Transport Visions

Long Distance Travel

The sixth of eight reports from the Transport Visions Network

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Preface

Futurology -
*the study or
prediction
of the future
of mankind.*

1. At the beginning of the 21st Century, the UK transport profession in all its guises is very active. A Transport White Paper in 1998[1] set a new agenda to address the burgeoning levels of travel demand and motorised traffic. In the face of short-term workloads and objectives it is tempting to put to one side the potentially distracting business of transport futurology. After all, has not the time for debate and imaginative forward thinking now passed with the publication of the White Paper and 'Transport 2010'[2] which outlines the Government's £180 billion spending plan for transport? Is it not now time to begin 'bedding in' the new policies and practices that will serve us for the next decade or two? The answer is no. While action is urgently needed to address present-day problems, debate is also necessary to avoid complacency about the future and the transport challenges it will bring. Hence forward thinking remains crucial.

2. Reports documenting attempts to set out transport visions are not new and examples are plentiful. In the run up to the new millennium, many people contemplated the future of transportation and numerous documents were published presenting predictions and visions. In the UK, the RAC Foundation[3] convened an advisory group in 1992 to assess the relationship between cars and the environment and to identify research priorities. Then in 1997 the Engineering Council[4] set up working groups to examine challenges and solutions for the UK's future transport needs. They started with a simple vision of 'access for all' and 'transport without costs' and identified what was required to realise the vision, including a timetable for action. Within the Department for Trade and Industry's (DTI) Foresight Programme of 1999 a task force examined the implications for transport of four different 'environmental' futures for the period 2010-2040. The task force produced recommendations for policy and research that were designed to be robust against each of the futures.

3. The Institute for Transport Studies at the University of Leeds[5] attempted to provide a vision for the future of transport in Britain for the next thirty years by interviewing transport stakeholders about what might happen and how it could be achieved. The Europe 2020 group[6] considered the future of transport and communications in Europe. They looked at the impacts on population, lifestyles, economy, environment, regional development, urban and rural form, goods transport, passenger transport and communications of three different scenarios relating to economic growth and environmental futures.

4. David Banister[7] presented a 'Eurovision' for sustainable urban development and transport in 2020 developed by specifying environmental, regional development and efficiency targets, tracing two paths towards the targets and back-casting to determine actions required to achieve them. William Garrison and Jerry Ward[8] offered their visions of transportation systems that will better serve the future needs of the United States. They include better ways of managing congestion, new types of vehicles, new possibilities for cities designed to meet the varied needs of their inhabitants and different ways of moving people and freight over long distances.

5. What, then, is the justification for yet another transport visions report or indeed a series of reports? There are three principal justifications. Firstly, the world is an ever-changing place and attempts at transport visions must be regularly revisited and revised in light of the developments we experience in society, such as the emergence of mobile communications. Also the uncertainty of the future means that no single vision can claim to be accurate. The only certainty is that transport and travel patterns will always be dynamic. Visions from a variety of perspectives enable a more informed consideration of the future.

6. Secondly, we are at a propitious point in time in the UK. The present and pending acuteness of car dependence, traffic congestion and their associated effects has pushed transport high on the public and political agenda. Longstanding solutions to problems are no longer appropriate (at least by themselves) and politicians and other key decision-makers are prepared to listen to new and possibly radical propositions. The time is ripe for the imaginative thinking and innovation that can be derived from transport futurology.

7. Thirdly, almost without exception, all previous vision documents have been the product of senior professionals. Listed in the acknowledgements of such reports are the likes of Professors, Chief Executives, Chairmen and Directors. Conspicuous by its absence is the explicit acknowledgement of young professionals. All the reports in this series have been produced exclusively by young professionals - men and women aged 35 or under. Being 'young' does not give any special insight into the future. However, with young professionals comes the prospect of new ideas and perspectives that can potentially challenge existing mindsets. Furthermore, the young professionals of today will be the decision makers of tomorrow with a responsibility for delivering effective solutions. It is hoped that the act of engaging young professionals in a transport visions debate will in itself be of value to the individuals concerned by assisting in their professional development
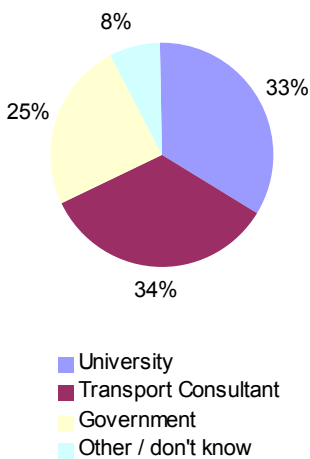
and the forging of new professional relationships with important future influence.

8. This report and others in the series are a product of the Transport Visions Network. The Network was conceived by Drs Glenn Lyons, Kiron Chatterjee and Greg Marsden of the Transportation Research Group (TRG) at the University of Southampton. The TRG has been responsible for securing funds for co-ordinating and reporting on the Network. Funding has been kindly provided by the Engineering and Physical Sciences Research Council, the Rees Jeffreys Road Fund and the Department for Transport. The Network was established at the end of 1999 and formally began its operations in February 2000 with the aim of addressing and reporting on eight transport Themes during a 36 month period. Membership of the Network has been open to anyone aged 35 or under. The membership predominantly consists of transport professionals who have a range of background disciplines and experience. Membership has totalled around 260 people with local authorities, transport consultancies and universities all well represented alongside other organisations.

Network membership by employer type

8%
33%
25%
34%

■ University
■ Transport Consultant
■ Government
■ Other / don't know

9. The reader will find that the discussion is focussed on visions for the United Kingdom, reflecting the fact that the Network's founders are UK based, as are the majority of its members. Nevertheless, during its lifetime Network membership also has had representation from a number of other countries including: Australia; Austria; Belgium; Brazil; Canada; Chile; China; Czech Republic; Denmark; Finland; Former Yugoslav Republic of Macedonia; France; Germany; Greece; Hong Kong; India; Indonesia; Iran; Italy; Japan; Malaysia; Mauritius; Netherlands; New Zealand; Norway; Pakistan; Portugal; Republic of Ireland; Romania; Russia; Singapore; South Africa; South Korea; Spain; Sweden; Switzerland; Taiwan; Thailand; Turkey; United Arab Emirates and the United States of America.

10. So, what do we hope the value and impact of our reports will be? Pragmatists might be anxious to determine whether or not the reports can shed any light on solving today's problems. Others might expect that our reports should abandon convention and offer truly provocative and far-fetched forays into a distant future. Perhaps we have been able to reconcile both of these aspirations. Our principal goal is to challenge existing mindsets and to reinforce the importance of forward thinking in transport research, policy and practice. We hope to reach a wide variety of audiences and provoke fresh ideas and perspectives. If we have been successful then our reports should help to influence current policy debate. We hope they will also inspire a stream of adventurous research proposals.

Introduction

To the reader in a hurry -
This report presents the Network's views on the future of long distance travel. It begins with a consideration of the current and projected future context for long distance travel. It considers present policy approaches to the problems of long distance travel before introducing the Network's own ideas and solutions which are presented under four subject headings: Domestic Business Travel; Domestic Leisure Travel; International Business Travel; and International Leisure Travel. Each section concludes by presenting a vision for the future of long distance travel based on the integration of ideas and solutions developed in the section. The visions are presented in the form of a series of personal accounts from individuals in the future from a variety of perspectives. The report concludes with an overview assessment of the Network's ideas and visions.

11. The Transport Visions Network is exploring the future of transport in the 21st Century. The first report in this series, *Society and Lifestyles[9]*, considered a myriad of issues and trends that are shaping or have the potential to shape the way we live in the future and our travel needs. It presented six different scenarios for the future. In the second report, *Transportation Requirements[10]*, the Network set out twelve guiding principles for the design of future transport systems. These principles were designed to guide the development of solutions and ideas during all subsequent themes and are listed below:

Transportation Requirements

1   There should be an equitable distribution of access to a range of key real and virtual destinations that support people's quality of life.

2   The absolute level of resource use for transport activities should be controlled and the resource efficiency of mobility should be maximised.

3   Users should pay the full internal and external costs of transport and these should be made transparent. Where appropriate, transport uses or users providing external benefits should be subsidised.

4   In the provision and operation of transport systems the adverse effects on the environment should be minimised

according to agreed principles and targets.

5 There should be discrimination and prioritisation between different types of trips and activities.

6 Transport should not exacerbate the adverse effects of lifestyle on health and safety and should aim to reduce these effects wherever possible.

7 Electronic and other non-mobile means of communication should be considered as transport options and treated accordingly in policy and practice.

8 Land use efficiency should be maximised and net land take by the transport system minimised.

9 The reliability of the transport system and its operation should be regarded as a fundamental system management goal.

10 Transport should not exacerbate problems of social participation and should aim to reduce these problems wherever possible.

11 Stakeholders should play an integral role in the entire life cycle of problem identification, solution formulation, implementation and evaluation.

12 Transport users should be enabled and encouraged to make fully informed choices.

12. The third report in the series, *Land Use Planning[11]*, considered the role of land use planning in shaping transport. Visions were developed for four different aspects of land use planning. The fourth report, *Vehicles and Infrastructure[12]*, examined ideas for vehicles and infrastructure that could apply to the UK surface transport network in the future. Six visions of how vehicles and infrastructure might change to address current and future transport were developed.

13. The fifth report in the series, *Local Travel[13]*, offered a range of solutions to problems associated with local travel. Solutions were presented in the form of a 'toolkit for local travel'. The toolkit offered a set of options which given local areas could adopt and develop selectively as they saw fit according to their own local circumstances and aspirations.

Long Distance Travel - The Network's Approach

14. This report considers the nature of long distance travel and how it may be influenced. The report provides a Network perspective on long distance travel. It is recognised that the boundaries between long distance and local travel are not clear-cut. Very few journeys begin and end at railway stations and airports; rather they are usually part of a more complex journey chain. The Network was keen to ensure that the important relationships between these two types of travel were discussed and therefore this report also considers the local impacts of long distance travel.

15. The emphasis upon long distance travel rather than long distance transport reflects the Network's aim to closely examine the behavioural and social factors that give rise to and influence decisions concerning long distance travel. We need to fully consider why we travel in the ways that we do, in order to address how we might travel in a more sustainable fashion whilst still meeting the needs of society.

16. This report has been assembled from the contributions of a wide range of individuals from the Transport Visions Network, through structured email debate and a workshop. The suggestions put forward do not necessarily reflect a consensus of opinion. Quotations appearing in the text of the report without any attribution are statements made by Network members during either email or workshop discussion.

17. During the period of email discussion, Network members were presented with a series of weekly statistical fact sheets accompanied by questions and issues. This was designed to prompt discussion and was organised under the following headings:

- ♦ Domestic Business Travel
- ♦ Domestic Leisure Travel
- ♦ International Business Travel
- ♦ International Leisure Travel

18. Commuting and all other types of work-related travel were to be considered under business travel. The discussion focussed solely upon personal travel. Issues relating to the long (and short) distance movement of goods are the subject of the next report in this series entitled 'Freight and Logistics'.

19. It was acknowledged that the spatial distinctions between domestic and international are no longer as clear-cut as they have been in the past, at least in the European context. Political and economic moves towards European integration, bolstered by the introduction of the Euro, mean that national boundaries are becoming increasingly irrelevant. However, the Network's visions

and ideas are primarily designed to apply to the UK and it was felt that when applied to this spatial context, in contrast to parts of continental Europe, distinctions between domestic and international boundaries remained relevant and helpful.

20. It was also accepted that distinctions between business and leisure travel are not always straightforward. Many long distance trips might be undertaken for business purposes where the outbound leg of the journey is time critical. However, following the business component of a trip, the activity may become more leisure oriented with a less time-critical return leg. However, the four categories were chosen to provide a framework for discussion rather than as a means of defining long distance travel. Overlap between categories was recognised as being inevitable and discussion of such issues welcomed. Indeed, ideas that are located within one category of the report might well apply in other categories. For example, in Section 2.1, which considers domestic business travel, there is discussion of providing train carriages designed for specific journey purposes e.g. work AND leisure.

21. Following the email discussion, a workshop of Network members took place to consider emerging ideas and develop solutions for problems associated with the four types of long distance travel identified above. These ideas are presented in Sections 2.1 to 2.4. The output from Section 2 is then considered in overview in the Conclusion section. This discussion is preceded in Section 1 by an overview of the context for long distance travel in the UK.

1 The Context for Long Distance Travel

"Ordinary people have travelled a lot throughout history. Originally the only means to undertake long distance travel were to become either a sailor or a soldier. Then came the travelling craftsmen and merchants. Then new continents were found and waves of emigrants left their homelands. The railroads and then planes have made long distance travel available to the masses. It was only the lack of means that kept people home. History suggests that we are restless by nature. Can human behaviour be changed?"

"Reflect on the underlying reasons why people are travelling further than ever before. It is partly to do with the interaction between less secure employment and rising home ownership meaning that whilst people's place of employment moves fairly regularly their home does not. It is also to do with cultural factors. The shift from domestic to foreign tourism cannot be entirely explained by rises in income. In an age of rapid information exchange and globalisation people are becoming increasingly aware of the attractions of places further afield and have the desire to travel to them. It seems unlikely that these incentives for long distance travel will diminish in the future."

How and Why We Undertake Long Distance Travel

22. In order to develop ideas, solutions and visions regarding long distance travel it is useful to examine how and why we currently undertake such travel. The following statistical information tabulates current and historic trends in long distance travel. Tables 1 to 4 relate to domestic long distance travel (undertaken within the UK) whilst tables 5 to 13 relate to international travel.

Table 1: Domestic trips per person per year by distance and surface transport mode 1998/2000[14]

Mode	Under 1 mile	1 to under 2 miles	2 to under 5 miles	5 to under 10 miles	10 to under 25 miles	25 to under 50 miles	50 to under 100 miles	100 miles and over
Walk	210	49	12	-	-	-	-	-
Bicycle	4	5	5	1	-	-	-	-
Private hire bus	-	-	2	2	1	-	-	-
Car driver	27	70	133	86	67	18	6	3
Car passenger	17	42	76	45	32	9	4	2
Motorcycle	-	-	1	1	1	-	-	-
Other private	-	-	1	-	-	-	-	-
Bus in London	1	3	7	2	1	-	-	-
Other local bus	1	7	23	10	4	-	-	-
LT Underground	-	-	2	3	2	-	-	-
Surface rail	-	-	1	2	5	3	1	1
Taxi/ minicab	1	3	5	2	1	-	-	-
Other public	-	-	-	1	-	-	-	-
Total Trips	261	179	268	155	114	30	11	6

23. Table 1 shows that across all distance bands the car is the dominant mode of travel. It also shows that only 1.5% of all trips made are over 50 miles in length.

Table 2: Domestic long distance trips by mode and length expressed as percentage: 1992/2000[15]

Mode	50 to under 75 miles	75 to under 100 miles	100 to under 150 miles	150 to under 250 miles	250 to under 350 miles	350 miles and over
Car	86	85	83	80	69	46
Bus and Coach	4	5	7	7	12	9
Rail	8	8	8	10	13	20
Air	-	-	-	1	4	22
Other	2	2	2	2	2	3

24. In Table 2, for all journey bands between 50 and 249 miles, the car accounts for at least an 80% share of trips. For journeys of between 250 and 349 miles, coach and rail account for 25% of trips. Only for journeys of 350 miles and over does the car not account for the majority of trips, though it is still the most heavily used mode. At this distance air travel is more popular than rail travel.

Table 3: Domestic long distance trips by length and purpose expressed as percentage 1992/2000[16]

Purpose	50 to under 75 miles	75 to under 100 miles	100 to under 150 miles	150 to under 250 miles	250 to under 350 miles	350 miles and over
Commuting	22	17	11	7	8	7
Business	14	14	18	19	14	15
Education, shopping, personal business and escort	16	11	13	11	8	7
Visiting friends at private home	22	26	26	28	25	24
Holiday	7	11	16	20	36	41
Day trip	10	10	6	5	2	-
Other leisure	11	11	10	9	7	5

25. Table 3 states that commuting and business purposes account for between 22% (250-350+ miles) and 36% (50-74 miles) of trips. Other essential trips (education, shopping, personal business and escort) account for between 7% (350+ miles) and 16% (50-74miles) of trips. Leisure trips account for between 50% (50-74 miles) and 70% (250-350+ miles) of trips.

Table 4: Domestic air traffic by air transport movements and terminal passengers (arrivals or departures) at UK airports in thousands[17]

Traffic	1990	1992	1994	1996	1998	2000
Movements	300	298	308	333	355	372
Year on year % increase in movements		-1%	3%	8%	7%	5%
Passengers	12,500	11,600	13,000	15,300	16,900	18,600
Year on year % increase in passengers		-7%	12%	18%	10%	10%

26. Table 4 shows that between 1990 and 2000 the number of domestic air transport movements increased by 24%. In the same period the number of domestic terminal passengers increased by 49%.

Table 5: Visits abroad by UK residents by mode in millions[18]

Mode	1981	1986	1991	1996	1997	1998	1999
Air	11.4	16.4	20.4	27.9	30.3	34.3	37.5
Sea	7.7	8.6	10.4	10.7	11.5	10.5	10.4
Channel Tunnel	-	-	-	3.5	4.1	6.1	5.9
Total	19.1	25	30.8	42.1	45.9	50.9	53.8
Year on year % increase in total visits		31%	24%	37%	9%	13%	9%

27. Table 5 states that in the period 1981 to 1999, visits abroad by UK residents by all modes grew by 182%. In terms of modal share, air travel increased from 60% in 1981 to 70% in 1999. The introduction of the Channel Tunnel in 1996 encouraged a modal shift away from sea travel. In the period 1996 to 1999, the Channel Tunnel has been the fastest growing mode (69%) whilst air has grown by 34% and sea travel has declined by 3%.

Table 6: Visits abroad by UK residents by purpose in thousands[19]

Purpose	1980	1985	1990	1995	1999
Holiday	11,666	14,898	21,273	27,808	35,023
Business	2,690	3,188	4,769	6,113	8,161
Visiting friends or relatives	2,317	2,628	3,952	4,938	6,598
Miscellaneous	834	896	1,156	2,486	4,100
Total	17,507	21,610	31,150	41,345	53,881
Year on year % increase in total visits		23%	44%	33%	30%

28. In Table 6 shows that in the period 1980 to 1999 international business travel by UK residents increased by 203%. Throughout this period, business travel accounted for about 15% of trips. In the period 1980 to 1999 international leisure travel by UK residents increased by 200% for holidays and 185% for visiting friends and relatives. During this period, holiday travel accounted for 65-69% of trips whilst visiting friends and relatives accounted for 12-13% of trips.

Table 7: Visits abroad by air by UK residents by area visited and purpose in thousands: 2000[20]

Purpose	North America	Europe	Rest of World	All areas
Business	963	4,996	987	6,946
Holiday	3,050	21,201	3,650	27,901
Visiting friends and relatives	922	3,168	1,552	5,642
Miscellaneous	120	544	238	902
Total	5,055	29,909	6,427	41,391

29. Table 7 indicates that in 2000 business was the journey purpose for 17% of all international air travel by UK residents. Leisure was the journey purpose for 81% of all international air travel by UK residents of which 67% was for holidays and 14% was for visiting friends and relatives.

Table 8: Visits abroad by sea by UK residents by area visited and purpose in thousands: 2000[21]

Purpose	Europe	Rest of World	All Areas
Business	1,770	24	1,794
Holiday	8,397	370	8,783
Visiting friends and relatives	1,262	32	1,294
Miscellaneous	3,566	7	3,121
Total	14,995	433	14,992

30. Table 8 states that in 2000 business was the journey purpose for 12% of all international sea travel by UK residents. 99% of all international sea travel for business took place within Europe. Leisure was the journey purpose for 67% of all international sea travel by UK residents consisting of holidays (58%) and visits to friends and relatives (9%). 96% of all international sea travel for leisure took place within Europe.

Table 9: International air traffic by air transport movements and international terminal passengers (arrivals or departures) at UK airports in thousands[22]

Traffic	1990	1992	1994	1996	1998	2000
Movements	819	858	932	1,019	1,161	1,302
Year on year % increase in movements		5%	9%	9%	14%	12%
Passengers	77,400	82,800	96,400	105,500	125,300	142,700
Year on year % increase in passengers		7%	16%	9%	19%	14%

31. Table 9 shows that between 1990 and 2000 the number of international air transport movements at UK airports grew by 59%. In the same period the number of international terminal passengers at UK airports grew by 84%. The growth in international air travel in terms of both air transport movements and terminal passengers has been significantly faster than the growth in domestic air travel (see Table 4).

Table 10: International air traffic from and to the EU in 1999: percentage shares of individual member states[23]

Destination	UK	Germany	Spain	France	Netherlands	Italy	Other
Intra-EU traffic	22	14	18	9	6	7	24
Europe except EU	22	26	8	10	7	5	22
America	38	17	7	13	10	6	9
Asia & Australasia	35	21	2	15	12	7	8
Africa	15	19	3	34	6	11	12
Total Extra-EU	29	21	6	15	9	7	13
Total International Traffic	24	16	14	11	7	7	21

32. Table 10 demonstrates that the UK held the largest share of all international air traffic of the 15 EU member states in 1999. This is perhaps not surprising given the UK's island location and the fact that it has no road links and only one rail connection to mainland Europe. Extensive air transport infrastructure in the UK is therefore necessary to provide links to other countries. The UK was also the leader in intra-EU traffic and in American, Asian and Australasian traffic.

Table 11: Main Intra-EU country pairs for air traffic in 1999[24]

Country Pair	% Of total intra-EU passengers carried
UK/Spain	13
Germany/Spain	10.1
UK/Ireland	4.8
UK/Germany	4.4
UK/France	4.2

33. In Table 11, four of the top five intra-EU country pairs for air traffic in 1999 involved the UK. UK/Spain and Germany/Spain traffic accounted for nearly 25% of all intra-EU passengers carried, reflecting the importance of leisure travel as a journey purpose within the EU.

Table 12: Main Intra-EU city pairs for air traffic in 1999 in millions[25]

City Pair	Number of passengers carried
London-Dublin	4.3
London-Amsterdam	3.5
London-Paris	2.8
London-Frankfurt	2.0
London-Brussels	1.5

34. In Table 12, all of the top five intra-EU city pairs for air traffic included London. Indeed, of the top 15 city pairs London appeared 13 times, the exceptions being Dusseldorf-Palma de Mallorca (9th) and Madrid-Paris (12th).

Table 13: Busiest EU airports in 1999 in millions[26]

Airport	Total International Passenger Traffic
London Heathrow	**54.8**
Airport System Paris (CDG, Orly & Le Bourget)	44.3
Frankfurt/Main	37.1
Amsterdam Schiphol	36.3
London Gatwick	**27.6**
Brussels National	20
Copenhagen	17.5
Manchester International	**14.7**
Palma de Mallorca	14.6
Madrid/Barajas	14

35. In Table 13, London Heathrow's position as the busiest EU airport is reflected in the fact that alone it exceeded the combined total of international passenger traffic at all three Paris airports in

1999. Three UK airports appear in the top ten and nine UK airports appear in the top 50.

Future Predictions

36. The Government's Ten Year plan contains forecasts of future growth in surface transport[27]. Total road traffic, measured in vehicle kilometres, is forecasted to grow by 17% between 2000 and 2010 with the Plan's investment programme. Congestion is forecasted to decrease by 6% across the network as a whole and by 5% on the inter-urban trunk road network. Rail passenger demand is predicted to grow by 51% between 2000 and 2010, but capacity constraints on the network could limit actual growth.

37. In the same year the Government released air traffic forecasts[28]. They presented high, mid and low forecasts for growth in traffic at UK airports. Under the mid forecast an average growth in traffic of 4.25% per annum between 1998 and 2020 is predicted and an average of 3.6% and 4.9% per annum is forecast under the low and high scenarios respectively. Scheduled low cost airline traffic growth is forecasted at 6.6% per annum over the same period.

Air Travel - The Thorny Issue

38. When discussing long distance travel the one mode that dominated Network discussion was the plane. By the end of the 20th century, car dependence had become a widespread symptom, or indeed perhaps the cause, of many people's lifestyles[29]. Given future forecasts for air traffic growth it seems quite possible that by the middle of the 21st century, a significant proportion of UK citizens' lives will incorporate a degree of plane dependence.

39. The Network began its discussion of long distance travel in the aftermath of the decision to permit the development of a fifth terminal at London Heathrow airport[30]. At the same time as the Network's discussion the Government was conducting a public consultation on the future of aviation with an Air Transport White Paper promised in its wake[31]. In such a context, Network members saw discussion of the problems and opportunities associated with air travel as highly relevant and important.

40. There was significant disappointment amongst some Network members regarding the decision to approve the development of a fifth terminal at London Heathrow airport. The decision suggested that the mentality of 'predict and provide', which had previously prevailed in relation to road transport, was being pursued in relation to air transport, seemingly with no lessons learnt. It was felt that there needed to be a recognition that demand for air travel had to be managed rather than simply accepted and met.

41. The principal argument employed by the British Airports Authority (BAA) and business leaders in London in favour of the new terminal was economic[32]. They suggested that the new terminal

was essential to maintaining Heathrow's standing as a major hub for international air travel, which was crucial to maintaining London's status as a world financial and commercial centre. It was stated that Heathrow needed the new terminal to fight off competition from Frankfurt, Amsterdam and Paris and that without it airlines might relocate their operations to airports at these cities. The advantages that Heathrow possessed over other UK airports in terms of the length of its runway and the easy access it offered to London were seen to be being compromised by the congested conditions at the airport. These arguments were strong enough to persuade the inquiry chairman (and through him the Government) to conclude that the economic benefits of a new terminal would outweigh the costs.

42. Network members were agreed that the UK did not have an air transport capacity problem. Rather, Heathrow airport had a capacity problem that could be addressed with the expansion of existing airports at other locations. Indeed, the Network felt that the development of regional airports with fast and efficient rail links to London airports could both deal with the capacity problem as well as aiding regional development and taking pressure out of an overheating economy in London and the South East. It was nevertheless conceded that this would take time to deliver and may also be impeded by rail capacity problems. In addition, it was recognised that regional airports to date have catered predominantly for short haul flights, lacking the economies of scale to easily accommodate substantial long haul activity.

43. The Network expressed concern that no attempt was being made to address the issue of international competition which was seen to be motivating the escalating expansion of air transport infrastructure across Europe and the world: *"More air travel is simply assumed to be essential to a country's economic success. London will continue to compete if it has T5 and a few more runways, but this will only be OK if its 'competitors' continue to have relatively less capacity. If all cities/regions proportionally reduced their air capacity then would their relative economic performance remain unchanged with the bonus of less air travel? Will society be any better off in economic or quality of life terms with more air travel?"*

44. The Network felt that international competition and its consequences for sustainability appeared to be an area in which the European Union (EU) should be taking the lead given the strategic, pan-European issues raised by the aviation industry. In its transport white paper[33] the EU has expressed its intention to achieve balanced economic growth through the development of sub-regions by investing in rail and road transport infrastructure. However, in relation to air transport there is no mention of a need for such development with emphasis instead placed on larger planes at the

largest airports. What is required is a spatial planning strategy for aviation at the EU level. This strategy would then form part of a global strategy to ensure that a more sustainable approach to the future development of aviation worldwide is collectively pursued.

45. The approval of the new terminal at Heathrow has not solved the question of airport capacity in the UK. In seeking to provide for the predicted levels of air traffic growth in the UK over the next twenty years, further development will be required. In attempting to meet this demand within the South East region proposals have been made, as part of the Government's consultation on the future of aviation, to further expand Heathrow with a third runway, to build a new airport (possibly at Cliffe in Kent) and build three further runways at existing airports in the South East[34].

46. In the same way that the aviation industry is keen to emphasise the economic benefits generated by increased air travel, the Network considered that the industry ought to exhibit a far greater recognition of the resultant environmental disbenefits. According to the Intergovernmental Panel on Climate Change, aviation accounts for 3.5% of global warming and this will rise to 15% by 2050 if no action is taken to address the problem[35]. Heathrow airport produces 10% of all UK volatile organic pollutants[36]. It is claimed that if the health costs from pollution borne by the National Health Service were charged to the airlines they would be paying some £1.3bn a year[37]. Air travel also has broader environmental impacts on local areas and regions. Both developing new and expanding existing airports brings associated noise, air and visual impacts on adjacent areas. Increased use means more impacts on local roads. For example, it is predicted that an extra 49,000 daily car journeys will be generated to and from Heathrow when Terminal 5 is fully operational[38].

47. Another largely ignored impact of air travel is the potential it presents for the rapid spread of illness and disease. It has been demonstrated historically that the mobility afforded by improvements to transport links has been a principal cause for the spread of contagious illnesses and diseases[39]. The ease and speed with which people can traverse continents through air travel offers the prospect of mass epidemics being transported around the world in a matter of hours let alone days. These risks can be compounded by the accidental import of 'stowaway' species on aeroplanes and boats, which can have damaging consequences for ecosystems as well as human health[40]. This may sound a sensational idea, but even in recent times 'wildcards' such as disease and terrorism have demonstrated a potential to radically affect society.

48. Technological improvements to conventional aircraft offer the prospect of improved efficiency and reduced environmental impacts in the future. However, the opportunity to challenge existing boundaries of aircraft design also remains. The issue of land take for runways might become less pressing if vertical take off and landing (VTOL) or short take off and landing (STOL) for commercial airlines can be developed. These innovations have not been introduced for commercial airlines to date because jet engines would have to be much more powerful to provide the same vertical lift as that achieved by a wing at speed. More power equals more weight, greater fuel consumption and more noise. However, there are signs that these problems are being addressed through the FanWing project[41]. FanWing has rotating fan blades over the entire surface of its wings – thereby generating remarkable amounts of lift (significantly more than a helicopter and often better than other fixed-wing systems). It offers some potential for those who wish for increased aviation capacity without increased runway land take.

49. Other technological innovations may address some issues of environmental pollution in the long term. In August 2001 the American National Aeronautics and Space Administration (NASA) flew a prototype unmanned solar plane called 'Helios' for 14½ hours reaching a height of 29,413 metres (96,500 feet)[42]. Such solar planes could have access to an uninterrupted daytime supply of energy absorbed by the large, flat expanses of wing surface. All the on-board systems could be solar powered with propulsion by dual power sources. However, a Boeing 747's maximum takeoff weight is 396,900 kg, its wing span is 64.4 metres and its cruising speed is 912 kmph[43]. Helios has a takeoff weight of 909 kg, a wing span of 75 metres and flies at 30-40 kmph[44].

50. Solar power is unlikely to be a practical proposition in air passenger transport in the near future because of weight, speed and energy issues. It is unable to produce a significant fraction of the required power even if solar cells converted 100% of incident energy. Nevertheless, it would be unwise to suggest that these technical problems are intractable or that solar power will not play some role in improving the efficiency and reducing the environmental impact of air travel. Indeed, solar power offers the prospect of radically altering a wide range of long distance travel modes including the car, ship and airship. Advanced prototypes for these modes exist, but progress is restricted by the prohibitive development costs as well as remaining technical problems. However, history has demonstrated that such progress can be extremely rapid once critical development thresholds have been passed (as has been the case with mobile phones and the Internet for example).

Characteristics of Long Distance Travel

51.   Before seeking to define long distance travel the Network considered some of its characteristics. Journey purpose was seen as a key determinant of how long distance travel is undertaken. It can affect how well the journey can be planned, the modal choices available, what constraints are important (e.g. cost and time), how strong the motivation is to undertake the trip and how frequently the trip needs to be undertaken. When considering trip frequency, it is possible to distinguish between commuting and other types of long distance travel. Long distance commuting can be influenced by factors at the *origin* (the place of residence) such as cheaper housing, a better environment or proximity to friends and family. On the other hand, less frequent types of long distance travel are often motivated by factors at the *destination*, such as leisure and entertainment opportunities.

52.   When undertaking long distance travel, a series of primary considerations can be identified including:

♦ Comfort
♦ Cost
♦ Time
♦ Reliability

Comfort

53.   It was argued that comfort was an important consideration when undertaking long distance travel: "*Most people set aside a decent amount of time for long distance travel, be it by plane, car, coach or train. What they will want in that time is creature comforts. With aircraft, this is available, with meals and drinks brought to your seat, and films and music provided. With a car, you have the ability to break your journey, and have personal space. Coaches and trains can be a bit lacking on comfort although Virgin Cross Country's latest Voyager Trains[45] offer seat audio entertainment, electrical sockets for laptops and mobile phone chargers, power-operated exterior doors and improved facilities for the disabled traveller*".

54.   Indeed, comfort and travel time are closely related. What might be considered an adequate level of comfort for a 1-hour journey may be wholly unsatisfactory for a 12-hour trip. For many long distance travel purposes the journey can represent a very high proportion of the total time devoted to an activity and therefore it can generally be stated that the longer the journey the more important comfort levels become.

Cost and Time

55.   However, if comfort were always of primary importance it would be hard to explain the success in terms of both market share and customer volumes of 'no frills' airlines[46]. In many ways they represent a trend to make long distance travel (albeit short haul flights) less comfortable (less leg room, narrower seats, no free on-board meals, drinks or entertainment). Similarly, the comparable

patronage levels of first/business and standard/economy class facilities on trains and planes suggest that cost rather than comfort determines the vast majority of long distance travel choices.

56. Choices regarding cost are likely to be regulated by the time an individual has available to undertake a journey. People will often travel more slowly or at a later time if cost savings can be made and they can still reach their destination on time. For example, a train journey may be made off-peak or even made instead by coach to save money. Or in international terms: *"Stockholm is very remote albeit with good connections. Few Scandinavians fly to Stockholm for a day's leisure trip. The ticket costs around 500 Euros. However, there are a few million who take an overnight ferry to Stockholm at a cost of 30 Euros and upward. It is a popular thing here in Scandinavia to party on the boats, not the least because you get your booze without the taxman cutting in. Obviously most people can only take the trip at weekends as it takes 22hours."*

57. The decision to travel to Stockholm by sea also highlights the importance of journey purpose in determining how quickly a journey might need to be undertaken. Leisure travel can often be differentiated from business travel on the basis that the journey itself is part of the desired activity or leisure experience and not just a means of accessing it. 'Taking the scenic route' can often be an aspiration for leisure travel.

Reliability

58. Travellers set aside as much time as is required to make a long journey, but they can only do this if they have reliable information about how long that journey will take. Unpredictable congestion and incidents can cause the same journey to take 3 hours one day and 5 hours the next. Trip frequency is an important factor in determining the importance a traveller attributes to reliability for long distance travel: *"We care more about absolute journey time than reliability for irregular leisure or business travel. If I am only going to be making a particular journey once or twice in my life I am not even going to know if it's reliable. I don't care about that so long as the journey itself is short".*

What Distance is Long Distance?

"What is Long Distance Travel?
Are we talking about inter-urban?
Inter-city? Inter-continental?
Space tourism?"

59. The Network debated how long distance travel might be defined. It was acknowledged that a wide variety of perspectives exist regarding such a definition. Interpretations can vary according to geographical location and prevailing economic/social conditions. Globally, we are witnessing an increasing gulf between the developed and developing nations. Many developing nations lack the level of transport infrastructure found in developed nations,

resulting in relatively short distance journeys taking far longer than comparable journeys in countries with more advanced transport infrastructure. In these locations many short distance journeys can be perceived as being long distance as the *time* required to complete these journeys bears comparison only with long distance journeys in developed countries.

60. On the other hand, the ever-increasing problem of congestion in developed countries can result in average road speeds no quicker than those of 100 years earlier in some locations meaning that local travel can take as long as long distance travel. For example, the three hours it can sometimes take to cross London by car (less than 25 miles) is matched by the three-hour Concorde journey from London to New York.

61. Varying perceptions of long distance travel also exist within developed nations where variable economic and social conditions can lead to highly variable notions of acceptable travelling distances (travel horizons)[47]. Many people living in deprived housing areas on the periphery of urban areas have poor access to good quality, direct, public transport links to key employment, health, retail and education facilities. This often results in long journeys by public transport. For many of these people a trip to the leisure centre or the nearest college could be viewed as long distance travel.

62. Unlike the previous report on local travel, this report, by virtue of its title, is committed to a distance based definition. Discussion logically began by considering the issue of distance thresholds. It was initially proposed that long distance travel should encompass all journeys that are longer than walking distance. The average walking distance is shortening and this is reflected in associated increases in obesity and related health problems in the UK[48]. The Institution of Highways & Transportation[49] has provided the following thresholds for acceptable walking distances:

♦ Access to a bus stop - 400 metres
♦ Access to a town centre is 800 metres
♦ Access to other facilities - 1200 metres.
♦ Access to a school or community centre - 2000 metres
♦ All purposes - 2000 metres

63. However, Network members did not generally support the use of these thresholds to define long distance travel: "*I question the wisdom of defining long distance travel as 400 metres. 200 years ago, before the train had been invented and people rarely ventured beyond their village or farm, more than 400 metres may have been regarded as "long distance" - but the use of the wheel has evolved and other modes of transport are with us to stay… We have to be careful to respond to people's needs rather than pursuing utopian*

ideals… If 400 metres were long distance, then Olympic track and field events would have to be reclassified. Forget marathon runners, Michael Johnson would be regarded as the greatest long distance runner of all time!"

64. The Department for Transport (DfT) has defined long distance travel within Great Britain as encompassing journeys of 50 miles and over[50]. Some international journeys such as from England to France and from Wales to the Republic of Ireland fall below this threshold, but accepting these anomalies it seems sensible to consider all international travel as long distance travel from a UK perspective. It was felt that in endorsing the DfT's distance based definition of long distance travel the Network should be mindful of the different perspectives and circumstances discussed above, which can lead to alternative interpretations of what constitutes long distance travel.

2.1 Domestic Business Travel

ICT and Domestic Business Travel

65. The Network acknowledged that long distance domestic business travel was integral to the success of the UK economy. However, it was strongly felt that such travel could be undertaken in a much more efficient and sustainable manner than at present. Improving the efficiency and sustainability of domestic business travel would benefit employers, employees, wider society and the environment.

66. Information and Communication Technology (ICT) has an important part to play in future business travel solutions. However, the complete replacement of physical travel by ICT was not a realistic aspiration. Clearly some business travel is necessary and incompatible with replacement by virtual alternatives in the near future at least (perhaps this situation would change if virtual reality technology were to become good enough that the virtual meeting were practically indistinguishable from the real meeting). Instead, the value of ICT is to be seen in how it adds another option to the range of potential choices for business travel solutions.

67. The Network felt that it was in the conventional office environment that ICT held the strongest potential for application. Tools such as fax, phone, email, Internet, teleconferencing, videoconferencing and teleworking have demonstrated the utility of ICT in such contexts. Indeed, in recent years email has transformed working culture for many people, enabling complex information exchange at high speed both within and between businesses.

68. The use of ICT has not been a simple success story in relation to business travel. Far from serving only to reduce travel, ICT has undoubtedly generated a great deal of new business travel by opening up new markets and means of trading which had not existed previously. Indeed, this conclusion was clearly demonstrated at the workshop of Network members: attendees agreed that it was largely due to ICT (email and the Internet) that they had decided to come to the event. Similarly, teleworking is making an increasing contribution to reducing business travel in terms of the overall number of commute trips. However, as employees reduce the frequency of their commuting journeys, it is possible that they would be inclined to compensate by increasing the length of commute by relocating further away from the office and thus increasing, rather then reducing, the number of vehicle kilometres they undertake for business travel.

Let the Train Take the Strain

69. Where physical travel remains necessary for business activities the Network felt that all possible encouragement should be given to enable rail to compete with air and the car. It was agreed that for many forms of long distance business travel the train was the most sustainable option as well as offering great *potential* to provide a pleasant experience for the business traveller (of course, the present day reality, particularly during peak periods, can be anything but pleasant). The Network offered a range of options which if pursued could enable rail travel to become an increasingly viable and attractive business travel choice.

70. The most fundamental requirement to enable rail travel to improve was to address its endemic infrastructure problems. It was suggested that since privatisation the political drive and the industry's resources have been concentrated on visible improvements, like new trains and network capacity improvements, in order to assuage public opinion. In the meantime, one of the root causes of the problems of the industry was neglected: *"The problem is that it is the maintenance backlog in terms of track and signalling, which is responsible for many of the reliability problems that are convincing the public that privatisation isn't working. There should have been 5 to 10 years of ploughing resources into making the existing infrastructure reliable before adding new trains and capacity improvements. New trains on broken tracks make the industry look silly and unsafe."*

High Speed Solutions

71. Once a reliable, well-maintained core infrastructure is in place rail travel will be in a position to look at ways to improve its competitiveness. The Network believed that central to making the train competitive with either the car or the plane was time. The principal means by which this issue could be addressed would be through the development of high-speed rail services along the lines of the systems used in France (TGV) and Japan (Shinkansen). This would require the upgrading of existing infrastructure and the development of new infrastructure.

72. The Network saw the development of a domestic business air travel market as indicative of both the lack of any meaningful impact costs being paid by the air industry and of the high costs and perceived failure of existing rail services. High-speed rail services between major UK cities such as Edinburgh/Glasgow and London could be developed to offer a viable and affordable alternative to domestic business flights, particularly when check-in times are taken into account. Such services also offer the potential to compete with business travel by car over shorter distances (e.g. London-Birmingham, London-Bristol, Newcastle-Leeds and Birmingham-Manchester).

Capacity Issues

73. The benefits of developing high-speed rail services are not wholly limited to time savings. Indeed, the original Paris Sud-Est TGV line built in France was initially justified on the basis of relieving capacity on a historic mainline operating at capacity, as well as the time benefits it would bring for rail travellers. The Double-deck TGV Duplex was developed in response to significant demand for high-speed rail services, and to make best use of the infrastructure[51]. Of course, this was possible because the French high-speed lines were developed with a loading gauge of sufficient size to accommodate double-deck trains: *"Increasing the height and width of the UK loading gauge to standard European dimensions is an expensive, long-term solution that needs to be considered seriously if long term schemes are to be "future-proofed" to enable eventual double deck operation. If we ever get a high speed line to the north the EU Technical Specifications for Interoperability should ensure it is built to a continental loading gauge to enable operation of double deck High Speed trains like TGV Duplex."*

74. It was stated that many of the rail capacity issues were temporal in nature. Currently, the rail industry seeks to regulate this capacity problem through pricing by charging higher fares to travel during traditional morning and afternoon peaks. Another way to address this problem would be to consider more flexible approaches to working. If a far greater proportion of the population was not constrained within traditional 9-5 working hours then the problems of peak hour travel could be significantly reduced.

Straightforward Ticketing

75. A small, yet highly significant consideration for improving the viability of rail travel is ticketing. There are a bewildering 55 million fare and routing combinations[52] currently available for UK rail travel and this level of complexity does nothing to encourage use, particularly amongst people who seldom use trains, or indeed public transport in general (precisely the people the industry needs to attract). A clear approach to fares should play a part in encouraging greater patronage. Instead of the lottery of ticket price dependent on availability, date, advance purchase, operator, etc, a streamlined industry-wide structure comprising straightforward standard single and return prices, with a single discounted advance purchase ticket and supplements for premium services would be beneficial.

Comfort and Facilities

76. Improving standards of comfort was considered essential to making rail travel more attractive. Again, the French model was advocated: *"Make standard class rail travel the same quality as current first class travel and upgrade first class to make train travel more attractive and comfortable… Current standards are poor. TGVs have much more 1st Class capacity per train (almost 50% of the passenger vehicles, compared to around 25% in the UK). I used to think this was barmy, but the price differentials and deals available for 1st Class means there tends to be less of a premium for 1st over 2nd than UK rail and this encourages use."*

77. Closely allied to improving comfort in terms of enhancing rail travel is the appropriate provision of facilities. Provision for business travel, similar to that found in airport departure lounges, could begin before boarding the train: *"Telecentres at interchanges could provide business travellers with a suitable working environment in between scheduled train services. Convert waiting rooms - they are largely unwelcoming, wasted areas. Refurbish them and provide power points, Internet connections and desk space."* Once onboard, trains could be equipped with carriages designed for different travel purposes and provision would be flexible according to service needs:

Designated Carriages

♦ Working carriages equipped with workstations where passengers can securely use their own equipment or hire it from the train for the duration of the trip removing the need to carry laptops around.

♦ Leisure carriages equipped with seat back TV, video, radio and computer game facilities.

♦ Quiet carriages with smaller compartments for passengers who want a quiet trip, no working or leisure facilities, no mobile phones and no children.

♦ Café and bar carriages where refreshments can be taken in a lounge environment.

Improving Conditions for the Car Dependent

78. The Network recognised that for many business travel purposes neither ICT nor rail were viable options. Sometimes the flexibility demanded by a business travel purpose can only be met by use of the car and this can often be the most economically and environmentally efficient option. This is exemplified by the business travel undertaken by two Network members, the first a local authority public transport officer in a rural area and the second an employee of a freight and logistics company:

"I use the car for trips to adjoining counties and combine the journey with delivery of publicity material. As a public servant I am encouraged to take the cheapest option, but this is rarely possible. I have to visit dispersed rural locations and this would be impractical by public transport."

"The majority of travel is sales calls to industrial customers. For travel over 150km I combine calls. Usually one client triggers the need to go and I call by other clients along the way or at the destination. The target is 2-4 customer calls per travelling day, so the car is quite convenient for that."

79. Travelling salesmen and service technicians are further examples of business travellers who often have little option but to use the car. The Network has placed emphasis upon utilising rail and ICT alternatives to the car in developing business travel solutions. In doing this, the Network hopes that the conditions for those business travellers who have no viable alternative to car use will be

improved. Transferring pressure away from the road network should render business travel that is still necessary by road a more cost effective, reliable and pleasant experience.

Business Travel Plans

80. In discussing domestic business travel the Network was concerned that many businesses paid little attention to the travel they generated in terms of the financial costs and benefits to their business or indeed the environmental impacts in terms of both the total amount of travel and the choice of travel modes. Travel is ranked as a standard overhead like water and electricity. It is often considered to be a fundamental requirement of business and the impact on a business operation of reducing travel is not fully understood or accepted. Normally business travel costs are not a substantial business element in terms of profitability and accounting and so do not attract that much attention. However, the Network felt that if the profile of the issue was raised and rational assessment of the costs involved was made, then a great deal of currently accepted practice could be changed to improve both economic and environmental efficiency.

81. The mechanism which was deemed most likely to both raise awareness of the impacts of business travel and to develop targeted solutions and improvements in practice was the Business Travel Plan (BTP). The BTP would be modelled on Company Travel Plans, which are increasingly coming into use in the UK, particularly in larger companies, and are often tied to planning permissions granted for new development. Whilst Company Travel Plans tend to focus on access to work the BTPs would centre upon long distance travel undertaken whilst at work. Businesses would be encouraged to analyse existing practices and patterns in business travel and to set targets for reducing economic and environmental costs.

82. Assessment would be made as to whether each individual business trip could be replaced or undertaken in a more sustainable manner. It would not mean that for every trip where a viable alternative existed it would be taken. Instead the analysis would provide a rigorous assessment of all business travel, categorising trips and the range of choices which could be available and the constraints likely to determine which (if any) changes could be made. For example, often in the IT industry only a few employees are capable of performing certain specialist tasks and they travel around the country. A business travel assessment as part of a BTP might conclude that the company would save money by training a local employee to perform these tasks via a short-term secondment. Furthermore, BTPs could be introduced or required as part of the development process through planning conditions or agreements such as 'Section 106' planning agreements[53]. Incentives could be

introduced to encourage more sustainable business travel. Tax breaks normally reserved for purchasing company cars could be applied to rail tickets, a company rail card or 50% off rail travel, with pre-booked car hire available at the end of the rail journey.

Station Conferencing Facilities

83. Businesses could be encouraged to look at the trips they generate through customer and client visits to their offices. Here ICT offers an obvious solution, but where physical meetings are deemed necessary, then options for improvement remain. Businesses could hire meeting and conference facilities near to railway stations in a manner similar to that employed at airports. This would make rail travel the easiest and most convenient choice for attendees, as the destination is closely linked with the mode. In these circumstances, the long distance travellers using the strategic network have a simpler journey devoid of a local leg, whilst the organisation at the destination only undertakes a short local trip, with which they are likely to be highly familiar. The principle could be carried further still for small companies, which might choose to exist with no fixed office. The rental costs of these conferencing facilities would be likely to be cheaper than having a city centre or out of town office. Companies could exist virtually at station conference facilities around the country, supported by a postal box, operating by email and staffed by teleworkers.

A VISION: SMARTER WORK TRAVEL

84. *The Business Traveller:* "I have found long distance business trips much less tiring and stressful since switching from the car to the train. Working carriages certainly help me to be productive enroute and being able to hire a fully equipped workstation has meant I can travel pretty light. To be honest I'm not sure it's fair to call it business 'travel' – although I'm on the move it's more like being in the office – my productive working day starts as soon as I board the train. It is quite an improvement on setting off in the car at 5am trying to stay awake and then hitting the traffic just as I get to the difficult final stages of the journey when I am trying to find the office. Of course, travelling by train is made even more convenient by the fact that so many of my meetings take place in station conferencing facilities. It wouldn't make sense for me to travel any other way.

85. On the way home I usually switch off from the pressure of the day by unwinding in one of the quiet carriages or take out my tension by playing a video game in a leisure carriage. Although I enjoy such trips they are becoming less and less frequent. Whilst business was already moving in the direction of replacing non-essential business travel with ICT based alternatives, the introduction of tax incentives from government to do this certainly accelerated uptake. We hardly have a customer who doesn't have tele/videoconferencing facilities and so actual meetings are usually reserved just for the deal clinchers and the odd progress meeting."

86. *The Business Travel Plan Co-ordinator:* "Business Travel Plans (BTPs) have become part of mainstream business planning these days, like company travel plans. The bosses soon took hold of the potential of BTPs when they could see the figures in black and white and the potential savings that could be made. Our company has just achieved its ICT replacement target. 20% of long distance business travel has now been replaced by ICT. The company decided to only pay expenses for long distance business travel if undertaken by rail unless it was determined unviable. Anyway, travel by rail is so much more attractive and invariably other companies were also looking at travelling by rail, thus facilitating increased use of the new conference/meeting rooms being provided at rail stations. The modal shift target was being achieved because effectively every other business was aiming for it too."

87. *The Rail infrastructure construction and operation company:* "It is with a certain degree of pride that I reflect on the fact that our company was part of the first two high-speed rail projects which brought about the rail travel boom we are now experiencing. We always felt that building a dedicated high-speed rail connection crossing from Norwich to Bournemouth (via Ipswich, 2 London stops, Heathrow and Southampton) and from Leicester to Brighton (via Northampton, Luton, two London stops and Gatwick) would be successful.

88. Introducing comfortable, spacious and well equipped double deck trains, with designated carriages for work, quiet and leisure was central to attracting customers and accommodating large numbers of passengers. Customers have also appreciated the benefits of the greatly enhanced restaurant and café facilities on board which provide real space for socialising and relaxing. The feedback on ticketing has been very encouraging. Customers appreciate the fact there are only two types of fare: economy advanced and walk on.

89. Simplicity, speed and service seem to have been the crucial factors in achieving the dominant market share in long distance business travel by rail. Of course, cost has played its part and our ability to keep prices competitive is due largely to the high levels of patronage achieved. Now that air transport is paying more of the costs it imposes, it is finding it increasingly difficult to compete with rail in the domestic market. The morning and evening peaks, which used to dissuade many people from travelling by rail, are not as severe these days. As many business travellers can now work effectively on the journey they are less restrained by traditional 9 to 5 working hours, for example, they can leave the office at 3 o'clock and do a couple of hours work on the way home.

90. The development of station conferencing was integral to the success of the new rail services. This will continue to be an important factor now that provision of such facilities is enshrined in planning policy in relation to new development at train stations. Developers are required to provide these facilities as part of any development. Increasingly we are seeing these facilities linked in with new hotels and restaurants at stations."

91. *The Secretary of State for Transport*: "Politically the reshaping of domestic business and business travel has been a comfortable ride. Realisation of the untapped effectiveness of rail and ICT use to allow travel time to be productively employed and to reduce the amount of travel time respectively has made good business sense and is well received by employees. Whilst investment in rail has been substantial to achieve this, conspicuous by its absence in this

policy area has been the need for specific sticks to accompany the carrots."

2.2 Domestic Leisure Travel

92. The Network felt that problems associated with domestic leisure travel were considerably less acute than those associated with domestic business travel. However, attempting to address these problems was considered worthwhile as any improvements made were likely to have a significant impact on the quality of life of UK citizens. In this respect the Network did not feel that reducing overall levels of domestic leisure travel was a valid or desirable objective. The social, cultural and health benefits derived from these activities were such that this type of travel should be encouraged not curtailed. Instead, the Network was keen to pursue solutions which improve the experience of domestic leisure travel and enable it to be undertaken in as sustainable and socially responsible a manner as possible.

Travel for Work or Travel for Leisure?

93. The Network recognised from anecdotal experience that there was a relationship between levels of domestic business travel and domestic leisure travel. People whose lives involve a large amount of business travel are likely to have small travel time budgets for leisure travel and vice versa: *"Lots of people choose to live in an area they see as being attractive for leisure activities (i.e. in villages or suburbs) rather than being close to where they work and then travelling for leisure at the weekend. I prefer to live close to work (where I have to travel to 5 days a week) and then get out of the city at the weekend if I want to, rather than commuting long distances during the week just so that I can be somewhere that is more rural, but that I don't have time to enjoy."*

94. The decision of whether to live close to work or to leisure interests is highly complex, involving factors such as the nature of the household structure and the availability of appropriate housing. Such decisions are rarely purely transport decisions. It is unlikely that choices to live near either to work or to leisure interests will ever completely predominate.

Addressing Pressure Points

95. The Network believed that the problems associated with domestic leisure travel were often confined to very specific temporal contexts. These contexts could be seen as pressure points needing to be addressed by targeted solutions. It was stated that problems associated with domestic leisure travel in the UK were most acute during traditional bank holiday periods[54]. In particular these were the spring (May) and summer (August) bank holiday weekends as well as the Easter and Christmas/New Year periods. Given the constitution of the working week for most UK citizens, the next most problematic times for domestic leisure travel were weekends (Friday through to Sunday evenings) and more

particularly in summer than winter. A general, yet less acute increase in leisure travel pressure (although it is often redressed by a reduction in business travel) coincides with the school summer holiday period from mid-July to early September in which almost a third of annual domestic leisure travel is undertaken[55].

Staggered Holidays

96.   One way to alleviate temporal pressure points related to long distance leisure travel in the UK would be to attempt to spread peaks by rearranging the format of bank holidays. Instead of having two single bank holidays in May and again in August these could be consolidated into a couple of two-day bank holidays modelled on the Easter weekend example.

97.   Applying temporal variation on a spatial basis regarding bank holidays has proved successful in Scotland where the levels of leisure-related travel congestion in England and Wales during bank holiday periods are not experienced. In Scotland, spring and summer bank holidays are on different dates in Edinburgh and Glasgow and points in between. This arrangement has been based on traditional trades holidays. Regional variation of spring and summer bank holiday periods in England and Wales was promoted as a simple and sensible way to alleviate congestion problems.

98.   A similar approach could be employed in relation to school summer holidays. Indeed, it has been utilised successfully in the Netherlands for many years[56]. Schools in region 1 begin their summer holidays 2 weeks before schools in region 2 and 3 weeks before schools in region 3 and the system rotates annually. Currently, such variation is only applied in relation to half term holidays in the UK. Any traveller on UK roads between 8am and 9am on weekdays cannot fail to notice how congestion problems are greatly alleviated during school holiday periods. The prospect of less intense changes from prolonged periods of congestion followed by short bursts of uncongested travel would make for more predictable journey times and thereby improve the travel conditions for a high proportion of the travelling public.

The End of the Traditional Working Week?

99.   Time can be the most restrictive factor when making decisions about domestic leisure travel: *"The weekend can be the only chance to go out in the car as a family and this can be something to enjoy for its own sake when congestion doesn't mess it up."* In its first report[57], the Network suggested that in the future the traditional working week would be replaced by more flexible working patterns. Such developments might lead to Saturdays and Sundays no longer being associated as primarily the days when most UK citizens undertake leisure activities.

100. Any suggestion that such changes are revolutionary can be countered by the many and varied examples of different working

patterns that already exist. For example, many shift workers are employed on a 9 or 10-day week followed by 4 days off. Similarly many employees in local government and across the public sector accrue sufficient hours in lieu to be able to work a 9 day fortnight. Most shop workers are employed to work at weekends and therefore take a weekday off and many companies have now followed the lead of the public sector by operating "flexi-time" hours, enabling staff start and finish times to be staggered. If such flexible patterns were adopted on a more widespread scale then it is likely that domestic leisure travel would be more evenly distributed throughout the week.

101. A Network member detailed their experience of alternative working patterns: *"I worked at Gatwick airport on a 6 day week (2 early shifts/2 late shifts/2 days off) it's great for travelling around in the week and it was nice to go out when it wasn't crowded, but all my friends were out on Friday/Saturday nights while I was working. Friends didn't have the same flexible working. Some people have choices about which days they take off. You do tend to make a social circle; most of my friends work through the week and not at weekends. Some musicians work at weekends and not through the week but they tend to hang out in that social circle. With flexible working it is likely that you would settle into a choice, perhaps you create a social network around the fact that other people seem to like their free time on Wednesdays and Thursdays."*

Spatial Pressure Points

102. The pressure point problems associated with domestic leisure travel have a spatial as well as temporal dimension. The West Country is the destination for over a quarter of all domestic holidays of four nights or more undertaken by UK residents, more than double the share of the next most popular destination (Scotland)[58]. However, in 2001, 64% of domestic holidays taken by UK residents were of three nights or less and the regional distribution of these trips is much more even[59].

103. Whilst London does not account for a high proportion of holidaymaking by UK citizens in terms of breaks of four nights or more, it holds a dominant position in terms of hosting UK tourist attraction venues, with 15 of the UK's top 30 visitor attractions located in or in very close proximity to the capital (e.g. Windsor and Kew)[60]. It is therefore the prime destination for a high number of day trips, long weekends and midweek breaks associated with domestic leisure travel. When such travel is considered alongside London's dominant position as the prime destination for overseas tourism to the UK (it was the destination for over 50% of all overseas tourism in 2001 and 68% of all overseas tourism to cities and towns[61]) it is clear that leisure travel contributes to the capital's very specific problems of congestion.

104. Alongside the problems of specific regional destinations, there are pressure points associated with particular venues that, at certain times, are the focus of high volumes of leisure travel. These venues include retail outlets, entertainment and sports stadia, leisure and amusement parks and cultural and heritage sites. A Network member expressed his frustration at his own experiences: *"One thing I believe this country does not organise well is transport to special events. I am a motor sports fan and go to events in Europe and the UK. Silverstone is famously congested; they'll have to reduce the number of spectators this year (2002) because the cars can't get in. The British planning solution is to build a bypass. I went to LeMans, which has more spectators and a similar location. There I could stay in Paris, get the train to LeMans and a bus with its own lane to the circuit. It was a brilliant travel experience. Similarly, for the Belgian Grand Prix, I got a coach from Brussels. This country doesn't organise these things as well. If I were a Frenchman coming to a motor sports event in the UK I would hire a car. As a UK citizen in France I would use public transport."*

105. Network members advocated addressing the root cause of spatial pressure points by adopting wider use of site-based travel plans. Whilst some success has already been achieved through Commuter and School Travel Plans, this could be developed considerably in the leisure sector. The Network acknowledged that the aim of many such existing plans concerning leisure sites was to open themselves up to a larger market (public transport users) in an increasingly difficult economic and commercial climate rather than to achieve modal shift.

106. It was believed that travel plans for activity centres should be encouraged, whatever the underlying motivation for them. If schemes to promote access by collective modes to attractions gained widespread promotion and patronage and were perceived as successful, they held the potential of tempting some car users to switch to these alternatives.

107. The Network believed that the best opportunity for securing access to leisure attractions by collective modes was to tackle the issue prior to the creation of the attraction. It was stated that developers could find innovative solutions if local authorities placed stringent transport requirements as conditions for granting planning permission. Network members felt that local authorities have the required powers of enforcement, but often lack the inclination or expertise to insist on rigorously detailed travel planning by developers. Such an approach requires a fresh lead to be given by central government: *"You need more prescriptive government guidance saying visitor attractions attracting more than X million visitors should seek to limit the number of car borne visitors to Y%. Transport planning guidance from government doesn't do this currently, it's very hit and miss and needs national standards."*

108. A combination of tighter spatial planning policies – including the adoption of a sequential approach to the siting of leisure facilities – along with more restrictive parking standards than those advocated in the government's recently published Planning Policy Guidance Note on Transport (PPG13)[62], was considered essential for any government lead on sustainable leisure and tourism. The most sustainable (and generally viable) locations for multiplexes, nightclubs and bowling alleys are in or close to town centres and not at large out-of-town locations, surrounded by thousands of parking spaces.

Resort Travel Plans

109. The Network felt that travel plans could be developed to work on a wider scale than simply day trips to individual leisure attractions. It recognised that the tourism and leisure industry felt much more needed to be done to consider the local impacts of domestic leisure travel and that finding effective solutions to transport problems at holiday resorts was vital to the economic prosperity of local economies: *"I remember travelling to Devon for holidays as a child in the early 1980s and finding that once we reached Exeter (having left the M5 or A303) everything grinded to a halt as you queued alongside other holidaymakers heading to the resorts. This must impact upon all local economic activity and disrupt the lives of local people."*

110. It was noted that the problems associated with encouraging widespread uptake of collective transport to access a range of activities within a resort were far more complex than trying to persuade people to visit a single leisure attraction by collective transport. If you are going to a resort and using it as a base for accessing a range of activities you need to be mobile and the flexibility offered by the car in these circumstances is highly desirable.

111. Problems of car dependence for leisure travel need not be insurmountable. Experience from other countries has shown that restricting access by car to resorts can be feasible. Car-free Resorts of Switzerland is an association of nine Alpine resorts where motorised traffic is forbidden. The Association defines car-free as "complete abandonment of individual passenger car traffic and the banning of combustion engines to the greatest possible extent"[63]. Each member-resort undertakes to ban as far as possible the use of transport harmful to the environment and to provide a pollution-free and noise-free environment for its holiday guests.

112. Parking facilities are provided at the entrance to each resort, from where transfer into the resort centre is available by non-combustion engine transport (electric-cars, railway, cable cars). Each member-resort is also required to offer high quality tourist services and amenities. The only combustion-engine vehicles

allowed in each resort are those essential for agriculture, emergency services, refuse collection, snow clearing and - under certain conditions - for construction. Some UK hot spots of particular environmental sensitivity could benefit from a similar approach.

113. Perhaps the best way of achieving modal shift at a resort is to improve the quality, convenience, flexibility and price of collective alternatives to the car. Again an example from overseas suggested what could be achieved by such an approach: *"Just outside Denver, Colorado there is Summit county, a place that has four or five resort towns dotted about (Copper Mountain, Silverthorne, Keystone, Breckenridge, .). Within those areas there is an all year round free bus service, the Summit County Stage[64], which takes you everywhere and runs late at night and in the early morning. The tourism businesses within the resorts pay for the service. It has proved highly successful and gained wide recognition. Importantly it has proved economically viable to the resorts. So under this approach, rather than running a monorail round the Lake District you could persuade each hotel and restaurant in the area to chip in for a free bus service."*

UK Leisure Spatial Planning Strategy

114. An alternative approach to addressing spatial pressure points for domestic leisure travel is through strategic planning. The Network called for the introduction of a nationwide spatial planning strategy for leisure attractions. Such a strategy could both relieve pressure at existing 'hot spots' and encourage regeneration in areas where tourism does not contribute effectively to local economies.

115. The twin aims of tackling pressure points and supporting regeneration through redistribution would be likely to be best pursued by an organisation created to take a national overview such as a National Leisure Spatial Planning Board. The Board would seek to allocate funding and planning permission to developments consistent with these aims. Under such an approach a national football stadium for England in the West Midlands may well have been approved rather than in an area of London (Wembley) where the well documented transport access problems and local community impacts severely compromise the perceived benefits of the development.

116. The Board could pursue a policy of regional duplication of highly popular attractions. This could prove particularly effective in reducing pressure on London attractions such as museums and art galleries. For example, the exhibits of the Natural History Museum and the Tate galleries could be rotated around the country to attractions like NHM Leeds or Tate Brighton. Moreover, given that the Tate has already been extended to Liverpool and St Ives, there is no reason why it cannot be extended to other locations. In an age where businesses franchise themselves across a whole country, including some leisure attractions (e.g. Health Clubs, Casinos, Bingo

Halls) it is quite feasible for Arts "brands" to follow the same route. Such moves would enable people from all over the country to access exhibitions of national importance without having to undertake long distance domestic leisure travel. It would also enable vast quantities of treasures currently stored in the basements of London galleries and museums to be exhibited.

117. Such an approach recognises that travel is undertaken solely for the purpose of accessing activities and opportunities. It might prove more successful to look first at where those activities are located and whether they can be relocated 'closer to home' rather than always looking first at the transport activity itself: *"London is so popular because of the diverse activities and lifestyles available. Many towns are like London was 100 years ago and some may become like London is now. Birmingham and Manchester are close, slightly behind are Newcastle, Edinburgh, Sheffield, Glasgow and Bristol… Instead of spending £60 billion on railways to improve access to London, why not spend £200 million on developing the leisure facilities of other cities and thereby dampening travel demand."*

Signage of the Times

118. An issue that is rarely considered, but could serve to ease the pressure points of domestic leisure travel is signage. Current UK road signage assumes a high degree of local knowledge. In many areas close to visitor attractions, signage is either inadequate or non-existent, as many planners and conservationists see it as free advertising and a blight on the landscape. However, appropriate and correctly sited signage can play an important role in avoiding traffic build-ups at opening and closing times. Therefore improved information provision could materially enhance the experience of leisure travel for many people.

119. The Network advocated the improved signage of leisure facilities such as hotels, restaurants and visitor attractions where it could be accommodated without significantly harming visual amenity. However, in the long term this issue could be solved by technological development. In-car navigation systems should enable travellers to obtain highly accurate and bespoke information on their travel needs without recourse to physical signage. Directional signs for motorised traffic could then be entirely removed enabling space for better signage for pedestrians and cyclists as well as reducing visual pollution.

Evolving Social Practices

120. The Network acknowledged that many of the problems associated with domestic leisure travel were consequences of evolving social practices. The high proportion of such travel accounted for by visiting friends and relatives was due in no small measure to the high levels of mobility available to people. In 1999, 55% of UK citizens did not have a relative living within 30 minutes

journey time of their home. The dispersal of families and friendships is undoubtedly a major determining factor in the leisure travel decisions of a large proportion of UK citizens.

121. The reasons for such dispersal are many and varied: *"Not everyone leaves the place where they grew up, but if you go to university it is likely that you will. You then acquire new friends from across the country, which initially focuses your leisure interest on the area local to the university. Once you all move on you become geographically dispersed and if the social network is to remain intact then this requires long distance leisure travel. The chances of returning to within half an hour of the place you grew up are governed by relationships and job opportunities, which can often prove highly incompatible with such a move. Dispersal of families can be influenced by the stigma of the place where one grows up. Some people work hard to get away from a place, because it has limited opportunities and they want to better themselves. Moving to a new place may seem like they are moving up in the world."*

Dampening Demand for Leisure Travel

122. The Network questioned whether such dispersal could and should be reduced. It was argued that any active attempt to enforce such a policy would be unpalatable social engineering. However, it was stated that all government policies engineer society, but that people were often unable to recognise this. Indeed, it could be argued that the government was pursuing such a policy (at least in regard to England and Wales) in relation to university education. With the removal of student grants and the imposition of tuition fees it was becoming increasingly expensive to attend university. In this context the opportunity of undertaking university education in a different part of the country could be seen as an extravagant luxury to be rejected. With students increasingly remaining in the family home and attending their local university, some of the stimulus to leisure travel previously associated with a student lifestyle may be reduced. In the longer term it is likely that the widespread provision of virtual university education via ICT could further support such developments.

Virtual Visits

123. ICT could provide opportunities to reduce domestic leisure travel. It offers the prospect of further reducing visits to family and friends located across the country. The word 'further' is used because, according to anecdotal evidence from Network members, ICT has already demonstrated a capacity to do this. The letter, telephone and subsequently email have reduced such travel by enabling family and friends to communicate with a degree of regularity that can reduce the need for travel. Such tools are not a direct replacement for all visits, but can prove a very effective substitute for travel and enrich the quality of life of those people who use them.

124. In recent years, technology has advanced to enable people to see family and friends without a physical meeting through media such as videophones, videoconferencing and webcams. To suggest the family Christmas dinner should be undertaken by videoconferencing would be ludicrous (although it might have some advantages!), but to consider ICT as an 'all or nothing' solution is to miss the point:

"My wife and I live in Southampton, her sister lives in Dundee, her uncle in West Wales and her mum and dad in East Anglia. It is not practical for us all to get together more than once or twice a year. We now all have web cams. One is usually focused on the family cat though."

"I have two or three friends where my main communication with them is via our web logs[65], a sort of online diary/notebook with links to the diaries and notebooks of friends and families, I only see them in real life a few times a year."

Modal Options

125. In pursuing solutions designed to transfer as much domestic leisure travel as possible from the car to collective modes, the Network accepted that car use for leisure travel was much more justifiable than for business travel. Car use for leisure travel is often effectively a collective transport mode because it is rarely undertaken by a single occupant (unlike the majority of domestic business travel). For this reason the car is more economically and environmentally efficient for leisure than business travel. Similarly, the regularity and predictability of a high proportion of business travel renders it much more amenable to replacement by collective modes. By contrast, a lot of long distance domestic leisure travel is highly unpredictable and irregular and thereby requires a degree of flexibility, which can often only be efficiently accommodated by the car. However, the Network felt that there was potential for collective modes to replace the car for some types of domestic leisure travel.

126. The collective mode considered to be most likely to compete with car travel for long distance domestic day trips and holidays was the coach. The discussion of domestic business travel in Section 2.1 has demonstrated that rail has the potential to play an integral role in replacing both the car and the plane for such travel. If this approach proved successful, the Network saw it as highly unlikely that capacity requirements would enable the mode to greatly expand its ability to accommodate domestic leisure travel as well. In such a context the Network was keen to support existing initiatives to promote leisure travel by rail, but felt that its thinking in terms of developing new solutions should be concentrated on coach travel:
"Coach travel can be a viable alternative to the car for leisure travel. It is much cheaper than rail as even luxury coach travel would cost less than economy rail.

It is also more flexible and punctual (although slower) than rail. Coaches running on dedicated M4-style bus lanes would definitely be much cheaper than major new rail infrastructure."

Luxury Chartered Coach Travel

127. For coach travel to be truly competitive with the car it needs to offer genuinely luxurious (or at least comfortable) standards in terms of in-vehicle facilities and services. Moves in this direction are apparent as, for example, Wallace Arnold launched in summer 2002 a 'Grand Tourer' luxury coach fleet[66]. Each of the 10 coaches has 36 leather-upholstered seats instead of the traditional 50, to increase legroom. There is a glass-partitioned lounge area at the rear of the vehicle with leather settee, magazine rack and TV/video monitor. There is a multi-track sound system with individual headsets, and TV/video monitors at the front and rear. The coaches are equipped with two fridges with soft drinks, facilities for making tea and coffee and double-glazed, tinted, panoramic windows.

128. The Network felt that there was definitely further scope for innovation in luxury coach travel in order to keep up with advances in other public transport modes, including the air industry. All coaches could be fitted with seat back technology to enable passengers to access TV, video, Internet, radio and video gaming technology. Provision of a wider range of refreshments and of other facilities could reduce the need for luggage: *"You could get a clean nappy on the bus, although I wouldn't want to sit next to the disposals trolley."*

129. Luxury coach travel needs to overcome certain logistical problems to offer a viable alternative to the car. For holiday travel the mode becomes viable after arrival at the resort when applied in conjunction with the type of resort travel planning along the lines of the Colorado model advocated earlier in this Section. In terms of addressing the start leg to access the coach, the service could be chartered (demand responsive) and would therefore pick up holidaymakers from their door making location and car ownership irrelevant (in some geographically remote locations it might prove necessary to provide secure park and ride facilities at coach pick up points).

130. The main advantage that luxury coach travel maintains over the car is the capacity it provides for relaxation: *"Say you take your family in a car, the two kids in the back do their thing, whichever partner is not driving has their own space to relax unless they need to be navigating, but 25% of the family is doing the work and they are going to spend their time doing something that they don't necessarily want to do. How many of us go through this process at weekends of sitting at the wheel still not seeing your kids and getting cross because they are bickering."*

131. It has been stated that leisure travel differs from business travel in the fact that the journey itself can be an integral part of the

desired activity ('taking the scenic route'). Coach travel has advantages over the car in that for a typical family (two adults, two children) it enables all of the travellers to enjoy the journey, whilst the car often allows only 50% and not more than 75% of travellers to relax. Such an image could prove highly marketable with advertisements contrasting the scene of a family going on holiday by car on a bank holiday weekend sitting in congested motorway traffic in baking heat with the parents fractious and the children disruptive. By contrast, another family is sailing through the traffic by coach in its dedicated lane. The parents are interacting with the children and enjoying the on-board facilities.

A VISION: SPACE FOR LEISURE

132. *The Theme Park manager:* "Working in the leisure industry has certainly become a more stable and predictable business in recent times. It used to be a somewhat 'boom and bust' industry with massive peaks in tourism and leisure during bank holiday weekends and school holidays followed by lengthy quieter periods. Now that the bank holidays have been consolidated into longer breaks and staggered regionally it means we have more sustained, predictable and manageable levels of patronage. The decision to stagger school holidays across the UK had the same effect. These changes mean we are able to employ staff on a more permanent basis which lifts their morale and we don't have so many days when sheer pressure of numbers takes the fun out of visiting and working at a place like this.

133. *The Public Transport Operator:* "It's great to see the roads so much quieter in the summer. It used to really raise tensions when local people could not go about their business because of all the holidaymakers. The local tourism industry has certainly profited from investing in the tourist bus service. The sheer volume and frequency of bus services provided has meant that the flexibility that holidaymakers want to visit all the different attractions around the area is pretty well catered for. It certainly seems that the younger tourists appreciate the fact that they can leave the clubs in the small hours and rely on the bus to get them back to their holiday accommodation."

134. *The Holidaymaker:* "I had never thought we would take our family holidays by any other means than the car. Although I never enjoyed the driving I thought it was the only way to do it. I suppose we have all been conditioned that way from childhood. In the end it was the persistent nagging from the kids that persuaded us to try the luxury coach. Their friends had told them about the video games and snacks available on board and the fact that they could have mum and dad's undivided attention for the whole journey!

135. It was a very easy and convenient experience, the coach picked us up from our front door and the time taken for other pick ups was soon made up by the fact that on every motorway there was a dedicated coach lane so we sailed through the traffic. I was a bit worried about how we would travel about when we got to our destination and took the local car hire company's phone number just in case. It didn't prove necessary as the tourist buses went to all

the places of interest and we met some nice people on the buses, which made our holiday experience more enjoyable (we didn't get that before when cocooned in our own car)."

136. *The National Leisure Spatial Planning Board Member:* "With the opening of Tate Sheffield and the Natural History Museum in Norwich tomorrow there will be a Tate and NHM attraction in every region of the UK. The decentralisation of the nation's cultural heritage has undoubtedly brought great benefits to the regions. The parallel investment in leisure and sporting facilities such as Harry Potter World in Newcastle and the National Athletics Stadium in Coventry has also been beneficial. Such projects have proved a great catalyst to the regeneration of many communities and helped to foster civic pride. They have also enabled a number of cities across the country to develop a range of amenities sufficient to satisfy the leisure needs of a high proportion of the regional population and have attracted visitors from all over the country, thus dispersing leisure travel and reducing the pressure points."

2.3 International Business Travel

137. The Network recognised that problems relating to international business travel were of far less direct interest to the vast majority of UK citizens than those concerning international leisure travel and long distance domestic business and leisure travel. However, it also understood that there were many indirect implications of these problems, particularly in relation to the national economy, that rendered efforts to improve conditions for international business travel important. It was also acknowledged that a good deal of international leisure travel had its origins in international business travel. For example, decisions to visit friends and relatives overseas are usually the result of a decision made by that friend or relative to move abroad, often for economic and employment reasons and as a result of business travel.

Replacing International Business Travel with ICT

138. The Network saw the potential role for replacement of international business travel by ICT (teleconferencing, video conferencing, email and phone calls) as being of great importance in both the short and long term. This is particularly the case given European economic and political developments and the impacts of globalisation. Such factors are making available new markets for UK business all over the world: *"It's more than just a local market: it's regional, national, international - we have to operate beyond our immediate boundaries. My sister works for a law firm in London. Her market isn't the UK, it's Europe, that's the norm at least once a week. That is what the market and consumer requires and expects. If a company can't do that they go under and someone else who can do it remains."*

139. Companies like British Airways have invested in advertising campaigns that emphasise the value of physical, rather than virtual, meetings. The Network accepts that for the really important meeting, where the contract is won, ICT is often unlikely to be a realistic option, at least in the short term. In these circumstances, face-to-face contact can be essential in building trust and confidence between people and businesses. However, once the deal is clinched a great number of the potential subsequent meetings could well be replaced by ICT. Indeed, some Network members admitted they could provide anecdotal evidence of how companies frequently allowed their staff to make wholly unnecessary international business trips. One issue that remains is how to determine the value of chance meetings and informal networking that arises from apparently unnecessary international business trips.

140. It was also recognised that part of the stimulus for international business travel was the leisure opportunities it could provide: *"Sightseeing is part of the allure of international business travel, even for day trips. You can't always separate out leisure from business. Many people take their partner on business travel and stay on at the weekend."* It was also stated that business on a global scale was not wholly adaptable to substitution by ICT. Whilst email may prove effective it becomes difficult to hold virtual meetings when widely varying time zones are involved.

International Business Travel Plans

141. The Network was keen to present ICT as being part of a range of options for conducting business rather than an 'all or nothing' strategy. Numerous examples of how ICT had effectively substituted for physical travel could be alluded to: *"The current economic downturn has meant that many companies are reducing international travel and doing more telephone and video conferencing. American business travel is founded on air travel. September 11th showed business in America could replace such travel with ICT. Money has been lost, but many unnecessary flights have been cut."*

142. In an economic climate where businesses are constantly attempting to cut costs to be competitive it seems astonishing that companies are willing to support 'unnecessary international business travel'. It would seem likely that considerable savings could be made by a more rigorous approach to such travel. One method of appraising the costs/benefits of such travel would be for companies to develop international business travel plans, following the approach outlined for domestic business travel plans described in Section 2.1. Plan development could be outsourced to travel consultants in the same way as computer supply and maintenance companies. A travel company would tender to supply companies with access to all their long distance business travel requirements.

International Commuting

143. Whilst it is conceivable for ICT to replace some business meetings, there are employment trends that might have limited capacity for utilising ICT. Whilst long distance commuting within the UK is commonplace, recent years have seen the rapid expansion of the phenomenon of the international commute. People commute extremely long distances (to other countries). They work there for 7/14 days then travel back home for weekends. This is a function of the shifting employment market in which people change jobs regularly and are reluctant to move home every time: *"I am currently working on a project in Dublin. In this instance, it is cheaper not to stay there over the weekends, so I am flying there each week (generally 3-4 days at a time) so far I have flown home 9 times in 9 weeks, only an other 17 weeks to go!"*

144. There are often strong financial incentives to work away from home/overseas. Many companies pay generous expenses and/or

salaries to employees prepared to work away. There may be significant tax benefits associated with working abroad. Such travel (even if not done on a daily basis) contributes significantly to the annual number of long distance travel miles, but may be far more efficient and environmentally sound than lots of half-day business trips to 'maintain presence' in the global markets. In this context, the most sustainable approach would be for businesses to give greater consideration to the costs/benefits of sending staff away for longer periods abroad.

145. One Network member described his own experience of international commuting: *"Long distance commuting is not confined to within Europe. People from the Far East or the US will commute between 'home' and 'office' only a few times a year. If you are talking about Europe, then this kind of commuting is different. The number of times may increase to 4-6 times a year. My company is struggling to fill vacancies, as are consultants and local authorities worldwide. Whilst studying in Leeds, I was recruited by my company though my home is in the Far East. Recruitment from overseas is inevitable."*

146. Clearly this type of international employment structure is a reflection on UK training and education standards. If we wish to reduce such travel then at least part of the solution lies in improving these standards. However, it seems likely that there will be further increases in this type of travel in the future as international boundaries become less significant.

147. As businesses become more international in character it is likely that international travel will increase. However, there may become a point when a newly created market reaches a point of self-sufficiency where regular international trips from head office are no longer necessary. For example, an office in London that starts to do business in Europe may generate a lot of international business travel. Once a critical mass for that business is reached, a Brussels office may be created, with a consequent drop in international travel drops as gradually the company recruits staff locally. If the business continues to be successful it might develop multiple European offices and the cycle of travel would then be repeated.

148. It was noted that there was a business culture that meant many large London companies were reluctant to set up smaller offices elsewhere in the UK and its employees instead conduct business in the regions by weekly long distance travel. If this culture persisted in an international context, then the travel cycle outlined above would be unlikely to take place. However, for logistical reasons it would be highly unlikely that a company could operate cost effectively in such a manner in a wider European context.

Communication Rendering Location Irrelevant

149. The trend towards the globalisation of businesses need not inevitably lead to spiralling levels of international business travel. One way in which the physical travel involved in international employment developments could be reduced is in the deployment of ICT. Indeed, this is already demonstrated by outsourcing methods used by many computer companies: *"They have an office in Europe, India and the US for software development. Log off 5 pm in India and email the code to someone in Britain who works on it for 8 hours and emails it on to the US creating 24 hour work cycles."*

150. One Network member posed the following scenario: *"Could we get to a situation in the UK where land values and economic costs were so high that it was no longer wise for businesses to locate all their back office operations here. It could lead to a situation where it becomes more sensible to relocate operations to say Somalia or Outer Mongolia where costs are cheap, but communications so advanced that it no longer mattered where you are located. This could occur if location became irrelevant. Would UK companies really relocate abroad in such conditions?"* The credibility of such a scenario is demonstrated by trends already emerging in this direction. Similarly it has become increasingly common for large companies to move certain business functions to overseas locations. For example, the Prudential insurance company decided to move its call centre operations from its Reading headquarters to India to save costs[67].

Rail and Air

151. The Network considered alternatives to conducting necessary international business travel by air. It was felt that for relatively short distance trips (e.g. London-Paris/Brussels), rail could and should compete in terms of both time and cost. Indeed, it was recognised that the air industry itself acknowledges the benefits of modal shift for such trips, a fact demonstrated most clearly by British Airways' membership of the consortium which runs Eurostar, the passenger rail service which operates through the Channel Tunnel rail link in order to obtain more airport capacity by the removal of flights to Paris and Brussels[68]. Similarly it was noted that high-speed rail services between Paris and Brussels have also replaced flights[69], whilst following an agreement between Lufthansa and Deutsche Bahn, rail travel had replaced domestic flights on a number of routes between airports in Germany[70].

152. The Network felt that the competitiveness of rail could be further enhanced by aspiring to some of the levels of comfort and service available through air travel. Provision of entertainment media and the support of stewards/hostesses were particular examples that could be transferred to international business travel by rail. Whilst 'no frills' airlines do not provide an example for rail to follow in terms of comfort, they do in terms of convenient ticketing: *"I booked a flight in 3 minutes. Picked, paid, printed off my*

reference. You haven't got so many ticket types. Rail operators should sort this out more quickly and then publicise it."

153. In order for intra-European rail travel to become a realistic alternative to air travel for UK citizens the development of Trans-European Rail Networks is essential. Raising UK rail services and infrastructure to the best continental standards could provide a major catalyst to modal shift, particularly as it should significantly reduce journey times between the UK and other western European cities by rail.

154. The Network was reluctant to see the relationship between air and rail travel as being entirely about competition. It was felt that the kind of investment made by British Airways in the Channel Tunnel Rail Link could be replicated in other contexts. If airports can be linked by high-speed rail services in the UK and in continental Europe then the potential exists for a more collaborative approach between modes. Indeed, the possibility of multi-modal international travel companies could make an integrated approach to international travel a future reality. To some degree, such companies already exist. For example, the "Virgin" brand now extends across the UK rail industry (Virgin Trains)[71], short haul European flights (Virgin Express)[72] and long haul international flights (Virgin Atlantic)[73]. Nevertheless, they are separate organisations, with separate websites, connected only by name and presently offering little in the way of co-ordination between routes.

Business Airports

155. Where international business travel by air is necessary the Network believed it could be organised in a more rational manner. The utility of a rationalisation strategy would be greatest in the areas where capacity and travel problems are acute, namely the South East of England. Many people would prefer to leave Heathrow or Gatwick airport to business travellers and fly from their 'local' regional airport for their holidays. If reducing congestion at the major airports is a high priority for the air industry it would seem sensible for airports to tailor services according to journey purpose.

156. The development of a comprehensive network of high-speed rail links between airports could enable customers to access their regional business or leisure airport. This would not mean that people would be excluded from flying from certain airports on the basis of their journey purpose, but that different airports would nonetheless target particular sectors of the market in order to increase efficiency and raise levels of service.

157. In terms of the South East region, the strategy could be applied as follows: London Gatwick, Stansted and Luton as leisure travel hubs for all carriers, Heathrow as business travel hub, City as a

small-capacity fill-in service to counter the loss of frequency at Heathrow. The strategy could be replicated elsewhere in the country if demand necessitated. On the south coast Southampton could serve as a business hub and Bournemouth as a leisure hub, whilst in the West Country, Bristol could serve as a business hub and Cardiff as a leisure hub. In order for such a strategy to be necessary outside of the South East it would require the concentration of air traffic and predicted growth in air traffic to be redistributed from the South East to other regions accompanied by an increase in capacity at smaller, regional airports and where this is not possible, the development of new regional airports at sites which can accommodate increased capacity. At a time when the Government is reviewing the future of aviation, an opportunity exists for a clearer and more sustainable spatial policy to be developed setting the parameters for the expansion of existing regional airports and where existing sites are at capacity, the development of new regional airports.

A VISION: CONFRONTING INEFFICIENCY

158. *The World Business Traveller*: "For a company like ours, which is trying to establish its market presence beyond Europe and into Asia, a lot of international travel is necessary. However, I think those of us making all the trips had realised a long time back that simply darting around all over the world was exhausting and not very efficient. I think the realisation hit me during a meeting in Mumbai in India, when the combination of jet lag and sheer exhaustion led me to dry up mid-presentation. I hadn't just forgotten my commentary, I had no idea what country I was in or what day it was!

159. Soon after that fiasco I instigated a team meeting where it quickly became apparent that those of us doing all the travelling wanted some changes made. It was at this point that we decided to attempt some strategic planning and employ an international business travel planner. The planning process established a grading system for trips determining whether they could be replaced by ICT or not. It also established a health check safeguard by which all travelling staff were protected from excessively intensive travel by setting minimum standards in terms of domestic working days.

160. The assessment process revealed that significant cost savings could be made by employing a smarter approach to business travel overseas, particularly as the investment required to get our ICT equipment up to standard was low as the proliferation of such goods in the market these days has brought prices down. It was only by having a member of staff dedicated to analysing travel that it became apparent how much excessive travel took place. We were all too busy chasing our tails to see it!"

161. *The European Business Traveller*: "With every new continental office opened up by my firm I usually need to take a secondment of a few weeks. The latest trip was to our new office in Warsaw. We are fortunate that we can recruit good staff locally and the need for training is pretty limited in terms of timescale. Any further training on new products and services can usually be done through ICT once staff have the fundamentals in place.

162. Travel has certainly become a lot less stressful in recent times. I seem to do as much by rail as air these days. Well, the facilities and comfort onboard are virtually identical. I suppose they should be now that a lot of the rail and air services are run by the same

companies! It also means that the interchange is pretty seamless, you tend to just hop between the train and the plane. Being able to purchase a single travel ticket covering all legs and modes of the journey makes life much simpler. For example, on the trip to Poland I flew from my local business airport at Bristol to Berlin then took the train to Warsaw. The travel was all booked on the Internet at one website in five minutes. Business airports have also made a difference, you feel as if your needs are really catered for and you have not got to put up with screaming kids and the touring rugby club."

2.4 International Leisure Travel

The Benefits of International Leisure Travel

163. The Network recognised that international leisure travel brought considerable benefits and materially enhanced the quality of life of those who undertake it. The Network sought to challenge the perception that international travel for leisure is always less important than for business purposes. This perception can be built on the premise that leisure travel is solely for the purpose of holidaymaking and can therefore be considered a luxury. In fact, leisure travel falls broadly into two categories: holiday travel and trips to visit friends and/or relatives, although these two purposes are often combined in one trip.

164. Communications have enabled people to travel to work all over the world and this has led to the dispersal of families and friends across the globe. Bringing friends and families together through international leisure travel is therefore highly beneficial in social, cultural and psychological terms: *"At no time are the benefits of international leisure travel more ably demonstrated than at Christmas when it enables families and friends to come together. Whilst I can see that the family Christmas dinner by video-conferencing has certain advantages I can't really see it catching on as it ignores the fact that humans are essentially social animals… Rannafast, a village on the West coast of Donegal, Ireland, has an airstrip. At Easter and Christmas there are five planes a day bringing migrant workers back from Glasgow, Luton and Birmingham. The equivalent land-sea journeys would have taken 1 or 2 days, so some people wouldn't have been able to go home. The needs of these long distance 'leisure' travellers are very different to those who consider that a foreign holiday or three every year is a quality of life issue."*

165. International leisure for the sole purpose of holidaymaking has also come to be seen as less and less of a luxury in recent years. Cheap package deals have made such travel accessible to the majority of UK citizens. Indeed, such holidays can often prove significantly cheaper than domestic holidays. This has increasingly become the case in recent years where the international economic climate has rendered rates of currency exchange highly favourable to UK travellers, whilst a great deal of hotel accommodation in the UK remains prohibitively expensive for more than a short stay. As well as generating significant economic benefits for the host country, such travel can foster cultural awareness and ultimately facilitate world understanding. The beneficial impacts of international tourism are often profound yet intangible.

Air Fuel Duty

166. When considering the costs brought by international leisure travel, the principal focus of the Network was upon the impacts of air travel. This is perhaps not surprising given that in 1999, 70% of all overseas visits by UK residents were undertaken by air travel (see Table 5 in Section 1). With the projections for growth in air travel detailed in Section 1, it would seem that, for any attempt to address the impacts caused by such travel to be effective, demand management is necessary. The Network widely endorsed the growing calls for the taxation of aircraft fuel, seeing its absence as an unfair, unwelcome and unnecessary subsidy to an industry that does not require such help and as a measure that is inconsistent with a sustainable approach to air transport policy.

167. The environmentalist author and campaigner George Monbiot has expressed the intimate links between air traffic growth and the industry's economic relationship with the Government: "The government knows the long-term growth of air travel is guaranteed because its own policies are responsible. The industry in Britain is comprehensively underwritten by public subsidies and externalised costs. Every year, the Treasury loses some £1.8 billion because of the airlines' VAT exemptions. Airline fuel is also free from domestic duty: If it were taxed at the same level as unleaded petrol, the exchequer would recover £5bn a year. In 1998, Gordon Brown looked as if he might be prepared to withdraw subsidy, when he announced a review of energy taxation. But BA chairman Lord Marshall was appointed to oversee the review. We will never be able to accommodate our airlines while we subsidise their growth. Controlling air traffic means forcing them to carry their own costs."[74]

168. Concern was expressed that the costs of aircraft fuel duty would be passed on to the customer and this would lead serve as a barrier to international leisure travel for some people. However, it was asserted that the air travel industry was very conscious of the limits to consumer spending and would appreciate the consequences of exceeding them: "*Holiday package tourism limits seem to be set at 2 weeks and around £450 per person. If the majority of packages jump over this limit then there would be a drastic slump in demand. Every producer takes care to keep the price of the basic product as low as possible, even at the cost of quality or range of service*".

Air Miles Quotas

169. Any attempt to physically cap demand for air travel would be difficult to enforce and would be subject to questions regarding human rights and equity. However, these concerns could be assuaged if measures were designed to target clearly excessive trip making. For example, everyone could have a quota of air miles, whereby the first/main overseas trip(s) undertaken would be charged at standard rates. However, the second, third and fourth

overseas trips would be subject to increasing levels of supplementary charging to begin to reflect the costs imposed by such travel. Such a mechanism would ensure that the annual overseas holiday/visit to friends and relatives would remain accessible to all those who currently undertake them, but people would be deterred from, or at least would pay more of the costs of, repeated international leisure travel.

170. Implementing measures to restrain demand for and reflect the costs of international leisure travel is by no means a revolutionary concept. Indeed they are already in use in such forms as tourism quotas to travel to places like Bhutan[75] and the Galapagos Islands[76]. Such measures are designed to preserve/enhance the environment. What is new in the measure suggested above is that the restraint/cost is imposed at source rather than destination.

Alternatives to Air Travel

171. The Network saw that the potential to undertake international leisure travel by alternative modes to air existed but had limited potential. Rail travel offered the greatest potential for replacing air travel for leisure trips within Europe. The Channel Tunnel has already demonstrated the ability to substitute for air travel to destinations like Paris and Brussels and, in the longer term, with the prospect of high-speed rail links across Europe through Trans-European Networks (TENs), the competitive capacity of international rail travel for leisure should increase. However, the attraction of such travel for the majority of UK leisure travellers is likely to be limited to north western Europe, given the time constraints usually placed on leisure travel.

172. Sea travel can offer a quality of travel experience which is highly competitive with and often superior to that of air travel. However, issues of time and distance tend to restrict the ability of sea travel to compete with air travel. For example, a Caribbean or Mediterranean cruise is usually only feasible from the UK if accessed via air travel.

Ecotourism and Impacts at Destination

173. The Network was keen that it should attempt to address the problems caused by international leisure travel at destination as well as at source. Indeed, it was considered essential for achieving a more sustainable approach to international travel that the local impacts of travel both in the UK and at the international destination are addressed. The Network believed that issues such as the physical and cultural degradation of environments brought by tourism and travel are issues that are as important as the contribution of air travel to global pollution.

174. The International Ecotourism Society (TIES) has defined ecotourism as: "responsible travel to natural areas that conserves the environment and sustains the well-being of local people."[77]. However, ecotourism is rarely interpreted by society at large purely

in terms of responsible travel. There are a great many differing ideas of what constitutes ecotourism: *"The phrase is bandied about and attached to any holiday with a kind of vague wildlife/landscape value to it. Anything slightly green is considered ecotourism whether it is very sustaining or whether it's just a bog standard holiday resort that has some turtles come up on a beach and they segregate half the beach off. People need to be aware of what they are buying into, whether it's ecotourism or just an 'eco friendly holiday', which actually harms the environment. Ecotourism doesn't have to mean digging wells in Mali for two weeks, but the concept has been devalued and undermined by its cynical commercial exploitation by the tourism industry."*

175. The potential for positive benefit from ecotourism exists in following the example of concepts like fair trade goods and organic farming. These concepts have entered into the mainstream economy and developed viable niche markets. Certainly there is evidence to suggest that a market exists for more discerning and sustainable international leisure travel in the UK. The success of culturally aware tourist information like the Lonely Planet publications provides a good example of this: *"The Lonely Planet books are excellent for telling you how to behave in places. That's highly profitable, they've developed a highly successful business out of doing the decent thing."*

Transport Direct International

176. The provision of information to encourage more sustainable international leisure travel practices was an area that the Network saw as offering considerable potential for development. One Network member recounted his frustration in taking an international trip: *"I booked a journey which involved a connecting flight in Rome. Everyone else who made the same journey got a train from Rome but my travel agent didn't offer me that option. I took several hours longer than everyone else, partly due to the fact that I didn't even know that the city I was going to was close to Rome. Better advice at the point of sale would help and information provision is the key."*

177. It was stated that advice was primarily available from travel agents with vested commercial interests. What was required was independent international travel information facilitating door-to-door travel. Such advice could be designed to take advantage of technological innovations that aim to provide seamless travel. The cost of surface transport could then be incorporated in the price of the flight (e.g. public transport and payment of road charges provided via smart through-ticketing). In essence what was required was a Transport Direct[78] international (TDI) service.

178. Information requirements would need to be considered at the destination also. It was stated that in most countries, airports currently have easily accessible information and provision regarding car hire, whilst information on collective transport is much more

difficult to obtain. Highly visible public transport information kiosks would be a step forward in this respect.

179. Beyond information, there should be material advantages to the use of public transport at the destination and also disadvantages for choosing less sustainable options like car hire. The price and convenience of collective transport options should compare favourably with airport car rental. Of course, it is recognised that such initiatives require international cooperation. However, support for such services could be derived through partnership between the international tourist industry and local authorities who recognise the importance of such measures as a contribution to the long term sustainability, attractiveness and therefore commercial viability of the resorts themselves.

Impacts at Source

180. In considering the local impacts of international leisure travel, it is recognised that they apply at both the start and end of the journey. Given the trends towards high levels of growth in air travel, the problems of accessing airports are set to greatly increase. In such circumstances the Network supported the promotion of collective transport modes for such travel. This requires easy and efficient interchange between modes: *"As I live in York, the airports I use most often are Manchester and Leeds/Bradford. Manchester has a train to the door and regular trains through the night to and from York. Leeds/Bradford is a train and a bus ride away. This means that although Leeds/Bradford is closer, I prefer to fly from Manchester."*

Airport Access

181. Access to airports by public transport has clear benefits for both the air transport industry and local residents in the form of reduced congestion and its associated impacts. It was suggested, for example, that air transport operators could include a travel voucher for a public transport journey to the airport in the price of the flight ticket. Indeed such a system exists in the Netherlands, where a KLM flight coupon is valid for a train journey to and from the airport[79]. Currently, some airlines include car hire in the price of the flight ticket. In future, train/coach operators and airlines could form similar alliances.

182. Access to airports by public transport has the potential to be a fast, stress free travel option. When you go away on holiday you are unlikely to welcome the stress often associated with driving to the airport. The holiday starts from the moment you leave your door and that has to be appreciated by the operators as well as the customer. It was recognised, however, that this is not always the reality: *"London is a world class city with a 12 hour public transport system. The airports don't have very good train access through the night and you cannot get across London on the underground. The Gatwick Express doesn't run 24 hours. You might as well drive, get a taxi or a lift."*

183. Convenience is perhaps the principal barrier to the use of public transport to access airports. Even if the airport has its own railway station, attention still needs to be paid to interchange needs: *"Baggage claims near to the rail station would help and pre-bookable porterage. The train has loads of luggage space. If you made public transport more convenient, by consequence the car becomes less convenient as it becomes more and more congested. If they had the problems they would go straight to the solutions."*

184. The Network recognised that with current air transport capacity and plans for future growth heavily centred upon the South East of England, this region would bear the brunt of the local impacts related to accessing airports. This access is not only required by long distance travellers. In 2002, over 68,000 people were employed on site at London Heathrow airport. The development of the fifth terminal will safeguard or create 16,500 jobs and the construction process will generate around 6,000 jobs over a six-year period[80]. According to Monbiot, proposals such as the development of a fifth terminal at London Heathrow airport will exacerbate already acute congestion problems on the M25 motorway: "the new terminal will generate an extra 49,000 car journeys a day. Having denounced the further widening of the M25 as "lunacy", in 1998 John Prescott now plans to widen the section serving Heathrow to 12 lanes, at a cost of £100 million"[81].

185. The network welcomed proposals by the Mayor of London to construct a congestion-charging zone around the airport to attempt to deter car access by travellers and airport employees alike, if and when the Central London congestion scheme is successful, but saw this as an insufficient remedy to an escalating problem. Now that the fifth Terminal has been approved, talk has begun of a third runway at Heathrow – which itself would probably require a sixth terminal to service it. Aside from the environmental impacts, particularly on those living in close proximity, there are such serious access issues arising from any further expansion of Heathrow, that any economic benefits would be stifled by the gridlock which would spread across the whole of West London and its hinterland.

Promoting Regional Airports

186. The Network felt that the key to addressing the South East's air transport problems was to challenge the policy of focussing further development on that region. In relation to leisure travel, this meant attempting to concentrate as many international leisure services on regional airports as possible. In pursuing such a policy, however, the Network felt it was essential to reverse current pricing policies. At present, if a customer wants to fly from a regional airport rather than from Heathrow or Gatwick, it is likely that they will have to pay a supplement and that the basic flight price will be more expensive[82]. It was proposed, therefore, that in future, customers

should have to pay a sky-congestion charge to fly from Heathrow and Gatwick to reflect the impacts that congestion at these airports create locally and make regional airports the more financially attractive option for travellers. Regional airports would then be able to take some of the pressure off the London airports. Again, the model of Manchester was highlighted. Manchester airport offers a wide range of international destinations. It can be accessed by rail and accommodates night flying with a 24-hour public transport service. It was felt that this example could be replicated at a number of other airports such as Stansted, Bristol and East Midlands, although a critical mass of demand would be required for airlines to do this at these airports without some form of government direction or subsidy.

Addressing Aircraft Design

187. The Network envisaged ways in which the experience of air travel for leisure could be improved. Thinking in this area was partly motivated by a desire to address the issue of 'economy class syndrome', the development of potentially fatal deep vein thrombosis during long and sedentary flights: *"In the past people would book window seats and enjoy the views. Now they try to sit in aisle seats so they can walk at regular intervals. What was once part of the leisure experience has become an inconvenience and a health worry."* Whilst increasing legroom between seats would undoubtedly help people to be more mobile, the resistance of the air industry and our reluctance to pay more to travel are major barriers to achieving this. However, the economic impacts of such a decision might well be exaggerated: *"What difference would taking 10/20 seats out of a 747 make in terms of cost to passengers? The extra costs could be accommodated by those in business and upper class who don't know the price of a pint of milk let alone an airline ticket."*

188. It was suggested that the conventional interior design of aircraft could be challenged. Seating design could be more flexible to enable passengers to take advantage of variable capacity conditions, possibly through the use of inflatable seats. More fundamentally, seating could be arranged centrally with the aisles around the perimeter of the plane. People could then walk around the plane and the space could be used to locate facilities such as toilets, beds, vending machines and buffet facilities. Passengers could then eat at their leisure, rather than at preordained times which are often at odds with a passenger's body clock on long haul flights. Such health and leisure requirements could provide further support (beyond existing economic and environmental arguments) for the development of larger planes.

189. It was argued that in the very long term, technology could solve comfort problems associated with air travel. Passengers may take a pill in the departure lounge to enable them to sleep through the

flight. Plane capacity would be greatly increased as passengers are placed on mortuary style shelves during flight. In flight service requirements would be greatly reduced and the threat of terrorism nullified.

A VISION: INFORMATION DRIVEN ECOTOURISM

190. *The Transport Direct International Operations Manager*: "The success of TDI has been its ability to understand and adapt to the developing travel market. We knew when we were developing the system that the key requirements were ease of use and ease of access. The demise of the high street travel agents showed that people no longer wanted to make leisure travel decisions by going through the labour intensive process of travelling to a shop when it could all be done in five minutes on the Internet or phone. So it was soon agreed that TDI would be wholly accessed by ICT.

191. We also recognised that people were not entirely happy with how the travel industry was evolving. People wanted more control regarding the travel process. They appreciated cheap flights, but were often disappointed by poor service, inefficient connections and being stranded at airports miles from the city or resort centre with the prospect of a long taxi ride, which would often cost more than the flight. TDI has proved successful because it gives travellers much more control over their journeys. They know what is available in terms of local transport options when they arrive in a country. They are able to connect between flights by using the travel option most convenient to them rather than to the airline or tour operator and they can get constantly updated information should they need it on their mobiles."

192. *The Tourist*: "When they introduced the air miles quotas it caused quite a stink. But the people who protested that their second Mediterranean cruise was going to cost a bit more didn't really endear themselves to the nation. As long as most people could still get their annual fortnight in the sun at a reasonable price they were happy and most people felt that frequent leisure travellers should pay a premium for the impacts that their luxurious indulgences were having on the environment.

193. Charging for imposing costs has also worked in relation to airport access. I always resented the fact that if I wanted to fly from my local airport I had to pay a supplement for the convenience. Effectively I was being penalised by the travel and tourism industry for contributing to the relief of a problem that they would benefit most from alleviating. The imposition of congestion charging supplements at the busiest airports following the lead taken by the Mayor of London at Heathrow and the removal of regional access supplements signalled the welcome reversal of the old practice.

194. I have also found TDI really useful. It lets me know my travel options from the moment I leave home to when I arrive at my holiday accommodation. In fact, it goes further than that by offering advice on local travel options during my holiday so I can travel around like the locals without struggling to interpret what is going on. The fact that it takes an ecotourism friendly line in its advice has helped it gain public support. It worked like the organic food and fair trade concepts by really latching on to the concerns of a significant proportion of the UK population and establishing its own strong brand identity."

Conclusion

195. All modes and types of travel create benefits and adverse impacts. This report has attempted to seek solutions that will serve to both maximise the benefits and mitigate the adverse impacts of long distance travel. One way in which this has been approached is through ideas to enable more sustainable long distance modes of travel, including virtual modes, to compete with less sustainable ones and to enhance the role of demand management by reducing the need to undertake long distance travel. Another approach taken has been to consider how the experience of undertaking long distance travel can be improved. These two approaches encapsulated the reasoning behind the vast majority of ideas and solutions generated in this theme.

196. In terms of achieving more sustainable long distance travel, the merits of utilising ICT to substitute for physical travel have been discussed at length. Indeed, for all four types of long distance travel, it would be possible to develop visions in which a 'wired society' enabled citizens to meet a large proportion of their long distance travel needs through virtual means. However, it would seem most likely that acceptance of such travel substitution would be much more likely in relation to business than to leisure travel. Replacing the business trip with a virtual meeting might increase quality of life for some people. However, replacing the leisure trip with a virtual experience would be very unlikely to increase people's quality of life now or in the foreseeable future.

197. The problems of long distance travel are many and varied. This report has sought to address those problems that the Network has seen as both most important and most capable of being resolved. The Network has shown a propensity to generate solutions that utilise the potential of travel planning and recognise the key role that can be performed by third party information solutions and independent assessment.

198. It was recognised that for many problems related to the experience of undertaking long distance travel, solutions lie within society's grasp and the Network saw that improving the efficiency and quality of transport interchanges offered an effective way of furthering this aim. However, many of the sustainability issues regarding long distance travel are more intractable. A variety of potential solutions exist and many of these have been advocated or suggested by the Network in this report. However, it requires

political and commercial will, allied to strong, principled, public support for tough decisions to be taken and a more sustainable future for long distance travel to come to fruition.

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