

IRTE NZ
Technology 2000

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AN INDUSTRY VIEW – IRTE UK

The Future of the Transport Industry in the UK

1. Introduction

1.1 There could not have been a better and more topical subject to have been asked to address as only a couple of months ago the Uks D.E.T.R. - alias the old Department of Transport - now renamed the Department of the Environment - Regional Affairs committee set up a committee just to review this very subject.

1.2 The D.E.T.R. sort the views of such bodies as the :

1.2.1 Road Haulage Association

1.2.2 Freight Transport Association

1.2.3 Institute of Road Transport Engineers

1.2.4 Institution of Mechanical Engineers (Automobile Division)

specifically asking them to consider :

(a) the role of the road haulage industry, the way in which it operates, its contribution to the economy of the United Kingdom, and its impact on the environment;

(b) the impact on the industry of current and past rates of vehicle excise duty and levels of duty on fuel;

(c) the regulations which govern the industry, and their impact on the safety record and profitability of the industry; and

(d) what changes to Government policies affecting the road haulage industry are needed to benefit the economy and the environment.

1.3 Just in case any of you may welcome this new government initiative let me warn you that Transport Issues in the UK are very much a political football and I would doubt very much if any responses received from the Transport user association I have mentioned will greatly influence the DETR plans.

1.4 For example academic and emperical studies carried out in the late 1960s strongly recommended increasing gross vehicle weight from 32 tons to 44 tonnes.

44 tonnes has just about been introduced forty years later despite the overwhelming comprehensive benefits of the introduction of the heavier lorry.

- 1.5 Looking at it from a political views point although some 98% of product in UK is moved by Road Transport & Road Transport is the UK life blood - Road Transport (Lorries) are perceived to be the nations worst enemy and any government that dares to suggest any radical change would be unlikely to be in power long enough to implement them.
- 1.6 Basically the UK has a sound well maintained safe trunk road system that at certain times of the day becomes very congested.
- 1.7 Equally the Victorian Railway System with its low bridges and lack of flexibility are equally well utilised and again congested.
- 1.8 Whilst the 18th Century canal system cannot take commercial product because it has been taken over by the leisure industry for those people who just want to get away from the overcrowded Motor Ways and railtrack system.
- 1.9 The UK has also a underground pipeline network - for moving gas - and all types of fuel & other petroleum products.
- 1.10 This paper reviews the comprehensive and well considered papers presented by the F.T.A. and I.Mech.E in response to the Government request to use organisation view of The Future of the Transport Industry in the UK and dares to suggest what is bound to happen - or probably what is not likely to happen.

2. The Existing Road Transport Fleets in the UK

2.1 These are shown below courtesy of the F.T.A.

2.2

Number of Companies Operating Commercial Vehicles over 3.5 Tonnes & Number of Commercial Vehicles Operated

BASE : Total no. of companies

BASE : Total no. of commercial vehicles

TYPE OF OPERATOR	65,300		429,200	
	(000)	%	(000)	%
- Own Account	39.4	60	190.4	44
- Haulier	25.9	40	238.8	56
NO. OF COMMERCIAL VEHICLES IN FLEET				
1 - 2	41.3	63	54.8	13
3 - 5	10.1	16	40.5	9
6 - 10	7.4	11	55.7	13
11 - 25	3.9	6	63.0	15
26 - 50	1.6	2	57.6	13
51 +	1.0	2	157.6	37

**Own Account Operators by Number
of Commercial Vehicles in Fleet**

BASE : Total no. of account operators **BASE :** Total no. of commercial vehicles

	39,400		190,400	
	(000)	%	(000)	%
1 - 2	30.0	76	39.0	20
3 - 5	4.4	11	17.6	9
6 - 10	2.6	7	19.4	10
11 - 25	1.3	3	22.2	12
26 - 50	0.6	2	20.2	11
51 +	0.5	1	72.2	38

Hauliers by Number of Commercial Vehicles in Fleet

BASE : Total no. of hauliers **BASE :** Total no. of commercial vehicles

	25,900		238,800	
	(000)	%	(000)	%
1 - 2	11.3	44	15.8	7
3 - 5	5.7	22	22.9	9
6 - 10	4.8	18	36.3	15
11 - 25	2.6	10	41.0	17
26 - 50	1.0	4	37.4	16
51 +	0.5	2	85.4	36

- 2.3 So we are looking at 429,000 vehicles over 3.5 Tonnes operates by 65,300 companies whilst this gives an overall average of some 7 vehicles per fleet it is generally recognised that the typical fleet would be 6 - 11 vehicles.
- 2.4 The mileages covered would be between 20,000 miles per year for local delivery vehicles and 130,000 for double shifted trunk vehicles.
- 2.5 Regarding the split between own account and hauliers fleets the FTA states show 60% of companies are own account and 40% are hauliers but the hauliers has 56% of the vehicles.
- 2.6 There can be no question that there has been a significant move by manufacturing companies to out source their distribution - or to set up a separate - joint venture company with a haulier and this is in all probability why the own account operates are shown as high as 60% of all companies.

2.7 Outsourcing of distribution is current favored by manufacturing companies for one or more of the following reasons :

2.7.1 More clearly identifies and the distribution cost.

2.7.2 Distances the manufacturing company from the still but not so strong Transport & Works Union - a virus in the distributions system no longer affect production.

2.7.3 Enables distribution wage and salary costs to be reduced to typical distribution levels.

2.7.4 Transfers Health & Safety matters particularly - Manuael Handling regulations elsewhere.

2.7.5 Provides manufacture with the opportunity and to negotiable levels of service and distributions costs with alternative supplies.

2.7.6 In the event of a joint manufactures/profession joint/haulier distribution company being set up the hauliers usually holds 51% of the company which enables lower pension and redundancy payments to be made.

2.7.7 It is not uncommon for the manufacturer's 49% holding in the company to be the depot/s and the plant & equipment including some of the vehicles - so in fact the setting up of the new Joint User Company costs the manufacturer very little and he is equipped to return to operating his own fleet should the joint venture company not whole but as well as plannet.

3. The Freight Transport Association response is attached below and is major on "Coping with Congestion" - that they see as the major problem on the next 10 years

FREIGHT TRANSPORT ASSOCIATION

"Coping with Congestion"

A Contribution to the Government's Ten Year Strategy for Transport

Executive Summary

In addition to the delivery of additional physical capacity the Transport Strategy should also develop policies which allow the causes of congestion to be better managed and the existing infrastructure capacity to be better utilised by removing some of the social and institutional barriers that currently exist. Central to this approach is the capability for policies to differentiate between different types of traffic and give priority to economically essential activities.

The Ten-Year Strategy needs to accept the persistence of congestion over the next ten years as a feature of and include measures to mitigate its effects on economically essential transport activities.

The Transport Strategy must as a minimum confirm the need for this investment and secure the necessary expenditure commitment as part of the Government's Comprehensive Spending Review.

The Transport Strategy should identify the need to make night work a more attractive option to employers and employees in recognition of the scope for better use of the infrastructure at times when it is least congested. Currently the social benefits of night working are not reflected in the taxation regime.

The Transport Strategy should commission a definitive, cross-departmental study into the schools transport issue to examine best practices in other countries and establish the scope and costs of a more rational schools transport programme.

Given the urgent need for new road and rail infrastructure capacity, the planning system should be reviewed to grant a presumption in favour of the construction of these projects, once approved by Parliament. The Transport Strategy needs to identify and justify the need for this review to take place.

In the expectation that the Government's present macro-economic policies continue the Transport Strategy needs to recognise and take account of its consequential impacts on the freight transport market.

The Transport Strategy should identify the scope for bringing forward improvements in environmental performance by the development of rewards for the voluntary adoption of best practice.

- 3.2 Just to develop the F.T.A's summary paper the F.T.A. sees traffic congestion as the primary concern both notes and over the next 10 years & suggests in countries should be given to vehicle operator to operate during – unsocial hours - e.g. 7pm until 6am periods of the day when roads whilst not being deserted are not highly utilised.
- 3.3 The F.T.A. studies have predicated an increase in traffic growth as 21% over the next 10 years i.e. - to 2010.
- 3.4 It also points out that the historic and current unreliability of rail freight service is the main reason why more goods are not sent by rail - where again night volumes are very low and where there is plenty of spare capacity.
- 3.5 The FTA suggest the following targets.

Targets and Performance Indicators

The principal consequences of network congestion are the unpredictability of journey times and uncertainty in business planning. In order to provide industry with some certainty in its planning the Transport Strategy should establish targets for key planning parameters.

- Inter-urban roads are no more congested in 2010 than they are now.
- Rail freight traffic as a proportion of total freight moved is no lower than 10 per cent in 2010.
- The number of urban centres limiting deliveries to the morning and evening peak hours are halved by 2010.

Progress towards these targets should be reported on regularly by establishing a series of performance indicators that report the key variables that are relevant to the users of the infrastructure :

- Network Reliability - this would monitor the repeatability of representative point-to-point timings on the road and rail networks.
- Network Capacity - this would measure the rate at which capacity of the networks was being increased by new construction, establishment of traffic priority measures, or through improved traffic management techniques.
- Network Resilience - this would measure the rate at which the networks recover from unplanned closure or loss of capacity. This is an important issue for those parts of the road and rail networks that are operating at or above their design capacity and where even small incidents can result in major disruption.

The Transport Strategy will need to define its success criteria and develop management tools to measure progress towards them. These performance indicators should be jointly owned and developed with Industry so that a common data set is used to monitor the condition of the road and rail networks.

3.6 Investment

FTA has long argued the need for a step change in the levels of investment in the UK's transport infrastructure. The declaration by the Deputy Prime Minister in December 1999 that the Ten-Year Plan will reverse years on under-investment in transport is therefore welcomed.

The Government will be presented with many proposals for how this new money should be spent. FTA is party to submissions which set out the priorities. Local authorities will be presenting their detailed bids for money in Local Transport Plans. FTA believes that any investment proposal must satisfy the following criteria :

1. Increase network efficiency
2. Tackle congestion "hot-spots"
3. Constitute value for money

There is much that can be done to alleviate congestion by provision of new and expanded infrastructure. The precise sums that need to be spent and how the investment should be allocated are the subjects of a number of other reports submitted to Government jointly or on behalf of FTA by other parties, notably the CBI, the AA and BRF.

The Government itself has also identified 37 road schemes that should be progressed and commissioned a number of studies in key transport corridors. The Ten Year Strategy needs to schedule the delivery of these schemes.

FTA is also working with Railtrack and rail freight operators to identify the investment sums and priorities for the rail network that are necessary for rail freight services to achieve the required service standards and to develop and grow services to meet future industry demand. A list of such schemes has been compiled by English Welsh and Scottish Railway. However, the Shadow Strategic Rail Authority has compiled its own freight strategy, largely in the absence of formal consultation with Industry. Railtrack also compiles its own Network Management Statement showing its intended investment projects to maintain and expand capacity on the infrastructure.

The Transport Strategy must as a minimum confirm the need for this investment and secure the necessary expenditure commitment as part of the Government's Comprehensive Spending Review.

3.7 Social Issues

FTA recognises, however, that congestion will not be cured simply by investment in additional infrastructure capacity or by exhortation for industry and the travelling public to make greater use of alternative transport modes. A transport strategy that addresses the long term issues should also address the underlying causes of traffic congestion and develop policies that remove the institutional and social barriers to making the fullest practicable use of the existing infrastructure.

3.8 Night Working

In seeking to maintain the reliability of its transport operations industry is seeking to maximise its use of the infrastructure at times of least demand. This inevitably means making greater use of night hours. Such arrangements have traditionally attracted a premium rate of pay for employees because of the unsociable working hours and in recognition of the greater productivity that results from the longer use of the company's fixed assets.

In seeking to maximise the use of the transport infrastructure the Government's objectives should be to move as many freight journeys as possible into the night hours when demands from private motorists and passengers is lowest. Significant volumes of freight already move at night and this trend will accelerate as the economy continues to move to round-the-clock working.

Given the reduction in day-time traffic levels that will result, greater use of night time working should be seen by the Government as a positive contribution to congestion reduction that should be encouraged rather than hindered. This runs counter to the presumption in current European social legislation where night-working limits in the EU Working Time Directive limit the scope of this option. The imposition of such limits on the transport sector would result in the transfer of many journeys currently made at night back into the working day.

The Transport Strategy should identify the need to make night work a more attractive option to employers and employees in recognition of the scope for better use of the infrastructure at times when it is least congested. Currently the social benefits of night working are not reflected in the taxation regime.

3.9 School Journeys

A generally acknowledged phenomenon is that the journey to work in urban areas is always much quicker and more reliable during school holidays. The conclusion is that much peak hour congestion could be alleviated by a comprehensive system of schools transport.

The reasons for the increase in school journeys being made by car include greater car ownership, security concerns and the longer journeys to schools of choice. Many of these issues are complex and deep-rooted. Changing parental behaviour and attitudes is unlikely to yield changes even in the long term. The experience of other countries, notable Germany, in altering the beginning and end of the school day to avoid the peak commuting hours merits closer examination.

The Transport Strategy should commission a definitive, cross-departmental study into the schools transport issue to examine best practices in other countries and establish the scope and costs of a more rational schools transport programme.

3.10 Land Use Planning

The requirements of planning law act as a severe constraint to the delivery of new transport infrastructure. Even when the economic and social need for new or expanded infrastructure is established the current planning system still imposes lengthy lead times and delays whilst many of the arguments are repeated and tested, often in an emotionally charged, confrontational environment. These delays and processes do not appear to arise in other EU Member States where transport infrastructure projects are either exempt from local planning regulations or enjoy privileged status once approved by Parliament.

Given the urgent need for new road and rail infrastructure capacity, the planning system should be reviewed to grant a presumption in favour of the construction of these projects, once approved by Parliament. The Transport Strategy needs to identify and justify the need for this review to take place.

3.11 The Impact of Information Technology

A major feature of the next ten years will be the role played by information technology in the generation, management and control of freight movements. There are several areas where dramatic changes can be expected :

(1) E-Commerce

The placing of orders by customers and consumers direct with suppliers in the expectation of an equally quick delivery. The logistics implications of this are still being worked out but new and different types of distribution patterns can be expected to emerge in the next few years, involving smaller goods vehicles and light vans undertaking more frequent journeys in residential areas.

(2) Telematics

The passing of information to and from vehicles on the move offers huge scope for the better planning and real time monitoring of freight movements. Telematics offers scope for a wide range of information about traffic conditions to be made available to drivers and fleet planners. Scheduling and vehicle deployment will be able to be improved, resulting in better utilization of vehicles and less empty running.

(3) Freight Auction Sites

The offering of goods for transport, or the capacity for their transport, on a spot or contract basis on Internet auction sites will change the dynamics of the freight market. These services are only now being commissioned and the precise level of take up is speculative at this stage. However, the greater transparency this method of buying and selling freight transport will bring to a fragmented market will allow carriers to identify balancing flows much more easily and for both shipper and carrier to benefit from the resulting economies.

(4) Web-enabled Mobile Phone Technology

The availability of information from the Internet on mobile phone networks will also allow huge amounts of new information to become available at low cost and in real time to shippers and carriers of freight. The scope for improvements in efficiency and the quality of decision making are as significant for freight transport as they are for all other parts of the economy.

The precise impacts and benefits that may be brought about by IT applications are speculative at this time but they should not be ignored in the Transport Strategy. The Strategy should recognise the potential for change that could be brought and commit the Government to work closely with Industry so as to monitor developments and ensure that the opportunities and potential benefits of IT are captured.

3.12 The Impact of High Exchange Rates

There are two major implications of a sustained high level of Sterling relative to the Euro that will impact upon freight transport, at least in the early years of the Transport Strategy :

(1) The need for greater efficiency in manufacturing

In the expectation that exports will remain relatively expensive in the European market, British manufacturers will need to pursue a strategy of reducing their costs of production in order to compete. This will extend to even greater pressure on the costs of distribution and the supply chain. The significance of supply chain costs in determining the competitiveness of British manufacturing companies will therefore increase rather than diminish.

(2) The imbalance of trade flows

The contraction of manufacturing output in the UK and sustained high levels of imports will disrupt the balanced traffic flows that are a necessary part of a profitable transport operation. The closure of only a few major production sites, such as is threatened in the car industry, will jeopardise the viability of many rail freight flows.

(3) The impact of high numbers of foreign vehicles

The high level of imports entering the UK is already causing disruption and distress in the international road and rail haulage markets. Record numbers of foreign registered vehicles are entering the UK and are undercutting international road and rail operators in this country with marginal, "backhaulage" rates sufficient only to cover the costs of their homeward journey. Latest Government figures show that one in ten lorries in the UK are now foreign owned. Whilst there are benefits for exporters from a low market rate for outward journeys, the consequences of large numbers of goods vehicles in the UK as a semi-permanent feature of the economy needs to be taken into account in the Transport Strategy. There are implications for the viability of the domestic haulage market and the future of rail freight services through the Channel Tunnel. The safety and environmental implications of large numbers of vehicles that fall outside the scope of the British O Licensing system also needs to be thought through.

In the expectation that the Government's present macro-economic policies continue the Transport Strategy needs to recognise and take account of its consequential impacts on the freight transport market.

4. Differential Policies for Essential Traffic

A recurring theme during the period of the plan will be the need for Government to adopt different policies for different types of road traffic, as demand for infrastructure capacity increases. Currently this is rarely possible because commercial and private vehicles share the same fuel, infrastructure and are driven by the same drivers.

Differentiation in transport policy can take different forms :

- 4.1 Fiscal - the setting of different duty rates for diesel fuel intended for commercial vehicles compared to fuel intended for private motor vehicles. (Detailed proposals for such a scheme have been submitted by FTA to the Government's Road Haulage Forum)
- 4.2 Infrastructure - the designation of road space for the exclusive use of goods vehicles other economically essential traffic.
- 4.3 Access - the removal or shortening of traffic bans to allow more flexible delivery times for goods to retail and other town centre premises.

The ability to differentiate between different types of traffic offers the Government the following benefits :

- The ability to take into account the different economic circumstances of vehicle owners and operators. The circumstances and economic behaviour of the private motorist are markedly different to those of the road haulage company, yet both are levied the same scale of duty for diesel fuel.
- Scope to provide different and appropriate incentives to encourage environmentally friendly actions or investment. The ability to target these effectively on Industry is important as Industry takes a different approach to discounting of investments in new vehicles and equipment to the private consumer.
- Scope to target policy at specific categories of vehicle. Access to reserved road capacity could be limited to vehicles meeting minimum environmental criteria.

5. Excellence in Freight Transport

In welcoming the Government's commitment to a sustained investment in transport industry recognises that it too has a role to play in contributing to the integration and sustainability of freight transport activities.

FTA has long been the champion of the wider adoption and encouragement of industry best practices as a means of reducing environmental impacts of freight transport. Our annual Environmental Best Practice Award, presented by the Minister in February this year to ANC plc, a parcels company, seeks to encourage and publicise the use of voluntary actions by business to bring about measurable reductions in the environmental emissions.

Many of the techniques and practices of supply chain management that are being adopted the UK companies are also bringing about a reduction in the number of freight movements needing to be made by consolidating loads into fewer journeys and eliminating wasteful intermediate handling and storage.

The adoption of such practices would be accelerated by the Government offering appropriate incentives for their wider use. FTA recognises that in seeking differentiated policies for freight transport the Government may wish to limit these to vehicles and activities that adopt the only the highest environmental and safety standards.

6. The creation of higher thresholds could be applied in a number of areas of policy

- 6.1 Relaxation of delivery curfews and other lorry restrictions could be limited to those vehicles meeting more stringent noise and exhaust emission standards.
- 6.2 Access to road space reserved for specified categories of traffic could be limited to similar vehicles.
- 6.3 Relaxation of enforcement regimes for operators accredited to recognised quality compliance schemes. This would allow enforcement resources to be targeted on operators and vehicles with poor compliance records.

The Transport Strategy should identify the scope for bringing forward improvements in environmental performance by the development of rewards for the voluntary adoption of best practice.

Political Consensus on Transport Strategy

FTA welcomes the attempt by the Government to establish policies for transport that span possibly three General Elections. Industry is seeking to achieve political consensus on the priority for transport investment and to protect the long-term funding and development of these projects from short term changes in political priority. FTA believes that the need for a modern, efficient sustainable transport system transcends political ideology and wishes to work with all political parties to reach the necessary consensus to ensure that the investment required to fund a ten-year transport strategy can be delivered.

7. Partnership with Industry

The uncertainties in the economy and the freight transport market place mean that the detail of transport policy will need to be flexible and adaptable to fast-changing circumstances. The best way for this to be achieved is for the Government to recommit to working closely with Industry in the development of future policy.

8. The I. Mech. E response concerned with other more broad issues stating

The Institution believes :

That road haulage is successful :

- The volume and weight of freight being transported by road within the UK is continuing to rise.
- Road haulage systems provide a (relatively) low cost and efficient method of moving freight, from large ISO Containers to small quantities of parcels and palletised goods.
- Road haulage has many other attributes for the business plans of "freight movers", it is controllable, flexible and generally reliable.

This growth in the transportation of freight by road brings undesirable side effects :

- Motorways, major highways and centres of urbanisation are becoming more congested year by year.
- Expenditure on road systems will have to increase to maintain "congestion" at present levels.
- Air quality is reduced, particularly in urban areas.
- Damage is inflicted to roads and buildings.

The Institution believes the Government is committed to reducing the spiralling expenditure on roads and to improving the environment. Thus new policies must be developed to reconcile possible conflicting interests.

9. What can the IMechE Contribute ?

The IMechE covers the application of Mechanical Engineering Sciences throughout the whole of Industry with particular association within the Aerospace, Automobile, Rail and Manufacturing Industries. From this very wide perspective the Institution believes that two basic alternatives exist for the way ahead :

- (1) To accept that road haulage will continue to provide an increasing share of all freight movement in the UK. Therefore, the Government can either reinstate, or even accelerate, expenditure on the road infrastructure or incentivise the adoption of new technologies to enhance operating efficiencies and reduce environmental impacts.
- (2) To initiate, and assist the funding, of cost effective alternatives to road haulage which are cost competitive, and controllable, flexible, reliable.

The IMechE has considered it appropriate to provide a supplementary submission divided into two sections :

Part 1

A review of emerging technologies in Automotive Engineering and an assessment of the degree to which the **Road Haulage Industry** - and the **Effects of Road Haulage on Society** - will (or could) be improved by such technologies in the context of :

- Exhaust Air Quality
- Road Transport System Efficiency
- Infrastructure/Environmental Impact
- Safety

Part 2

A review of possible alternative transport modes that could be promoted to compete more successfully with road haulage.

10. Submission Part 1(a) - Emerging Technologies

Details of Emerging Technologies and Policies for Implementation are shown in the first two of the four tables attached :

Potential Technological Improvements - Short Term

Potential Technological Improvements - Long Term

The influence of each measure is classed as either Strong, Medium or Weak and where appropriate a negative is highlighted.

Note : Numerous papers have been presented at the Institution over the last two years that relate to the items shown in the tables and have been cross referenced. A full list of references is enclosed. This however, is not a full list and other papers may be available.

11. This Institution concludes that

- (1) There are many technologies emerging in the short term which could when applied have a marked effect on :
 - (a) Air Quality. The use in particular of Particulate Traps and Nox Traps, which require fuels with sulphur levels of less than 30 ppm, will reduce the emission levels of vehicle exhausts.
 - (b) Transport Efficiency. The use of Traffic management, Aerodynamics, New materials, Low Friction Powertrains/Tyres and Telematics will improve "system" efficiency.
 - (c) Environmental Impact. Suspension Developments, Noise Reduction Measures and the Recycling of Materials are all improvements.
 - (d) Safety. For drivers Noise Reduction, Telematics and Traffic Management will have a feature of reducing fatigue. The use of new materials in vehicle construction potentially have a huge application for improved collision safety.
- (2) Whatever transport system is utilised a standard of "clean" technologies must be applied to all forms of prime mover.

In the Short Term, inducements may be necessary to incentivise the adoption of emerging "product" technologies as update packages for older vehicles to bring about the required improvements in Air Quality, Transport Efficiency, Environmental Impacts and Safety. This might be through Vehicle Excise Duty, or other appropriate forms of incentives, to encourage owners and operators to adopt the new "clean and friendly" technologies. This approach is considered more desirable than "scrapping" policies which may be difficult to manage. In order that UK Operators are not penalised versus Continental Operators, a pan-European approach is essential. However, countries with lower population densities and good road networks may see no reason to seek these benefits.

In the Long Term, technologies emerging include Alternative Fuels (not yet sufficiently developed to permit a high confidence assessment of impact), Autoguidance (reducing driver fatigue and improving safety) and Hybrid Vehicles (permitting short periods of operation under electric propulsion within towns and cities) but all require further development.

12. Submission Part 1(b) - Possible Policies

Details of Potential Policy Initiatives are shown in the other two tables :

Potential Policy Initiatives - Short Term
Potential Policy Initiatives - Long Term

For the Short Term opportunities include, incentives to upgrade older vehicles with new technologies (as described above), promoting better Traffic Controls (phased traffic lights, route guidance, speed monitoring and control on all motorways) plus consideration of fiscal incentives to get freight diverted from road to alternative transport systems.

The Long Term opportunities highlighted recognise that the demand for goods in the Internet Age will continue to rise, therefore improvements and expansions of either road networks, or rail networks, or both are essential. Potentially, road and/or rail improvements should be made in conjunction with additional Container Ports all of which require to have good links to rail. This is covered in Part 2 below.

13. Submission Part 2 - Alternative Transport System

In considering a selection of an "optimum" mode of transport for freight this Institution believes it is dependent upon :

- **Weight** of the freight
- **Volume** of the freight
- **Distance** to be transported
- **Time** in transit
- **Cost**

These parameters frequently exclude the consideration of Air, Rail or Sea/Inland Water based modes of transportation as alternatives to Road Haulage for the UK. To consider the possible alternatives in turn :

14. **Air Freight.** Movement of freight by air is optimal when time is the primary consideration; it becomes more cost effective over long haul distances but cannot match the cost per tonne, mile of other systems. Weight and volume, unless special aircraft are used, are severely restricted. The small geographic size of the UK makes it difficult for Air to compete for a significant portion of intra-UK freight movement.

15. **Rail.** Between 1995/1996 and 1999/2000 the volume of ISO Container traffic carried by Freightliner increased from 470,000 to 650,000 containers. Overall, around 25% of all container traffic is by rail, but there are wide regional variations ranging (60% to and from Scotland to nothing [zero %] on the Felixstowe-London route). Potentially, Rail could provide a significant alternative to Road but realisation of its full potential must recognise :

- Rail wagons can accommodate only one ISO container; 8' x 8' x 40', but to become more cost competitive needs to accommodate two ISO containers per wagon; i.e. one of 40' length and one of 20' length.
- Shipping companies are progressively adopting "taller" containers with cross section measuring 8' x 8' x 9'6"; this trend will reverse the present increase in container traffic on rail due to loading gauge restrictions in the UK. This can be addressed only by the use of sub-optimal wagon utilisation (restricting the number or weight of containers that can be carried on each wagon and therefore producing unfavourable economics in relation to wagon cost, train length and terminal operations).
- Containers of 8' x 9'6" section are not a problem for road haulage.
- "Piggy-back" modes where trucks are loaded on wagons for long distance travel are also impeded by the loading gauge restrictions.
- Europe has developing a new standard Inter-Modal container (Swap Body) which is readily transferable between road and rail in Continental Europe, but this is based on a greater width container which can at present only operate on a limited number of rail routes in the UK.
- The Inter Modal container is not a problem for road hauliers.
- The introduction of the 44 tonne limit for trucks provides a small but significant competitive shift in favour of Road Haulage and could retard the positive rate of growth now recorded in rail traffic.

Policies are needed to "promote" Rail Haulage as an alternative to Road Haulage. These include being proactive in the definition of dimensions for inter-modal containers and prioritising specific rail links for modifications to accept a wider range of "taller" section and inter-modal containers.

16. **Sea Routes.** Most movement of freight by sea excels when the priorities are low cost over a long distance, but time is not a premium. There are few restrictions on volume and weight. Most goods entering Northern Europe are in ISO or "taller" section containers and use Rotterdam; the majority of containers entering the UK do so at Felixstowe. It is regrettable that present rail links to Felixstowe have major restrictions on container freight.

Most trucks entering UK from Europe do so at Dover; again, it is regrettable that Dover has rail links that restrict the onward transportation of trucks by "Piggy-Back" rail wagons. Thus, the degree to which sea routes could be developed as an alternative to road for the longer distance (500 miles) is severely impeded by :

- Lack of efficient container ports in SW and NE of the UK, for example at Plymouth, Liverpool and Glasgow for example.
- Lack of efficient rail links to the existing major ports of Felixstowe (containers) and Dover (trucks).

Policies are needed to "promote" Sea Routes as an alternative to Road Haulage, these include more container ports and better rail links to all ports. Alternatively, the use of inland water routes as a direct access into major cities and towns should not be overlooked.

17. Recommendations

The Institution has identified a number of emerging technologies which will improve exhaust emissions, operating efficiency and safety when moving freight by road. Also, the technologies which reduce environmental impact and make road haulage more "friendly" to the public at large. We recommend promotion or incentivisation of a number of these technologies for new vehicles and especially the upgrading of older vehicles to make them "clean and friendly". This will however, need to be a pan-Europe approach to ensure UK Operators are not unfairly penalised. We recommend :

- (1) The adoption of new technologies to improve traffic management systems in the UK which will reduce both direct and indirect costs and reduce driver fatigue.
- (2) Policies are established to promote the development of alternative freight movement systems; these include :
 - (a) Rail. Train and track systems are developed which permit the cost effective movement of containers and a wagon for the "piggy-back" carriage of trucks and trailers.
 - (b) Sea. More Container Ports are established to serve the major centres of population, each with excellent rail links.

- (c) Inland Water. With the increasing automatic guidance technologies that are emerging practical use should be made of the navigable inland waters.

The Institution considers that air freight is not a significant competitor to either road or rail for intra-UK freight (except for rapid, premium or special cargoes) due to the small geographical size of the UK.

The Institution is currently conducting a comprehensive study into Integrated Transport Systems. The study, scheduled for completion in Autumn 2000, will identify opportunities, and make recommendations, for comprehensive improvements in transport systems for people and freight within the UK. Clearly, there will be further recommendations affecting Road Haulage.

Report prepared by :

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18. I have included the full I.MechE report and reference papers produced by its members just in case delegates at this conference wish to obtain further details.
19. In Summary & Recommendation
- 19.1 The British Road Haulage Industry is a success - safe & economic.
- 19.2 Its success has lead to congestion at certain times of the day.
- 19.3 Special incentives to encourage the haulage industry to more fully utilise the trunk road system at night have been recommended by F.T.A.
- 19.4 Similarly rewards for operating super environmentally friendly vehicles are recommended.
- 19.5 School Bus congestion should be investigated.
- 19.6 Government should promote Information Technology within all sections of the Transport Industry.
- 19.7 Legislation is producing cleaner and quieter environmentally cleaner vehicles.
- 19.8 Intermodal Rail/Road freight systems should be encouraged.

THE ROAD HAULAGE INDUSTRY

Introduction

The Transport Sub-Committee of the Environment, Transport & Regional Affairs Committee has announced that they intend to undertake an inquiry into the Road Haulage Industry. The Institution's input into Committee is provided in this brief.

Summary

The Road Haulage Industry cannot be considered in isolation as many technologies and engineering developments can be used to improve the environment and United Kingdom lifestyle. Huge advances have been made with reducing vehicle emissions and with supportive policies these could be used within all types of transport systems and industries to enable Great Britain to set the example and take the lead in demonstrating a way ahead to the world. There is no simple answer but a combination of all the advances could present workable solutions to effect improvements. The UK has engineers and scientists who have the capability of devising and developing the most advanced and innovative solutions to the very difficult problems that abound with such an undertaking as re-structuring the Road Haulage Industry. These could potentially have a significant impact on British industry with the sale of technology and equipment abroad.

Background

The Transport Sub-Committee of the Environment, Transport & Regional Affairs Committee inquiry into the Road Haulage Industry will examine the following :

- (a) The role of the road haulage industry, the way in which it operates, its contribution to the economy of the United Kingdom, and its impact on the environment.
- (b) The impact on the industry of current and past rates of vehicle excise duty and the levels of duty on fuel.
- (c) The regulations which govern the industry, and their impact on the safety record and profitability of the industry.

By whatever name you put to it

Satellite navigational vehicles aids provide an heaven sent opportunity to dramatically reduce road congestion, reduce fuel consumed, reduce exhaust emission and therefore atmospheric pollution, provides opportunity to trace vehicle & product reduce theft.

Currently it comes at a price that the average haulier cannot justify. It costs 14 million pounds or 42 million NZ dollars to build one mile of motor vehicle in the UK and on 16 million, 48 million NZ dollars to put in a route management system between London and the midlands - which it is claimed would pay for itself within a year - but it is going to pay for less 48 million NZ dollars - certainly no the average 6 - 12 vehicle haulage fleet now who claim be is currently only seeing a 3% return on his investment.

I think attitudes will have changed in 5 & certainly 10 years - particularly as the OEMs as some of them are announcing e-business divisions, internet technology initiative are glowing on several fronts.

Telematics brings together advances in the fields of satellite navigation, digital mapping and telecommunication to allow the more intelligent use of transportations.

The sectors range of technologies stretches from in-cab devices to track a vehicle progress and automatic toll collection devices to "smart" road signs linked to sensor monitoring volume and automatic control system.

The technology is there - is just a matter of finding a financial means of kicking it,