most important for their business. Paired-choice analysis was undertaken on the resulting data to identify the importance of each consideration in relation to the others. The results are presented in table 4.1, with the figures representing the relative strength of each factor.

The reliability of a transport operation emerges as the most important consideration, closely followed by the total cost of a journey. These considerations are around twice as important as the next highest ranking factors: knowing how long a journey will take, whether public transport is available and the total journey time. The frequency of a journey and the impact on the environment stand out as the least important considerations (Chapter 7 explores environmental issues in more detail).

Table 4.1: Relative importance of factors businesses consider when planning a journey

Factor	Relative importance of factors
Reliability of the operation	28
Total journey costs	23
Knowing how long the journey will be	14
Availability of public transport	14
Total journey time	13
Frequency of journey	5
Impact of the journey of the environment	3

This ordering of considerations is very much reflected in how businesses evaluate the individual transport networks, discussed in detail in section 4.3 below.

4.2 Importance of transport networks to businesses

Respondents were asked to consider which of the six transport networks are most important to their businesses for a number of specific functions – from accessing goods and services to travelling to meetings and sites. The results are presented in table 4.2. Overall, local roads and trunk roads are by far the most widely relied upon of the six networks, followed by local public transport, the rail network, air travel services and the water-based network respectively. Of course the figures vary depending on the specific function under consideration. Public transport, for example, is particularly important for customers' access to goods and services and staff travel.

Table 4.2: Importance of transport networks to businesses for different functions
% saying network is important for each function

Base: All businesses (1,700)	Trunk roads	Local roads	Local public transp't	Rail	Air	Water
Customers' access to your business' goods and services	44	71	21	8	4	5
Your business' access to the goods and services it needs for its day to day operation	59	71	5	3	3	5
The delivery of goods and services to your businesses	70	68	2	2	2	7
The distribution of any goods or services your business sells	46	59	4	4	3	4
Staff travelling to work or on business	44	81	20	8	4	2
Staff attending meetings or visiting sites	51	66	12	11	8	3

*Rows do not sum to 100% due to the exclusion of 'not applicable' and 'don't know' responses.

The area analysis highlights the different patterns of use in the HIE area compared with the rest of Scotland. In particular, businesses in the HIE area rely more on air travel services and water-based transport. There are no consistent patterns of variation by sector but a full break-down of the results by sector is provided in Appendix E.1.

4.3 Ratings of transport networks

For each of the networks respondents identified as being important to their business, they were asked to rate its quality using a five-point scale ranging from very good to very poor. The results are summarised in table 4.3. On one level the findings are positive, with around seven in 10 respondents rating all but one of the networks - local roads - as either very or fairly good. The rail network and air travel services receive the highest ratings followed by the trunk road network, local public transport and water-based transport respectively.

However, it is arguable that only those who give ratings of *very* good can be said to be fully satisfied with the networks while the remainder must, by definition, identify at least some shortcomings in provision. None of the networks are rated as *very* good by more than a quarter of respondents; indeed, for local roads the figure stands at just 8%, and for the trunk road and

rail networks it is only slightly higher, at 12% and 15% respectively. This suggests that there is significant scope for improvement to each network.

Table 4.3: Ratings of transport networks

	Very good	Fairly good	Neither good nor poor	Fairly poor	Very poor	*Base*
	%	%	%	%	%	
Trunk road network	12	59	11	12	5	*1,408*
Local roads	8	35	14	25	17	*1,579*
Local public transport	23	47	9	10	6	*566*
Air travel services	24	50	10	11	2	*425*
Rail network	15	60	11	9	3	*378*
Water-based network	23	47	9	5	3	*354*

*Rows do not sum to 100% due to the exclusion of 'don't know' responses

Correlation analysis was undertaken to identify whether businesses' ratings of the networks vary depending on the extent to which they rely on them for their day to day operations. In the event, the only significant relationships identified were in the cases of the trunk road network and the water-based network. The more reliant respondents are on these networks, the more likely they are to rate them as very or fairly poor.[9]

For the trunk road network, the rail network, air travel services and the water-based network ratings are consistent regardless of the specific part of these networks businesses use – whether this be the network within Scotland, between Scotland and the rest of the UK, between Scotland and Europe or between Scotland and other international destinations.

That said, there is significant variation by Enterprise Area. As table 4.4 shows, ratings for the trunk road network, local public transport and air travel services are lower in the HIE area than in the SE area. For local roads and the water-based network the reverse is the case, with HIE area businesses giving the more positive responses.

Table 4.4: Ratings of transport networks by Enterprise Area

	Very/fairly good		Very/fairly poor		*SE base*	*HIE base*
	SE	HIE	SE	HIE		
	%	%	%	%		
Trunk roads network	73	44	15	40	*1,117*	*237*
Local roads	42	51	43	39	*1,226*	*353*
Local public transport	71	58	16	24	*478*	*88*
Rail network	75	69	11	21	*335*	*43*
Air travel services	75	68	11	22	*310*	*115*
Water-based network	65	79	8	9	*136*	*218*

[9] Reliance on a network was measured by the number of functions for which each was considered important. The greater the number of functions served by a network, the more the business was considered to rely on that network.

Again, the RTP analysis reinforces these findings – in the Highlands and Islands RTP area, ratings are higher than average for local roads and the water-based network, but lower than average for the trunk road network, air travel services and local public transport.

The RTP analysis also reveals that:

- businesses in Tayside and Central are more likely than average to rate as good the trunk road network, local roads and local public transport (81%, 56% and 87% compared with 71%, 43% and 70% respectively for all businesses)
- a higher than average proportion of business in Strathclyde rate local roads as *poor* (51% compared with 42%)
- Ratings of air travel services are highest in the South East (89% compared with 74%).

Once more, there is little notable variation by sector but respondents from the tourism sector are among those most likely to rate as poor the water-based network (16% compared with 8% overall). Detailed results by sector are provided in Appendix E.2.

4.4 Problems with transport networks

For each network they rated as very or fairly poor, respondents were asked (unprompted) why they felt this way. The results for each network are considered in turn below[10].

4.4.1 The trunk road network and local roads

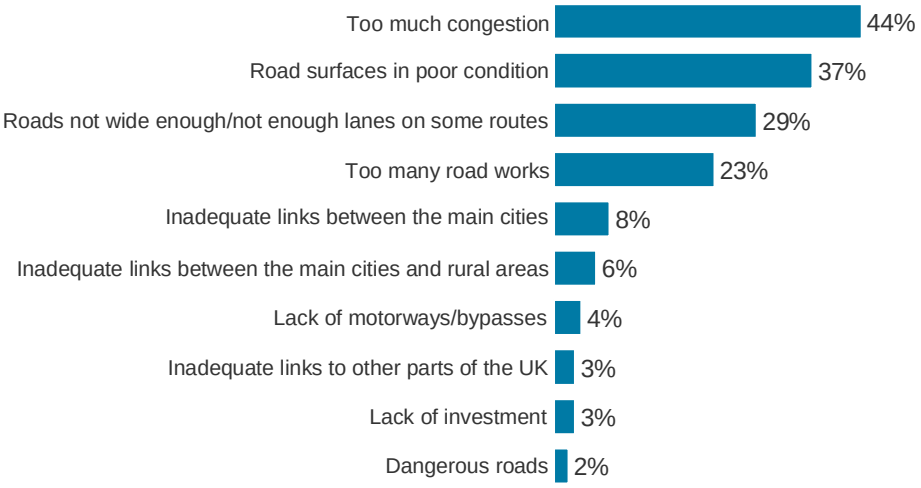
Figures 4.1 and 4.2 below present problems with the trunk road network and local roads respectively. There are some common themes across the two road networks, with poor road conditions, congestion and excessive roadworks emerging as high ranking issues in both cases. These results have added significance when considered against the finding discussed above, that reliability is the key issue for businesses when planning a journey.

In terms of network-specific issues, commonly perceived weaknesses of the trunk road network include the narrowness of roads and poor linkage – particularly between cities and between cities and rural areas. Problems associated specifically with local roads relate to parking – in terms of a lack of places to park, excessive enforcement of parking restrictions and the cost of parking. However, each of these problems is mentioned by a relatively small percentage of respondents.

[10] Throughout this section it is important to bear in mind that only minorities of respondents rated the networks as poor. Accordingly bases sizes are sometimes small, particularly for the rail network, air travel services and the water-based network.

Figure 4.1: Problems with the trunk road network

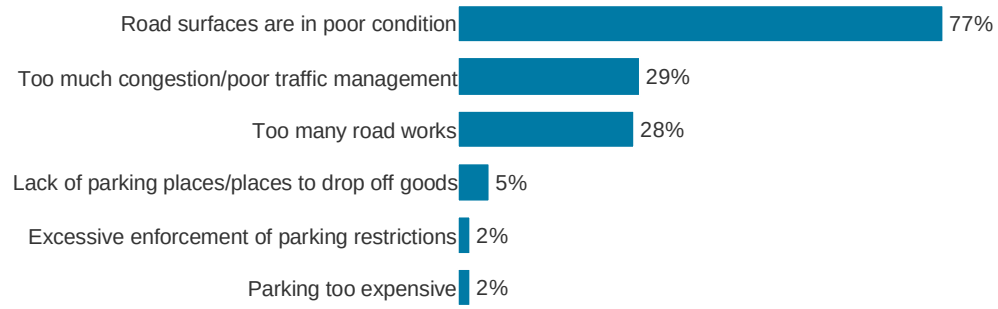
Q. Why do you say the trunk road network is poor?



Base: All businesses that say the trunk road network is fairly/very poor (290)

Figure 4.2: Problems with the local roads network

Q. Why do you say the local roads are poor?



Base: All businesses that say local roads are fairly/very poor (643)

Several of these problems, and particularly poor road conditions, congestion, roadworks and the width of roads, were also mentioned repeatedly in the stakeholder interviews. There was a perception that some of Scotland's roads are simply "not fit for purpose". A number of specific roads were singled out for criticism in this respect, including the M8, the A1 and the A9.

> "small businesses generally find that they are frequently frustrated by the length of time it takes to get to work, to deliver goods and services, because the road infrastructure is unsuitable in a lot of places, especially in city centres, large town centres … on top of that the length of time that it takes for upgrades and maintenance of … motorways and trunk roads."

> "…the M8 needing to be three lanes, just to get rid of more jams at peak periods …, completion of the M74 and Aberdeen City Bypass as well. The A9 from Perth to Pitlochry there are well known difficulties with that…"

> "…any road link is as strong as its weakest link, so you've got to look at where people are going, so point to point. So it is not just the trunk road network, you have got the local roads as well…the east coast links aren't quite as good, in the A1 south of Edinburgh through the borders. Again, it has been improved over the last few years, down further south, but I think it is probably not as good as it could be."

While the survey found that concerns about roads are shared by businesses across Scotland, the problem of poor road conditions is mentioned by more respondents in the HIE area than elsewhere in the country (trunk roads: 58% in HIE area compared with 34% in SE area; local roads: 92% compared with 75%). HIE area respondents are also more likely to mention inadequate trunk road links between cities and rural areas (92% compared with 75% respectively).

Small base sizes preclude full analysis of the results by RTP area but mention of roadworks on local roads is higher than average among businesses in the South East (at 39%). In part, this is likely to reflect the fact that those businesses may have been affected by various works associated with the ongoing construction of the Edinburgh tram network, scheduled for completion in 2011.

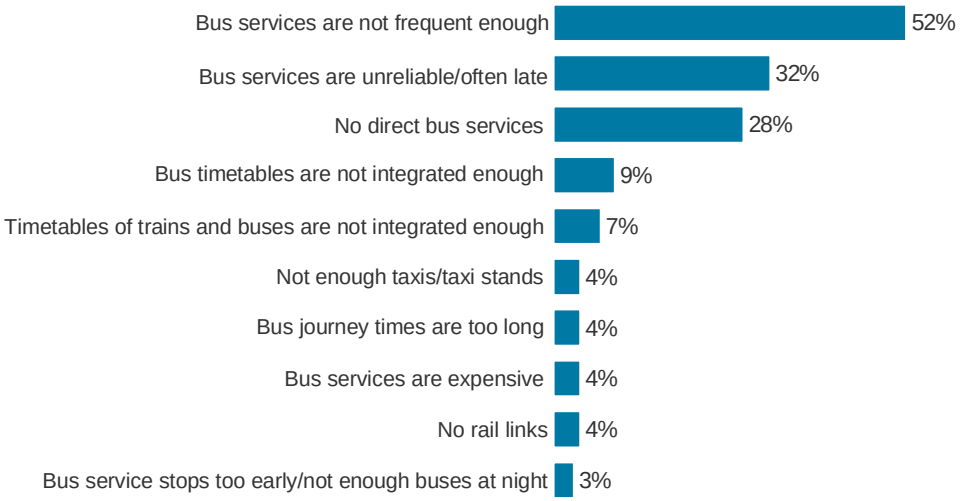
4.4.2 Local public transport and the rail network

Respondents' problems with local public transport relate mainly to bus services and in particular to the frequency and reliability of these services, as well as a perceived lack of direct services. The integration of bus timetables, and of bus and train timetables are also relatively prominent issues (figure 4.3).

The results for the rail network are similar, with the frequency and reliability of services, and timetabling emerging as prominent themes (figure 4.4). The cost of rail tickets also ranks highly, however, as does a lack of rail links between city centres and their peripheries.

Figure 4.3: Problems with the local public transport

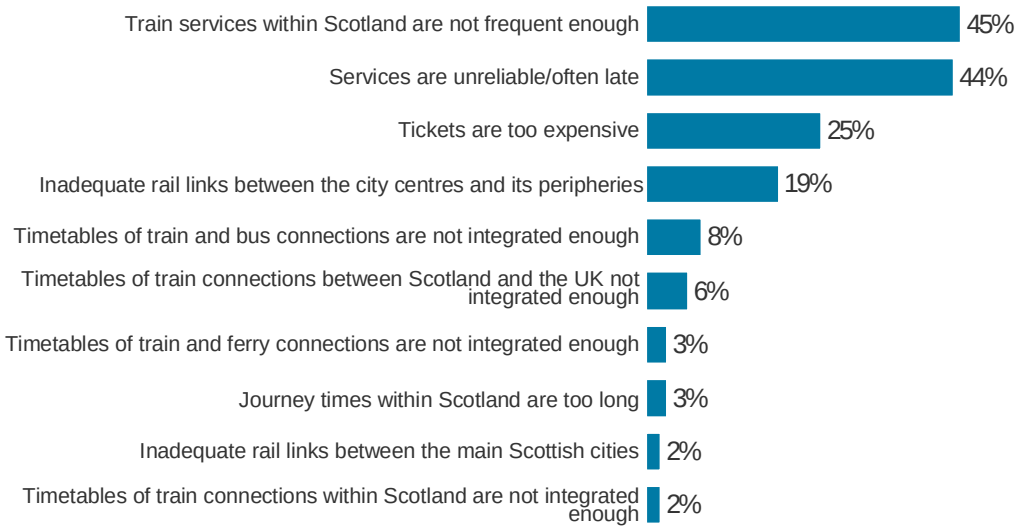
Q. Why do you say the public transport network is poor?



Base: All businesses that say local public transport is fairly/very poor (101)

Figure 4.4: Problems with the rail network

Q. Why do you say the rail network is poor?



Base: All businesses that say the rail network is fairly/very poor (56)

Findings from the stakeholder interviews help to elucidate some of the problems businesses experience when using the rail network. On the issue of reliability, there was specific reference to problems with services between Scotland and London.

> "I do think a reliable rail connection to London is a real weakness: the absence of that. It takes too long and it is unreliable and I think that's particularly the case for the sleeper."

In relation to rail *links*, there was a perceived need for higher-speed connections, both between Scotland's cities and between Scotland and other parts of the UK, in order to improve journey times, broaden the labour market within which businesses could recruit and to provide opportunities for businesses to compete more effectively. For example, a study by Scottish Enterprise[11] identified benefits in terms of increased commuting between the four large cities of Scotland and in terms of Scottish businesses being more able to co-operate in order to compete internationally.

These types of issues were reflected in the interviews with business representatives:

> "… linking Dundee and Aberdeen to Glasgow and Edinburgh on the East Coast main line. There is a choice of services there to link those cities together, but perhaps more investment could be brought to bear in terms of reducing journey times, obviously looking at reducing cost …"

> "If you travel from Newcastle to Edinburgh, it takes you about an hour and half approximately. If you travel from Edinburgh to Aberdeen, roughly about the same distance, it takes you about two and half hours. We should look at speeding up some of these links."

A representative of the tourism industry suggested that the lack of high speed rails links between London and Scotland places Scotland at a disadvantage *vis à vis* some European destinations in term of attracting visitors.

> "Another potential threat for Scotland in terms of tourism is that through the Euro High Speed link, you can actually be in the centre of Paris much faster than you can get from London up to Scotland. It is again from the point of view of where the travelling market and domestic market is coming from, their options are now easier to travel abroad."

The need for high speed rail links has similarly been highlighted by other studies. Most notably, a study by Scottish Enterprise on the economic potential of high speed links identified the following benefits for business:

- Strong growth in commuting between the four main cities - Glasgow, Edinburgh, Dundee and Aberdeen - by professional workers. This would contribute to increased productivity by more closely matching employer requirements and key skills.

- Any major effects would be between adjacent cities, especially in an extended Scottish 'central belt' comprising of Glasgow, Edinburgh and Dundee.

- The scale of growth in commuting would increase significantly at the higher speed level of high speed linkages. In particular, commuting flows between Glasgow and Edinburgh imply the development of a 'twin city' region.

Sub-group analysis of the survey findings for the rail network and local public transport is not possible due to small base sizes.

4.4.3 Air travel services

As figure 4.5 illustrates, dissatisfaction with air travel services centres around two main themes: the cost of air fares and the availability of routes – both within Scotland and to other destinations (again sub-group analysis of these findings is not possible due to small base sizes).

Figure 4.5: Problems with the air travel services

Q. Why do you say the air network is poor?

Base: All businesses that say the air network is fairly/very poor (59)

These results very much reflect comments made in the stakeholder interviews where participants emphasised the importance of good flight connections to the expansion of the Scottish economy. There was concern about the standard of services between Scotland and London, which were described as unreliable and often subject to cancellation. A couple of participants also referred to recent cuts in services, particularly between Inverness and London, and discussed the negative impact that further cuts would have on Scottish businesses.

[11] Scottish Enterprise (2006), *Economic Potential from High Speed Linkages between Scotland's Cities*

> "Scotland needs to be linked with the UK as a business and financial centre, which is of course London and a tendency for flights between London and Scottish airports to be cancelled regularly, that is a big problem."

> "It is essential that [the oil and gas industry in the North East of Scotland] is linked directly into the UK capital by vital air links and reliable air links. If we are not getting the service at Heathrow we will look to go elsewhere and I don't think that would be good for Britain."

> "I think the links between Scotland and London, air links are absolutely vital…we've got a worry because of the decline in the number of flights and we saw with Inverness, for example, they lost one of their flights to London,…so that is a real concern…you would obviously naturally hope for business sake that the air links between key markets are maintained for Scotland."

The impact of a reduction in services from Scotland, together with increased air fares, has also been identified in recent research focusing on the Inverness to Heathrow route. This study concluded that the impact on businesses of removing the route was likely to be disbenefits of £3.1 million and a net reduction of £2.1 million in tourism spending in the area[12].

An earlier study into businesses in the Shetland Isles also identified rising air fares in Scotland as reducing the competitiveness of businesses on the islands, where the cost of flights to the mainland have to be incorporated into contract bids or profit margins. This puts Shetland companies at a distinct disadvantage in terms of competing against mainland companies[13].

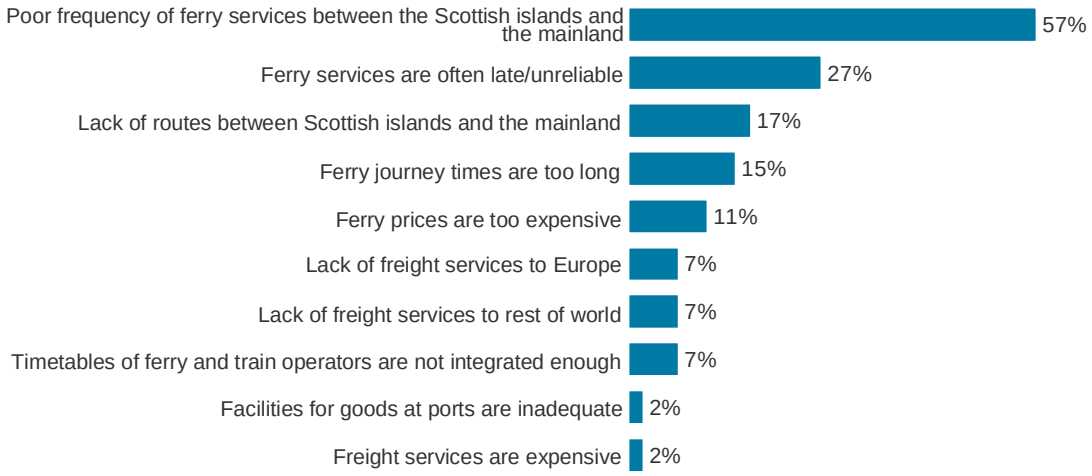
4.4.4 The water-based network

Only a very small number of respondents rated the water-based network as poor. As figure 4.6 shows, their main complaints relate to a perceived lack of services between the Scottish islands and the mainland, and to the reliability of services which do exist. A few respondents also mentioned a lack of *freight* services to Europe and further afield.

12 Reference Economic Consultants (2008*), Inverness to Heathrow Air Services Research*
13 Steer Davies Gleave (2003), *Social and Economic Impacts of Air Fares*

Figure 4.6: Problems with the water-based network

Q. Why do you say the water network is poor?



Base: All businesses that say the water network is fairly/very poor (37)

While the quality of port services was mentioned by only 2% of those who rate the water-based network as poor, the issue was discussed in some detail in the stakeholder interviews. It was suggested that the Forth, Greenock and Grangemouth port services could all be improved so that they are able to compete more effectively with ports south of the border.

> "If you are going to make it viable and encourage people not to take the long journey south to English ports to go across to mainland Europe, then you have to have a cost effective and viable option here and obviously there are connections that exist, going out of Rosyth and so on, but something that we should be pushing a lot more and making sure that the cost perspective is taken into account so that businesses do support the services that are introduced."

4.5 Impact on business

While the research did not attempt to quantify the impact that problems with transport networks have on businesses, it did explore the ways in which such problems affect businesses on a day to day basis. First, respondents were asked whether they would like to make more use of any of the six transport networks. Two-thirds of respondents say they would like to do so, with 29% saying that they would like to make more use of local roads and 24% of the trunk road network. The rail network and local public transport are each mentioned by around one in ten respondents, while air travel services and the water-based network are each mentioned by 3%.

As table 4.5 shows, higher than average proportions of respondents from the financial and business sector and creative industries say they would like to make more use of the rail network.

Mention of air travel services and the water based network, meanwhile, is at its highest among the tourism sector and creative industries, as well as businesses based in the HIE area – 15% of HIE businesses mention air travel services, compared with 2% in the SE area. For the water-based network, the figures are 19% and 1% respectively.

Table 4.5: Networks businesses would like to make more use of by sector and Enterprise Area

	Trunk road network	Local roads	Local public transport	Rail network	Air travel services	Water-based network	*Base*
	%	%	%	%	%	%	
All businesses	24	29	11	13	3	3	*1,700*
Energy	27	15	6	16	21	17	*65*
Financial and business services	21	21	15	28	4	4	*180*
Food and drink	30	34	2	9	1	3	*175*
Life sciences	13	12	15	24	19	14	*100*
Tourism	17	31	19	10	6	7	*293*
Creative industries	15	14	11	23	7	6	*160*
Other businesses	26	30	10	11	3	2	727
SE Area	25	30	12	13	2	1	*1320*
HIE Area	17	16	6	6	15	19	*380*

Secondly, respondents who rated a transport network as poor were also asked about the extent to which problems with that network impact on their business' performance. As table 4.6 shows, the most common responses across the six networks relate to loss of man hours, loss of business and increased operating costs. In relation to both the trunk road network and local roads goods not being delivered on time is also a prominent issue. For local public transport and the rail network, staff lateness ranks highly.

Table 4.6: Impact on businesses of poor transport networks

	Trunk road network	Local roads	Local public transport	The rail network	Air travel services	Water-based network
Base: all who rated each network as poor	*290*	*643*	*113*	*58*	*59*	*37*
	%	%	%	%	%	%
Loss of business	18	14	20	22	14	48
Loss of man hours	27	22	14	21	17	6
Staff lateness	17	16	28	34	1	-
Increased operating costs	17	23	11	7	39	43
Lack of inward investment in the region	-	1	-	-	3	2
Recruitment difficulties	1	*	2	*	-	-
Goods not delivered on time	22	14	-	-	-	-
Reduced productivity	6	9	6	5	5	9
Reduced competitiveness	1	2	*	4	1	1
No problems	9	16	23	7	-	2

Small base sizes preclude sub-group analysis of the findings for the rail network, air travel services and the water-based network. For the remaining networks, the only notable differences to emerge are that:

- HIE area businesses are more likely than those elsewhere in Scotland to say they experience increased operating costs because of poor local roads (36% compared with 22% respectively)
- representatives of the tourism sector are more likely than average to say they experience a loss of business due to problems with the trunk road network (29%)
- a higher than average number of respondents from the food and drink sector say problems with local roads result in goods not being delivered on time (26%).

4.6 Improving transport networks

To reflect businesses' needs and priorities, respondents were asked (unprompted) to identify the two or three specific improvements they would most like to see made. While a very wide range of suggestions were put forward, around two-thirds of these relate to the road networks, a total of 17% relate to public transport and 15% relate to the rail network. Smaller proportions of responses (4% in each case) relate to water-based and air transport.

As table 4.7 below shows, businesses in the SE area are more likely than those in the HIE area to mention a need for improvements to roads and public transport. However, the reverse is the case for water-based and air transport, reflecting HIE area businesses' higher reliance on these networks.

Table 4.7: Type of improvements suggested by Enterprise Area

	All businesses	SE	HIE
Base	*1,700*	*1,320*	*380*
	%	%	%
Road improvements	66	67	50
Local public transport improvements	17	18	11
Rail improvements	15	15	11
Water improvements	4	1	29
Air improvements	4	3	15

There are further differences identified by sector, as table 4.8 shows. Respondents from the financial and business, and creative sectors are more likely than average to mention improvements relating to the rail network, while the tourism sector is more likely to identify a need for improvements to water-based transport and public transport.

Table 4.8: Type of improvements suggested by sector

	All businesses	Energy	Financial and business services	Food and drink	Life sciences	Tourism	Creative industries
Base	*1,700*	*65*	*180*	*175*	*100*	*293*	*160*
	%	%	%	%	%	%	%
Road improvements	66	70	62	74	57	45	61
Local public transport improvements	17	7	15	6	21	23	20
Rail improvements	15	12	27	11	29	15	26
Water improvements	4	14	4	3	14	9	4
Air improvements	4	24	9	2	27	4	7

Looking at the *specific improvements* businesses would most like to see, the top 10 responses are shown in figure 4.7 below. Eight of these improvements relate to the roads network with the condition of both local roads and trunk roads emerging as the two most pressing issues,[14] followed by reducing congestion and minimising roadworks. In terms of the top ranking issues that are *not* related to roads, 10% of respondents mention the need to improve public transport while 9% of respondents would like to see the cost of fuel reduced.

> "…small businesses generally find that they are frequently frustrated by the length of time it takes to get to work, to deliver goods and services, because the road infrastructure is unsuitable in a lot of places, especially in city centres, large town centres, where the infrastructure doesn't seem to be fit for purpose and on top of that,

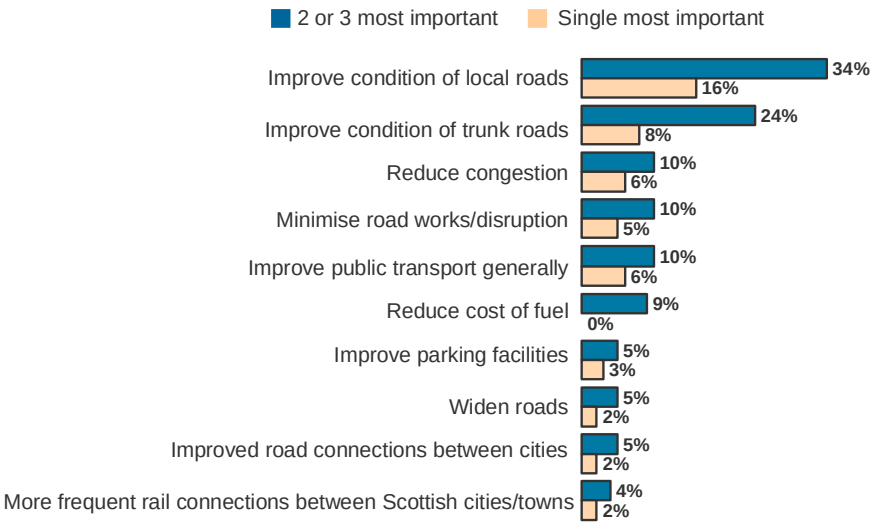
[14] This general review is reinforced by studies of specific roads such as the A9 study conducted by HIE and HITRANS which found that 60% of businesses would expect a positive or highly positive change in travel efficiency as a result of improvements to the A9.

small businesses are frequently frustrated by the length of time that it takes for upgrades and maintenance of transport infrastructure, such as motorways and trunk roads."

Figure 4.7 Top ten improvements mentioned

Q. What are the 2 or 3 most important improvements you would like to see made to the transport network of Scotland in the future?

Q. And of all the improvements you've mentioned what is the single most important one?



Base: All businesses (1,700)

There is no variation by Enterprise Area in the results but significant differences are apparent by RTP area (table 4.9). These very much reinforce findings discussed above relating to perceptions of the six networks at the local level. Thus:

- improving the condition of local roads and reducing congestion are more of a concern for businesses in Strathclyde than elsewhere
- minimising roadworks and disruption is most important for businesses in the South East
- businesses in the North East are more likely than average to say that they would like to see more frequent rail services between cities or towns.

Table 4.9: Top improvements mentioned by RTP Area

	All	Highlands & Islands RTP	North East RTP	Shetland RTP	South East RTP	South West RTP	Strath-clyde RTP	Tayside and Central RTP
Base:	*1,700*	*321*	*172*	*41*	*428*	*61*	*523*	*151*
	%	%	%	%	%	%	%	%
Improve condition of local roads	34	33	24	1	32	42	41	25
Improve condition of trunk roads	24	27	17	1	28	23	25	16
Reduce congestion	10	3	9	2	6	5	15	11
Minimise roadworks/disruption	10	10	2	3	2	14	3	11
Improve public transport generally	10	8	9	11	11	7	11	12
Reduce cost of fuel	9	13	14	28	7	13	7	12
Improve parking facilities	5	1	6	-	6	1	7	3
Widen roads	5	7	8	-	4	6	4	5
Improve road connections between cities	5	2	5	-	3	3	6	6
More frequent rail connection between Scottish cities/towns	4	4	9	-	2	1	5	6

When respondents are asked to choose the *single* most important improvement they would like to see made to transport infrastructure and services, the top 10 responses remain largely unchanged, with the exception of fuel costs which no longer registers (figure 4.7). The highest ranking issue – the condition of local roads – is mentioned by 16% and the next highest – the condition of trunk roads – by half this proportion. The fact that fuel costs are not mentioned, despite registering strongly elsewhere in the survey, further reinforces the very high priority that respondents attach to road improvements.

5 Business location decisions

Summary

Seven in ten respondents who have relocated in the past three years, or intend to do so in the near future, say that transport infrastructure and services are an important consideration when choosing a location. Over two in five say it is a *very* important consideration. There is no geographical or sector based differences in the results, pointing to the significance of transport for businesses across the board.

The specific aspect of transport infrastructure and services that has the *most* bearing on location decisions is access to the trunk road network (42%). This is followed by proximity to public transport (18%), proximity to rail links (14%) and proximity to bus links (13%) respectively.

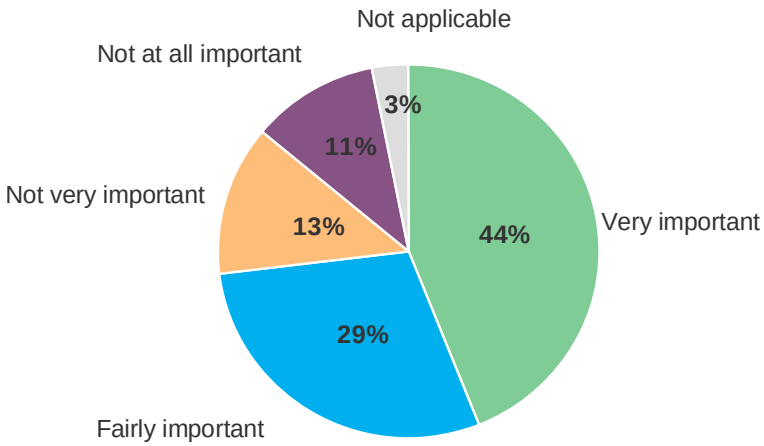
There are no geographical or sectoral variations in the results indicating the significance of transport infrastructure for businesses across the board.

The previous chapter considered how characteristics of the transport infrastructure and services in Scotland impact on businesses' performance. This chapter explores how transport provision affects businesses' location decisions. Questions relating to location decisions were only put to respondents who have responsibility for, or are involved in, such decisions for their business and whose business has been at the current location for less than three years or is likely to move location in the next three years (363 respondents).

The results from the survey show that transport infrastructure and services are key considerations for businesses when they make location decisions. Figure 5.1 below shows that among those who have previously moved or plan to do so, approximately seven in 10 respondents rate transport infrastructure as important in this respect, with 44% rating it as *very* important.

Figure 5.1 Importance of transport infrastructure and services in business' locations decisions

Q. To what extent would you say issues related to transport infrastructure or services were/are likely to be important or unimportant in determining the location of your business?



Base: All businesses that have been at current location for less than 3 years and all businesses that are likely to move in the next 3 years (363)

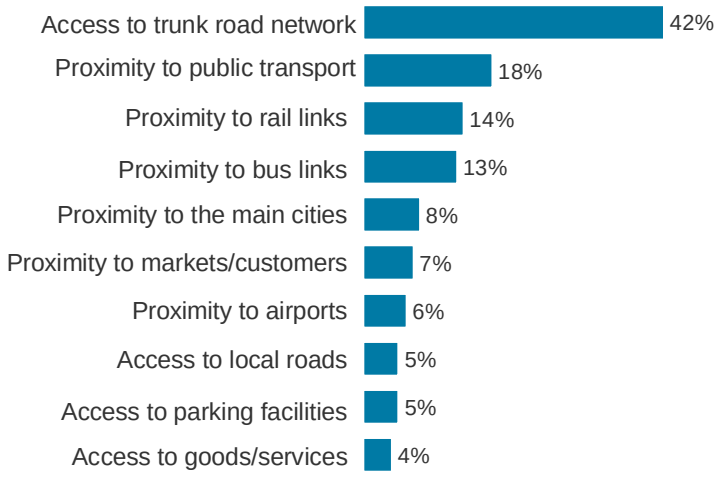
There are no geographical variations in the results indicating the significance of transport infrastructure for businesses across the country. Similarly, there are no consistent variations by sector but again a full break-down of the results by sector is provided in Appendix E.4.

Those respondents who identified transport as either very or fairly important were asked (unprompted) to say what specific aspects of infrastructure or services have the most impact on their location decisions. The 10 most common responses are presented in figure 5.2. Access to the trunk road network emerges as the most important feature by far, mentioned by 42% of respondents. This is followed by proximity to public transport (18%) and proximity to rail links (14%).

> "I think obviously having good transport links into a place of work allows a much larger pool of talent into the small business or into a business, so for instance, if you have 200,000 people within a one hour commute to your place of work. That gives you access to skills and a much larger pool will allow you to expand."

Figure 5.2: Aspects of transport infrastructure and services that most influence business' location decisions – top 10 responses

Q. What particular aspects of transport services or infrastructure were/do you think are likely to be important in the choice of/when choosing a new location?



Base: All businesses for which transport issues will be/have been important in determining their business location (269)

These findings are consistent with the results of previous studies on this topic. For example, during a comprehensive survey of firms in Central Scotland, conducted in 2001 as part of the Economic and Social Research Council's UK-wide cities research programme, firms in the North Lanarkshire area emphasised the benefits of locating close to the trunk road network.[15] Similarly, a recent A9 Perth to Inverness Economic Appraisal study found that access to the road network was of importance to over 70% of businesses[16].

Again, there is very little sub-group variation in the findings but proximity to rail links receives higher than average mention among respondents from the creative industries (27% compared with 14%).

[15] Cited in Department for Transport (2007), *The Impact of Transport on Business Location Decisions*
[16] HITRANS and Highlands and Islands Enterprise (2007), *A9 Perth to Inverness Economic Appraisal Study Business Surveys report*

6 Impact of IT on transport use

Summary

Businesses increasingly rely on IT for their day-to-day operations, especially e-mail (rated as important by 81% of respondents), high speed internet connections (76%) and online buying and selling (47%).

Almost half of respondents say that IT has reduced work-related journeys, while just over a third (35%) say it has had no impact.

IT is most widely used by respondents in the financial and business, life sciences and creative sectors.

This chapter examines the types of IT that businesses use before considering the impact these technologies have had on their use of transport.

6.1 Use of IT

Advances in information technology and their increasing adoption are frequently cited as one factor that will offset the need to travel for people in general and business in particular.[17] Respondents were read a list of nine technologies and asked how important or unimportant each is in the day to day operation of their business. This section of the questionnaire was asked of only half of the sample. The section was randomly allocated to these respondents by the CATI programme.

As table 6.1 below shows, the most widely used technology is e-mail, with around eight in 10 respondents rating it as important. This is followed by high speed internet connections (76%) and online buying and selling (47%).

17 The Department for Transport, for example, in its review of the impact of transport on business decisions found that IT had eased communication over long distances and in many cases removed the need to travel at all.

Table 6.1: Importance of IT

	Very important	Fairly important	Not very important	Not at all important
Base: Half of the sample (863)				
	%	%	%	%
E-mail	60	21	5	10*
High speed internet connections	58	19	9	10
Online buying and selling	24	24	18	22
File sharing technologies	16	14	13	35
Discussion forums	9	18	15	37
Web-based collaboration	8	11	16	40
Text chat such as MSN	5	12	18	45
Audio conference calling	5	9	17	44
Video conferencing	1	5	16	51

Rows do not sum to 100% due to the exclusion of 'don't know' and 'not applicable' responses

As might be expected, businesses in the HIE area are more likely to say that audio and video conferencing are important (21% compared with 14% and 18% compared with 5% respectively). Full results for the SE and HIE areas are provided in Appendix F1. These findings are reinforced by the RTP analysis.

> "our network is in the Highlands and Islands area where broadband availability is not 100%. The Government have done an awful lot there…but there still needs to be a bit of work done in the Highlands and Islands to catch those areas where there is limited or no broadband cover."

As table 6.2 illustrates IT is most important to the financial and business services sector, life sciences and the creative sector. These businesses place higher than average importance on e-mail, high speed internet connections, audio conference calling, video conferencing and file sharing technologies. In contrast, businesses in the food and drink and tourism sectors are less dependent on IT overall, reflecting in part the fact they produce tangible goods that have to be moved from place to place rather than information or outputs that can be transferred digitally.

> "IT developments accelerate the specific function which is some form of a face-to-face meeting, but it doesn't get a product from A to B, if I make it, I have to deliver it and it absolutely doesn't replace the importance of transport."

Table 6.2: Importance ratings of IT by sector

	All	Energy*	Fin'l and business services	Food and drink	Life sciences	Tourism	Creative ind's	Other
Base	*863*	*30*	*92*	*85*	*50*	*158*	*79*	*369*
	%	%	%	%	%	%	%	%
E-mail	81	100	95	59	98	69	95	83
High speed internet connections	76	98	90	58	96	66	92	77
Online buying/selling	47	63	52	35	42	42	72	48
File sharing technologies	30	63	56	6	48	20	60	29
Discussion forums	27	25	27	17	26	26	39	28
Web-based collaboration	19	55	32	6	28	16	35	17
Text chat	17	35	23	15	16	14	21	16
Audio conference calling	15	43	34	5	40	11	25	13
Video conferencing	7	37	17	4	30	5	18	5

* While the figures appear to indicate that the energy sector also makes higher than average use of technology, these differences are not statistically significant and simply reflect the small base size for this sector

In addition to this broad pattern of variation, the sector analysis also reveals that:

- online buying and selling is on average more important for businesses in the creative sector (72% compared with 47% overall)
- businesses in the creative sector are also the most active users of discussion forums (39% compared with 27% overall)
- respondents representing financial and business services and the creative sectors are more likely than average to say that web-based collaboration technologies are important (32% and 35% respectively compared with 19% overall).

Respondents who identified at least one of the technologies as *unimportant* were asked whether these will become more or less important to their business over the next three years. Four in five respondents (80%) say that these technologies will become more important in the future, with the figure increasing to 93% among respondents from the financial and business sector.

6.2 Impact of IT

Almost half of respondents (46%) say that IT has enabled them and their colleagues to make fewer work-related journeys, while just over a third (35%) say it has had no impact in this respect. Seven percent say it has increased the number of journeys they and their colleagues make. These results are consistent with findings from previous research. For example, in a Barclaycard Business Travel survey almost 40% of businesses indicated that their travel had reduced as a consequence of IT[18].

[18] Barclaycard Business Travel Survey, http://www.barclaycardbusiness.co.uk/information_zone/travel/. See also, Department of Transport (2007), *The impact of transport on location decisions*.

Respondents representing the financial and business, life sciences and creative industries are more likely than average to say that they make fewer journeys (65%, 64% and 59% respectively) as a consequence of IT.

7 Transport use and the environment

Summary

Significant proportions of businesses have adopted 'greener' transport policies, including the preferential use of local suppliers (61%), home working (45%) and promoting public transport usage in marketing materials (31%).

Relatively small proportions have adopted other 'greener' policies such as carbon offsetting (11%), and providing company loans for bicycles (8%) and season tickets (6%). Further, 40% continue to provide company cars, with three-quarters providing free parking at their premises.

This picture looks set to remain static in the near future, with very few businesses saying that they plan to adopt 'greener' transport policies that they don't already have in place.

There are few area-based differences in these findings but HIE businesses are more likely than those elsewhere to use a local supplier. The only significant difference to emerge by sector is that home working receives higher than average mention among respondents from the financial and business, life sciences and creative sectors.

Larger businesses are more likely than smaller ones to adopt greener transport policies. Specifically, they are more likely to have car-sharing schemes, travel plans, carbon offsetting and to promote public transport usage in their marketing materials.

In Chapter 4 it was noted that environmental considerations are a relatively low priority for businesses when planning journeys, compared with considerations of cost, efficiency, and so on. This chapter looks in more detail at the extent to which businesses consider environmental issues in decisions on transport policy or transport use.

Respondents were presented with six transport policies[19] and asked to indicate whether each is: a) one they currently have b) one they don't have but are getting or c) one they don't have and are not getting. The results are summarised in table 7.1 below.

In many respects, the findings are encouraging. A majority of businesses make preferential use of local suppliers, while almost half have adopted home working and around a third promote public transport use in their marketing materials. At the same time, around a quarter of businesses have travel plans, use rail rather than air travel for business purposes or have pool cars for business use.

[19] The CATI programme randomly allocated six policies to each respondent.

However, relatively small proportions of businesses have adopted other 'greener' policies such as carbon offsetting, and providing company loans for bicycles or season tickets. Further, 40% continue to provide company cars, with three-quarters providing free parking at their premises.

In general, this picture looks set to remain static in the near future with relatively few businesses saying they will be adopting 'greener' policies they don't already have.

Of course, when interpreting the results, it is important to bear in mind that not all of the policies will be applicable to all businesses. Additionally, some of the policies, such as carbon offsetting, are still relatively new and many questions have been raised about their environmental impact and this is likely to affect uptake. In respect to policies that significant proportions of businesses do have, it should be considered that uptake of these may reflect a range of motivations, other than concern for the environment. For example, businesses may prefer to use local suppliers so that they have more ready access to goods and services, lower delivery costs, and so on. This is reflected in the interviews with business representatives where it was clear that 'greener' policies are unlikely to be adopted solely to be green.

> "…business is still driven by the need to be as competitive as possible and they have to take the route that's the easiest, the fastest and the most cost effective and that, currently I don't think, will always be what is perceived at that time, to be the greenest option."

> "It [carbon footprint] is a secondary concern to the other concerns of reliability, getting to and from their place or work, or the place they are delivering goods or services."

Table 7.1: Businesses' adoption of transport policies

	Have it	Don't have it but getting	Don't have and not getting	*Base*
	%	%	%	
Free parking at business premises	73	1	25	*793*
Preferential use of local suppliers	61	3	33	*787*
Home working	45	3	50	*738*
Company cars	40	2	58	*760*
Including details of how to get to business premises by public transport in marketing and promotional material	31	8	59	*808*
Travel plans	26	2	65	*770*
Using rail rather than air for business travel	22	3	69	*785*
Pool cars for business use	22	2	75	*828*
Car-sharing schemes	17	5	76	*767*
Carbon offsetting	11	12	66	*790*
Company loans to buy bicycles	8	3	87	*779*
Season ticket loans for employees	6	1	88	*799*
Using rail rather than road to transport goods	4	2	88	*796*

* Rows do not sum to 100% due to the exclusion of 'don't know' and 'not applicable' responses

There are few area-based differences in these findings but HIE businesses are more likely than those elsewhere to use a local supplier (70% compared with 61%). Again, a full breakdown of the results by Enterprise Area is provided in Appendix F.

The only significant difference to emerge by sector is that home working receives higher than average mentions among respondents from the financial and business, life sciences and creative sectors (67%, 68% and 74% compared with 45% overall).

Larger businesses are more likely than smaller ones to adopt greener transport policies, as table 7.2 shows. Specifically, they are more likely to have car-sharing schemes, travel plans, carbon offsetting and to promote public transport usage in their marketing materials.

Table 7.2: Businesses' adoption of transport policies by size of business

	All	**0-5 employees**	**6-20 employees**	**21-50 employees**	**51+ employees**
Base: All who were allocated each policy					
	%	%	%	%	%
Free parking at business premises	73	74	67	83	87
Preferential use of local suppliers	61	61	59	68	64
Home working	45	50	37	32	41
Company cars	40	37	40	59	63
Including details of how to get to business premises by public transport in marketing and promotional material	31	27	35	46	51
Travel plans	26	22	29	48	49
Using rail rather than air for business travel	22	19	26	26	33
Pool cars for business use	22	18	23	39	50
Car-sharing schemes	17	17	14	31	25
Carbon offsetting	11	10	11	11	22
Company loans to buy bicycles	8	7	10	13	26
Season ticket loans for employees	6	5	9	11	14
Using rail rather than road to transport goods	4	4	2	9	12

8 Conclusion

While concerns about fuel costs and the state of the economy are currently foremost in the minds of Scottish businesses, it is clear that the quality of transport infrastructure and services is also important. The survey confirms the reliance of all sectors of the economy on transport networks for various aspects of their day-to-day operations – from accessing goods and services to business travel. Reflecting this, it also indicates that transport is a key consideration for the majority of businesses when they are considering relocating.

Key to understanding businesses' use and perceptions of transport networks is identifying the factors that are most salient for them when evaluating and comparing transport options. The survey indicates that the most important factors are reliability and cost. Indeed, these factors are twice as important as the next highest ranking considerations: knowing how long a journey will take, whether public transport is available and total journey time. The frequency of a journey and the impact on the environment are far less important considerations for businesses. In terms of investment, the implication seems clear: businesses would prefer measures that improve reliability than those that make marginal reductions in journey times or increase the frequency of services.

While perceptions of Scotland's six transport networks are generally positive it is clear that current infrastructure and services are not meeting the needs of all businesses as effectively as might be the case. Three key findings are instructive in this respect:

- the low proportion of respondents rating any of the networks as *very* good means that most businesses identify some problems in all networks
- a significant proportion rate each of the six transport networks as very or fairly poor and specific problems are identified with each network
- there is a clear regional dimension to perceptions of transport networks.

It is clear from the survey that problems with the six transport networks are having a significant impact on businesses, particularly in terms of a loss of man hours, a loss of business and increased operating costs. Problems with the trunk road network and local roads also appear to be contributing to delays in the delivery of goods, while problems with local public transport and the rail network are identified as a key cause of staff lateness. These findings point to the potential benefit to the whole economy of improved transport infrastructure and services.

In terms of identifying priority areas for improvement, roads consistently emerge as the key area for businesses. Across all sectors of the economy there is a clear consensus on the need for improvements to the condition of local roads and trunk roads; reduced congestion; and fewer roadworks in particular.

It is clear that IT has had a significant impact on businesses' transport use, with almost half saying they now make fewer journeys as a result of IT. While this impact has been most keenly felt in the financial and business, life sciences and creative industries, it has affected businesses of all types to some extent. Whether or not IT will continue to alter businesses' travel behaviour in the future remains to be seen.

As regards the extent to which businesses consider environmental issues in decisions on transport use, the picture is somewhat mixed. On the one hand, significant proportions have adopted 'greener' policies such as the preferential use of local suppliers, home working and promoting public transport usage in marketing materials. However, relatively small proportions have adopted other policies such as carbon offsetting, and providing company loans for bicycles and season tickets. Further, two in five continue to provide company cars.

This picture looks set to remain static in the near future, with very few businesses saying that they plan to adopt 'greener' transport policies that they don't already have in place.

In sum, the research findings clearly support the emphasis in the Scottish Government's Economic Strategy on the reliability, efficiency and cost of transport for businesses. These were prominent themes throughout the research and clearly underpin businesses' evaluations of individual transport networks. The research also highlights some clear priorities for improvement moving forward, both in relation to infrastructure and services as a whole and to individual transport networks. The need for improvements to roads is by far the most pressing issue for businesses.

Beneath the aggregate level findings, the survey also provides important evidence concerning the ways in which use and perceptions of transports networks vary in different parts of the country. In particular:

- the higher than average levels of dissatisfaction with trunk roads, local public transport and air travel services in the HIE area
- the finding that local road conditions and congestion are seen to be particularly problematic in the Strathclyde RTP area
- the fact that businesses in the South East RTP area are more likely than average to cite excessive roadworks as a problem.

This evidence, too, should help to inform any improvement efforts, ensuring that as far as possible, Scotland's transport infrastructure and services fully reflect the needs of all businesses, wherever they are based.

The fact that there are so few sectoral differences in the findings is notable and suggests that any improvements made in the future will have the potential to benefit all types of business and therefore the economy as a whole.

Appendix A: Sources consulted in literature review

Department for Transport (2004) *The Importance of Transport in Businesses' Location Decisions*

Department for Transport (2006*) Eddington Transport Study*

Department for Transport (2007) *The Impact of Transport on Business Location Decisions*

Devon & Torbay Creative Industries Economic & Skills Research (2006) *Economic and Business Findings*

Ernst & Young (2005) "Impacts Monitoring – Third Annual Report", *Review of Transport for London's Assessment of the Business and Economic Impacts of the Congestion Charge*

Highlands and Islands Enterprise (2005) *Transport Issues Identified by the HIE Strategy Consultation*

HITRANS and Highlands & Islands Enterprise (2007) *A9 Perth to Inverness Economic Appraisal Study*

HITRANS and Highlands & Islands Enterprise (2007) *Skye Bridge Economic Impact Study – Final Report*

Laird, J.J. Nellthorp, J. and Mackie, P.J. (2004) "Option Values, Business and Population Impacts", *Transport Assessment Scoping Study*

Reference Economic Consultants (2007) *The Economic Impacts of Fixed Links and Enhanced Ferry Services in the Highlands and Islands*

Reference Economic Consultants (2008) *Inverness to Heathrow Air Services Research*

Robbins, D. (1997) *The Relationship between Scheduled Transport Operations and the Development of Tourism Markets - A case study of island destinations*

Scottish Enterprise (2006) *Economic Potential from High Speed Linkages between Scotland's Cities*

Scottish Enterprise Borders (2008) *Barriers to Rural Economic Development in Scotland*

Scottish Enterprise Fife (2006) "Rosyth – Zeebrugge Ferry Service", *Economic Evaluation*

Scottish Financial Enterprise (2005) *The Connectivity needs of Scotland's Financial Services Industry*

Steer Davies Gleave (2003) *Social and Economic Impacts of Air Fares*

Appendix B: Topic guide

Transport infrastructure and services: Industry views

Scoping phase

Discussion guide

1. Introduction

→ Introduce self and Ipsos MORI
→ Purpose of interview:
Scottish Enterprise, the Scottish Government, Highlands & Islands Enterprise and Transport Scotland have commissioned Ipsos MORI to conduct a research project on business views towards transport infrastructure and services. The Scottish Government's Economic Strategy highlighted the key role that transport can play in supporting businesses. The purpose of this research is to help improve understanding of this role and to identify the types of transport infrastructure and services which foster sustainable economic growth. We plan to survey 1700 businesses in the coming month. The purpose of today's interview is to assist us with designing a questionnaire that is relevant to Scottish businesses. We will go through the main topics that are likely to be covered in the questionnaire, allowing you to identify the key issues facing businesses.
→ Request permission to tape record – completely confidential and can be turned off at anytime.

2. General feeling about transport infrastructure and services in Scotland

→ Overall, how well do you think the current transport infrastructure and services serve Scottish businesses? By transport infrastructure and services I mean everything from roads, to railways and air travel to ports and all modes.
PROBE FOR:
- Impact on business growth – positive? Inhibiting?

→ Can you identify any particular strengths of the current infrastructure and services?
→ And what about any particular weaknesses?

3. Types of transport modes and their different business uses

→ Which transport modes are most important to your sector/members?
FOR EACH MODE MENTIONED PROBE FOR:
- the business purpose served – inter/intra business travel, access to labour markets, supply chains etc.

→ How would you rate the quality of each mode?
PROBE FOR:
- Strengths
- Problems – road congestion, unreliable timetables, gaps and their impact

→ Do you think that this pattern of transport use in your sector/among your members will continue in the future?

→ I would now like to talk about the process of choosing a particular mode of transport. What do businesses take into account when choosing between alternative modes of transport?
PROBE FOR:
- Total travel time
- Journey costs
- Journey time reliability
- Availability of alternative modes
- Environmental concerns
- Flexibility
- Other

→ In general, how important is transport as a factor influencing business location decisions within your sector/among your members? (This should be explored in terms of normal business and also when the business is looking to expand)
→ Does this vary among different types of business?
→ What other factors are important? Are these more or less important than transport?

4. Integration of the transport system

→ Overall, how well integrated would you say the current transport network in Scotland is?
- First let's consider connections between the same mode of transport, how would you describe the current connections? Why?
- What about connections between different transport modes, how would you describe them? Why?
- Now I'd like you to think about how well integrated Scotland is as a whole. How easy would you say movement is within Scotland? Why do you say that?
- What about movement between Scotland and the rest of the UK? Why?
- Finally what do you think of Scotland's international links? Why?

→ Taking into account all the different levels of integration we've just talked about, what are the effects of non-integration on business?
PROBE FOR:
- Business costs
- Business productivity
- Business competitiveness
- Business growth and expansion

5. IT developments

→ To what extent do you think IT developments are changing transport needs?
PROBE FOR:
- E-mail
- E-business
- Conference/video calls
- Other

→ Do you think such developments can fill in the gaps in the transport system?
→ Do you think IT developments are a substitute for particular modes of transport?

6. Environmental considerations

→ To what extent do environmental considerations influence transport decisions within your sector/among your members?
PROBE FOR:
- Green travel plans
- Preference for more environmentally friendly modes – e.g. trains over planes, public over private transport
- Changes to business models e.g. supply policy (local sourcing), distribution chains, logistical operations

→ To what extent do you think businesses can fulfil their environmental policies within the current transport network?

→ What improvements in the network are needed for businesses to realise their/develop environmental policies?
PROBE FOR:
- Improvements that would encourage shifts to environmentally friendly modes

7. Improvements

→ On the basis of what we've discussed today, what are the main improvements you would like to see in the transport network?

→ How would these improvements benefit your sector?
PROBE FOR:
- Direct benefits such as reduced time costs
- Indirect benefits such as access to broader pool of labour market
- Overall business growth

→ What impact do you think these improvements will have on the current way businesses use transport?
PROBE FOR:
- Modal shift

→ If you had to choose only one of the improvements you've mentioned – which one would it be? Why?

Closing comments
Apart from the issues we have already discussed, are there any other issues relating to transport infrastructure and services in Scotland which you feel should definitely be addressed in the survey questionnaire?

End of interview.
Thank interviewee for their time and close.

Appendix C: Survey sampling

The sample for the survey was designed to meet a number of requirements. It was designed to be representative of the Scottish business population but also to allow analysis of six business sectors identified as key growth sectors in the Scottish Government's Economic Strategy. It also included a boost of businesses in the HIE area to allow more robust analysis of HIE businesses than a proportionate allocation of sample would have allowed.

Thus, the total sample of 1,700 businesses was split into two parts – 1,500 interviews spread across Scotland and reflecting the need to disproportionately select businesses from the six key growth sectors, and 200 interviews only in the HIE area and proportionately distributed across business sectors, although with a caveat that no more than 30% of interviews should be with businesses with 0-5 employees.

The 1,500 interviews in the main sample were disproportionately allocated between the six key growth sectors and other businesses to ensure that the interview targets were sufficient to allow major differences of opinion between sectors to be recorded but also appropriate to the size of each sector. Overall, although the six key growth sectors account for 29% of the business population, 66% of the core interviews were allocated to these sectors.

The sectors were defined in terms of categories of the Standard Industrial Classification, as follows.

Sector	SIC codes
Energy	10, 23, 40, 41
Financial and business services	65, 66, 67, 74
Food and drink	1, 5, 15
Life sciences	24.4, 33.1, 73.1
Tourism	55 (exc 55.5), 63.3, 92.5, 92.6, 92.7 5530 and 5540 were included but limited to 20% of the total sector sample
The creative industries	74.4, 92.11, 92.12, 92.13, 22.14, 92.31, 92.32, 22.11, 22.12, 92.4, 72.21, 72.22, 92.2
Other businesses	All SIC codes not specified above

There was some concern about the impact of small businesses on the sample and a view that since the major driver of changes to the transport infrastructure were the needs of large employers and particularly those in growth sectors, that the number of small employers selected to take part in the survey should be restricted. Each sector was therefore examined by business size with businesses sampled in inverse proportion to the population of businesses with 0-5 employees. Thus, if a sector had 75% of businesses with 0-5 employees, only 25% of the sampled businesses would have 0-5 employees.

In the tourism sector there was particular concern that this limit based on the number of employees might mean that pubs, clubs and restaurants could still be inappropriately represented in the tourism sample because of the large number of part-time employees. To counter this, tourism was split between pubs, clubs and restaurants and other tourism. The number of interviews from pubs, clubs and restaurants (SIC codes 5530 and 5540) was capped so that no more than 25% of the tourism interviews came from this part of the sector and within each part, the employee limit was also applied.

Overall, while population information suggests that 67% of businesses have 0-5 employees, the sample was designed so that only 33% of interviews would come from this source and the remainder would be drawn from larger establishments.

Sample targets and achieved interviews

Total sample

	HIE	Rest of Scotland	Total
All of Scotland	150	1,350	1,500
HIE boost	200		200
Total target	**350**	**1,350**	**1,700**
Achieved	366	1,334	1,700

Of the 1700 interviews

	Target	Achieved
Energy	100	65
Financial and business services	166	180
Food and drink	162	175
Life sciences	100	100
Tourism	293	293
The creative industries	152	160
Other businesses	727	727
	1,700	**1,700**

Survey weighting

The disproportionate sampling between HIE and the rest of Scotland, between the six growth sectors and the rest the business population and, within sectors, between small and larger businesses, allows each of these sub-divisions of the sample to be analysed more robustly than a proportionate sample allows. However, analysis by sector, region and for Scotland as a whole requires these disproportionalities to be removed by weighting sub-groups represent their true prevalence in the population.

For example, the Creative sector represents 9% of the achieved interviews but only 3% of the population of businesses. Conversely, other businesses represent 67% of the business population but 43% of all interviews. Analysis of business opinion in Scotland needs to scale down the contribution from respondents in the Creative Industries and scale up other businesses so that each is represented in proportion.

Appendix D: Survey questionnaire

INTRODUCTION

Good morning/afternoon. My name is …… from Ipsos MORI, the research organisation. Would it be possible to speak to the owner/ senior manager of the business?

ASK IF CONTACT MADE.
OTHERS CALL BACK

Q1 Can I just check your job title?
PROMPT IF NECESSARY
SINGLE CODE
MAKE SURE RESPONDENT IS AT LEAST A SENIOR MANAGER

Owner/Partner	1
CEO/Managing Director	2
Other Director	3
Sales Manager	4
Logistics Manager	5
Other Senior Manager	6

We are phoning to see if you would like to participate in a short survey we are conducting among business in Scotland on behalf of the Scottish Government, Scottish Enterprise, Highlands & Islands Enterprise and Transport Scotland. The survey focuses on issues facing businesses and the findings will be used to inform strategies aimed at promoting sustainable economic growth in Scotland.

We'd be grateful if you could spare 15 minutes to take part in this important piece of research. The interview is strictly confidential and for research purposes only.

IF BUSY ARRANGE FOR APPOINTMENT
IF FREE TO TAKE PART IN AN INTERVIEW THERE AND THEN, CONTINUE

BACKGROUND

ASK ALL

Q2 To being, I'd like to ask you some general questions about your business. Do you think that prospects for your business will improve, stay the same or get worse over the next 12 months?
SINGLE CODE

Improve	1
Stay the same	2
Get worse	3
Don't know	4
Refused	5

Q3 And, what would you say are the main challenges or problems facing your business at present?

DO NOT PROMPT
MULTI CODE OK

Poor quality/lack of transport infrastructure WRITE IN	1
Recruiting skilled workers	2
Access to credit	3
State of the economy (UK/EU/World)	4
Rising costs (fuel, electricity, water)	5
Downturn in consumer demand/recession	6
Taxation	7
Government regulation	8
Property prices	9
Increased competition	10
Other WRITE IN	11
Nothing	12
Don't know	13
Refused	14

Q4 Most of the questions I want to ask are about how transport issues affect the day-to-day operation of your business. Thinking just about transport issues, what would you say are the main challenges or problems facing your business at present?

DO NOT PROMPT. PROBE FULLY
WRITE IN

PERCEPTIONS OF TRANSPORT NETWORKS

I would now like to ask you about how your business uses different transport networks in its day-by-day operations. I'm thinking particularly about six transport networks:

- **the trunk road network which covers major motorway and most major A roads across Scotland**
- **the local roads network which covers all other roads and the services associated with them including traffic management, maintenance and parking**
- **the local public transport network which covers local buses, taxis, underground as well as their stations**
- **the rail network which covers passenger and freight train routes, timetables and train stations**
- **the air network which covers passenger and freight flights within Scotland and connections to other countries as well as airports and their amenities, and finally**
- **the water based transport network which covers ports and harbours, ferry services and inland waterways.**

CATI SCRIPTER INSERT FOLLOWING PURPOSES INTO Q5, RANDOMISE ORDER)

a) your customers access your goods or services
b) you access the goods and services you need for the day-to-day operation of your business
c) you receive deliveries of goods and services
d) you distribute any goods or services you sell
e) you and your staff travel to work or on business
f) you and your staff attend meetings or visit sites

Q5 **Thinking about how** [CATI SCRIPTER INSERT PURPOSES IN RANDOM ORDER]**, which of the six networks – trunk roads, local roads, local public transport, rail, air or water based transport – would you say are most important. You can select as many or as few as you like.**

MULTICODE OK

		Trunk roads	Local roads	Local public transport	Rail	Air	Water	N/A
a)	**To receive customers**	1	2	3	4	5	6	7
b)	**To access goods & services**	1	2	3	4	5	6	7
c)	**To receive goods & services**	1	2	3	4	5	6	7
d)	**To distribute good and services**	1	2	3	4	5	6	7
e)	**Staff commuting to work**	1	2	3	4	5	6	7
f)	**Visiting sites/Attending meetings**	1	2	3	4	5	6	7

IF NO NETWORKS IMPORTANT FOR ANY PURPOSE - CLOSE

ASK ALL WHO SAY TRUNKS ROADS ARE IMPORTANT FOR AT LEAST ONE PURPOSE AT Q5 (CODE 1)

Q6 **You said the trunk road network is important to your business. We're interested to know which parts of the trunk road network your business uses for its operations. Is it the network…?**

READ OUT

MULTICODE OK

Within the Scottish mainland	1
Between Scotland and the rest of the UK	2

ASK ALL WHO SAY TRUNKS ROADS ARE IMPORTANT FOR AT LEAST ONE PURPOSE AT Q5 (CODE 1)

Q7 **Overall, how would you rate the trunk road network in Scotland from your business' perspective? Again, by trunk road network I mean the major motorways and most major A roads across Scotland.**

SINGLE CODE

Very good	1
Fairly good	2
Neither good nor poor	3
Fairly poor	4
Very poor	5
Don't know	6

ASK ALL WHO SAY THE TRUNK ROAD NETWORK IS VERY OR FAIRLY POOR AT Q7 (CODES 4 & 5)

Q8 Why do you say that?

DO NOT PROMPT
MULTICODE OK

Too much congestion	1
Roads not wide enough/not enough lanes on some routes e.g. M8, A9	2
Road surfaces in poor condition – potholes etc.	3
Too many roadworks	4
Inadequate links between the main cities	5
Inadequate links between the main cities and rural areas	6
Inadequate links to other parts of the UK	7
Other WRITE IN	8
Don't know	9

ASK ALL WHO SAY THE TRUNK ROAD NETWORK IS VERY OR FAIRLY POOR AT Q7 (CODES 4 & 5)

Q9 And what problems, if any, does this cause for your business?

DO NOT PROMPT
MULTICODE OK

Loss of business	1
Loss of man hours	2
Increased operating costs	3
Lack of inward investment in the region	4
Recruitment difficulties	5
Reduced productivity	6
Staff lateness	7
Reduced competitiveness	8
Goods not delivered on time	9
No problems	10
Other WRITE IN	11
Don't know	12

ASK ALL WHO SAY LOCAL ROADS ARE IMPORTANT FOR AT LEAST ONE PURPOSE AT Q5 (CODE 2)

Q10 Moving on, you said that local roads are important to your business. Overall, how would you rate the condition and management of local roads from your business' perspective?

SINGLE CODE

Very good	1
Fairly good	2
Neither good nor poor	3
Fairly poor	4
Very poor	5
Don't know	6

ASK ALL WHO SAY LOCAL ROADS ARE VERY OR FAIRLY POOR AT Q10 (CODES 4 & 5)

Q11 Why do you say that?

DO NOT PROMPT
MULTICODE OK

Too much congestion/ poor traffic management	1
Lack of parking places/places to drop off goods	2
Excessive enforcement of parking restrictions	3
Parking too expensive	4
Road surfaces are in poor condition – potholes etc.	5
Too many roadworks	6
Other WRITE IN	7
Don't know	8

ASK ALL WHO SAY LOCAL ROADS ARE VERY OR FAIRLY POOR AT Q10 (CODES 4 & 5)

Q12 And what problems, if any, does this cause for your business?

DO NOT PROMPT
MULTICODE OK

Loss of business	1
Loss of man hours	2
Increased operating costs	3
Lack of inward investment in the region	4
Recruitment difficulties	5
Reduced productivity	6
Staff lateness	7
Reduced competitiveness	8
Goods not delivered on time	9
No problems	10
Other WRITE IN	11
Don't know	12

ASK ALL WHO SAY LOCAL PUBLIC TRANSPORT IS IMPORTANT FOR AT LEAST ONE PURPOSE AT Q5 (CODE 3)

Q13 You mentioned that the local public transport network is important. Overall, how would you rate local public transport such as buses, underground and taxis in the area around your business?

SINGLE CODE

Very good	1
Fairly good	2
Neither good nor poor	3
Fairly poor	4
Very poor	5
Don't know	6

ASK ALL WHO SAY LOCAL PUBLIC TRANSPORT IS VERY OR FAIRLY POOR AT Q13 (CODES 4 & 5)

Q14 Why do you say that?

DO NOT PROMPT
MULTICODE OK

Bus services are unreliable/often late	1
Bus journey times are too long	2
Bus timetables are not integrated enough	3
Timetables of trains and buses are not integrated enough	4
Bus services are not frequent enough	5
No direct bus services	6
Lack of information	7
Not enough taxis/ taxi stands	8
Taxi fares too expensive	9
Other WRITE IN	10
Don't know	11

ASK ALL WHO SAY LOCAL PUBLIC TRANSPORT IS VERY OR FAIRLY POOR AT Q13 (CODES 4 & 5)

Q15 And what problems, if any, does this cause for your business?

DO NOT PROMPT
MULTICODE OK

Loss of business	1
Loss of man hours	2
Increased operating costs	3
Lack of inward investment in the region	4
Recruitment difficulties	5
Reduced productivity	6
Staff lateness	7
Reduced competitiveness	8
Other WRITE IN	9
Don't know	10

ASK ALL WHO SAY RAIL IS IMPORTANT FOR AT LEAST ONE PURPOSE AT Q5 (CODE 4)

Q16 You said the rail network is important to your business. We're interested to know which parts of the rail network your business uses for its operations. Is it the network…?

READ OUT
MULTICODE OK

Within the Scottish mainland	1
Between Scotland and the rest of the UK	2
Between Scotland and Europe	3

ASK ALL WHO SAY RAIL IS IMPORTANT FOR AT LEAST ONE PURPOSE AT Q5 (CODE 4)

Q17 How would you rate the rail network in Scotland from your business' perspective? By rail network I mean freight and passenger train routes, timetables and train stations

SINGLE CODE

Very good	1
Fairly good	2
Neither good nor poor	3
Fairly poor	4
Very poor	5
Don't know	6

ASK ALL WHO SAY RAIL IS VERY OR FAIRLY POOR AT Q17 (CODES 4 & 5)

Q18 Why do you say that?

DO NOT PROMPT
MULTICODE OK

Services are unreliable/often late	1
Journey times within Scotland are too long	2
Journey times to the rest of the UK are too long	3
Timetables of train connections within Scotland are not integrated enough	4
Timetables of train connections between Scotland and the rest of the UK are not integrated enough	5
Timetables of train and ferry connections are not integrated enough	6
Timetables of trains and buses are not integrated enough	7
Train services within Scotland are not frequent enough	8
Train services between Scotland and other parts of the UK are not frequent enough	9
Inadequate rail links between the city centres and its peripheries	10
Inadequate rail links between the main Scottish cities	11
Inadequate rail links with the rest of the UK	12
Tickets are too expensive	13
Tickets are more expensive than plane tickets	14
Rail freight network coverage within Scotland is not extensive enough	15
Rail freight coverage with the rest of the UK is not extensive enough	16
Rail freight services are too expensive	17
Rail freight journey times are too long	18
Train stations need modernising	19
Other WRITE IN	20
Don't know	21

ASK ALL WHO SAY RAIL IS VERY OR FAIRLY POOR AT Q17 (CODES 4 & 5)

Q19 And what problems, if any, does this cause for your business?

DO NOT PROMPT
MULTICODE OK

Loss of business	1
Loss of man hours	2
Increased operating costs	3
Lack of inward investment in the region	4
Recruitment difficulties	5
Reduced productivity	6
Staff lateness	7
Reduced competitiveness	8
No problems	9
Other WRITE IN	10
Don't know	11

ASK ALL WHO SAY AIR IS IMPORTANT FOR AT LEAST ONE PURPOSE AT Q5 (CODE 5)

Q20 You said that air travel is important to your business. We're interested to know which types of air travel your business uses. Is this air travel…?

READ OUT
MULTICODE OK

Within Scotland	1
Between Scotland and the rest of the UK	2
Between Scotland and Europe	3
Between Scotland and the rest of the world	4

ASK ALL WHO SAY AIR IS IMPORTANT FOR AT LEAST ONE PURPOSE AT Q5 (CODE 5)

Q21 How would you rate air travel services available in Scotland from your business' perspective? By air travel services, I mean passenger and freight flights within Scotland and connections to other countries, as well as airports and their amenities.

SINGLE CODE

Very good	1
Fairly good	2
Neither good nor poor	3
Fairly poor	4
Very poor	5
Don't know	6

ASK ALL WHO SAY AIR TRAVEL SERVICES IS VERY OR FAIRLY POOR AT Q21 (CODES 4 & 5)

Q22 Why do you say that?

DO NOT PROMPT
MULTICODE OK

Too many flight cancellations	1
Services are unreliable/ often delays	2
Lack of flights routes within Scotland	3
Poor frequency of flights within Scotland	4
Lack of direct flights to London airports	5
Cuts in direct flights to London airports	6
Lack of direct flights to other destinations in UK	7
Lack of direct flights to European destinations	8
Lack of direct flights to international destinations	9
Lack of direct flights to airports other than Glasgow or Edinburgh	10
Insufficient transport links between airports and cities/towns	11
Tickets are too expensive	12
Tickets more expensive than ferry tickets	13
Airports need modernising	14
Too many budget airlines / not enough business services	15
Other WRITE IN	16
Don't know	17

ASK ALL WHO SAY AIR TRAVEL SERVICES IS VERY OR FAIRLY POOR AT Q21 CODES 4 & 5)

Q23 And what problems, if any, does this cause for your business?

DO NOT PROMPT
MULTICODE OK

Loss of business	1
Loss of man hours	2
Increased operating costs	3
Lack of inward investment in the region	4
Recruitment difficulties	5
Reduced productivity	6
Staff lateness	7
Reduced competitiveness	8
No problems	9
Other WRITE IN	10
Don't know	11

ASK ALL WHO SAY WATER NETWORK IS IMPORTANT FOR AT LEAST ONE PURPOSE AT Q5 (CODE 6)

Q24 You said that the water based transport network is important to your business. We're interested to know what parts of the water transport network your business uses. Is it the water network …?

READ OUT
MULTICODE OK

Within Scotland	1
Between Scotland and the rest of the UK	2
Between Scotland and Europe	3
Between Scotland and the rest of the world	4

ASK ALL WHO SAY WATER NETWORK IS IMPORTANT FOR AT LEAST ONE PURPOSE AT Q5 (CODE 6)

Q25 How would you rate the water network in Scotland from your business' perspective?

SINGLE CODE

Very good	1
Fairly good	2
Neither good nor poor	3
Fairly poor	4
Very poor	5
Don't know	6

ASK ALL WHO SAY THE WATER NETWORK IS VERY OR FAIRLY POOR AT Q25 (CODES 4 & 5)

Q26 Why do you say that?

DO NOT PROMPT
MULTICODE OK

Lack of ferry routes between Scottish islands and mainland	1
Poor frequency of ferry services between Scottish islands and mainland	2
Ferry services are unreliable/often late	3
Ferry journey times are too long	4
Timetables of ferry and train operators not well integrated enough	5
Timetables of ferry and bus operators are not integrated enough	6
Roads connecting ports and cities/towns are inadequate	7
Lack of freight services to rest of UK	8
Lack of freight services to Europe	9
Lack of freights services to rest of word	10
Ferry prices are too expensive	11
Freight services are expensive	12
Freight journey times are too long	13
Ports need modernising	14
Facilities for goods at ports are inadequate	15
Other WRITE IN	16
Don't know	17

ASK ALL WHO SAY THE WATER NETWORK IS VERY OR FAIRLY POOR AT Q25 (CODES 4 & 5)

Q27 And what problems, if any, does this cause for your business?

DO NOT PROMPT
MULTICODE OK

Loss of business	1
Loss of man hours	2
Increased operating costs	3
Lack of inward investment in the region	4
Recruitment difficulties	5
Reduced productivity	6
Staff lateness	7
Reduced competitiveness	8
No problems	9
Other WRITE IN	10

ASK ALL

Q28 Taking into account all the different transport networks – trunk roads, local roads, local public transport, rail, air and water – which, if any, would your business like to make more use of?

MULTICODE OK

Trunk roads	1
Local roads	2
Local public transport	3
Rail	4
Air	5
Water	6
None	7
Don't know	8

Q29 We are also interested in finding out which considerations are most important to businesses when they are planning a journey. I am going to read out a number of pairs of factors and I'd like you to tell me which factor in each pair is most important in terms of the main journeys made by your business. [CATI SCRIPTER INSERT FACTOR] **or** [CATI SCRIPTER INSERT FACTOR]**?**
CATI SCRIPTER: RANDOMLY ALLOCATE X PAIRS OF FACTORS TO EACH RESPONDENT

Total journey time	1
Total journey costs	2
Knowing how long the journey will be	3
Reliability of the operation	4
Frequency of journey	5
Impact of the journey on the environment	6
Availability of public transport	7

Location decisions

ASK ALL

Q30 Moving on, which of the following statements comes closest to describing how much involvement you have in decisions concerning locations for your business' operations?
READ OUT
SINGLE CODE

I make the final decision	1
I have significant influence but do not make the final decision	2
I am consulted but the decisions are made by other, more senior staff	3
I have no involvement	4
Not applicable	5
Don't know	6
Refused	7

ASK ALL WHO MAKE THE FINAL DECISION OR HAVE SIGNIFICANT INFLUENCE AT Q30 (CODES 1 & 2) OTHERS GO TO Q35

Q31 How long has your business been in its current location? Has it been there…?
READ OUT
SINGLE CODE

Less than three years	1
More than three years	2
Don't know	3
Refused	4

ASK ALL WHO SAY MORE THAN THREE YEARS AT Q31 (CODE 2)

Q32 How likely is it that your business will move or expand to a new location in the next three years?
SINGLE CODE

Very likely	1
Fairly likely	2
Fairly unlikely	3
Very unlikely	4
Not applicable	5
Don't know	6
Refused	7

ASK ALL WHO SAY LESS THAN THREE YEARS AT Q31 (CODE 1) OR LIKELY TO MOVE IN NEXT THREE YEARS AT Q32 (CODES 1 & 2)
OTHERS GO TO Q35

CATI SCRIPTER: FOR THOSE WHO SAY CODE 1 AT Q31 INSERT WORDS IN RED, FOR THOSE WHO SAY CODES 1 & 2 AT Q32 INSERT WORDS IN BLUE

Q33 And to what extent would you say issues related to transport infrastructure or services {Were/are likely to be} important or unimportant in {determining the current location of your business/the decision to move or expand in another location}? Would you say they {were/will be}…?

READ OUT
SINGLE CODE

Very important	1
Fairly important	2
Not very important	3
Not at all important	4
Not applicable	5
Don't know	6
Refused	7

ASK ALL WHO SAY VERY OR FAIRLY IMPORTANT (CODES 1 & 2) AT Q33
CATI SCRIPTER: FOR THOSE WHO SAY CODE 1 AT Q31 INSERT WORDS IN RED, FOR THOSE WHO SAY CODES 1 & 2 AT Q32 INSERT WORDS IN BLUE

Q34 What particular aspects of transport services or infrastructure {were/do you think are likely to be} important {in the choice of/when choosing a new} location?

DO NOT PROMPT
MULTICODE OK

Proximity to rail links	1
Proximity to airports	2
Proximity to bus links	3
Proximity to public transport	4
Access to trunk road network	5
Proximity to sea or ferry ports	6
Proximity to markets/customers	7
Proximity to the main cities	8
Access to good quality/skilled workforce	9
Access to goods/services	10
Suitable business accommodation/room to expand	11
The local business culture/ the types of businesses that exist in a location	12
Office rental rates	13
Other WRITE IN	14
Don't know	15
Refused	16

Information technology

CATI SCRIPTER NOTE: ASK Q35 TO ONLY HALF OF THE SAMPLE AT RANDOM
OTHERS GO TO Q38

Q35 On a different subject now, I'd like you to think about your business' use of information technology. Overall, to what extent would you say the following technologies are important or unimportant in the day-to-day operation of your business?
READ OUT
SINGLE CODE EACH ROW

		Very important	Fairly important	Not very important	Not at all important	Don't know	N/A	Refused
a)	**Email**	1	2	3	4	5	6	7
b)	**Online buying/selling**	1	2	3	4	5	6	7
c)	**High speed internet connections**	1	2	3	4	5	6	7
d)	**Audio conference calling**	1	2	3	4	5	6	7
e)	**Video conferencing**	1	2	3	4	5	6	7
f)	**File sharing technologies such as FTP, extranets or portals**	1	2	3	4	5	6	7
g)	**Web-based collaboration such as Sharepoint, NetMeeting**	1	2	3	4	5	6	7
h)	**Discussion forums**	1	2	3	4	5	6	7
i)	**Text chat such as MSN Messenger**	1	2	3	4	5	6	7

ASK ALL WHO SAY AT LEAST ONE TECHNOLOGY IS VERY OR FAIRLY IMPORTANT AT Q35 (CODES 1 & 2) OTHERS GO TO Q37

Q36 Keeping in mind the technologies you've said are important, to what extent would you say they have impacted on the number of work-related journeys you or your colleagues make? Would you say you make…?
READ OUT
SINGLE CODE

Fewer journeys	1
The same	2
More journeys	3
Don't know	4
Not applicable	5
Refused	6

ASK ALL WHO SAY AT LEAST ONE TECHNOLOGY IS NOT IMPORTANT AT Q35 (CODES 3 & 4)

Q37 Over the next three years, to what extent do you think the IT technologies I just read out will become more important, if at all, in the day-to-day operation of your business?

SINGLE CODE

Much more important	1
A little more important	2
Not at all important	3
Don't know	4
Not applicable	5
Refused	6

Environment

ASK ALL
CATI SCRIPTER: RANDOMLY ALLOCATE 6 OF A) – M) TO EVERY RESPONDENT

Q38 I'm now interested in various transport-related policies that your business may or may not have. I am going to read out a list of policies and for each, I'd like you to tell me whether your business has it, doesn't have it but is getting it or doesn't have it and is not getting it.

READ OUT
SINGLE CODE EACH ROW

		Have it	Don't have but getting	Don't have and not getting	Don't know	Refused
a)	**Free parking at your current premises**	1	2	3	4	5
b)	**Company cars**	1	2	3	4	5
c)	**Pool cars for business use**	1	2	3	4	5
d)	**Car-sharing schemes**	1	2	3	4	5
e)	**Company loans to buy bicycles**	1	2	3	4	5
f)	**Using rail rather than air for business travel**	1	2	3	4	5
g)	**Using rail rather than road to transport goods**	1	2	3	4	5
h)	**Season ticket loans for employees**	1	2	3	4	5
i)	**Home working**	1	2	3	4	5
j)	**Travel Plans**	1	2	3	4	5
k)	**Including in marketing and promotional materials details of how to get to your business premises by public transport**	1	2	3	4	5
l)	**Carbon offsetting**	1	2	3	4	5
m)	**Preferential use of local suppliers**	1	2	3	4	5

Future improvements

ASK ALL

Q39 **Finally, thinking about all of the issues we have discussed in this interview, what are the 2 or 3 most important improvements you would like to see made to the transport network in Scotland in the future?**
DO NOT PROMPT. MULTICODE OK

Q40 ASK IF MORE THAN ONE MENTIONED AT Q39
And of all the improvements you've mentioned what is the single most important one?
DO NOT PROMPT SINGLE CODE

	Q39	Q40
Roads		
Reducing congestion	1	1
Widen roads	2	2
Improved road connections between the cities	3	3
Improved connects between cities and peripheries	4	4
Improve conditions of trunk roads	5	5
Improve conditions of local roads	6	6
Minimising roadworks/disruption	7	7
Improve signage	8	8
Improve forth crossing	9	9
Other WRITE IN	10	10
Rail		
Higher speed/more direct rail connections between the Scottish cities/towns	11	11
Higher speed/more direct rail connections between the Scottish cities and London	12	12
Higher speed/more direct rail connections between the Scottish cities and other parts of the UK	13	13
More frequent services between Scottish cities/towns	14	14
More frequent services between Scottish cities and London	15	15
More frequent services between Scottish cities and other parts of the UK	16	16
Extend network in Scotland	17	17
Reduced fares	18	18
Reduce cost of rail freight	19	19
Through ticketing	20	20
Improved integration of train timetables	21	21
Improved integration of train and ferry/terminals	22	22
Upgrade stations	23	23
Rail link to Edinburgh airport	24	24
Other WRITE IN	25	25
Air		
More direct flights from Scottish cities to London	26	26
Improve services between Scottish mainland and islands	27	27
More direct flights from Scottish cities to other parts of the UK	28	28
More direct flights to Europe	29	29
More direct flights to the rest of the world	30	30
Improve links between airports and city centres	31	31
Other WRITE IN	32	32

Water		
More frequent ferry services between Scottish mainland and islands	33	33
Faster ferry crossings between Scottish mainland and islands	34	34
Improve integrations of timetables for trains and ferries	35	35
Reduce cost of tickets for ferries	36	36
Improve roads connecting ports with cities/towns	37	37
Increase freight services between Scotland and Scandanavia	38	38
Increase freight services between Rosyth and Zeebrugge	39	39
Increase freight services between Stranraer to Belfast	40	40
Reduce the cost of freight	41	41
Improve facilities for goods in ports	42	42
Other WRITE IN	43	43
Other		
Improve integration generally	44	44
OTHER WRITE IN	45	45
Don't know	46	46

END OF QUESTIONNAIRE – THANK YOU AND CLOSE

Appendix E: Survey results by sector

E.1 Importance of transport networks by sector

Table E.1.1: Energy

	Trunk roads	Local roads	Local public transport	Rail	Air	Water
Base: 65	%	%	%	%	%	%
Customers' access to your business' goods and services	52	46	2	2	29	19
Your business' access to the goods and services it needs for its day to day operation	68	65	3	3	9	19
The delivery of goods and services to your businesses	76	46	-	2	7	11
The distribution of any goods or services your business sells	73	67	-	1	15	41
Staff travelling to work or on business	53	60	5	8	23	9
Staff attending meetings or visiting sites	61	45	2	11	47	2

Table E.1.2: Financial and business services

	Trunk roads	Local roads	Local public transport	Rail	Air	Water
Base: 180	%	%	%	%	%	%
Customers' access to your business' goods and services	54	66	15	10	4	2
Your business' access to the goods and services it needs for its day to day operation	55	65	8	8	4	2
The delivery of goods and services to your businesses	67	67	3	5	3	4
The distribution of any goods or services your business sells	50	51	4	11	10	3
Staff travelling to work or on business	60	76	26	19	7	4
Staff attending meetings or visiting sites	62	73	13	24	11	5

Table E.1.3: Food and drink sector

	Trunk roads	Local roads	Local public transport	Rail	Air	Water
Base: 175	%	%	%	%	%	%
Customers' access to your business' goods and services	59	76	1	1	1	6
Your business' access to the goods and services it needs for its day to day operation	66	79	*	*	*	5
The delivery of goods and services to your businesses	78	85	*	1	*	9
The distribution of any goods or services your business sells	67	80	*	2	1	5
Staff travelling to work or on business	41	74	6	*	1	1
Staff attending meetings or visiting sites	52	66	2	1	10	2

Table E.1.4: Life sciences

	Trunk roads	Local roads	Local public transport	Rail	Air	Water
Base: 100	%	%	%	%	%	%
Customers' access to your business' goods and services	47	31	5	5	36	9
Your business' access to the goods and services it needs for its day to day operation	51	64	1	3	19	17
The delivery of goods and services to your businesses	68	42	1	10	12	32
The distribution of any goods or services your business sells	52	41	2	4	22	3
Staff travelling to work or on business	47	73	11	6	12	7
Staff attending meetings or visiting sites	55	50	4	18	38	1

Table E.1.5: Tourism

	Trunk roads	Local roads	Local public transport	Rail	Air	Water
Base: 293	%	%	%	%	%	%
Customers' access to your business' goods and services	42	71	30	14	13	12
Your business' access to the goods and services it needs for its day to day operation	53	73	5	2	2	6
The delivery of goods and services to your businesses	63	73	2	2	3	7
The distribution of any goods or services your business sells	23	39	5	3	2	3
Staff travelling to work or on business	28	73	28	5	2	2
Staff attending meetings or visiting sites	34	50	14	7	2	2

Table E.1.6: Creative industries

	Trunk roads	Local roads	Local public transport	Rail	Air	Water
Base: 160	%	%	%	%	%	%
Customers' access to your business' goods and services	39	48	9	10	6	2
Your business' access to the goods and services it needs for its day to day operation	61	62	5	7	7	2
The delivery of goods and services to your businesses	69	55	3	3	5	6
The distribution of any goods or services your business sells	55	58	5	9	8	5
Staff travelling to work or on business	57	67	15	18	12	*
Staff attending meetings or visiting sites	59	66	17	19	19	2

Table E.1.7: Other businesses

	Trunk roads	Local roads	Local public transport	Rail	Air	Water
Base: 727	%	%	%	%	%	%
Customers' access to your business' goods and services	42	73	22	6	2	5
Your business' access to the goods and services it needs for its day to day operation	60	72	5	3	3	5
The delivery of goods and services to your businesses	71	67	2	2	2	7
The distribution of any goods or services your business sells	48	62	5	3	2	4
Staff travelling to work or on business	45	84	19	8	3	1
Staff attending meetings or visiting sites	53	69	12	10	7	4

E.2 Ratings of transport networks by sector

E.2.1: Energy

	Very good	Fairly good	Neither good nor poor	Fairly poor	Very poor	*Base*
	%	%	%	%	%	
Trunk road network	3	48	20	28	1	*57*
Local roads	10	28	21	25	15	*56*
Local public transport	* (N)	* (N)	*(N)	* (N)	- (N)	*9*
Air travel services	9	44	25	20	2	*36*
Rail network	* (N)	1 (N)	* (N)	- (N)	* (N)	*11*
Water-based network	1 (N)	1 (N)	* (N)	- (N)	* (N)	*15*

E.2.2: Financial and business services

	Very good	Fairly good	Neither good nor poor	Fairly poor	Very poor	*Base*
	%	%	%	%	%	
Trunk road network	10	61	9	13	5	*151*
Local roads	7	29	13	32	17	*166*
Local public transport	30	43	7	9	2	*69*
Air travel services	9	67	16	7	1	*53*
Rail network	11	59	12	12	5	*68*
Water-based network	5	53	14	5	18	*30*

E.2.3: Food and drink sector

	Very good	Fairly good	Neither good nor poor	Fairly poor	Very poor	*Base*
	%	%	%	%	%	
Trunk road network	12	59	13	11	5	*156*
Local roads	12	41	11	24	13	*166*
Local public transport	4 (N)	1 (N)	3 (N)	* (N)	- (N)	*16*
Air travel services	16	76	3	3	1	*31*
Rail network	* (N)	2 (N)	* (N)	- (N)	* (N)	*15*
Water-based network	26	31	17	5	1	*43*

E.2.4: Life sciences

	Very good	Fairly good	Neither good nor poor	Fairly poor	Very poor	*Base*
	%	%	%	%	%	
Trunk road network	6	30	11	19	23	*90*
Local roads	25	22	11	36	6	*88*
Local public transport	16	52	20	4	8	*25*
Air travel services	20	38	7	34	2	*39*
Rail network	9	57	11	19	4	*34*
Water-based network	* (N)	2 (N)	1 (N)	- (N)	* (N)	*12*

E.2.5: Tourism

	Very good	Fairly good	Neither good nor poor	Fairly poor	Very poor	*Base*
	%	%	%	%	%	
Trunk road network	12	55	11	15	6	*222*
Local roads	9	37	14	21	19	*278*
Local public transport	29	44	8	12	5	*134*
Air travel services	23	41	14	6	8	*61*
Rail network	27	46	17	5	3	*66*
Water-based network	30	41	12	10	6	*65*

E.2.6: Creative industries

	Very good	Fairly good	Neither good nor poor	Fairly poor	Very poor	*Base*
	%	%	%	%	%	
Trunk road network	11	58	16	10	4	*147*
Local roads	8	32	18	23	19	*141*
Local public transport	25	29	7	20	19	*53*
Air travel services	27	39	19	11	3	*63*
Rail network	13	60	13	9	5	*61*
Water-based network	1 (N)	2 (N)	* (N)	1 (N)	1 (N)	*22*

E.2.7: Other businesses

	Very good	Fairly good	Neither good nor poor	Fairly poor	Very poor	*Base*
	%	%	%	%	%	
Trunk road network	12	60	12	11	5	*585*
Local roads	7	35	14	25	18	*684*
Local public transport	20	50	9	10	6	*260*
Air travel services	28	48	8	13	1	*142*
Rail network	14	63	10	9	2	*123*
Water-based network	23	50	7	4	1	*167*

E.3 Impact on business of poor transport network by sector

E.3.1: Impact on business of poor trunk road network by sector

	Energy	Financial and business services	Food and drink	Life sciences	Tourism	Creative industries	Other businesses
Base	*13*	*32*	*32*	*22*	*52*	*28*	*111*
	N	%	%	N	%	%	%
Loss of man hours	1	54	14	1	7	61	26
Goods not delivered on time	*	18	27	*	28	24	22
Loss of business	1	19	-	*	29	7	17
Increased operating costs	1	4	36	1	10	16	20
Staff lateness	*	34	10	1	10	12	16
No problems	-	4	23	*	16	-	8
Reduced productivity	*	1	12	*	4	4	7
Reduced competitiveness	-	-	-	-	1	2	1
Recruitment difficulties	*	-	-	*	1	-	-
Lack of inward investment in the region	-	-	-	-	-	-	-
Other	*	6	1	-	18	4	15

E.3.2: Impact on business of poor local roads network by sector

	Energy	Financial and business services	Food and drink	Life sciences	Tourism	Creative industries	Other businesses
Base	*23*	*79*	*62*	*43*	*107*	*59*	*270*
	N	%	%	%	%	%	%
Increased operating costs	1	18	34	15	8	27	26
Loss of man hours	1	33	23	67	9	30	22
Staff lateness	*	19	4	30	16	8	17
Goods not delivered on time	1	12	26	9	16	11	14
Loss of business	-	6	8	6	12	2	17
Reduced productivity	1	8	9	4	7	4	10
Impact on customer service	-	1	-	-	3	3	3
Reduced competitiveness	-	-	-	-	1	-	3
Difficult for customers to access services	-	*	-	-	2	-	2
Lack inward investment in the region	-	1	*	-	3	-	1
Other	*	19	13	6	17	8	10
No problems	*	11	17	10	25	16	15

E.3.3: Impact on business of poor local public transport network by sector

	Energy	Financial and business services	Food and drink	Life sciences	Tourism	Creative industries	Other businesses
Base	*4*	*13*	*2*	*3*	*24*	*20*	*47*
	N	%	N	N	N	N	%
Staff lateness	-	10	-	-	7	1	28
No problems	-	32	*	-	6	2	20
Loss of business	-	-	-	*	*	1	20
Loss of man hours	-	38	-	-	-	*	15
Increased operating costs	-	18	-	-	-	1	14
Reduced productivity	-	16	-	-	-	-	6
Impacts on customer service	-	7	-	-	2	-	2
Difficult/costly for staff to get to work	-	-	-	-	2	*	*
Recruitment difficulties	-	2	-	-	*	*	2
Difficulty accessing clients/goods	-	-	-	-	1	*	-
Increased costs for customers	-	-	-	-	1	*	-

E.3.4: Impact on business of poor rail network by sector

	Energy	Financial and business services	Food and drink	Life sciences	Tourism	Creative industries	Other businesses
Base	*1*	*9*	*1*	*11*	*10*	*11*	*13*
	N	N	N	N	N	N	N
Staff lateness	-	6	-	*	1	*	6
Loss of business	-	1	-	-	1	-	6
Loss of man hours	-	3	-	*	*	1	4
Increased operating costs	-	2	-	*	-	*	-
Reduced productivity	*	-	-	*	-	*	2
Reduced competitiveness	-	1	-	-	1	-	-
Recruitment difficulties	-	-	-	-	*	-	-
Lack of inward investment in the region	-	-	-	-	-	-	-
No problems	-	2	-	*	*	*	*
Other	-	2	*	*	1	1	9

E.3.5: Impact on business of poor air network by sector

	Energy	Financial and business services	Food and drink	Life sciences	Tourism	Creative industries	Other businesses
Base	*7*	*3*	*5*	*7*	*9*	*7*	*21*
	N	N	N	N	N	N	N
Increased operating costs	1	1	*	1	-	2	10
Loss of man hours	*	2	*	1	-	1	2
Loss of business	-	-	*	*	4	-	1
Reduced productivity	-	*	*	-	1	*	-
Lack of inward investment in the region	-	-	-	-	-	-	1
Reduced competitiveness	-	16	-	-	-	-	-
Staff lateness	*	-	-	-	-	-	*
Recruitment difficulties	-	-	-	-	-	-	-
No problems	-	-	-	-	-	-	-
Other	*	-	*	1	-	*	11

E.3.6: Impact on business of poor water-based network by sector

	Energy	Financial and business services	Food and drink	Life sciences	Tourism	Creative industries	Other businesses
Base	*1*	*4*	*6*	*1*	*8*	*4*	*13*
	N	N	N	N	N	N	N
Loss of business	*	-	*	-	3	1	5
Increased operating costs	-	1	*	*	1	1	6
Reduced productivity	-	*	-	-	-	*	1
Loss of man hours	-	-	*	-	1	-	*
Lack of inward investment in the region	*	-	-	-	-	-	-
No problems	-	-	-	-	-	*	-
Reduced competitiveness	-	-	*	-	-	-	*
Recruitment difficulties	-	-	-	-	-	-	-
Staff lateness	-	-	-	-	-	-	-
Other	100	74	75	100	44	-	2

E.4 Importance of transport infrastructure and services in location decisions by sector

Table E.4: Sector findings

	Energy	Financial and business services	Food and drink	Life sciences	Tourism	Creative industries	Other businesses
Base	*22*	*51*	*15*	*37*	*44*	*71*	*123*
	N	%	N	%	%	%	%
Very important	1	40	2	19	41	36	47
Fairly important	*	35	4	26	31	30	27
Not very important	*	10	2	25	10	11	13
Not at all important	*	8	*	30	15	20	10

Appendix F: Survey results by enterprise area

F1 Use of information technology by enterprise area

Table F.4.1 Use of information technology in the Scottish Enterprise area

	Very important	Fairly important	Not very important	Not at all important
Base: 666 SE area respondents				
	%	%	%	%
Email	60	21	5	10*
High speed internet connections	58	18	9	11
Online buying and selling	23	24	19	23
File sharing technologies	17	14	13	35
Discussion forums	10	18	15	37
Web-based collaboration	8	11	16	40
Text chat such as MSN	10	18	15	37
Audio conference calling	5	9	18	44
Video conferencing	1	4	16	52

* Rows do not add to 100% due to the exclusion of 'not applicable' and 'don't know' responses.

Table F.4.1 Use of information technology in the Highlands and Islands Enterprise area

	Very important	Fairly important	Not very important	Not at all important
Base: 197 HIE area respondents				
	%	%	%	%
E-mail	64	17	5	7*
High speed internet connections	55	23	5	7
Online buying and selling	29	24	16	16
File sharing technologies	13	14	13	33
Discussion forums	5	14	19	36
Web-based collaboration	4	9	16	37
Text chat such as MSN	3	13	15	42
Audio conference calling	8	14	13	39
Video conferencing	5	12	12	42

* Rows do not add to 100% due to the exclusion of 'not applicable' and 'don't know' responses.

Table F.7.1: Businesses' adoption of transport policies in the Scottish Enterprise Area

	Have it	Don't have it but getting	Don't have and not getting	*Base*
	%	%	%	
Free parking at business premises	72	1	26	*610*
Preferential use of local suppliers	61	3	34	*616*
Home working	46	4	49	*577*
Company cars	40	2	57	*587*
Including details of how to get to business premises by public transport in marketing and promotional material	31	8	59	*618*
Travel plans	27	2	64	*597*
Using rail rather than air for business travel	23	4	68	*618*
Pool cars for business use	22	2	75	*632*
Car-sharing schemes	17	5	76	*608*
Carbon offsetting	11	12	65	*612*
Company loans to buy bicycles	8	3	87	*614*
Season ticket loans for employees	7	1	88	*623*
Using rail rather than road to transport goods	5	2	88	*608*

* Rows do not sum to 100% due to the exclusion of 'don't know' and 'not applicable' responses

Table F.7.1: Businesses' adoption of transport policies in the Highlands and Islands Enterprise Area

	Have it	Don't have it but getting	Don't have and not getting	*Base*
	%	%	%	
Free parking at business premises	82	1	15	*183*
Preferential use of local suppliers	70	1	29	*171*
Home working	40	1	57	*161*
Company cars	35	1	64	*173*
Including details of how to get to business premises by public transport in marketing and promotional material	31	4	59	*190*
Travel plans	20	3	72	*173*
Using rail rather than air for business travel	9	2	84	*167*
Pool cars for business use	16	*	82	*196*
Car-sharing schemes	20	1	77	*159*
Carbon offsetting	12	11	71	*178*
Company loans to buy bicycles	10	3	86	*165*
Season ticket loans for employees	3	-	95	*176*
Using rail rather than road to transport goods	3	2	88	*188*

* Rows do not sum to 100% due to the exclusion of 'don't know' and 'not applicable' responses