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Foreword by Neil Kinnock



Movement of people and produce is - and always has been - a cause and a result of social and economic development.

In this century, and particularly in the last fifty years, both the scale and the pace of that movement have increased massively and obviously. Our generation therefore has freedoms of travel and of choices of consumption unknown - indeed, almost unimaginable - to any other. The science fiction of five decades ago has become mundane transport fact.

But now those liberties are threatened. In our crowded continent, and in some other places, congestion is already reducing the freedom of movement, generating huge costs, seriously contaminating the environment and affecting the health of the public.

If our societies and economies are to retain real mobility, therefore, that mobility has to be made more affordable, safer, more efficient and more compatible with environmental realities. It must, in short, be made more sustainable.

Gaining that sustainable mobility is the core purpose of the Common Transport Policy of the European Union.

The collective and combined efforts to achieve it, and to keep it, offer great challenges:

• Fifteen democracies - and more to come with Enlargement - have to continue to replace the historic fragmentation of their transport systems and rules with coherent arrangements that serve a Single Market and the convenience of the travelling public.

And, rightly, the Member States need to make the changes through deliberation, consensus and respect for the law. Naturally, the ending of established conventions and the introduction of new conditions require care, and they often generate controversy, even when there is clear understanding of the constructive overall purposes.

• Infrastructure must be built and modernised in the sure knowledge that, costly though the investment is, it will be cheaper than paying the price of inadequacy.

Constraints on the public budgets and the need to ensure greater planning efficiency and value for money are together producing the realisation that there is need, and good reason, to move away from the convention that public infrastructure must be entirely publicly financed.

Through widespread consultations, and with the direct participation of Member State governments and distinguished private sector experts from finance, construction and transport industries, the Commission has therefore been developing policy approaches that will encourage the establishment of Public/Private Investment and Development Partnerships, particularly to facilitate the construction and operation of the Trans-European Networks (TENs) in all transport modes.

There is no single ideal form for such Partnerships and there will always be some infrastructure developments for which they are not appropriate. But by creating alliances between the public sector with its essential attributes and resources, and the private sector with its expertise and capital, the European Union is likely to get the infrastructure that is needed for the future more quickly and efficiently than would be possible by continuing to rely on traditional forms of investment and development.

• Transport is, of course, "a heavy industry carried out in public" and under the Treaty of Union, the Community has an obligation to pursue measures to improve transport safety.

That duty is undertaken very actively in relation to all modes. In recent years, for example, International Maritime Organisation conventions on higher standards in shipping safety have been enacted as EU rules, legislation that will improve truck safety has been adopted, agreement has been reached on the establishment of a European Civil Aviation Safety Agency, the Commission is a direct participant in the European New Car Assessment Programme (EuroNCAP), new laws on the carriage of dangerous goods are now operational.

In these and many other ways, the efforts to ensure that safety for users and the general public is accepted as an integral part of transport efficiency have gained momentum. These efforts will continue. That is crucial. When, for instance, road accidents in the 15 Member States kill about 42,000 people and cause serious injury to 1.7 million others every year, the human and economic costs are obviously appalling, and both legal changes and campaigns to enhance safety and to improve behaviour are therefore essential.

In this and other modes, the strong emphasis must be on the reduction and prevention of danger. Sometimes major improvements can be made simply and without cost - more use of seatbelts by drivers and passengers in the front and rear of cars could, for instance, save up to 8,000 lives every year. Many other improvements can require significant investment in technology and infrastructure. Too often, it is still evident that necessary changes take place in response to catastrophe rather than before it. The case for maintaining pressure to achieve greater security even without the stimulus of disaster is therefore one that the Commission and many in Member States, user groups and relevant industries will go on putting consistently, and through practical proposals.

• As vehicles, ships, trains and aircraft are continually improved to enhance security and efficiency and to reduce the problematic social, economic and environmental effects of their use, the rail, road, maritime and aviation systems necessary for their operation must also be made interoperable.

If that is not achieved, even the most impressive technological advance in one country will become meaningless at the border. Consistent, relevant and fair legal provision by the European Union, as well as investment and technical innovation, are essential to facilitating such advance. In the High-Speed rail sector the provisions already exist, they will shortly apply in electronic road toll collection systems, and they are coming soon in conventional rail and other sectors. They are all practical instances of how enterprises, systems and States in the European Union can do better by acting together on the basis of proposals put to them by the European Commission.

• In addition to establishing new infrastructure and means of movement - which can only provide partial answers to the intensifying demands for mobility - it is essential to make much better use of what exists.

In some cases that requires very localised alterations in urban traffic management, in other cases it involves the introduction of expensive new technology that is barely perceptible to transport users but vital for mitigating jams or improving flows. Making better use of existing resources can also require constitutional change. Further reform of Air Traffic Management arrangements in Europe along the lines of the proposals which the Commission published three years ago would, for instance, combat delays and the economic costs and environmental pressures that come with them. There are now signs that the essential political understanding is shifting and hopefully new advances are in prospect. In quite a

similar way, legal changes - also proposed by the Commission in recent years - would enable more rail freight to move efficiently to and from more places in the Single Market. That would certainly bring about better use of existing transport infrastructure whilst - obviously - helping to stem the disastrous loss of freight market share suffered by railways in the last thirty years.

And if the Member States decide to adopt the Commission's proposal for the development of a European Global Navigation Satellite System - GALILEO - the potential for using satellite guidance to improve transport efficiency and safety in all modes, and without major infrastructure additions, will be immense. Apart from the benefits in moving people and freight, the opportunities for industrial producers and users of satellite applications technology could as a consequence, be huge.

Relatively small local changes, the spread of best practice which the Commission's European Local Traffic Information System (ELTIS) facilitates, national strategies to promote efficient movement, gigantic innovations with global benefits and many more changes all have critically important contributions to make to getting better use out of what exists.

* And the next real transport revolution could prompt an even more substantial stride forward: Intermodality - the change which would mean that different passenger and freight transport modes were organised and operated in ways that complemented each other - could transform the ease and efficiency of movement.

Investment in attractive, affordable public transport, accurate and clear information, co-ordinated timetables, thoughtful street, station and airport design, physical arrangements that take proper account of the 100 million people in the European Union who daily cope with some form of mobility impairment require no miracles.

But as those improvements gradually become more widespread the transport system is starting to catch up with the reality that the travelling public usually needs to use more than one mode of movement in a complete journey. Clearly, it is essential that technological advance supplements and refines passenger intermodality. But anyone who parks a car to catch a train before getting a bus to a final destination, or anyone who sits in a traffic jam because the system doesn't fit together, knows why intermodality should be commonplace and not just a rather awkward word to describe a technician's concept.

That approach is at least as urgently needed in freight transport. For instance, if railways strove to maximise performance in what they are best at - medium and long distance haulage - and road transport operators linked with rail to exploit their clear advantages of flexibility and fluency over the shorter distances, the synthesis would be economically profitable and socially productive. In that interface - and equally, in the freight transfers between land and water transport - improved logistical management and technological applications would cut costs, delays, losses and congestion.

In the European Union individual governments are starting to use grant and tax systems as well as exhortation to foster the use of combined transport. And, as a natural component of the Common Transport Policy, the Commission is publicising best practise, promoting legal and policy changes, and using the R&D and Pilot Action for Combined Transport (PACT) budgets to strengthen the development of intermodal operation.

Much more needs to be done - and the biggest challenges will not necessarily be to public or private investors or to lawmakers. They will be to the mentality which keeps the modes so far apart. That divergence is understandable. Operators in road and rail haulage work hard and they have natural and worthy loyalties to their mode of transport. To their credit, increasing numbers of them are now actively seeking ways of combining modes to produce the most efficient and comprehensive door-to-door freight services. But the numbers must multiply if a new and more efficient and sustainable balance in the use of transport is to be achieved. That is not a theoretical or altruistic requirement. It is a practical fact that if freight modes continue to work in tribal isolation, viability will be reduced and the companies, their customers, and society in general will lose as a consequence.

• Promoting more sustainable use of transport cannot, of course, rely only on exhortation, or legal provision, or investment, or the dynamics of market enterprise and public service. It needs a direct economic stimulus too. For that reason, since 1995, the European Commission has been continually generating discussion and analysis of pricing systems for transport use in all modes.

We have maintained - indeed strengthened - our view that the basic requirements are that any pricing and charging system must clearly and fairly relate to the infrastructure and external costs caused by use; that charges must be

differentiated according to the time and nature of use; that the purpose of introducing charging is to prompt better transport use, not raise extra taxes; and that - rationally - the revenues raised by direct charging should be directly employed in securing transport improvements at local, regional or national level.

While the complexities of making the necessary changes are obviously great, it is true to say that wider understanding of the principles and the implications is producing broadening support, especially among transport providers, users and decision-makers who realise that most of the present charging systems do little more than raise money: They do not deter congestion, promote conscious examination of real costs, cut accidents, reduce pollution or inform choices. As some Member States move to cost-related charging systems on part of their road systems over the next few years, as local authorities deliberate on urban charging possibilities, and as the need to focus on cost-relatedness and revenue flows become increasingly prominent in the thinking of those who set charges in all modes, change becomes increasingly probable. The Commission, with the help of practitioners and specialists in Working Groups will therefore continue with the work necessary to ensure that, as it comes, change promotes equity in and between modes and greater efficiency in the use of all transport.

• The background to these and other efforts to facilitate progress is, obviously, the Single Market of the Union. Without transport it would exist only in name. Without efficient, compatible, sustainable transport systems and operation it obviously will not flourish.

Some of the actions needed to achieve those conditions cause discomfort or even antagonism. Habits are comfortable for governments, public enterprises, private companies and workforces as they are for all of us as individuals. But if this economically integrating continent for consistent is to fulfil its potential growth, new employment, global competitiveness and high quality public service, many habits have to be changed, competition must be forceful but fair, and the Union must be co-ordinated and cogent in its international relationships. Maintaining rightful interests in global trade and services, deploying real strength in maritime and aviation dealings, gaining progress with environmental standards, serving the World as we advance as an expanding Union, require no less.

None of that is easy. All of it is necessary.



It would not be right, for instance, for other interests to be able to endlessly exploit our aviation market or our liberalised maritime sector without allowing EU operators to have comparable freedoms in their markets. There is no protectionist sentiment in such a view - on the contrary, mutual understanding and free markets are trade creative do everyone benefit.

Meanwhile, inside our Single Market, aid given to an enterprise by a State must be justified according to clear, legally secure and fairly applied criteria - as often it can be and is. When it cannot be justified in that way, fairness in competition requires that such aid has to be brought to an end - usually through a planned process that helps to achieve commercial viability for the company.

The decisions that produce those results are often arduous, always careful and subject to independent analysis, and never inspired by ideology. But to protect the legitimate interest of consumers and competitors in transport as elsewhere, the competition rules which help to sustain the vitality of the market system have to be applied. And when that is done, or when the operation of a transport mode is liberalised, the initiative is not taken by the Commission (or enacted by the Ministers in Council or the Parliament) for dogmatic reasons. It is to promote greater efficiency, better value, more genuine competition than that offered by the unliberalised system.

Aviation and road haulage in the Union provide two instances of change in the 1990's which have worked to the benefit of customers, providers, economies, societies and employment. And whilst resistance to such development in some of the other modes is often understandable for reasons of pride, custom or politics rail comes most readily to mind - the defenders of the status quo really do have an obligation to explain who their transport service really exists to serve. Is it the using public, the potential commercial customers, or the providers? Is their duty to the past, or to the present and the future? And if what is now provided is so satisfactory why, in decades of traditional operation, has it continued to drain funds, increase debts, lose market share, attract complaints and shed jobs grievously?

To raise such issues is not doctrinaire or aggressive. It does not show disrespect for those who strive to provide good service. It is to ask the essential question: Is advance in providing an attractive and economic service - a precondition of prolonged existence, let alone success - possible without significant change from what has been offered for so long? And the answer to that question is rarely to be found in continuing to provide more of the same.

The Commission is an executive administration charged with the duty of developing the Common Transport Policy, overseeing its implementation, and applying the competition and State aid rules set down in the Treaty of Union. We therefore have an obligation to provide proposals for the changes in policy and law that will secure beneficial change and improved operation across the Union. In doing that, we naturally and necessarily take pains to avoid remoteness or theorising. That is why we rely so heavily on the involvement of practitioners in our policy development, and why we sustain continual and thorough contact with transport providers and users as well as government at all levels. We offer thanks to the very large and wide body of people, and to Parliamentarians who provide us with the benefit of their experience and their thinking.

Some of the results of these activities and - more importantly - of the gradual progress being made in the transporting of people and goods are recorded in this document. In addition, we set out here the sort of changes and advances that still need to be made to ensure that the Transport of the current and the enlarging European Union is increasingly fit for the twenty first century. We will continue with our efforts to do that in collaboration with governments and others in ways that serve citizens and businesses and safeguard the environment.

In all that we do we are guided by a simple, salutary fact of modern life: When Transport works, most other things do. When it doesn't, not much else does either.

We will go on contributing to making it work, and work better than ever before.

Neil Kinnock

European Commissioner for Transport 1995-1999



1. Linking Europe- towards sustainable mobility

As the increasing integration of economies brings all parts of the World closer together, the same is happening in the European Union. Since 1993, the 15 national markets of the Union have been as one. Pan-European companies have been forged across all sectors and it is no longer unusual for a firm in Valencia to supply parts to an assembly plant in Hamburg or a Viennese shop to buy in bulk from Galway. Eleven of these markets have been integrated further since January 1999 by the creation of Monetary Union.

An ongoing expansion

The need for a common European transport policy has never been more vital. Integration of markets has led to prodigious growth in traffic and in transport services, especially across borders. Every day in the European Union, 150 million people have to get to and from work and education, 100 million people go shopping, 50 million tonnes of goods have to be moved and 15 million express letters and parcels shipped.

Since 1980, overall traffic growth has been 2% a year while the annual growth of international traffic has topped 2.4%, with cross-border road traffic expanding annually at 6% and air traffic at 7%. It is no wonder then that transport is becoming a major European industry in its own right. Every year, over € 500 billion is spent on transport services and those services produce over 4% of the Union's annual income and 4.2% of its total employment.

Transport services are becoming increasingly pan-European. Airlines - for example, Lufthansa and SAS, Sabena and Swissair, KLM and Alitalia, BA and Finnair - have formed alliances of various kinds. They pool their schedules and networks and merge their frequent-flyer programmes.

Railways, which were designed to serve local, and then national, needs are beginning to link up to compete with road freight transport. In the most striking example of this trend so far, the German and Dutch railways decided in 1998 to merge their freight businesses and rename the company Rail Cargo Europe, with the intention of offering seamless freight-transport services across the continent.



The limits of growth

But while we all travel further and more frequently than previous generations, our movement - especially in urban areas where 80% of EU people live - is not necessarily much faster. Traffic growth has ensured that in many places congestion is becoming a persistent feature of daily life. Every day, 4,000 kilometres of the Union's motorways are congested at an estimated

cost to the 15 Member States of up to $\[\in \]$ 120 billion. Add to that the consequential costs of road traffic, such as accidents and pollution, and the bill for the European taxpayer hits $\[\in \]$ 250 billion every year - 4% of everything produced by the EU economy.

Achieving sustainable mobility

There is no single answer to the problem of traffic build-up. Relieving congestion will depend on developing a range of transport policies that harness new technology to better traffic, improve connections between different forms of transport and set common technical

Gridlock

Unless we change the way we travel, congestion will turn into gridlock over the coming decade.

On the basis of current trends, freight transport is set to grow by 74% over the next 25 years and much of it will be moved by road. As road-hauliers increase their share of the freight market from 74% to 80% by 2010, so the railways' share will shrink even further from 14% to 10% and its take-up of passenger traffic will decline to a mere 5%. To put that into perspective: the expected increase in road freight traffic

alone would be larger than all present-day transport by rail, inland waterways and pipelines put together.

Within cities, car travel has grown by 120% over the past 25 years and accounts for three-quarters of all motorised journeys. The proportion of all travel by bus has declined to 8% while rail accounts for 6%. The average speed of car travel in urban areas is only 20 km/h - not so much faster than the average speed travelled by our great grand parents in their first car!

standards. Already the fact that information systems are not coordinated are causing problems, for example, in the efficient management of air traffic. In the EU, rail companies have to contend with 17 different signalling systems and five electricity systems. Businesses need fast, efficient delivery, transport operators need guarantees that they will be able to compete for business freely and fairly.

All transport users need a single, integrated, reliable network to replace the patchwork of transport links that exists at present. The travelling public needs to know that transport is safe, dependable and environmentally responsible and that their rights as consumers, for example to compensation in the case of airline overbooking, are enshrined in law.

The economic success of Europe's single market depends to a large degree on the efficiency of the transport system and it is the job of the European Commission, working with national transport departments, local authorities and transport user groups to help build an integrated network that guarantees sustainable mobility transport services for people and freight in the EU that are efficient and safe for people and the environment. Sometimes this requires legislation but often the development of European transport policy



requires us to pull together examples of how problems are tackled in different countries. This way, transport policy makers can learn from that experience and realistic benchmarks for efficiency, safety, or environmental protection can be set. The Commission sets the broad framework and national administrations make the law by legislating - jointly with the involvement of the European Parliament - and then by shaping that framework to their specific circumstances.

One system

Europe's transport system needs to be exactly that: one system. History and convention has given Europe a transport system characterised by fragmentation and the challenge for European transport policy is to create the conditions for a more integrated system and better-balanced traffic distribution.

What Europe needs is an "intermodal" system, where the different transport modes are made complementary so that users can switch easily between modes



without being stuck for hours at connections or having to queue up with luggage to buy another ticket. The same goes for goods, which too often are left for lengthy periods awaiting loading or unloading.

In other words: intermodality is efficiency.

Efficiency

Transporting goods to the market is as basic to economies today as it always has been. It is this that gives value to products. They can be striking, fascinating and innovative on a production line or in a warehouse, but it is only when they are taken to their place of consumption that they produce income.

Studies carried out by an association of Italian logistic companies demonstrated that in the European Union today, the costs of logistics and transport count for some 30% of the final price of products like perishable goods or textiles, while this proportion is far less significant in the United States. That, and many other

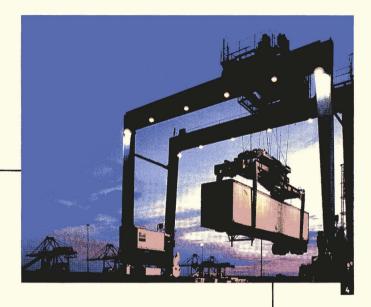
examples make it clear that efficient transport is an essential element for competitiveness.

In other words, we cannot rationally continue to accept a situation in which huge resources are being invested in achieving just-in-time production and delivery only for the end product to sit in a traffic jam for hours nullifying the efforts which have been made to speed up and fine-tune the industrial production and distribution process. Transport cannot continue to be the weak link in the logistics chain.

One of the main reasons for these fruitless delays is the congestion of transport systems. And one of the main reasons for congestion is the unbalanced use of infrastructure. Today, far too much freight is moved by road. Highways simply cannot cope with the diversion of freight from the railways and waterways.

For this reason, the Commission is campaigning to breathe life back into underused modes of transport by making rail and inland navigation more competitive and encouraging combined transport schemes.

Combined transport brings together at least two modes of transport to convey freight from A to B, using specially designed terminals to transfer the container from one mode to another. It combines the flexibility of road haulage for



The PACT programme

The PACT programme funded by the European Union gives financial support to transport operators when they launch innovative combined transport schemes onto the market place. The aim is to show that combined transport, if properly organised, can compete with road without subsidy. Originally launched in 1992, the programme was later allocated a new budget of € 35 million by EU governments for the 1997-2001 period. Good use has been made so far of taxpayers' money, as shown by the following examples of projects funded by PACT:

 a new service involving rail and maritime transport linking Sweden with Italy via Germany and Austria will, in 1999, take about 450.000 tonnes from congested roads to the new service, and improvetransit times by 24 hours;

- one of the first rail/air freight services in Europe takes 50 trailers containing air freight per week off the road between Schiphol and Milan airports.
- an intermodal barge service between Lille and Rotterdam has taken about 50 trucks per day off the road in this heavily used road traffic corridor.
- A rail/maritime service between Spain and Germany takes 6.500 truck journeys per year from congested road corridors.

pick-ups and deliveries with the decongesting potential of other modes for medium- and long haul journeys.

A successful transport system must do much more than move goods. It must liberate people. The freedom to travel long distances, once enjoyed only by the rich, has at last come within the budgets of ordinary citizens. Low-cost airlines have made Barcelona, Rome, Athens and Switzerland and many places in the USA

and elsewhere accessible to people on average incomes. Airline liberalisation, which took full effect in 1997, has greatly improved consumer choice.

The Commission has been promoting the extension of these benefits to all modes of transport while, at the same time, working to safeguard and improve the public-service functions of bus and train companies.



Research & Development at the service of sustainable mobility

Inventing new methods of traffic management, developing state-of-the-art technologies to enhance safety, improve loading and unloading processes or reduce congestion and environmental damages... all this can be done thanks to efficient research and development. From 1994 to 1998, the Commission carried out a comprehensive R&D transport programme worth € 270 million which funded some 300 projects throughout the European Union on all modes of transport. All of these projects involve partners from different Member States and tackle concrete problems faced by transport in Europe today. For example:

• ATM projects: air traffic management in Europe is currently operated by 22 different technical systems in 52 different centres! Given the spectacular growth of air traffic and the increasing congestion at airports, it is becoming urgent that we develop a single system to replace this patchwork and to ensure safety and punctuality of

air journeys. The ATM (Air Traffic Management) projects AVENUE, TORCH and DEFAMM contribute to the development of a new gate-to-gate ATM system which will meet these objectives.

- IMPULSE: European freight transport is constantly growing and the share of road has become more and more important over the last decades. Considering the negative side effects of this growth (e.g. costs of traffic congestion, accidents, air pollution and noise), it is crucial to increase the share of more environmental friendly transport modes with an intermodal system's approach to transport. In this context, the IMPULSE project has developed terminal systems with advanced handling equipment allowing more efficient transfers of freight between different modes of transport, especially between trains and trucks. The corresponding operational concepts set up by the project will attract higher freight volumes to be shifted from road to rail.
- ADRIA: the Advanced Crash Dummy Research for Injury Assessment in Frontal Test Conditions - ADRIA - project is about to design a new generation of crash test dummies. Crash test dummies are essential for measuring the level of protection offered by cars during a crash. The dummies in use today are ageing and their



- capacity to assess injuries to the head, face and lower legs is limited. ADRIA therefore focuses its research on how new dummies could improve the assessment of facial, brain and lower legs injuries.
- Another good example of the safety-related R&D projects is the development of a Maritime Black Box (MBB), to be used during investigation of marine accidents, as is now done in aviation. The aim of such an investigation is to identify the causes of the accidents, and the MBB will provide the necessary comprehensive, reliable and tamper-proof information that is needed for that purpose. It will therefore help finding measures to prevent further accidents and make ships, including ferries of course, safer.
- The CATRIV project demonstrated that urban transport could be quicker by water! Three case studies carried out in Venice, Amsterdam and Lisbon showed that state-of-the-art boats and stopping points on rivers and canals provide a pleasant and efficient alternative to roads. In Amsterdam for instance, a fast 'flying ferry' service (up to 70 km/h) linked the suburban area to the heart of the city in only 25 minutes while the same journey takes up to 45 minutes by car, train or bus. In Lisbon, a heavily congested city, new ferry links between

- urban centres on the south side of the Tagus and the Expo 98 site at north-east Lisbon operated from May until the end of September 1998. They carried 600,000 passengers from immediately after the morning rush hour until 3 am.
- The ARCDEV project (Arctic Demonstration and Exploratory Voyage - see picture above) was a test voyage carried out on the Arctic Ocean by a partnership of 18 Western European and Russian companies and involved a flotilla of four ships as well as 70 scientists. The main goal of the project was to explore commercial opportunities to link the energy-rich northern most regions of Russia with European markets whilst improving the environmental impact of the carriage of goods. The success of the exploratory voyage in 1998 showed that high-quality standards of European industrial operations can be applied successfully to the carriage of oil and gas, therefore presenting an environmental-friendly alternative to the traditional carriage of those products by pipelines in perma-frost areas.

- ADONIS: limited safety and comfort are still the major barriers to convince people to substitute short car trips by walking and cycling. The ADONIS project has produced the first European catalogue of innovative measures to make walking and cycling safer and more attractive. The catalogue was distributed to a large number of local authorities to raise their awareness of successful measures to increase the quality of these sustainable modes of transport. The implementation of these measures will contribute to the improvement of the quality of life in many urban areas.
- The NEAP project (for North-European Automatic Dependant Surveillance-Broadcast application project) developed appli-

cations to reduce air transport congestion whilst increasing safe air transport operations. The applications are for use in all phases of flight and applied to highdensity areas and airports. The project included airlines, airports and ATM Service providers and over 500 pilots have used more than 16000 flight hours in commercial aircraft to refine the applications. NEAP is based on a European communication, navigation and surveillance technology that is also used in the maritime transport sector and can be extended for improved Search and Rescue operations. On a global perspective Europe has at present the technological lead in this area (2-4 years).

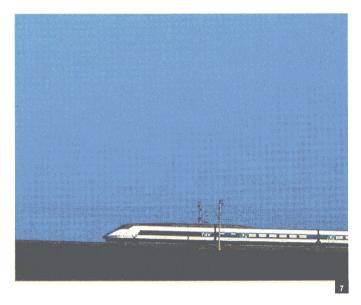


2. Turn the patchwork into network: Building the Transeuropean Transport network

A genuine European single market cannot be achieved if the different regions and networks of the Union are not properly linked. If business and employment are to thrive in the peripheral regions of the Union, then their transport links to the economic core need to be fast, efficient, affordable and safe, and if the core is to be decongested, the transport connections to other parts must have the same quality

Efficient transportation requires topquality roads, rail-track and signalling systems, bridges, sea and air ports, traffic management systems and information services. With the advent of the single market in goods and services, it became more vital than ever to turn a patchwork of transport infrastructure into truly Trans-European Networks (TEN)

In the early 90's, the European Commission conceived the idea of coordinating the planning and financing of a web of essential infrastructure projects in every region of the Union. Relevant legal and policy proposals were made and, in 1996, the Council of Ministers and the European Parliament adopted a set of guidelines which identified "projects of common

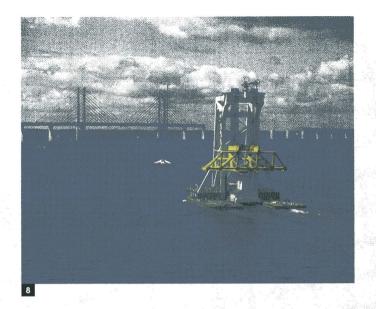


interest necessary for the effective development of the network".

When the links are achieved, the economic benefits will be huge. Even on the most cautious assumptions, full implementation of the TENs programme could substantially increase the EU's gross domestic product and create between 600,000 and a million new and permanent jobs.

2.1 Priority projects

The overall TransEuropean Transport network (known as TEN-T) involves hundreds of projects, ranging from straight-



forward transport infrastructure building to 'intelligent' traffic-management.

However, to give political impetus behind the idea, the Commission felt that the projects needed to be prioritised. In December 1994, EU Heads of State and governments formally identified 14 toppriority schemes - ranging from a high-speed train network between Paris, Brussels, Cologne, Amsterdam and London

to the building of a new airport outside Milan - and called on the Commission to oversee the work.

Significant progress has been made since: The latest of the TENs period progress reports shows that three of the 14 priority projects - the Øresund link between Sweden and Denmark, the enhanced Cork-Dublin-Belfast-Larne-Stranraer rail link, and the Malpensa airport near Milan are close to completion, while eight are either under construction or due for completion by 2005.

Judged against the normal time-scale for very large infrastructure projects - and all 14 come into this category - this represents satisfactory achievement and it has been made at a time of great budgetary rigour.

Success stories

Amongst the most spectacular achievements is certainly the Øresund link (see picture). From 2000, Sweden will be directly linked for the first time to the main European markets via the €4.1 billion Øresund fixed road and rail crossing. The cities of Malmo and Copenhagen, which were divided by a mere 16 kilometres of sea, will form a single economic area. Recognising the link's importance to the creation of Trans-European Networks, the EU has provided support to the project with €790 million coming from the European

Investment Bank, the Union's long- term lending agency, plus € 123 million as direct grants from the EU's budget.

Another good example is the progress made on the €16 billion Paris-Brussels-Cologne-Frankfurt-Amsterdam-London high-speed train project. The completion of the links between Paris, Brussels and the Channel tunnel has significantly reduced the journey time to a mere one hour and 20 min. between Paris and Brussels, to less than three hours between London and Paris and London and Brussels.

2. 2 Intelligent Transport

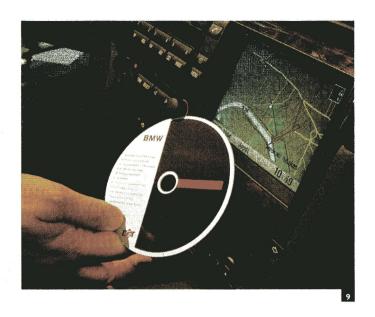
When heads of state and government decided to go ahead with the TENs plan back in 1994, they put great emphasis on the physical building of new infrastructure. However, they did not forget that other less tangible, but no less important element, of infrastructure: traffic management. Much of Europe's transport system is exclusive, so the importance of this aspect of policy cannot be underestimated.

ITS

Progress made with strong EU support on Intelligent Transport Systems (ITS), and in particular traffic management, has allowed modern information and telecommunications technologies to be used to ensure easier, safer, cleaner and more efficient flow of traffic.

Essentially, road traffic management involves monitoring and controlling traffic flows, responding to emergencies and incidents and providing useful traffic information before and during the trip. Other applications under development are multi-lane electronic tolling, information systems to help in planning journeys, navigation aids, freight management, collision avoidance systems and even intelligent cruise control.

Cross-border data-exchange is being developed to provide continuous traffic

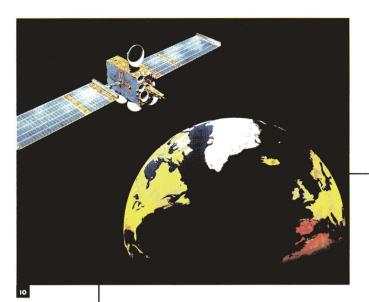


information and management services on the Trans-European Road Network, regardless of national frontiers. Two increasingly well-known features are VMS (Variable Message Signs) and RDS-TMC (Radio Data System - Traffic Message Channel).

Intelligent Transport in the aviation sector allows a better use of airspace and airport capacity, for example through traffic flow planning, automated control assistance and conflict detection and resolution systems.

For **shipping**, ITS includes the implementation of an EU system of notification of maritime vessels, distress and safety systems, bad weather warnings and automatic tracking of freight consignments.

Finally, the benefits ITS can bring to **urban** areas are especially important - new ways of controlling traffic flows and access; giving priority at traffic signals to public transport and emergency vehicles; providing passengers with better information on public transport - all these elements can help to reduce dependence on the private car and cut pollution in our cities.



Galileo to help find your way

What is it which links all the different modes of transport, questions of safety and efficiency, Trans-European benefits and environmental responsibility? The network of **navigation** aids which guide our transport operations.

In particular, the development of Global Navigation Satellite Systems (GNSS) has major strategic, political and commercial implications for Europe's capacity to control positioning, navigation and precision timing services for its own territory. It gives European industry the chance to compete in this high technology sector, and would ensure that European users have a system that suits their needs.

However, the two present military-based systems operated by the US (GPS) and the Russian Federation (GLONASS) fall short of

realising the full potential of satellite technology. In particular, they come without service guarantees and a legal framework to support the full range of civilian uses.

Consequently, the Commission has recommended the development of a fully independent European system with civilian use priority - 'Galileo'. This would be developed with other international partners as a Public-Private Partnership over the next decade. In the initial definition phase that will last until December 2000, the Commission must establish the organisational structure for Galileo, negotiate the potential international cooperation agreements and define the technical parametres.

The world market potential for applications and equipment is estimated at € 40 billion within a few years and the project would secure jobs and underpin Europe's drive for growth and competitiveness. At the same time, it could help reduce congestion and contribute to sustainable mobility. Today, transport policy is not just about sea, road, rail and air. Satellites too are playing an increasing role.

Connecting railway systems

One of the reasons that trains are delayed at national borders within the EU is the different and often incompatible national signalling and management systems. Today, there are still 13 different cabsignalling systems in the European Union and 17 in the whole of Europe. EU-funded research is now underway to develop a new European Rail Traffic Management System (ERTMS) to ensure, over time, that the signalling, telecommunications and management systems throughout Europe are compatible and that the European railway systems become fully interoperable.

The reduction in delays and associated costs should help to improve the attractiveness of rail transport, particularly international transport, and contribute to increasing the competitiveness of rail transport in an open transport market. This is integral to the TENs programme.

For example, the € 2.2-billion TENs project to upgrade the 650-kilometre West Coast Main Line between London and Edinburgh/Glasgow will include one of the most advanced signalling and control systems in Europe. When the project is completed in 2006, the system will allow train speeds of up to 250 kilometres per hour and intensified frequencies. The 2,500 trains will be fitted with the radio-based cab-



signalling system that will replace traditional signalling such as trackside colour light signals.

2.3 Involving the private sector

The scale of the job is staggering. The total cost of the network - not just the 14 priority projects, but the whole network - is estimated at € 400 to 500 billion by 2010. Clearly, governments could not begin to consider funding that on their own and private-sector companies that are interested in building a road-rail link, where sufficient income will not come on stream for a quarter of a century, are often reluctant to make commitments.

Some have been frightened off by the experience of the Channel Tunnel project, which had no client until all the main contractual arrangements were in place. This meant that the governments, banks and contractors had all staked their claims before the company responsible for building and running the tunnel had been established to fight its own corner.



Knowledge of the budget realities, the concerns in the private sector and some deterring experience stimulated the European Commission into pioneering in the development of genuine Public-Private Partnerships (PPPs), where risk could be spread, the inevitable borrowing costs reduced - especially at the project's embryonic stages - and clear management structures established.

Such partnerships are built on the understanding that the private sector must take account of the 'public good' aspect inherent in the networks. At the same time, the public sector has to understand how important it is proportionately to relinquish control of the commercial aspects of large infrastructure projects to the private sector. This requires a fundamental shift in attitudes for the public sector, which has long been used to providing infrastructure but now must purchase services for the society it serves.

The scale and urgency of necessary modern infrastructure development, and the limitations on the traditional public investment means of financing public infrastructure, combines to present the reality that if private investment is not mobilised, this continent will not get the advance that is needed in any recognisable period of time.

2.4 What's next?

To ensure that the implementation of TENs projects goes ahead as scheduled, the European Commission is working on two fronts.

At the Cologne European summit in June 1998, the EU Heads of State and governments decided to more than double the EU's budget line for TENs financing, awarding € 4.6 billion for the period 2000-2006.

In 1996-97, of the total TENs investment of €38.4 billion, the EU - through the Commission budget lines and the European Investment Bank - ploughed in €12.6 billion, almost a third of the total capital outlay. Thirty-nine percent of total investment went into rail projects, 15% on airports and 38% on roads, where more than half of the construction related to upgrading of existing roads rather than new building.

The Commission will also start the debate on the revision of the TEN-T guidelines by publishing a report by the end of 1999 which will form the basis of public consultation and discussion. This will be followed by a formal proposal to Council and Parliament on revision of the guidelines towards the end of 2000.

New forms of public/private cooperation

Secondly, the Commission continues to press for the development of genuine PPPs, especially for the three priority projects which are experiencing difficulties, including the strategically important €22-billion high-speed rail and combined-transport link between Munich and Verona via the Brenner alpine pass. The expensive tunnelling part of this scheme has yet to begin.

The high-speed rail link between London and the Channel Tunnel, almost abandoned after the builder-operator requested extra subsidy from the British government, is now being re-launched with continuing private sector commitment.

The Commission is involved with the European Investment Bank in trying to help Member States evolve PPPs in some specific cases such as the Amsterdam-Brussels high-speed train link.

In the Commission's view, the best way to avoid problems in developing PPPs is to involve private sector capital and expertise early in the lifetime of a project and allow them some freedom to innovate.

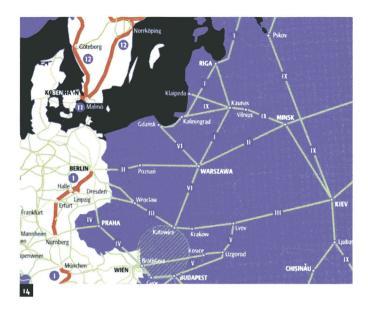
The Commission has been pressing for public authorities to define PPP-type projects in as little detail as possible; just enough to attain the projects' objectives and specify how proposals for technical



solutions to problems will be scrutinised. From that point onwards, the design task will be a purely professional affair and the roles of the various participants in the project will be clearly defined.

It was also clear to the Commission that the private sector would be much more willing to come into projects if the financial risks were spread and clearly defined. The Commission and the Member States have addressed this partly through concentrating EU budget line payments on cutting the costs of borrowing but also by encouraging project-participants to minimise the risk over which they have most control.

This means that financial, design, construction and traffic risks are borne by the private sector while the public sector minimises political, legislative and planning risk.



2.5 Heading East

By 2010, when the priority projects are due for completion, the Union could well be a bigger place. Six countries - Poland, the Czech Republic, Hungary, Slovenia, Estonia and Cyprus - are already negotiating entry terms while Bulgaria, Latvia, Lithuania, Romania and Slovakia are all trying hard to satisfy the EU's exacting membership criteria. Even while outside, these countries are turning into major trading partners of the Union.

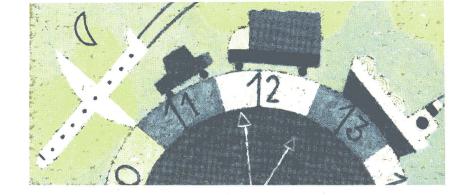
The Commission has long recognised that infrastructure links between the Union and the Central and Eastern European Countries and between those countries themselves, must be upgraded after decades in which little commitment was made to modern standards. Borders cannot open properly and goods and people will not move freely, unless the roads, railways, airports, and sea and inland waterway ports of Central and Eastern Europe are functioning effectively.

In 1996, the Commission, with the support of the EU Member States and the applicant countries, set up the Transport

Infrastructure Needs Assessment, known as TINA, to oversee and coordinate the development of an integrated transport network in the II applicant states with the purpose of ensuring that infrastructure projects in the Central and Eastern European Countries matched up with the work within the Union. In June 1998, the Vienna-based TINA Group team published an outline network which was endorsed by top officials from the 26 European nations involved in the project. By the end of 1999, transport ministers from the EU and the applicants should confirm the time schedule for implementing the network.

The outline network comprises 18,030 kilometres of roads, 20,290 kilometres of railway line, 38 airports, 13 seaports, and 49 river ports and will cost €90 billion between now and the year 2015. The Commission has stepped up its financial support to the Central and Eastern European Countries through its PHARE programme, which has already provided more than €1 billion to CEEC transport projects. Under the seven-year budget plan for 2000-06, the Union will step up infrastructural aid via the new Instrument for Pre-Accession Aid (ISPA), which will allocate € 500 million every year for infrastructure development.

The European Investment Bank (EIB) will also be increasing its loans for transport infrastructure in the applicant states.



3. Getting there on time

ronically, getting quickly from A to B is more about efficiency of transports than about mere speed of travel. Aircraft or high-speed trains can provide rapid point to point transport but getting to the airport or the station can add hours to a journey.

Efficiency needs to be injected into all modes of transport if we are to get where we want on time and do so at reasonable cost. Although there is no single winning formula for increasing efficiency, the undoubted success of the liberalisation of air travel in Europe shows what can be achieved.

3.1 The success of air liberalisation

Since the Union's final round of aviation liberalisation measures took effect in 1997, EU-registered airlines have had the right to take passengers anywhere in Europe and fly from any airport to another in the EU. As a result, a number of low-cost, 'no-frills' airlines have appeared to drive down fares, revitalise secondary airports and create jobs.

The success has induced established flag-carriers to take on the competition. Alitalia slashed fare prices to compete with Air One, SAS tried a similar tactic to defend its Brussels-Copenhagen route from Virgin Express and British Airways has set up its

own cheap-fare operation, Go, to take on companies like EasyJet, Ryanair and Virgin Express.

Liberalisation in Europe may have been 20 years behind the US trend but this has had its advantages. Hundreds of new entrant carriers appeared in the first years of American liberalisation, taking advantage of the low costs of market entry. Access to slots and second-hand aircraft encouraged companies to go into business. But the moment the market turned down, they went out of business

A phased approach to liberalisation has enabled Europe to avoid the pitfalls of the "big bang" change in the US. In Europe, between 1993, when the airline liberalisation measures took effect, and 1998, the number of carriers performing commercially significant scheduled operations has grown from 132 to 164.

Indisputable success

Since the market opened, output has risen significantly in terms of passengers and passenger-kilometres, airline income has increased, the number of domestic and cross-border routes operated has expanded by more than 11% in 5 years, and the number of flights has grown by around 30% during



the same period. The market shares of the traditional carriers have decreased, particularly in their domestic markets, from 75% to 62% and the number and proportion of routes with real competition has expanded.

Nearly a quarter of cross-border flights are now operated on routes with at least three competitors, whereas nearly half of domestic flights are made on routes which are operated by more than one carrier. Average Business-Class air fares have not come down as quickly as the Commission (and consumers) would have hoped, but the huge growth in passenger volumes and the rebirth of the sector testify to the general success of the reforms.

Liberalisation in the air has to be matched by liberalisation on the ground - and, thanks to EU legislation, over the next decade the market in ground handling will open to competition, increasing the airlines' choice and driving down the charges that are passed on to consumers.

On airport charges, basic principles on transparency and relating fees to costs have been proposed - an essential initiative

given the abolition of duty-free shopping in 1999 and the temptation of some airports to compensate for this by banging up their landing fees.

The headache of 'open skies' agreements

The competition for market share has pushed European airlines into commercially vital and highly successful global alliances. In the absence of any universal arrangements regarding market access, the government -to -government agreements on landing rights, without which commercial alliances cannot operate, are negotiated on a bilateral basis. The liberalisation of the European air market makes such so-called "open skies" arrangements unnecessary between EU Member States.

But in the understandable scramble to do business in the lucrative US market and to win extra aviation gateways into North America, European Member States have signed a series of bilateral deals with the American government. The cumulative effect of these arrangements is to grant US carriers access to most of the European air market, while the access that EU carriers have to the US market is still severely restricted. European airlines cannot exploit routes between American cities, nor build the same kind of hub-and-spoke-operations

in the US that their American competitors can establish in Europe, to effectively feed clients from several destinations to a single airport and to onward, long-haul journeys, from there.

Such a state of affairs undermines the effectiveness of a single European market in civil aviation for European carriers - and not all Member States want to sign such agreements with the US. Because these agreements discriminate between EU carriers and distort competition, the Commission decided to take Austria. Belgium, Denmark, Finland, Germany, Luxembourg, Sweden, and the United Kingdom - the Member States who have signed 'open skies' agreements - to the Court of Justice. The Commission also launched a procedure against France and the Netherlands, who signed agreements with the US as well.

Acting together through and with the European Commission, the 15 Member States would have the power to secure reciprocal rights from the US government, but in a sector that is traditionally reluctant to pool national sovereignty, progress towards that goal has, so far, proved disappointingly slow. It is, however, an approach that Member States are prepared to accept for negotiations with the countries of eastern and central Europe and, in time,



it is to be hoped that the importance of establishing reciprocal arrangements with the US over a range of aviation issues such as environmental standards, noise, competition, will lead over time to a fully-fledged and fair US-EU open skies agreement.

3.2 Revitalise rail

Rail's share of the freight market has gone down from 32% to 14% in the past 25 years, and its share of the passenger market has fallen from 10% to less than 6% over the same period. On those trends, rail would take much less than 10% of freight and just 5% of passenger traffic in 2010, while the road haulage share of the freight market would increase from 73% today to more than 80%. To put that into perspective: the expected increase in road freight traffic alone would be larger than all present day transport by rail, inland waterways and pipelines put together.

The remedy, to be effective, must be radical reform that makes the rail freight more responsive to customer demand for speedier, more reliable and efficient



services, starting by extending the scope of existing legislation and progressively opening access rights, starting with international freight in transit.

If reform takes place in that way, the Commission believes that incumbent operators need not fear that they will lose business and profits because they will have plenty of time to adjust to change and to make it work to their advantage. But new entrants will have the possibility of using increased access to the rail market to develop cross-border transport operations.

The Commission has also proposed a package of legislation to ensure that railway undertakings are treated in a fair and non-discriminatory way and that rail infrastructure is used efficiently. If the legislation is agreed, railway capacity will be awarded according to clearer rules and criteria by an authority in each Member State that is independent of railways.

Freight Freeways for quick deliveries

To speed up the process, the Commission came up with the idea of Trans-European Freight Freeways as a quick, non-legislative, virtually cost-free way of achieving the kind of international freight services that the new directives would eventually bring about. The freeways offer open access for railway undertakings, the elimination of border delays, availability of pre-planned train paths and a single point of contact for all information including infrastructure charges and capacity. So far Freeways have been developed on a number of routes by railway infrastructure managers:

- NORTH-SOUTH Freeway linking ports in Northern and Southern Europe with destinations in 5 countries via Austria and Switzerland
- SCANWAYS which are a series of Freeways in the 4 Nordic countries including Norway
- BELIFRET linking Belgium, Luxembourg,
 France and extending to Italy and Spain
- UK SOPRON Freeway still under discussion. This would provide an East-West route from the UK to Hungary with onward connections to other Central and Eastern European countries.



Infrastructure fees could be charged generally on the basis of 'marginal cost' - the cost that is directly incurred as the result of the operation of a train. Charging schedules would have to be published in advance and include information on how they were calculated.

The Commission's approach to rail transport - supported by the great majority of the EU's Member States - has raised concern among the railways employees and in 1998, railway staff in the European Union launched a protest action against the Commission's proposals, claiming it would kill jobs.

The Commission believes the exact opposite is the truth. It is the lack of action and of strategy that has been responsible for the massive loss of jobs in the industry - no less than I million in the EU since 1970 - and for the calamitous loss of rail's share of the freight market. Introducing competition to the rail sector, bringing down prices and making the tracks an attractive alternative to the road for shippers will safeguard and create jobs, not lose them.

3.3 Making Europe's more competitive

Every modern society needs a modern maritime transport system. That is even more true for Europe: over 70% of our

external trade and some 30% of our internal trade are carried by sea. Moreover, across Europe the maritime industries (shipping, shipbuilding, marine equipment, ports, fisheries and related industries and services) employ over 2.5 million people.

A worrying decline

Sea transport still has considerable growth potential. European maritime industries are a "high-tech" with strong economic potential, operating on a global market. In addition, when world trade is expanding and when the congestion of land modes could and should persuade freight movers to make more use of waterborne transport, the future should be very promising.

But there is no guarantee that either the trade or the jobs will necessarily be European. Despite its generally acknowledged importance in the economic life of the EU, European shipping is at a crossroads: flagging out to non-EU states is rising, market share is declining and maritime-related employment figures



give cause for concern. Shipping, perhaps more than other sector, is global and, as such, is facing the direct effects and also the challenges of globalisation.

In 1970, 32% of world tonnage sailed under the flags of the 15 countries that are now EU Member States. Today, only 13% of the world fleet still flies the flag of an EU Member State. Shipowners cite cost savings as a main reason for registering their vessels outside the Union.

Giving a new impetus

And yet, there is a real need for an EU flag fleet, both as a service and in its own right. This need is affirmed by the extent of efficient and safe maritime transport and by the contribution that EU shipping makes to the broader economy. Moreover, the Union should preferably not be in a position where it has to depend too heavily on maritime services provided by its actual or potential competitors.

Maintaining and improving the competitiveness of EU shipping is the main goal

of the Commission's approach. The Commission therefore launched in 1996 a strategy to give a new impetus to the industry.

Under this strategy, a range of means are being developed to create a favourable environment for shipping, including:

- Ensuring a fair market access: the EU's overall objective has always been to secure free access and fair competitive conditions throughout the global shipping market. The EU's markets are, after all, open to ships from other countries and it is only fair to expect other countries to open their markets as well. The Commission is working to obtain further reductions in existing restrictions with, for instance, formal approaches to India and China.
- an effort to promote **Short Sea Shipping** to offer a more environmentally friendly alternative to congested road transport. The 22% growth in the tonne-kilometre performance of short sea shipping from 1990 to 1997 is encouraging, but road transport has grown even more during the same period. For short sea shipping to become a viable alternative, it needs to be integrated in logistic door-to-door transport chains, to deepen its co-operation with other modes to attract more volumes, and provide customer-orientated service levels.

- a set of **positive measures** allowing Member States to help operators facing international competition. Under those measures, issued in July 1997 by the Commission, Member States can provide fiscal support to shipping without infringing EU's rules on state aids as long as that support aims to:
 - safeguard EU employment, both on board and on shore:
 - preserve maritime know how and develop maritime training
 - improve safety
- Safety Safety and reliability in the operation of shipping, and for people and the environment, is obviously crucial. That is why the Commission actively campaigns for quality shipping. When operators do not respect safety and environmental rules, they not only put seafarers, passengers and the environment at risk, they also gain an unfair competitive advantage over those who do meet the rules. According to the reports of serious research, substandard operations can save €1 million a year or more per ship. (See also chapter 4 below, "Getting there safely")
- High qualifications Quality shipping requires responsible, highly qualified officers and crews who are able to use the latest technologies for navigation and



safety. The EU's efforts are therefore focused on the improvement of qualifications and the achievement of high standard training schemes.

a comprehensive EU research and development programme, which supports researchers from different Member States acting together on quality projects.
 These projects are focused on key-issues for the future of European shipping, such as quality of services and vessels, as well as productivity.

Sea ports

Given the importance of sea trade, there is obviously a real need to ensure efficiency of ports. Moreover, ports provide access to territories, such as islands and peripheral regions, which would otherwise be disconnected from the more central areas of the Union.

These factors convinced the Commission that there was need for a wide-ranging debate on the future of ports, and a Green Paper was therefore published in December 1997.



The ideas developed in this paper include a proposal to integrate ports and other interconnection points into the Transeuropean Transport Network (TENs). This proposal, if endorsed by Member States and the European Parliament, would include European ports as part of the Transeuropean Transport Network (TEN-T), and give priority to funding of projects for short sea shipping and combined transport involving rail.

3.4 Fair and efficient pricing in transport

The current imbalances of the transport system result to a high degree from a completely inadequate pricing system which does not reflect the **real** costs of transport.

The extraordinary growth in road traffic, for instance, is due partly because alternative modes of transport are not sufficiently competitive and partly because the "hidden costs" - of congestion, of environmental and infrastructure damage, of increased accident costs, of medical treatment, e.g. for pollution-induced asthma - are not currently covered by road users.

Making more efficient use of transport is basic to the thinking behind the Commission's strategy on "Fair and Efficient Pricing in Transport" launched in December 1995. The link between creating sustainable transport systems and fair and efficient pricing is clear. As a general rule, it is natural for people and businesses only to make best use of the transport system when it is they - rather than others or society as a whole - who bear the cost of not doing so.

'User pays' principle

In any walk of life prices obviously have major influence on people's behaviour. But in transport the taxes and charges most transport users pay on vehicles are "flat rate" and, on fuel, only vary with consumption. As a result, it usually costs little more to drive heavily polluting cars and lorries than to drive 'clean' vehicles and the cost of driving on a clear rural road is not lower than the cost of using a busy road at peak time. Clearly, the system as it exists does not deter pollution or congestion or accidents and it offers no real inducement to move to uncongested times and routes.

The objective of a fair and efficient pricing policy is to correct that imbalance and to ensure that the prices charged for transport reflect more accurately the degree to which each individual journey causes congestion or environmental damage - in other words: users pay for what they use and how they use it. The aim is to promote clarity in the connection between real transport costs and real transport prices and crucially, to differentiate between efficient and inefficient transport behaviour

The policy is **not about raising extra revenues**, nor is it about penalising one mode in particular: if they are to be workable and perceived as fair it is essential that new charging policies are not used as an excuse merely to make motoring more expensive.

The Commission's approach simply aims at encouraging responsible behaviour and distributing the charges more fairly, according to the moment transport takes place and where it takes place.

Such a policy would benefit to all: according to research projects carried out by the Commission, the introduction of "fair and efficient pricing" throughout the EU could cut CO2 emissions by 11.5% and save some € 50 billion a year, which could then be injected in the transport sector itself.



White Paper on Infrastructure Charging

After extensive consultation, the Commission issued in July 1998 a White Paper on transport charges.

The main themes of the document are:

That charges should be related to 'marginal social costs' - i.e. costs that reflect the cost of an extra vehicle using the infrastructure, including 'external' costs such as congestion, pollution and accidents. They vary according to time, place and condition, e.g. the cost of putting an extra lorry on an already crowded motorway may in practice be very high, while the cost of an extra carriage on a train may be almost zero. Marginal costs can include operating costs, infrastructure damage costs, congestion and scarcity costs, environmental costs or accident costs.

In a first phase, 1998-2000, the Commission - together with a committee of Member States' experts - is establishing ways of calculating the marginal costs of

transport, developing transparent accounting methods and advising on statistical and research needs.

In a second phase, 2001-2004, those principles will be put into effect in road, rail, ports and airports - some pieces of legislation are already in discussion, for example a Commission proposal for legislation on airport charges.

In a third phase, beyond 2004, the Commission will review the work to date and consider how to take it further.

How to implement the "user pays" principle:

the example of Eurovignette

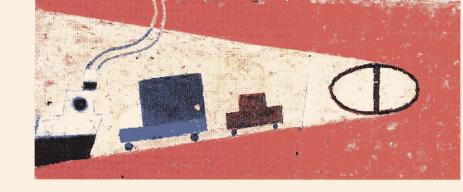
The "Eurovignette" is a user charge imposed on commercial vehicles using the road infrastructure of seven Member States (Belgium, Netherlands, Luxembourg, Germany, Denmark, Sweden and Austria). In December 1998, after years of difficult negotiations, the Council of Ministers agreed on a proposal put forward by the Commission aiming to introduce differentiated rates of change depending on the impact on the infrastructure and the environment.

In other words, vehicles equipped with low-emission engines will pay a lower Eurovignette rate than older and more polluting ones.

The accord is an important first step towards the European Commission's goal of a more environmentally responsible transport policy based on fair and efficient

pricing for infrastructure use. It represents therefore a very tangible implementation of the "user pays" principle.

It also clarifies a set of rules on transport charging in the Alps in the EU that complements the regime that will be established in Switzerland as a result of the negotiated deal on land transport with that country which was reached in December 1998. It will, therefore, help to resolve the growing problem of road congestion in the Alpine area, and most specifically over the Brenner pass. This package will result in cutting the total length of journeys made by trucks in the region by at least 500.000 km a year, while reducing transport costs between the North and the South of Europe by €50 million a year and easing environmental pressures in the Alpine region.



4. Getting there safely

The efficiency of the transport system cannot be won by sacrificing its safety. EU governments recognised this when they signed the Maastricht Treaty in 1992 and decided, for the first time, that the common transport policy should include measures to promote safety. In the short-term, cutting back on safety might reduce costs for some transport operators but, very quickly, costs will be added for responsible operators and the whole of society pays the price of quick-fixers.

4.1 Ensuring safe roads

The prime example of that relates to road transport. The Commission has sought to highlight the awful toll of accidents and become directly involved in a series of simple campaigns to save lives and prevent injuries. The average number of fatalities in road accidents is 115 a day in the EU, or 42000 deaths a year, while a further 1.7 million people sustain injuries serious enough to need hospital treatment. On the basis of present trends, 1 in 80 people in the EU will die because of a traffic accident and, on average, they will die 40 years earlier than their life expectancy, while at some point in their lives 1 in 3 citizens will require hospital treatment directly due to a road accident.



The direct annual costs for medical treatment, police and emergency services and damage to vehicles and property arising from road accidents are about €15 billion and another €30 billion of potential economic output is lost from those who are killed or injured. When divided by the present figure of about 42000 fatalities a year, it produces a rough economic cost of about €1 million per fatality - "a millioneuro test".

In 1997, the Commission launched the second Action Programme on Promoting Road Safety in the EU covering the period up to 2001. This identified a series of no less than 64 actions for reducing Europe's



accident toll. For example, if the wearing of seat belts throughout the Union matched the best compliance level - 95% for front seats and 80% for rear seats - there would be 15% fewer deaths of car occupants. For this reason, the Commission has thrown its support behind Belt-up campaigns such as "Ten Seconds to Save Your Life".

Another 15% of deaths could be avoided if all cars were made to the best level of passive safety in their size category, and the death toll could be reduced by a further 7% if pedestrian-friendly car designs were introduced.

Alongside regular assessment of the magnitude and international character of road-traffic dangers in the Union, the Commission has boosted its efforts in gathering, interpreting and disseminating information on all aspects of road safety. The CARE database provides Member States with reliable information on the implemen-

Informing the public on the safety records of vehicles

The Commission has become closely involved in the New Car Assessment Programme (NCAP), meeting about a quarter of its cost. Together with consumer and motoring organisations and governments, they have devised tests to establish objective safety ratings for vehicles in a particular class.

The aim is to ensure a wider spread of the vehicles tested in a particular class, uniformity in test procedures and the provision of clear, understandable information to consumers to create a fair market in vehicle safety. By developing rating systems which are based on sound and objective rules for testing crash resilience at realistic traffic condition speeds, and on active safety features such as brakes, ABS systems, lighting, and road holding, the Commission hopes to provide car buyers and users with reliable details.

The NCAP tests carried out so far have led to sometimes surprising results, showing that prestigious cars were not always the most resistant to shocks. This obliged car manufacturers to improve their standards.

tation and enforcement of legislation, the effectiveness of road safety campaigns, and the results of studies and research.

Apart from these campaigns, the Commission sought to revive a decade-old proposal to cut the legal drink-driving limit throughout the Union to no more than 0.5% milligram per millilitre of alcohol in blood. This would mean reductions in the limit in the UK, Denmark, Ireland, Spain, Italy and Luxembourg where the legally tolerated limit is 0.8% mg per ml. Transport ministers have so far been reluctant to harmonise limits. Ultimately, the Commission is not the Union's safety enforcement agency and must rely on the agreement of all 15 EU governments to secure changes. We hope they will make further progress.

Tight standards for heavy goods vehicles

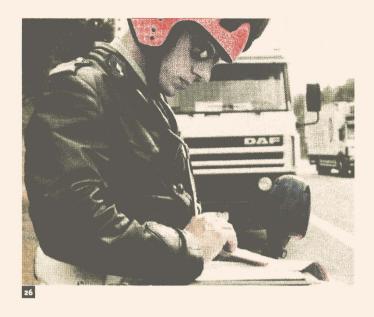
Safety on roads does not only concern private car drivers. It is also an issue for heavy goods vehicles, especially since they are involved - not always responsible for, but involved - in around 20% of current EUwide road fatalities. Therefore, strong action is needed to meet the expectations for safe roads as well as to create a level playing field regarding the quality of maintenance of the commercial vehicles.



Parallel to the liberalisation process in road transport, which culminated ist of July 1998 with the full opening of cabotage (i.e. the possibility for a haulier from one Member State to operate transport services within another Member State), the EU took the necessary measures to avoid that competitive advantages be obtained by reducing social, environment and safety standards.

The market may have been liberalised but that does not mean that business can play fast and loose either with consumers or with each other. Liberalisation only works when there are set rules and these are applied fairly, transparently and equally.

New legislation adopted in 1998 tightens the rules of access to the profession of road haulier and road passenger transport operator. This text reinforces the requirements of good repute, financial standing and professional competence that an operator must respect to be allowed to deliver transport services throughout the EU. The legislation should thereby help the industry to get rid of the so-called "cow-boys" who



undermine its reputation and threaten the safety of other road users.

One of the main causes of accidents involving commercial vehicles is the driver fatigue after excessive driving time. An EU directive of 1985 sets limits to driving time, but, clearly, rules are useless if they are not properly applied. For this reason, the compulsory introduction of digital tachographs in new trucks as from 1 July 2001 will be welcome. The Council of Ministers and the European Parliament decided in 1998 to implement this proposal from the Commission.

The tachograph is a recording equipment which automatically registers the driving and rest time of the vehicle. The new, digital tachographs are tamper-proof, unlike the older ones, they will enhance the efficiency of controls and make it far more difficult to infringe the law on driving time.

As regards transport of dangerous goods, in 1996 the Council of Transport Ministers and the European Parliament adopted a directive proposed by the Commission on the appointment and vocational qualification of safety advisers

for the transport of dangerous goods by road, rail and inland waterway.

Also adopted in 1996 is legislation setting strict, common rules on roadworthiness tests for motor vehicles and their trailers. It aims at similar safety and competitive conditions, lists categories of vehicles to be tested, defines the frequency of tests and the items to be tested. Furthermore, this directive provides for mutual recognition between Member States of proof of tests issued in another Member State for international circulation.

To fill the gaps in the legislation and to prevent irresponsible hauliers from cheating, in 1998 the European Commission proposed a supplement to the annual roadworthiness test on commercial passenger and freight vehicles, making random roadside inspections possible throughout the EU. Recent surveys indicate that a mere annual inspection on these vehicles does not guarantee an acceptable standard of maintenance, and thus a correspondent level of safety and environment protection, throughout the year. The aim of this proposal is to discourage irresponsible operators from trying to cut costs by operating vehicles so poorly-maintained that they threaten the life of other road users and damage the environment. Such practices amount to unfair competition and

currently undermine the proper operation of the internal road haulage market.

The EU Council of Ministers has reached a political agreement on this proposal.

4.2 Safety at sea and "Quality shipping"

Shipping should be safe operationally and for people and the environment. Safety in maritime transport is obviously and definitely an issue for Europe, especially since major tragedies like the sinking of the "Herald of Free Enterprise" and "Estonia" demonstrate the need to constantly improve and enforce safety standards. The EU has therefore adopted a wide range of measures which focus on how to ensure strict implementation and enforcement of safety rules and standards, defined at international level and adopted by the relevant international bodies, like the International Maritime Organisation (IMO) and the International Labour Organisation (ILO). EU laws sharpen the teeth of international agreements, and demand compliance from all shipping companies and crews, whatever flag they operate under, if they want to continue trading to or from EU ports.

The first and, certainly the most important step in establishing this strict compliance policy in the Union was taken



in June 1995 with the adoption of the **Port State Control directive**, giving the Member

States the legal power and obligation to inspect foreign ships calling at their ports. If inspection reveals major deficiencies and lack of compliance with international safety standards, ships are detained in the port until those deficiencies are rectified.

Other proposals tabled by the Commission in this context resulted in the adoption of a directive on Marine Equipment in 1996 and on the Safety of Fishing Vessels in 1997. Both measures also aim to ensure that internationally agreed safety standards are uniformly complied with in the EU.

Making passenger transport by sea safer was one of the particular challenges for the European Common Transport Policy in 1995-1998. After the loss of the Estonia, Transport ministers asked the Commission to propose measures to ensure nothing like that could ever happen again. The Commission responded with a series of specific initiatives, and most have since been adopted by the Council of Ministers and the European Parliament:



- a regulation adopted in December 1995 requires the application of the IMO's International Safety Management (ISM) Code as from 1 July 1996, two years in advance of the international deadline, by all companies operating regular ro-ro passenger ferry services within the European Union. The ISM Code provides standards for the safe operation of ships, and aims to improve awareness and behaviour of personnel of the shipping companies in this respect.
- a directive adopted in March 1998 sets safety rules and standards for passenger ships and high-speed passenger craft operating on domestic voyages within the Member States, thus guaranteeing the same level of safety as for international voyages.
- The Estonia accident demonstrated that accurate knowledge about the number of people on board is crucial for an efficient preparation and conduct of search and rescue operations. A directive was adopted in 1998 to ensure that passengers are counted (and individually registered for voyages exceeding 20 miles) before departure.

• The Commission tabled, in February 1998, a proposal for increased safety in the operation of regular roll-on/roll-off ferry and high-speed passenger craft services in the European Union. This proposal aims to establish a system of mandatory surveys by the Member States, in their capacity as host State, prior to the start of the operation of such a service, and at regular intervals thereafter. It also provides for the Member States the right to conduct, participate or co-operate in the investigation of accidents involving ferry services to and from their ports. For the purpose of facilitating such investigation, the proposal requires that all ferries be fitted with a Voyage Data Recorder (VDR) - the equivalent of an aircraft's "black box" - that records essential information.

In addition to these legislative initiatives on maritime safety, in 1997 the Commission launched a campaign to promote "Quality Shipping" with the aim of completely eliminating sub-standard shipping - i.e. shipping that does not respect internationally agreed safety, environmental or social standards - from European waters. Sub-standard shipping is a menace to everyone and a source of grossly unfair competition to the great majority of owners and shippers who do fulfil safety requirements.

The core purpose of this campaign is to promote industry-initiated best practices and codes of conduct and to achieve greater transparency of information on the safety performance of shipping operations. Within the context of the Quality Shipping Campaign, the involvement of the whole so-called "maritime responsibility chain" in safety work is essential. Shipping involves a wide spectrum of participants that have a potentially great influence on the quality of ships sailing in our waters.

The Commission - and many others in the industry - believe that all of these interests should take up their responsibilities and become involved, through voluntary measures, in encouraging quality shipping. It is in the self-interest of any responsible participant in the market to promote safe and reliable ship operations, and it is also in their self-interest actively to discourage substandard operations, The Commission also considers that the most effective results in the campaign against substandard shipping can be achieved if the public authorities co-operate closely with all sectors of the industry.



4.3 Safety in the air

Western Europe has 30% of global aviation traffic but accounts for just 10% of accidents. It is a good record produced by proficient and conscientious people in aviation. Nevertheless, 10% is 10% too much and, with the growing popularity of air travel and the more intense use of air space, the Union must be vigilant and active in trying to secure improvement. The traffic at 20 major European airports grew on average by 5.7% a year between 1970 and 1997, 7.1% between 1996 and 1997. In other words, fivefold growth since 1970. Congestion at airports and in the air has become a daily and increasing problem in the EU.

For this reason, the Commission focuses its efforts on two fronts:

First, it supported the improvement of Air Traffic Management (ATM) in Europe through a reinforcement of Eurocontrol. This Brussels-based organisation coordinates the various ATM services operated by the national authorities. In 1997, its 28 European member countries, including 14

EU Member States, eventually agreed to give it wider responsibilities. The Commission advocates that the European Union becomes member **as such** of Eurocontrol, in order to ensure that there is truly only one single ATM policy maker in Europe and that overall EU interests will be given due consideration.

Second, in 1996 the European Commission proposed that the Council of Ministers gave it a mandate to negotiate the establishment of a European Agency responsible for Civil Aviation Safety (EASA). Although Europe enjoys one of the highest levels of safety, the Commission considered that there is no cause for complacency in this area.

To ensure high aviation safety standards, it supports the idea of converting the Joint Aviation Authorities (JAA), an existing informal organisation set up in 1990 by the aviation authorities of a number of European countries, into an international organisation in which the European Union would be a full member.

The new organisation would adopt necessary regulations, monitor compliance with them by its members and perform various certification tasks, particularly for aeronautical products, in order to establish a high uniform level of safety in Europe and the active promotion of such standards

throughout the world. The Council of Ministers agreed on the mandate, and the Commission is starting negotiations with those JAA countries which are not Member States of the EU.

Third, to promote improvements in the safety of EU citizens and others flying all over the World, in 1997 the Commission proposed a directive under which all Member States would have to monitor the safety of third country aircraft and ground those that are poorly maintained and constitute a threat for passengers.

Unfortunately, while all Member States supported the Commission's proposal, a disagreement within the Council of Ministers on the constitutional status of Gibraltar and its airport delayed the adoption of this proposal in such a way that it went beyond the deadline set by the EU Treaty's decision rules. As a consequence, the legislation could not be approved at that juncture and the Commission now has to come forward with a new proposal.



5. Environmentally - responsible transport

Transport is quite simply the largest consumer of non-renewable energy in the EU and consumption is steadily rising both in absolute and relative terms. Without any policy changes and a shift to modes of transport that are currently under-used, by 2010, the massive increase in congestion will have a serious impact on health and the environment.

A study carried out for the Commission into the freight traffic across the Alpine passes revealed the real human impact of maintaining the status quo. According to the report published in 1998, freight transport across the Alps is set to grow by 75% between 1992 and 2010 while passenger growth will be 36% over the same period.

Under the most optimistic scenario, which assumes that all the new infrastructure projects, including the new Alpine tunnels in Switzerland, are completed by 2010, rail will increase its share of freight transport across the Alps from 35% today to more than 40%. Without this 'modal shift', the pollution that is of particular concern to the Tyroleans, Swiss and Austrians will grow proportionately with the growth in road freight traffic.



5.1 Cutting CO2 emissions

In March 1998, in line with the EU's commitments to cut carbon-dioxide emissions made at the Kyoto earth summit, the Commission published an assessment of how it plans to address climate change in transport. About 26% of total CO2 emissions come from Transport and are mainly generated by road movement. Half of all transport emissions are the result of traffic in urban areas. Cars account for about 50% of transport CO2 and road freight for about 35%. Rail, inland waterway and sea transport are less energy-intensive.

Without coordinated action, the Commission warned that CO2 emissions from transport will grow to 40% by 2010. The Commission report, handed over to Transport and Environment Ministers at their first-ever joint informal meeting in Chester in April 1998, concentrates on efficiency savings and making roads relatively less attractive as a transport mode.

On road freight, the Commission is pressing for a spreading of 'best practice' - improved logistics and more efficient freight operations - throughout the sector. For instance, in the EU about 60 billion kilometres a year are now travelled by empty trucks at an estimated annual cost of €45 billion. Improved organisation and use of truck fleets could bring major reductions in the consequent expense, waste dust and congestion.

For instance, the Commission estimates that logistical changes alone could reduce truck operations and cut the number of kilometres travelled empty by between 10% and 40%. One company which reported to an advisory group established by the Commission found that by using new software, it could increase load factors by 60% so reducing journeys by 20%. The equipment had paid for itself within a month.

5.2 Cleaner cars

CO2 emissions from cars were reduced during the 1980s, but, more recently fuel consumption has been rising as people increasingly buy bigger and more powerful cars. The Commission has produced a strategy for reducing car emissions by improving fuel economy with the aim of an average CO2 emission value of 120 grames per kilometre by 2010 at the latest for all new cars.

This strategy has been proved to be effective: in 1998, European manufacturers agreed to cut CO2 emissions from new cars by 25% by 2008. This will be backed up by EU legislation in 2003 if it is not working. At a time when the average emission from European cars is 191 grams per kilometre, this 'Auto-Oil Agreement' would secure reduction to 140g/km by 2008.

5.3 Reducing noise at airports

The spectacular growth of air traffic and the consequent congestion at airports threatens not only the efficiency and safety of air transport, it also raises environmental concerns. Even if they represent a mere 12% of total transport CO2, emissions generated by air traffic grew at a rate of 57% between 1985 and 1995.

Noise has certainly become an increasing source of irritation for people living around airports in recent years with understandable local reactions that can impede the efficient operation of air transport.

Thanks to international agreements, old and noisy types of aircraft will be prohibited from landing at EU airports from 2002. In order to extend the time life of their fleet, however, some airlines fit their planes with 'hushkits' - a kind of muffler which is intended to help to reduce engine noise. The European Union, together with European airports and airlines, considers that this appliance permits only formal compliance with the international noise limitations and that, in operation, those limits are exceeded by the aircraft.

This is why in 1999 the Council of Ministers, with the support of the European Parliament, has agreed on a Regulation proposed by the Commission that will ensure that hush-kitted aircraft cannot be



registered in the European Union as from May 2000. Equivalent rules will apply to aircraft on third country registers.

The main objective of this initiative is to prevent some companies expanding their activities within the European Union with such aircraft, which would cause further increases in the noise nuisance around airports. As a side-effect the EU measure should also help to reduce other environmental impacts such as fuel burn and gaseous emissions since the newer aircraft that satisfy the noise standards have generally more efficient performance as well as being less noisy.

When this Regulation was adopted, the European Union simultaneously committed itself to intensified cooperation with the United States in efforts to achieve the development of a new international standard and the Commission is working to try to ensure that the improvement is fully achieved without great delay.



5.4 The European Union committed to clean maritime transport

Shipping in European seas and around our coasts follows some of the most dense traffic routes in the World and there are also areas of grave danger for vessels. The Commission has taken action to prevent or reduce the risk of pollution of the environment caused by ships. The so-called Hazmat Directive sets up a notification system for ships bound for or leaving EU ports and carrying dangerous or polluting goods, regardless of their flag.

A Regulation adopted in 1994 fosters the use of tankers equipped with segregated ballast tanks (SBTs) through a reduction of the fees to be paid by these vessels when entering a port.

In June 1999, the Council of Ministers adopted a directive setting tight rules on ship-generated waste and cargo residues in all EU ports. This legislation aims to achieve a major reduction in marine pollution by requiring the provision of adequate waste reception facilities in all EU ports including recreational ports and marinas. In addition it requires all ships, fishing vessels and recreational craft visiting these ports to make use of the facilities provided.



6. Serving the public - Towards a "Citizen's network"

The Common Transport Policy would fail unless it put the needs of users first. Making transport sustainable, cheap, efficient and safe is undoubtedly in the public interest. But the Commission is aware that more has to be done to ensure a proper balance between the needs and the demands of the market and of business, and those of the public who pay for many transport services and much of the transport infrastructure with their taxes.

The quality and reach of public transport has to be improved. Over the past 25 years, passenger transport in the 15 Member States has more than doubled. Although bus travel has increased by 40%, the proportion of total travel undertaken by bus has declined by a third and is now less than 8% while rail's share is 6%.

Over the same period, car ownership has increased from 179 for every 1000 people in the EU Member States to 450 per 1000. The implications are obvious. The trend cannot continue without causing infarction in road transport. Eighty percent of people in the EU live in urban areas and have to cope with the economic and health costs as well as the plain inconvenience of congestion. The aim



of the Commission's actions and proposals is certainly not to punish car-drivers. It is to give drivers a true choice that realistically allows them to reserve their vehicles for journeys where flexibility and independence of movement are particularly essential, and to widen choices for people without cars.

The Commission recognises that it can facilitate the building of great Trans-European Networks and propose laws to inject market forces into the ailing rail-freight sector but, when it comes to city travel, much of the work has to be carried out by national, regional and local authorities,



operators and user groups. This is exactly how it should be; city and regional governments are accountable to their electorates, providers must be responsive to their customers.

Nevertheless, this does not mean the Commission should try to evade or ignore the problems of cities. The approach must simply be different. For this reason, in 1996, the Commission launched a strategy to achieve the 'Citizens' Network' with the central aim of improving public passenger transport services.

6.1 Exchanging good practices

The Network approach recognises that technological developments, including more scope for applying fair and efficient pricing of road use through sophisticated transport telematics, will not be enough to ease congestion if there is not active encouragement for public transport. The needs of passengers and potential passengers must be at the very centre of decision-making at local, national and EU level.

Because one good working example is worth a million sermons of exhortation, the

Commission's strategy draws attention to the many instances of good - indeed excellent - practice that give tangible meaning to the term 'Citizens'Network' right across the Union.

Some cities have introduced low-floor trams and buses and light rail systems which are easily accessible to people who find high steps difficult or impossible to manage, such as the disabled, elderly or parents with push-chairs. Others have integrated ticket buying so that a single fare or pass obtains access to any bus, train, metro or tram in the city or region.

Ease of use is essential for those who would rather stay at home or be stuck in traffic than use public transport. These ideas have generally been put together by local authorities as strategic controllers of city transit systems, after listening to the needs of their voters. While some of the changes have required heavy investment in new technology or tram systems, many have simply been the result of lateral thinking, or of managerial or routing changes.

This is why information sharing is so vital to the process of spreading these ideas around the Union. One city's commonsense approach might never have occurred to a transit authority hundreds of kilometres away but with exactly the same set of problems. To help local authorities and transport-operators learn from others'



successes and mistakes, the Commission contracted with the POLIS network of cities and regions and the International Union of Public Transport (UITP) to develop a European Local Transport Information Service (ELTIS)¹.

This database, which has been operational since late 1998, includes service design, accessibility, planning and land use, and pricing strategies.

6.2 Measuring the performances

In 1998, the Commission announced its financial support for the launch of a project to define benchmarks for local passenger

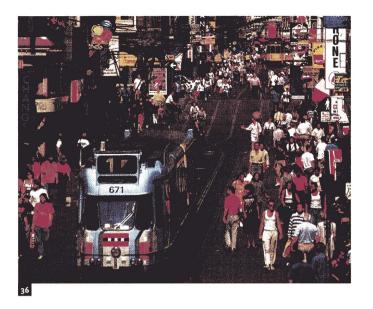
transport systems in partnership with the Council of European Municipalities and Regions. Fifteen European cities or regions are participating in this project: Oulu (Finland), Bremen, Stuttgart, Dresden (Germany), Graz (Austria), Athens (Greece), Lisbon (Portugal), Terni, Genoa (Italy), Nantes, Ile-de-France (France), Merseyside, Glasgow and Edinburgh (UK) and Prague

Good practice

The benchmarking project will for example emphasise the initiatives of Merseyside, such as the 'smart bus initiative' which offers high quality bus services attracting new passengers. Merseyside also gives a strong attention to links between transport, urban regeneration and social cohesion supported by the EU's Regional Fund. Edinburgh also has a good record of promoting bus use.

The key indicators developed by the project will also highlight the excellent tramway network of the city of **Nantes** in

France, which led to a reduction of the automobile's share in the overall traffic - a rare occurrence in the EU. Other examples of good practice include the remarkable public transport network in the Ile-de-France region - the region around Paris; the policy of the city of Oulu encouraging cycling, which represents a market share of nearly 30% of trips despite severe winter weather conditions; or the experience launched by the city of Bremen in Germany creating a car-sharing club: rather than buying a car, citizens join a club that lets them use a car when they need one.



(Czech Republic). The cities involved will measure and compare the performance of their local transport systems against key indicators, based on the results of Commission-sponsored research projects.

These indicators will measure what transport services do people want, how well is the system meeting these requirements, how efficiently transport services are being provided and what their environmental impact is. The Commission will encourage widespread use of benchmarking by public authorities and operators and is considering the introduction of quality criteria and prizes for meeting these targets.

6.3 Towards more transparency in public contracts

Some legislative changes are needed to guarantee value for money and promote quality for transport-users and local tax-payers. At the moment, some local authorities grant transport companies the exclusive right to operate in a particular geographical area. They should already, under EU law, have publicly funded transport services clearly defined in contracts and they will be compensated but Member States can exempt local and regional passenger transport from these requirements.

Public service requirements should be expressed in clear contracts between authorities and operators and financial compensation should be directly related to costs incurred by providing the additional services.

The **ISOTOPE** research study has analysed the legal and organisational structures for urban public transport operations in Europe from a political and an economic perspective. The project has shown that in various cases cost-reductions of between 10 and 35% may be feasible as a result of increased operating efficiency. The study concluded that regimes of limited competition and tendering are a good way

to improve public transport services and to reduce costs. The operations should be regulated in transparent contracts and the integration of the services into coherent networks should be safeguarded.

(Reference: Improved structure and organisation for urban public transport operations of passengers in Europe (ISOTOPE), Luxembourg, 1998, ISBN 92-828-3483-2)



7. Ensuring fair play

7.1 Fair play for consumers

The Commission is seeking the best deal for customers across the board and that means not just the lowest price, but an acceptable price for decent quality. This requires more than information-sharing, infrastructure building or promoting safety.

To protect consumers of transport services, the Commission has to use its legislative powers. In 1997, for instance, the Commission proposed a revision of EU law to improve the scope and to guarantee the transparency of booking information offered by travel agents on their computer reservation systems (CRS).

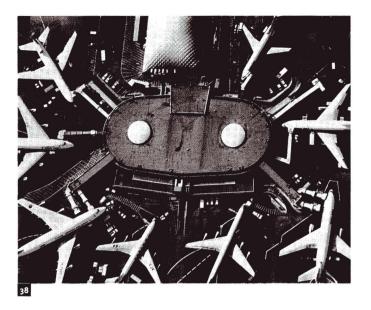
There are four main CRS companies operating in the EU - Amadeus, Galileo, SABRE and Worldspan and all are owned or part-owned by the airlines. Although all of them have to show the full range of airlines offering a service between any two points, they have been known to prioritise that information differently so that only some of the available services are displayed immediately. Application of the Commission proposal would change that and benefit passengers directly.



The rule changes proposed by the Commission also, for the first time, allowed rail operators to distribute details about their services on the CRS. This was aimed at providing dual advantages since it could increase demand for rail services, particularly on short-haul journeys covered by highspeed rail, and increase competition for airlines with a consequent effect on prices.

Compensation for denied boarding

Similarly, the Commission came up with a proposal to update the existing 1991 EU legislation on compensation of air travellers who are "bumped off" an **over-booked flight**. Under the existing legis-



lation, air carriers must ensure that they use the full capacity available on the aircraft before denying boarding, even if the passenger is placed in a class higher than that for which a ticket has been bought. Any airline denying boarding must offer the passenger the choice between:

- Reimbursement without penalty of the cost of the ticket for all parts of the journey not made;
- Re-routing, under comparable air transport conditions, to his final destination at the earliest opportunity or at a later day at the passenger's convenience.

The new proposal would ensure that passengers are well informed of their rights if they are denied boarding. It would also extend the existing rules to non-scheduled (charter) flights and modify the financial compensation for denied boarding by raising the sum to \leq 185 for flights of up to 3,500 km and \leq 370 for flights of more than 3,500 km. Unfortunately, a wider dispute again - between Spain and the UK over the status of Gibraltar Airport has prevented the Council from adopting these agreed improvements for the time being.

Liability of Air Carriers

Air accidents are, fortunately, relatively rare occurrences, but obviously the effects on the victims and their families are highly traumatic. In such situations, the last thing that people should have to worry about is their financial situation. It was for this reason that the Commission proposed legislation to remove any limits on the liability of EU air carriers for the death or injury of their passengers and to require these carriers to make emergency payments to victims and their families within fifteen days of an accident. The resulting Regulation was adopted in 1997. Non-EU carriers serving the EU cannot be forced to observe its requirements, but they are required to tell their passengers if they do not.

Until this legislation was adopted, the liability of air carriers had been capped at very low levels, often less than € 20 000, as laid down in 1929 by the Warsaw Convention. Such figures, which still apply in many countries, are woefully inadequate to compensate for the loss or pain suffered. A replacement for the Convention is under consideration and the Commission will be seeking to ensure that this new agreement makes the EU standards applicable Worldwide.

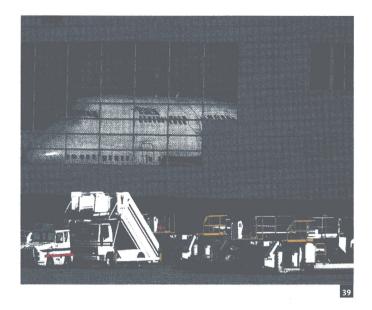
7.2 Ensuring fair competition

The trend in the airline business is towards bigger and more wide-ranging alliances, largely because they are prohibited from merging by ownership rules operating throughout the World. The advantages of effective alliances to passengers include denser route networks, new destinations, simplified ticketing, common frequent flyer systems, easier connections and lower costs.

The development of airline alliances can, however, pose difficult problems because it is the only kind of link-up possible to increase efficiency and produce economies of scale, and because, while they do have benefits, they can also reduce fairness in competition.

That is why the Commission has to examine such alliances thoroughly to ensure that they don't create monopolistic powers on particular routes or airports. There are currently four cases under the scrutiny of the Commission:

British Airways/American Airlines, Lufthansa/ SAS/ United Airlines, KLW/ Northwest, and Delta/Sabena/Swissair.



7.3 One time, last time

For decades, when the economic going got tough, most European airlines were able to fall back on their major shareholder, the State, and ask for funds to give them relief. That might have preserved some jobs in the short term, but it encouraged a false business environment and encouraged companies to make 'irrational' commercial decisions which could not be afforded. It also imposed unfairness on those airlines that could not rely on largesse.

With the advent of liberalisation and the appearance of significant numbers of private-sector competitors, who had to use commercial acumen to survive in a cutthroat market, the State Aid facility had to stop. In November 1994, the Commission established new Guidelines for State Aid to the aviation sector with ultimate aim of ensuring rigorous enforcement of the EU Treaty's ban on those aids which distort competition. The phrase "one time, last time" became common parlance in the sector.

That maxim was put to the test within months. In 1995, the Commission had to deal with a request from the Spanish authorities to make a further capital injection to Iberia on top of a 'last-time' 120-billion-peseta State aid granted in 1992. The company's plan to restructure had been blown off course through losses on its holdings in Latin American airlines and the devaluation of the peseta.

The 1994 guidelines meant that the Commission could not approve a second request for aid unless it was linked to factors which were "exceptional, unforeseeable and external to the company". At the same time, the Commission was bound by the Treaty to judge without prejudice whether an aid would distort competition or be a legitimate increase in the equity of a public company which was being treated on a commercial basis by its owners.

This 'market economy investor principle' was established in EU law and confirmed by the Court of Justice. In the Iberia case, examination of the initial request for 130 billion pesetas showed that no private investor would have made the proposed injection because of the high risk and cash drain associated with the company's Latin American investments, which had virtually wiped out the original capital injection made into Iberia in 1992. The Commission

made a smaller injection of capital strictly dependent on shedding these interests.

Iberia has since restructured and achieved commercial success.

The Commission has since taken an explicit stand on first-time, last-time airline aid. It authorised state aid - seven cases since 1991 - as a one-off measure specifically and solely to help airlines restructure during the transition of the industry from a heavily protected environment to a liberalised one. Most airlines that required restructuring have now completed that process. The transition is now finished, and with it the need and justification for state aids measures. European airlines still need to undertake restructuring efforts, but state aid is no longer the appropriate means to achieve thiss.



8. Working safely - a social policy for transport

Transport markets may have been liberalised but that does not mean that business can or should ignore responsibilities towards transport workers in order to gain competitive advantages. In the view of the Commission the liberalisation process cannot be carried out at the expenses of reasonable social protection.

The initiatives taken by the Commission in the past two years reflect that commitment. The clear evidence of that is seen in the latest proposals on working time for transport workers.

8.1 Working time rules for Transport

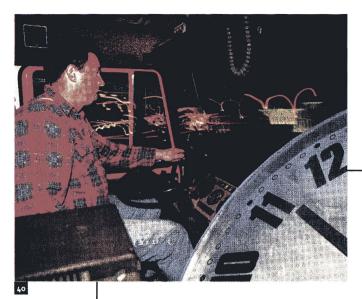
In November 1998, the Commission proposed a comprehensive package of measures to protect transport staff from working excessively long hours, having inadequate rest-periods or disruptive working patterns.

The package covers more than five million workers in road, rail and sea transport, as well as aviation and inland waterways and came after long consultation and negotiations with both sides of industry.

When the Council of ministers originally adopted a Directive on Working Time in 1993, it decided to exclude transport workers from the scope of the legislation. This was done despite the opinion of the Commission, which maintained that transport workers should benefit from minimum working-time standards both to protect their own health and safety as well as the safety of the general public.

The Commission therefore constantly pointed out the dangers to health and safety, as well as to fair competition in the internal market, of the continued failure to deal with the regulation of working time in the transport sector. This is particularly acute in the road haulage sector where many operators complain that diverse rules on working time between Member States undermine their competitiveness, especially as the market was fully liberalised from July 1998.

Since finally the social partners failed to agree on rules at EU level, the Commission decided to come forward with its own proposals. These cover all non-mobile transport workers (i.e. office staff for instance) and mobile workers in railways,



The working time proposals in detail

For road transport, the main elements of the Commission's proposals are as following:

- Working time is more broadly defined than existing rules on driving time: The scope of what constitutes working time includes activities such as un/loading or supervising passengers getting in and out of bus/coach; work connected with the cleaning, maintenance and security inspection of the vehicle as well as the safety of the vehicle, load and/or passengers; inclusion of standby duty defined as the time when a worker is at work and ready to take up working duties. All this is counted as working time.
- 48 hours maximum average working week over a 4 months reference period.
- Maximum weekly working time is 60 hours (compared to 78 in general working time directive);
- Break of at least 30 minutes after 6 hours work and at least 45 minutes after 9 hours;

- Daily rest of at least 11 hours. It may be reduced to 10 hours, or even 9 hours in certain cases provided there is appropriate compensatory rest;
- Weekly rest of 35 or 45 hours per week, depending on the type of transport operations performed;
- Night workers may only work 8 hours 'per day'; extendable up to 10 hours as long as an average of 8 hours is not exceeded over a 2-month reference period.
- The definition of 'night work' is tighter than in the general working time directive in recognition of the fact that road safety is a significant feature of road transport activities. Night workers shall be given health checks and the same access to training and promotion opportunities as other workers.

For maritime transport, the Commission's proposal is based on an agreement reached by the social partners by which the maximum hours of work shall not exceed 14 hours in any 24-hour period, and 72 hours in any seven-day period.

Minimum hours of rest shall not be less than 10 hours in any 24-hour period, and 77 hours in any seven-day period.

road and maritime transport. Given the specific operational and safety constraints of the haulier and shipping industries, specific rules are proposed for these two sectors.

These proposals will be followed in due course by separate proposals concerning mobile workers in civil aviation, inland waterways and sea fishing.

8.2 Preventing social dumping in maritime transport

The fall in the number of EU nationals employed on Union-flagged vessels is dramatic. Between 1985 and 1995, the numbers dropped from 206,000 to 129,000 while the tally of third-country seafarers increased in the same period from 29,000 to 33,000. This evolution has affected principally the freight-transport sector. But the first cases of the substitution of EU seafarers by cheaper manpower have been noticed in the passenger transport sector and there is concern that without proper controls this trend will increase.

This is likely to be the case given that several other factors will drive ferry operators to reduce costs still further. If they do this by replacing EU crews with crews drawn from third countries where the conditions of hire are less favourable, their competitors will be obliged to follow suite.



This risks a downward spiral leading to deterioration in the working conditions of all crews and the loss of a considerable number of jobs for seafarers from the European Union.

Such a development runs against the aims of the maritime strategy policy. That is why, in April 1998, the Commission proposed rules designed to ensure the proper functioning of the internal market and to prevent the disruption that would be caused by this sort of social dumping. First, it proposed a directive to make sure that the conditions of employment for foreign crewmembers are on par with EU levels.

At the same time, the Commission proposed a regulation to ensure that, for passenger and ferry transport services between two ports in the same EU country ('cabotage'), Member States may require that the rules of that country setting out the required proportion of EU nationals in the crew apply.

In other words, if these proposals are adopted, the ferry companies operating for instance on the cross-Channel link will have to respect the rules of the EU Member States concerned and won't be able to gain competitive advantages at the cost of social protection.

The Commission warned that, if competition increases to the point where operators start firing EU seafarers and instead employing third country nationals, who are underpaid and have not even minimum standards of social protection, then it is the maritime sector as a whole that will suffer.



Conclusions

What comes next?

Environmental advance, fair and efficient pricing and economic and social cohesion

As to the future, the strategic objectives of the Common Transport Policy continue to be the development of a transport system which is efficiently financed and managed, integrated across modes and national borders, well connected with the Union's neighbours and the rest of the World, based on liberalised transport markets and best available technologies, and both safe and sustainable for people and the environment.

The actions needed to achieve those objectives are multiple and are being pursued through an evolving Action Programme to construct a framework for sustainable mobility² Key issues for the immediate future include:

- the search for a progressive compromise about the next phase of railway reform, on the basis of proposals already made;
- the revision of the guidelines for the development of the trans-European transport network;

- major network projects like Galileo and the European train management system;
- further progress on more convergent approaches to transport taxes and charges for infrastructure use and social costs to promote efficiency, better transport balance and sustainability.
- the search for and proposal of effective measures to reduce emissions, particularly CO2;
- and the development of the external dimension of the CTP particularly in relation to the Union's neighbours and principal trading partners.

^{2.} The Common Transport Policy. Sustainable Mobility: Perspectives for the Future, COM (1998) 716 final/2 of 21-12-1998.

General data on transport

Value created

Total GDP is ECU 6770 billion or ECU 18 100 per person

of which transport

4% = ECU 270 billion

incl. private/own account

7% = ECU 470 billion

= ECU 1 300 per person

Employment

6 million persons are employed in the transport services sector = 4% of all persons employed in addition, 2 million persons are employed in the transport equipment industry, and over 6 million in transport related industries.

Investment in transport infrastructure

Investment in transport infrastructure is ca. ECU 70 billion (of which 65% road, 25% rail and 10% other modes) or 1% of GDP.

Household expenditure

The private households in the EU spend ECU 600 billion per year or 14% of their income for transport (of which over ECU 500 billion for passenger cars and ECU 60 billion for passenger transport services).

Goods transport

(road, rail, intra-EU sea, pipelines, inland waterways)

Transport demand is 2640 billion tkm or 7100 tkm per person (20 tkm per person and day).

- of which road 44%, sea 40%, rail 8%.

Passenger transport

(4 modes: car, bus, rail, air)

Transport demand is ca. 4700 billion pkm or 12 500 pkm per person (35 tkm per person and day).

- of which road 87%, passenger car: 80%.

Transport Growth

Goods transport: ca. 2% per year (over 75% growth since 1970).

Passenger transport: ca. 2% per year (over 110% growth since 1970).

External Costs

External costs of transport (estimate, in % of GDP):

air pollution: 0.4% accidents: 1.5%

noise: 0.2% congestion: 2%

total: 4% = ECU 270 billion

or ECU 700 per person

Safety

Road: ca. 44 000 persons killed (fatalities decreasing by 2 - 3% per year)
Rail: ca. 900 persons killed, of which approximately 100 passengers

Environment

Share of emissions (man made) originating from transport: CO2: 26%

NOx: 63%.

NOTES

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