Motoring Towards 2050 –The Fact File

Chapter 1 HISTORY

- Travel has grown threefold over the past 50 years
- 85% of total travel is by car
- People and jobs have moved out of city and town centres making the car the most convenient form of travel
- Traffic has grown much faster than road capacity because of low investment in both road and public transport
- Despite growing shortfalls in capacity, governments have attempted to control demand
- Road congestion is now worse than elsewhere in the EU

Chapter 2 DEMAND FOR TRANSPORT

- The prime driver of car traffic growth has been ownership growth
- Latent demand for car travel will be nearly 50% higher in 2031 even assuming slower growth rates
- By 2031 bus travel will stay much the same, walking and cycling trips would be fewer but the latent demand for rail doubles
- Limiting car ownership is unlikely to be an effective or tolerable way to check traffic growth
- To rely on congestion to rein back traffic growth would be economically damaging
- If road capacity is only increased as suggested in the 10 Year Plan, congestion will increase considerably
- To maintain congestion at its current level would require unacceptable increases in motoring costs or charges to reduce demand

Chapter 3 ENVIRONMENT

- Road transport now accounts for half of most pollutant emissions and a fifth of all CO_2 emissions.
- While transport is not the largest contributing sector, it is the only one where CO_2 emissions are forecast to rise in the next few years
- Current legislation and technology can eliminate the impacts of road transport on air quality, and remove air quality as a constraint on transport policy
- 'Zero-emission' vehicles are technically feasible but the energy must come from low carbon sources such as renewables or nuclear energy
- Transport noise in the United Kingdom is likely to get worse unless technical solutions to improve both vehicles and roads are speeded up
- The motor industry must make further efforts to ensure the recyclability of its products
- Control will still be required to reduce the impact of the car on quality of life in local areas

Chapter 4 LAND USE AND THE QUALITY OF LIFE

- The relationship between land-use and transport is interactive. Travel responds to changes in land-use and the patterns of land-use reflect changes in transport
- People have responded to better, faster and cheaper travel by travelling further for commuting, shopping and leisure.
- This has led to dispersion of activities
- Planning can do little in the short or medium-term to alter development at the national level because its possible impacts take much time to develop

- Locally, land-use should be better integrated with transport planning to reduce car and increase public transport use, consistent with a vigorous local economy and personal mobility

Chapter 5 TECHNOLOGY

- Passenger vehicles will have a 'one-box' body large enough to seat four occupants in 'mobile living room' comfort with multi-media interface technology
- By 2050 the body of the car will be a high-strength cage covered by a minimum weight 'skin'
- The hybrid car (diesel/electric, petrol/electric) will be an important step towards the zero emissions car
- Most authorities agree that by 2050 the fuel cell, using compressed hydrogen gas, will become the main form of propulsion
- The 2050 car will be quiet, safe, green and easy to drive
- In real terms the 2050 car will cost about the same as the 2000 car
- The 2050 car will be secure, with biometric recognition features and will be able to operate in some circumstances under 'autopilot'

Chapter 6 FREIGHT

- Trucks will remain the dominant means of moving goods because of their flexibility and cost effectiveness
- Rail freight will benefit from the railways investment programme but will compete with passenger movements for investment and track access.
- Improvements in freight efficiency over the past 30 years are now coming to an end so more trucks will be required in the future but telematics can make them more effective
- Improvements in vehicle technology will make trucks quieter, safer and more fuel efficient
- Restricting or encouraging trucks to night time use of the motorways could help congestion

Chapter 7 REDUCING CAR DEPENDENCE

- An important distinction is between *imposed* restrictions on car use which forcibly limit personal mobility and affect economic growth, and *voluntary* measures which people will adopt because they are persuaded they are desirable
- Imposed restrictions should only be taken where there are strong environmental or other social grounds for doing so.
- Reducing car dependency by providing better information on alternatives is the best voluntary measure
- Measures such as car sharing or pooling are usually most successful when organised from the workplace
- Telecommunications have the potential to reduce traffic growth by encouraging tele-shopping, tele-working and teleconferencing
- Only 5% of traffic would be cut by these means as some journeys saved may be substituted by others

Chapter 8 WALKING CYCLING AND MOTORCYCLING

- Walking and cycling have declined over the last fifty years as car traffic has grown
- Walking and cycling are sustainable forms of transport which can produce health benefits
- Motorcycles use less road space or parking spaces and are good at beating congestion
- Many short journeys currently undertaken by car would be quicker on foot or by cycle
- More needs to be done to improve the poor safety records of pedestrians, cyclists and motorcyclists and hence encourage their use

Chapter 9 New modes of transport

- The Dan Dare vision of flying cars and cities linked by mono rail has not materialised
- 76% think people will still own individual cars in 2050
- The individual car with four wheels and a steering wheel will still be driving along - and below - the highways and byways of the UK in 2050
- The driving licence of the future will be electronic - the car will not start if you do not have a licence
- You will be recognised by your iris and the car immobiliser will disengage only if you are authorised to drive that car at that time
- You may have to book a time slot for your journey
- Royal College of Art ideas include a novel concept car with an interior, which adjusts to the occupant's body shape
- Only 3% think cars will park themselves by 2030

Chapter 10 RAIL

- The density of Britain's railway network is the lowest in Europe in relation to the size of its population.
- Rail use in particular is concentrated in London with 76% of commuting journeys by rail
- A 10% increase in travel by car would be equivalent to a 65% increase in travel by public transport
- The cost of rail investment is much greater than that of the equivalent road investment, it is more difficult to carry out and the cost benefit ratios are much lower, especially for safety
- Britain has the lowest bus and coach travel per head in the EU and it is falling.
- Long distance buses and coaches could play a bigger part in the national transport system because they are cheap and flexible but their success depends on adequate road investment

Chapter 11 LOCAL TRANSPORT PLANNING

- Car ownership and traffic growth put pressure on local transport infrastructure but localities differ in their capacity to absorb traffic
- Different solutions are required for small towns and rural areas, free standing towns, conurbations and London
- Local transport plans are over ambitious in their belief that they can choke off car growth without providing adequate alternatives
- They challenge at their peril the inevitable increase in car ownership
- There are serious skills shortage of transport planners and engineers to be overcome

Chapter 12 HIGHWAY CAPACITY

- Road capacity has not matched increased demand
- Drivers have adapted to rising congestion by changing the route or time of their journeys
- The road network could cope with10 - 15% more traffic through advanced traffic engineering and management
- Local by passes and road improvement schemes should be speeded up significantly
- Projecting the 10 Year Plan road investment to 2030 will improve the road network but congestion still worsens after 2010
- Expansion of the strategic network will produce positive benefit cost ratios and can reduce congestion significantly, depending on the level of investment
- New road developments will have to be more environmentally acceptable and make greater use of tunnels at higher cost
- In practice, an intermediate package or investment and demand management will be required

Chapter 13 INFLUENCING DEMAND

- Some form of restraint on demand for road travel will be required
- Restoring the fuel duty escalator would be unacceptable as it is unfair and ineffective
- A flexible charging system varying charge with level of congestion is required to keep congestion down
- Extra revenue from charges must be for transport improvements and reducing fuel duty not for raising general revenue
- More work is needed on technology, diversion, social exclusion, civil liberties and public acceptability
- Without charging, access to the network or car ownership would need to be restricted or highway capacity would have to be increased substantially

Chapter 14 PUBLIC ACCEPTABILITY

- 83% of motorists would find it very difficult to adjust to a lifestyle without the car
- Historically motorists have opposed congestion charging or tolls
- Today most would find road tolls acceptable if there were equivalent reductions in fuel duty or as part of a package of better roads, public transport and traffic management
- Only 22% of drivers believe that tax on fuel is a better way of restraining traffic than a charge or toll for using congested roads
- 60% believe that it would be fair to tax motorist according to the amount of time they spend on congested roads
- 51% of motorists would like to see money from tolls spent on better roads and road maintenance