

3. CONTROL AND PLAN SCENARIO

“Responsible Regulated Living”

Overview

3.1 Through a series of government initiatives over the years, Britain in 2030 has evolved solutions to the problems of congestion, the need to preserve the environment, the importance of international competitiveness and the desire to protect social diversity. Controls became a political necessity, introduced in response to strong domestic and international pressure following repeated episodes of gridlock on the country’s roads, public concern over the escalating number of multi-vehicle accidents on the motorways, and a rapid escalation of international concern about climate change. Government responded by introducing controls that have helped to decouple economic growth from growth in the demand for mobility. Although not without its detractors, this “top-down” approach is widely acknowledged as having been in the best interests of sustainability, the environment and ‘society’.

3.2 The last 30-years have seen a number of major changes to the transportation system, through investment in the infrastructure and supporting systems, which maintain high quality access in a safe and sustainable manner. Through controlled management of the transportation network an optimised, and in some instances reduced, use of the infrastructure has been possible with increased emphasis on safety.

Socio-Economic Context : *The Global position of the UK*

3.3 There has been strong international and inter-governmental co-operation in response to the continuing march of the global economy. The European Union now extends to Central and Eastern Europe and the Baltic States and the fully-integrated, Trans-European road, rail and telecommunications networks are now taken for granted. Within the EU, Britain is seen as having a fair and balanced approach to the regulation of all sectors of the economy, especially transport, and this has provided the confidence for continued inward investment. It was helped by the verdict on the Euro by the international money markets. As a result, Britain continues to occupy a pivotal position between the EU, and the US / North Atlantic markets.

3.4 The Southeast of England has continued as a focus for socio-economic growth because of easy and reliable road access to the continent, via the second Channel Tunnel and the easing of congestion which came with the introduction of Road User Charging and a journey pre-booking system covering all modes.

Regional dispersal policies have also made their mark, greatly aided by the government’s policy of massive investment in high bandwidth communications, with seamless inter-

connections between fixed and mobile networks. High-level planning strategies realised through a series of achievable targets, and well-targeted regulations, now support the concept of long-term sustainability. All this has encouraged tele-working and tele-presence to really take off. Even remote rural areas are now fully connected, and this has revitalised the rural economy.

Socio-Economic Context : Business and Industry

3.5 The economic focus of the Southeast derives principally from the continued residency of multi-national organisations within the UK. A legacy of well-regulated and reliable transport infrastructure (eg airports, rail, ferry terminals ...etc) provides international access in a world in which many business professionals operate at a global level.

3.6 Successful growth of business and industry in the Southeast has created wealth for many who now rely heavily upon support services. This has, in turn, resulted in a substantial demand for low skill employment which has been met by focussed immigration from Eastern Europe and North Africa but less so from the North of England, Wales and Scotland because of the government's regional policies. The prosperity of the South, South West and Midlands, which started during the 1990s, has been sustained through massive investment in the facilities for collective transport alongside tight regulation of road space.

3.7 This continued focus on the Southeast as hub for business has led to rapid growth of London during the last 30-years resulting in further widening of the boundaries of the Greater London Metropolis to include some of the 20th century new towns including Stevenage, Hemel Hempstead, Braintree and Crawley. However, congestion in the suburbs is now a thing of the past, thanks to government measures, which were introduced in response to backlash by the middle classes of suburbia against the ever-growing menace of gridlock.

Socio-Economic Context : Social (including community, education and leisure)

3.8 Whilst many people were initially sceptical of the changes within the UK (eg the 'controlled' element of a journey) the benefits of the responsible living lifestyle are now commonly acknowledged. Through their acceptance of restrictions and rationing the vast majority of the population now enjoy a lifestyle which includes safe quality access with low environmental impact.

3.9 The overall skills deficiency and the rapid migration into the UK of low skilled, low paid workers has, to some extent, created an under class. The increased diversity of the population in terms of ethnic origin, religion, fragmentation of the family unit and cultural differences consequently requires careful control in order to promote co-operation, and understanding. In order to address this, a travel credit system has been introduced to enable the unemployed and those on low incomes to carry out essential journeys thus encouraging

them to gain employment and improve their position in society. The increases in wealth (predominantly in the Southeast) also brought about a migration of the richer elements of the ageing population to the warmer climates of France and Spain. This occurred irrespective of the effects of global warming within the UK.

Socio-Economic Context : Technology

3.10 Technology has played a major role in the reduction of the environmental impacts of our lifestyles. For example the last 10-years has seen a wide range of low emission hybrid and fuel cell powered vehicles becoming the norm reducing the pollution which was previously associated with mobility. Advances in renewable energy and emission free fossil fuel technologies are widely used in order to help achieve sustainability targets. Low-cost digital communications are all pervasive, and Britain is now “totally connected”.

3.11 Rapid developments in transport telematics have helped to address a number of problems associated with congestion in both public and private owned transport markets. Such systems are also key to most ‘control’ systems, for example road space booking systems that operate in real time, and are seamlessly integrated with transport logistics. Artificial vision is widely used as the basis for security systems and enforcement.

The Transport Vision

3.12 Through Government led initiatives many changes have taken place in the use and provision of transport systems in 2030 that address the twin goals of providing high quality access with low environmental impact. Integrated systems have developed on local, regional and national levels that facilitate multi-modal decision making possible at both the time of booking travel and as the journey unfolds.

3.13 Through strongly enforced regulation overall road traffic growth has continued but at a reduced rate to that observed at the turn of the Century. The movement of freight and goods is given priority in the allocation of road space because of their importance to the economy. Air traffic has continued to grow rapidly in a world in which many business professionals regularly use international travel and Eco-tourism has expanded to broaden people’s direct experience of different cultures and locations.

3.14 Encouraged by both UK and Regional hierarchy Local Authorities in many towns and cities have introduced road pricing and zero emission zones. The quality of urban life has noticeably improved as a result of these measures and cycling and walking have significantly increased as modes of transport.

3.15 In order to ensure the residency of key business organisations care has been taken to provide the large population, employment and service concentrations in the Southeast with

direct and uninhibited access to Heathrow Airport, the Channel Tunnel and other principle services which are critical to the sustainability of the UK in world markets. The overall result of failing to maintain such links would be the implosion of London, the impact of which on the rest of the Country is indeterminate and should be avoided at all costs.

3.16 Major infrastructure development during the last 30-years has been undertaken in highway / lane / mode separation and junction design which has resulted in reduced speeds and speed control, dedicated lanes, driver assistance. Such central investment now permits rationing of the available space on the transport network through restricted choices of mode, journey time and travel time.

3.17 A Europe-wide agreement to introduce speed control devices to all new vehicles was signed in 2020. In the UK, all vehicles are now required to have devices fitted that can limit their speed to the prevailing speed limits. As a direct result of this the death toll on the roads has dramatically reduced and successive governments have adopted a zero-fatality aspirational aim. Better vehicle design and maintenance as well as widespread use of alternative fuels has also improved pollution and emissions.

3.18 A 'Transport Agency' has been developed through the last 30-years, along the lines of a travel agency, thorough which journeys are booked and arranged. Journey selection is possible through all available modes, all of which are considered by the Agency. Mechanisms are in place in order to manage access to the network, thereby reducing congestion, optimising the use of the available network capacity and reducing personal travel and freight pollution

Inter-Urban Travel

3.19 A clearly defined, segregated national and local transport systems exist in which access between transport infrastructure and modes, within all networks, is controlled or rationed, in advance. Public transport is now largely based on small, user-friendly vehicles equipped with fail-safe electronic systems that allow them to link together as driverless road trains for the long haul.

3.20 Centrally controlled electronic road pricing has been introduced throughout inter-urban routes during the last 10-years. This has enabled essential long distance commercial traffic to have priority and to avoid the worst effects of congestion. Many projects, which were in demonstration phases at the turn of the Century (eg green travel plans, integrated transport interchange, access control ..etc), are now commonplace and trials of automated freight lanes and automated vehicle lanes have been carried out throughout Europe as standard systems are beginning to evolve.

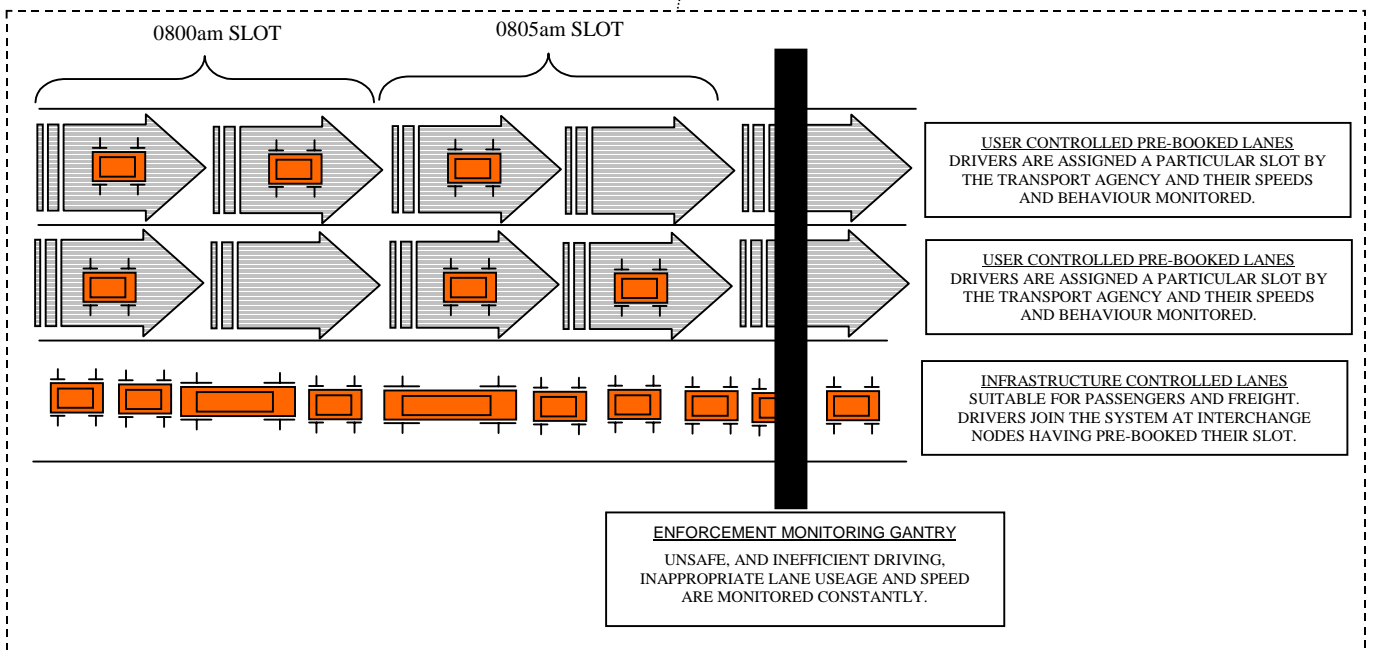
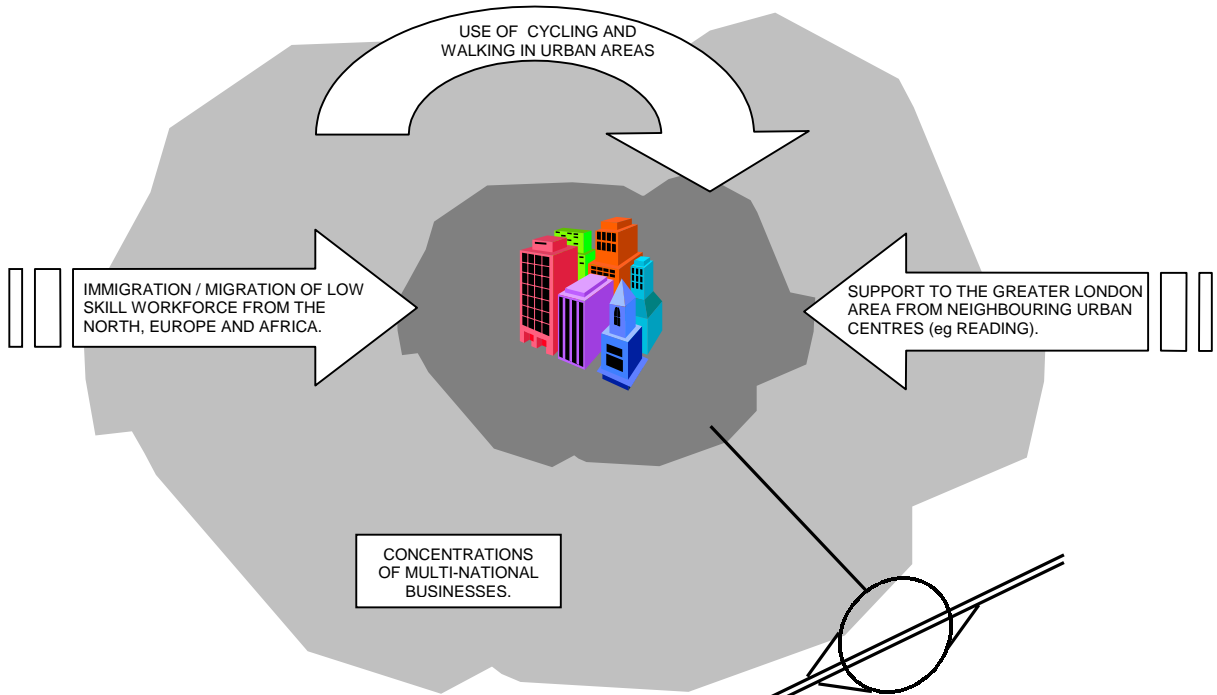
3.21 Freight transshipment depots have been located on the edges of conurbations in order to facilitate deliveries and distribution of goods and services. Where possible these include links to other modes of transport, such as rail, in order to permit interchange. These centres are seen as an extension of the regional distribution centres that were created during the late 1990's.

3.22 Control is based on the pre-booking of, and payment for, a journey 'slot' from the central 'inter-urban agency' which provides the available options for the required journey. The booking can be carried out from a computer terminal located either within public facilities (eg stations, libraries, shopping centres ..etc) or at home (eg PC or the television). The core network in 2030 can be compared to a series of vehicle unit spaces moving around the network, some of which are occupied and some of which are available.

3.23 The rationing of the available transport network space is based on a series of criteria for both people and freight. The mobility needs of people wishing to travel on the network are considered based on the age of the driver, the status of their record, the requested access time to the network, the occupancy of the mode requested, the environmental implications of the mode requested and the advance notice given of the trip. The selection of freight trips is based on many of the same issues as for people with additional consideration being given to the particular commodity which is being transported (eg can it be found closer to the destination thereby rendering the trip unnecessary) and a pollution rating of the vehicle in which the trip is to be made.

3.24 Technology provides the means for the booking request, the selection system, the vehicle access mechanism and the vehicle control systems whilst on the network. A smart system has also been introduced in conjunction with enforcement systems to prevent illegal access, unsafe or inefficient driving. Enforcement is largely a matter of self-regulation, since vehicles can be immobilised if there is no pre-clearance to travel. Urgent journeys for whatever reason can be put on a fast track through the automatic booking systems, but are charged accordingly.

Illustrative Case Studies



The Role of the Network Operator

3.25 The Network Operator today provides a 'Transportation Agency' service with which both passengers and logistics operators can make arrangements for potential trips and through whom travel slots can be pre-booked. As well as running the UK road network the Operator also has links to motorways in central Europe and worldwide in order to provide a unified, all-inclusive journey service. In making the necessary arrangements for their customers travel demands the Operator also oversees the recently introduced rationing of available space based on a series of criteria. Where a particular trip cannot be offered due to the wants of a traveller being unsuitable (eg peak hour travel) the Operator is able to recommend a series of alternatives.

3.26 The Operator's main objective is the safe and efficient high-quality delivery of passenger and freight forwarder / road transport operator needs. In order to meet the new demand patterns, in a sustainable manner the Operator has had to invest in new highways / transport infrastructure and operating systems. The Operator is also responsible for the day-to-day running of the system and the ongoing maintenance programmes in much the same way that the Highways Agency was at the end of the last Century.

3.27 The connectivity of the network is key in order to ensure simple interchange between modes and a personalised service.

3.28 In order to efficiently manage the demand, and ensure compliance with the 'control' systems the Operator works in close partnership with the Police / enforcement agencies in order that the aims of the core network are not compromised. A significant need for joint working with local authorities, other operators and international agencies has also been identified and a series of secondments have been organised in order to appreciate how other organisations operate.