

Transport and Ports Policy in the European Union

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1. Introduction

Economic growth, increasing mobility and a reliance on particular modes and routes have conspired to put immense pressure on European transport infrastructure. For many years the European Commission and EU member state governments have been grappling with the problem, attempting to decongest key routes through policies designed to make alternatives more attractive and by encouraging infrastructure developments where benefits are estimated to be at their widest. Such infrastructure investments have brought major changes to the pattern of freight movement in some areas.

Over many routes, notably in the waters around the British Isles, RO-RO ferries are, pro-rata, expensive. Road hauliers, for reasons of speed, service, control or price (or all four) often prefer to route vehicles through ports offering the shortest sea-crossing. In logistics terms, this is sensible because, in the event of missing a ferry, lost time is minimised as departures are most frequent over the shortest routes. It is also true to say that, over some routes ferries and unit load shipping services are expensive pro rata by comparison with road haulage which offers over-the-road transport for £1.00 to £1.50 per truck mile (Euro 0.80 – 1.20 per truck kilometre). Rail freight still suffers an image problem and is under-performing in areas such as punctuality. It is a widely-held view that investment levels have been insufficient in areas such as track-maintenance and electrification for several decades. Track access is similarly highlighted as a weakness, especially in the UK, and both operational and infrastructural improvements are required in these areas.

Inland waterways are under-utilized, especially where they offer inland penetration of coastal or short-sea shipping. Again, image is a problem here as well as the more obvious constraint of insufficient waterways offering at least the critical threshold of 2.5m draught. For modern, large-scale freight movement, at least 3.5m is needed with commensurate beam, air draft and length accommodation. In continental Europe, thousands of kilometres of rivers and canals meet these criteria. In the UK, however, only a handful of waterways measure up to these requirements, so coastal shipping and short-sea movements will continue to dominate the UK waterborne freight scene into the foreseeable future.

Road haulage continues to be a victim of its own success. The responsiveness of hauliers to the requirements asked of them, the industry's 'do anything, go anywhere' capability and its cut-throat competitiveness have led to almost total road-dependency in many areas of Europe and intolerable traffic conditions. The proportion of the traffic

stream made up of trucks is over 35% on several routes in the UK and around the major industrial areas of Europe. The response has been to introduce road user-charging as a form of quasi-road privatisation. Major organisational changes are under way such as rail liberalisation; new rail and short-sea shipping services are opening up and high-tech schemes are being proposed to tackle unacceptable levels of road congestion (Beresford, 2004).

2. Transport Policy

Transport plays an important role in the functioning of the single European market and efficient transport services are essential to economic competitiveness of the EU both regionally and globally. In order to provide an environment where all modes of transport are successful the EU has, over time, developed a policy framework which is aimed at allowing each mode to operate to its full potential in a competitive transport market, thus meeting the needs of industry and transport users while at the same time attempting to reduce the overall impact on the environment.

2.1. Policy Development

The 1957 Treaty of Rome, which established the European Community, made provision for a common European transport policy. Article 70 of the Treaty states: “The objectives of this Treaty shall, in matters governed by this title, be pursued by Member States within the framework of a common transport policy” (European Commission 2002). The debate about the form such a policy should take spanned several decades and in 1982-83 the European Parliament brought a case against the Council of Europe for its failure to act on its treaty obligations to create such a policy. The European Court of Justice (ECJ) ruled, in 1985, in the European Parliament's favour and obliged the Council to make progress on transport policy, particularly with regard to areas where transport services needed to be opened up to intra-Community competition. The European Commission published the first White Paper on the future development of the common transport policy in December 1992, which concentrated on the opening of Member States' transport markets to competition (Rehfishch, 2003).

The development of a common transport policy was furthered with the White Paper ‘European Transport Policy for 2010 – time to decide’ published in September 2001 (European Commission, 2001). The White Paper provides the clearest exposition of the European Union's thinking on transport policy and recognises that policy decisions taken now will have long-term implications for industry and the Community as a whole. A qualitative change of direction in transport policy was proposed aimed at achieving substantial improvements in the quality and efficiency of transport in Europe while breaking the link between transport growth and economic growth. The White Paper focused on 13 key areas of development, with the intention of reducing pressure on the environment, ameliorating congestion, maintaining the EU's economic competitiveness and balancing the mix of transport services with measures to open up markets. The key land transport elements are discussed below. The most

recent stage in the development of a European Transport policy was the 'mid-term review' of the 2001 White Paper published in 2005. This was a Communication from the Commission entitled "Keep Europe moving - Sustainable mobility for our continent" (European Commission, 2005). European transport policy has been the subject of continuous review in accordance with need and the evolving geo-political environment. It has remained essentially simple in structure however with specific modes remaining the focal point of policy, thus maintaining a clarity which is important in the context of EU development which is becoming ever more complex.

2.2. Trans-European Transport Networks (Ten-T)

In 1996 the EU adopted guidelines for the development of the trans-European transport network and identified 14 priority projects. A number of the 14 priority projects have been completed and the Commission proposed the addition of six new projects, the only one of direct UK relevance being the development of the Galileo global navigation and positioning system (European Commission, 2004). The development of a transport infrastructure policy, represented by the trans-European transport network derives from the moves towards the construction of the Single European Market (SEM) with the overall aim of developing integrated transport systems (Kinnock, 1995).

The approach towards the development of a trans-European transport network is not new. Several reasons have contributed to its development. Firstly, road and rail transport infrastructures have, for many years, been largely designed and built from a national viewpoint, and considered from a unimodal network approach rather than from an integrated one. Rail transport operators in Europe are faced with three different gauges in the Iberian Peninsula, the Central Europe and Russia, thirteen different railway-signalling systems in the EU, which when extended to Europe as a whole amount to 17. Secondly, a network is more than the sum of nodes and links. It is a value-added infrastructure arrangement where one or several operators offer their services taking advantage of an inactive infrastructure (Frybourg and Nijkamp, 1998). The development of an infrastructure that is capable of providing network services between physically separated locations becomes vital, and so the reason why European policy makers had to intervene in the provision of an infrastructure capable of providing efficient and effective services to its users located in spatially dispersed markets (Rehfishch, 2003).

2.3. Railways

In the 2001 White Paper the European Commission proposed introducing competition between railway companies, suggesting that “the arrival of new railway undertakings could help to bolster competition in this sector and should be accompanied by measures to encourage company restructuring that take account of social aspects and work conditions” (European Commission 2001). The priority was the opening up of national rail systems of members states for international freight services, cabotage in national markets and international passenger services. However this could only be achieved with harmonisation of national rail infrastructures and supporting technologies (Rehfishch, 2003).

The first “Rail Package” comprising three Directives, i.e. 2001/12, 2001/13 and 2001/14 was implemented in March 2003. The key aspects of this package were:

- The separation of essential functions with some allocated to independent national railway authorities
- Establishing independent national rail regulators
- Guaranteeing access rights for all licensed rail operators to the Trans-European rail freight network
- Setting infrastructure use charges on the basis of marginal cost
- Developing transparent rules and procedures for the allocation of train paths

A second “Rail Package” was adopted by the European Parliament in January 2003 and the Council adopted its common position on the proposals in June 2003. Council. There were five key proposals:

- Developing a common EU approach to rail safety
- Improving the principles of interoperability
- Establishing a European Railway Agency
- Opening up the rail freight market to full network competition by 2006
- The EU joining the Intergovernmental Organisation for International Carriage by Rail (OTIF)

Some concerns were raised regarding the Second Railway Package, for example: “The Commission rightly states that “quality is the key to attaining the desired shift of balance between modes” but it should accept that the measures proposed in the Second Railway Package must all tackle rail’s uncompetitiveness. Proposals to improve safety, environmental performance and inter-operability will be futile if they raise rail’s overhead costs and make it less competitive instead” (English, Welsh & Scottish Railways, 2002).

A central theme of the White Paper's objectives was the returning of modal shares back to levels existing in 1998. The intention was to expand rail's market share of passenger traffic from 6% to 15% and of goods traffic from 8% to 15 %, the argument being that there is no reason why European rail services should be irreversibly in decline. However, Europe lacks the dedicated freight routes and services, which are likely to make inter urban rail haulage a success and while the White Paper focused on the creation of this capacity it underestimated both the cost and the extent of public opposition to such large-scale projects. Also, European inter-urban rail routes remain predominantly passenger led and there is competition for funds between expanding freight routes and passenger demands. Shifting such volumes from road to rail is also impeded by the fact that much road transport is over short distances, where rail cannot offer an alternative transport option (Rehfishch, 2003). Some organisations (e.g. the Freight Transport Association) have also questioned the environmental benefit of such a modal shift suggesting that the environmental performance of rail compared to road depends on a range of factors such as speed, type of goods and type of engine (diesel or electric) and the extent to which truck, train and ship engines become cleaner in the future (FTA, 2003).

2.4. Road Transport

Road transport is seen as the major cause of increasing congestion within European transport networks although the responsibility for it cannot be laid solely at the door of road freight transport as private vehicle use contributes significantly to the problems. Further, while alternative modes can play a greater role in meeting future demand for freight transport services, the scope for significant modal shift is limited (FTA, 2003). Charging structures (i.e. taxation and infrastructure charges) for transport vary across Member States. This has a distorting effect on the operation of the transport market across the EU and does not encourage the use of the most effective forms of transport in terms of energy efficiency and environmental impact. The European Commission White Paper (2003a) proposed aligning national systems for road user charging and road tolls across Europe. Also proposed was the harmonisation of fuel taxation for commercial users, particularly in road transport and the alignment of the principles for charging for infrastructure use. An area of debate is the extent to which national governments should be allowed to cross subsidise trans-European Network priority rail projects through road user charging in environmentally sensitive areas, e.g. mountainous regions. The proposed charging system covers the trans-European road network and any other road to which traffic may be diverted from the trans-European

routes. It would apply to all lorries exceeding 3.5 tonnes used for goods transport. The proposed measures, including road charging, taxes and other pricing instruments, however, could have a negative impact on European supply chain competitiveness and, as a consequence, damaging implications for European industry (Rehfishch, 2003; FTA, 2003).

The UK government has spent several years exploring the feasibility of a nationwide road user charging system based on vehicle type, road type and existing traffic levels in an effort to capitalise on the Galileo Satellite system's tracking capability. The essentials of this scheme are to charge users at the point of use in accordance to their contribution to congestion which in general terms would mean that road transport in and around urban areas would incur a high usage charge, while road movement in low traffic conditions would incur a lower charge: certain parts of the network would be free provided traffic levels remain very low. The scheme which is based on a sophisticated vehicle movement and traffic monitoring system was suspended in 2007 as doubts emerged over its legality (Millward, 2007). Specifically, it may not be acceptable on personal privacy grounds as it could imply continuous knowledge of the location of individuals, which potentially impinges on European privacy laws. However, the Chancellor of the Exchequer recently appeared to put the scheme back on the agenda in the 2008 budget statement recognising its potential for traffic management and revenue generation (HM Treasury, 2008). Originally seen as an equitable form of charging road users, it seems likely that the main distance-related road taxation in the UK will remain fuel duty for the foreseeable future until the technical details of the proposed scheme are finalised and doubts over its public acceptability are overcome.

2.5. Short Sea and Inland Waterway Transport

The White Paper's aim was to revitalise water borne transport and provide scope for intermodality, supporting revitalised railways in moving freight from road to other modes. The proposed strategy was to boost the modal share of water borne goods traffic by developing "motorways of the sea" through short sea shipping services and by greater use of European inland waterways. To achieve this, better connections between ports, rail and inland waterway networks, together with improvements in the quality of port services would need to be achieved as well as some shipping links becoming part of the trans-European transport network, which is currently limited to roads and railways. Other issues which the White Paper addressed included reductions in the use of ports and flags of convenience, legislation setting minimum social rules to be observed in ship inspections, the development of a European

maritime traffic management system and a proposed directive on a tonnage-based taxation system. Increased use of short sea shipping and inland waterways is likely to be advantageous for European transport systems and supply chains but there is a danger that the potential could be overestimated as there is already a substantial level of freight carried on European inland waterways. There is a need to ensure that service performance and reliability are high in order to provide shippers with the incentive to use Short Sea Shipping (Rehfishch, 2003).

In 2003 the European Commission published a Communication entitled 'Programme for the Promotion of Short Sea Shipping' (European Commission, 2003b). This included a proposed Directive relating to Intermodal Loading Units (containers), the aim being to create a Europe wide standard container to facilitate transshipment of goods between member states by sea, rail and road.

2.6. Intermodal Freight Transport

The 2003 White Paper highlights the importance of 'intermodal' freight transport in reducing the reliance on road transport and identified two key priorities:

- increasing technical harmonisation and interoperability between systems, particularly containers and freight loading units
- the use of the 'Marco Polo' programme to support innovative initiatives, e.g. motorways of the sea. This became operational in 2003, aims to support the freight transport industry to achieve sustained modal shifts of road freight to short sea shipping, rail and inland waterways (Rehfishch, 2003).

The Marco Polo II Programme has been renewed by the European Parliament for the period 2007-2013. This potentially provides support to removing freight from road to both rail and sea, and furthers support for the development of 'Motorways of the Sea', a key route of which is between ports in the Atlantic Arc (WAG, 2007).

Eurotunnel is the world leader in piggyback transport. In 2007 the company transported over 1.4 million trucks and more than 2 million cars between its English and French terminals. Following major financial restructuring in June 2007 the company is now well placed to build on its strengths. There have been 3 consecutive years of growth, with Eurotunnel's core shuttle activities breaking through the 500 million Euro mark in 2007 and total Eurotunnel revenues in the same years reached 775 million Euros up 6% on 2006. More generally however international rail freight volumes have been disappointing where major infrastructure projects, e.g. the Channel

Tunnel and the Øresund link, are concerned. Originally, the design capacity for rail freight through the Channel Tunnel was 10 million tonnes per annum. However, it peaked at around 3 million tonnes in 1997 and has dropped steadily since then to 1.2 million tonnes in 2007. Causes have been identified as complex contractual and legal arrangements and the burden of high fixed costs which translate to unattractive transport rates (Rail Freight Group, 2008).

Nonetheless, the considerable environmental and social benefits potentially accruing from large scale investment in new rail infrastructure manifests itself in the large proportion of recent and current TEN-T projects which are rail based (European Commission, 2004).

2.7. Sustainable Transport and State Aid

The Commission intended the 2003 White Paper to be the first stage in a long term strategy for developing environmentally sustainable transport. An expert group consisting of officials from transport ministries and environment ministries in the Member States was established and a monitoring tool put in place to establish a baseline for decisions on sustainable transport policy. The tool is known as the TERM mechanism (Transport and Environment Reporting Mechanism). It is in the area of sustainable transport promotion where the European Union can potentially play a key role. This can be extended as far as the provisions of state aid for transport services. There are strict rules concerning state aid, particularly in respect of transport operations. Article 87 of the Treaty of Rome prohibits any State supported aid which would distort or threatens to distort competition by favouring certain firms or the production of certain goods. Such aid can include grants; interest relief; tax relief; state guarantee or holding and provision by the state of goods and services on preferential terms. Exceptions to this ban are allowed, for example, when the aid has a social character or is aimed at making good the damage caused by natural disasters or when the aid promotes the economic base of underdeveloped areas (European Commission, 2002; Rehfisch, 2003). Most recently the Commission has stated that the 'legal framework is regularly reviewed to improve its efficiency and to respond to the call of the European Councils for less but better targeted State aid in order to boost the European economy' (European Commission, 2008).

3. The Severn Estuary

A number of transport issues face those responsible for the management of the Severn Estuary in the next two decades. Traffic volumes for all transport modes are growing, creating pressures requiring farsighted and possibly novel solutions to resolve the problems.

Road transport accounts for 82% of goods lifted and 64% of goods moved with 64 million tonnes moved intra-Wales and a further 60 million tonnes moved to other parts of the UK (WAG, 2007). The predicted growth in road transport poses the most immediate problem. Motorway congestion occurs but only for a relatively small proportion of any day and at certain times of the year. A new M4 relief route across the Gwent levels will provide a short term solution to congestion problems around Newport but potentially at significant environmental cost (Beresford, 2005). On the English side of the Severn, the major routes are complete and the issue has become traffic management rather than building infrastructure in common with many other parts of the UK (Eddington, 2006).

Rail transport could provide a partial solution to transport problems in the region but long-term investment and an overall improvement in availability and performance will determine whether rail becomes a major factor in resolving transport congestion (Network Rail, 2007). The majority of rail freight services run in South Wales with some in North Wales and limited operations in Mid Wales. 8 million tonnes of freight are carried on the South Wales Main Line and only 1 million tonnes on the North Wales Coast line. Developments in short sea shipping and greater cargo flows through Welsh ports may lead to increasing demand for inter-modal rail heads and port-related rail operations. Such developments are certainly seen as possibilities by the Welsh Freight Strategy Group (WAG, 2007).

On the water side the Severn provides a major transport artery into both England and Wales. The UK port sector is largely privatised and deregulated although port and harbour authorities are established by Act of Parliament and have statutory powers and responsibilities. In Wales, private ports predominate, the southern ports principally owned by Associated British Ports. Milford Haven is a notable exception as a Trust port. As well as being nodes for transfer of goods from land to water, ports also support a range of related industries and functions, ranging from full scale manufacturing and processing to storage and consolidation of cargo in transit. With 4 major ports in the Severn Estuary significant volumes of freight are already moved and

this could be substantially increased given the right environment for the ports industry to expand its business (WAG, 2007).

Wider distribution and supply chain changes are possible and cargo currently destined for both Wales and England which generally enters the UK through ports outside Wales could enter through Welsh ports. Container feedering and deep-sea container hubs could be developed using Welsh deep water harbours as transshipment centres. Improved short-sea shipping services could result in conventional cargo being transferred from road to sea. Should such developments occur there would be an increased demand for distribution centres to be developed on dock estates, particularly for non-food retail goods and there is potential for the development of value added industry (logistics, processing, manufacturing, waste and energy-related schemes) both on port estates and in contiguous areas (WAG, 2007).

The development of any transport project is going to have an environmental downside through, for example, loss of habitat or pollution. The aim must be to try and balance the requirements of the local population and business, and national transport requirements, with the need to protect an environmentally sensitive region. Achieving this is going to pose difficult questions but the solutions must be balanced and sustainable.

4. Ports

Many ports in Europe were developed in the 18th and 19th century, linked to industrial and trade expansion, often for specific trades (e.g. coal) and were intrinsically linked to the development of the railways that linked them. Today however, the port industry is in transition following changes in manufacturing, global economic changes and patterns of trade. Developments in the use of supply chains and how ports fit into such are also altering the nature and extent of their hinterlands (WAG, 2007). European Union (EU) ports handle on average 3.5 billion tonnes of cargo per annum and their potential as being centres for cargo handling, service, distribution and logistics linked to supply chains and logistics services is of significant importance (Pallis, 2007). It is recognised that European Ports face the following challenges:

- Increasing demand for international sea transport amplified by its low cost and growth faster than that of the European economy
- Further technological change primarily driven by container transport, which will deliver more effective, safer, and cleaner ports
- The EU's commitment to reduce greenhouse gases will require modal diversification towards rail, inland navigation and maritime transport and as a consequence increased use of port facilities
- The need to develop a dialogue on performance and development of ports between port stakeholders and the cities and regions where they are located
- The continuing need for transparency in port management and the requirement for port development and competition to operate in the context of the EC's legal instruments. (European Commission, 2007)

One of the most recent policy statements on ports has emerged from the Welsh Assembly Government within the Wales Freight Strategy Consultation Document published in December 2007 (WAG, 2007).

4.1. EU Port Policy

EU ports are seen both as key economic generators able to connect peripheral regions and with the ability to increase the use of the maritime mode over those that are less environmentally friendly. They are seen by the EC as important for regional development in line with the Lisbon strategy. Ports are important in the context of developing short sea shipping and inland waterway traffic as more sustainable transport modes over long distances.

EU ports were not subject to the same policy forces as other transport modes following the creation of the EEC in the 1950s. It was not until the setting up of the European Single Market in the 1990s that pressure started to grow for a single European Port

Policy (see e.g., Chlomoudis and Pallis, 2002). Port policy for northwest Europe falls within the scope of broader European ports policy. Europe has more than 1,200 commercially important ports located both at the coast and on inland waterways handling around 90% of Europe's international trade and 40% of intra-Community trade. As well as commercial traffic ports are 'a key to cohesion in Europe, through the development of passenger and ferry services' (Trujillo and Tovar, 2007; European Commission, 2007).

In the early 1990s the EC started to look at the maritime economy, promote short-sea shipping and develop a Europe wide ports policy. In 1993 the European Parliament commissioned a policy study covering a broad range of issues. The themes of this discussion centred around intra and inter port competition and included aspects such as market access, financial transparency, harmonisation of charging systems, modernisation of infrastructure, integration of ports into the trans-European multimodal transport networks (TEN-T) and enhancement of maritime security. This study was not however followed up at the time.

In 1997 the EC launched a wide ranging debate that remains at the core of the EU port policy agenda. In 1997 the first substantial European discussion paper on seaports was produced – the Green Paper on Sea Ports and Maritime Infrastructure. This was narrower in focus than the EP study and outlined three principal areas on which a European seaport policy could be based: integration of ports into Trans-European Transport Networks, financing and charging; and market access to port services (European Commission, 1997).

The central core of a Europe wide ports policy was the proposal for a Port Services Directive which would create intra-port competition and thereby level the 'playing field' among European ports. The development of this policy has however never evolved fully as this Directive was rejected by the European parliament on two occasions in 2003 and 2006 and no further attempt has yet been made to revisit the legislation. The port services proposal had been inspired by the airport ground-handling Directive but its failure demonstrated that although parallels appear to exist seaports are very different from airports. They are often closely linked to local administrative structures and cultures; the scale of market developments and investments is different and, stakeholder interests and attitudes vary (ESPO, 2007).

The ports sector is important for the EU in both regional and international contexts and while the port services legislation failed there is probably still the need for more sector-specific EU policy measures and a coherent policy vision to ensure that the ports

industry is treated in a fashion consistent with other transport policy approaches. The most recent policy statement from the EC on the ports industry was issued in October 2007 and restates the Commission's objective to develop an 'EU port system able to cope with the future challenges of EU transport needs'. The Communication followed a consultation process in 2006 and 2007 after the rejection of the Port Services directive for the second time (European Commission, 2007). Overall, the European Commission wants to create a framework which will allow European ports to attract investment for their modernisation and put maritime freight transport on an equal footing with other transport modes.

4.2. Current Issues

As already stated the EC issued a communication on ports policy in October 2007 (European Commission, 2007), the principal objective of which is to promote a trans-EU port system better placed to adapt to the challenges created by the rapidly changing EU transport environment. The communication resulted from extensive stakeholder consultation following the second failure of the Port Services' Directive. Guidance was provided on the interpretation of Treaty rules and a number of 'forthcoming measures and soft law instruments' were highlighted. It is notable that there was little in the way of new legislative proposals proposed. Six fields of action were introduced in the communication being: port performance and hinterland connections; capacity expansion and environmental conflict; modernisation; levelling the playing field between ports in Europe; establishing a structured dialogue between ports and cities; and work within ports. The first four of these are now discussed in more depth.

4.3. Port performance and hinterland connections

The European Union recognise that Europe's largest ports are generally efficient in economic terms, maritime set up, openness, organisation of calls, and berthing of ships. However, there are still bottlenecks, created by a variety of factors such as mismatches in storage and handling capacity, poor terminal layouts, low output levels for installed capacity, inefficient routings and access, long waiting times, insufficient security, unsatisfactory labour conditions and output, and excessive administrative requirements. On the land side, reliable and sustainable hinterland connections are necessary to improve the capacity ratings of ports. Increased demand for port capacity requires increased port efficiency and productivity rates and the development of

alternative transport routes as a means to achieve a more intensive use of all existing ports. By addressing these problems it is likely that capacity levels can be increased and port facilities ultimately located nearer to the origins/destinations of cargo. The development of alternative transport routes and the rational distribution of traffic across Europe will to some extent be determined by the approach that the European Union adopts. Reorienting traffic flows would require interventionist policies and this would largely conflict with the ports industry which has, in many cases, a strong free market element (European Commission, 2007; ESPO, 2007).

4.4. Capacity issues and the environment

Increases in capacity are required for a wide variety of reasons, not least the fact that global trade has been increasing significantly during the last decade. If ports are to be successful they, firstly, require adequate facilities and appropriate connections with the hinterland particularly as modal shifts away from road transport towards inland waterways are being identified and encouraged by the European Union. Adequate port infrastructure is also required to enhance competitiveness although most ports are unlikely to have been conceived or built to accommodate modern ships, cargo types or traffic volumes. Capacity increases could be achieved through the improvement and extension of existing facilities and the construction of new port facilities to provide increased maritime access. However, all such options impact on the environment in some way. Port development therefore needs to take place in the context of European legislation such as, for example, the Habitats Directive (92/43/EEC), the Birds Directive (79/409/EEC), the Water Framework Directive (2000/60/EC) and the Waste Directive (99/31/EC). In all of these areas it is likely that the European Union will need to produce guidelines on the application of Community legislation and which should recognise existing EU and international legal regimes. Such guidelines would also need to clarify existing interpretation problems (European Commission, 2007; ESPO, 2007).

Further, ports, in their day to day operations need to develop waste reception facilities in line with EU Directive 2000/59/EC. Management of water bodies (rivers and estuaries) provide a further challenge and together with other stakeholders, ports should be involved in consultations on river basin management issues and the development of river basin management plans required by the Water Framework Directive (2000/60/EC). Similar issues apply to coastal ports in respect of the quality of coastal waters, sediment drift along the coast and the use of waterfronts. In this respect the development of integrated coastal zone management will create significant

management pressures for ports. In these areas it is likely that the European Union will have to balance the requirements of the legislation against the commercial pressures faced by the ports industry (European Commission, 2007; ESPO, 2007).

4.5. Modernisation

Technological change in the ports industry will have significant impacts on ports in the near future. A range of safety systems will become mandatory with the intention of improving the ship-shore relationship. Simplification of customs and administrative procedures is intended and the European Commission has also proposed the creation of a paperless environment for customs and trade. As a route to developing this strategy the European Commission has proposed the creation of a 'Maritime Transport Space without Barriers'. This will need to be supported by developments in what is termed an e-maritime approach and which the EC intends to publish a policy document on in 2009. The danger may be that paper based systems are simply replicated electronically and this would not achieve the ultimate purpose of speeding up customs and administrative systems. Also such systems would need to be cost-effective for ports to want to adopt them. New technological innovation in port equipment, such as automated stacking cranes, rail-mounted gantry cranes, automated container terminals, and twin and tandem lifting will have an important role to play in making Europe's ports more efficient. While the EU is unlikely to legislate in such an area its support in the area of research is clearly important and links back to the objectives set out in the 1997 Green Paper (European Commission, 1997; European Commission, 2007; ESPO, 2007).

4.6. Developing a level playing field

Port management systems vary widely across the European Union. Some Member States ports are managed by private businesses which own the port land (or avail themselves of rights similar to those of an owner). This is a common form of ownership in the UK. In the other cases ports are managed by public entities or undertakings, a much more common form of ownership in continental Europe and particularly the north west and in such cases the management is provided by port authorities. Some of these port authorities provide cargo-handling and/or technical-nautical services, others focus on management and development. Where port authorities have a high degree of autonomy in taking operational decisions, as well as financial autonomy from public authorities, they tend to be more efficient. The European Commission does not

however appear inclined to intervene to change port management systems. Port authorities may however need to have a greater degree of autonomy from, for example, regional authorities, of which many are a part. Full financial autonomy is an area that the European Commission is keen to ensure and recognises that it is a prerequisite for allowing an efficient allocation of investments and for allowing ports to develop.

Although there is not competition between all ports in all cases, competition between some of them, and competition inside ports can be significant and this is an area where the need for a level-playing field has long been an issue under discussion. One of the issues which needs to be addressed is public financing to ports and the European Commission is to adopt guidelines on State aid to ports in 2008. Under Directive 2006/111, funds that public authorities make available to any port should be transparent but this obligation only applies to ports whose annual earnings are above EUR 40 million per year. A large number of ports (some of which are important for their Member State and indeed for European transport as a whole) are below this threshold and the Commission therefore plans to extend the provisions on transparency of Directive 2006/111/EC to all merchant ports, irrespective of their annual turnover. This should provide a more complete picture of financial flows from Member States' public authorities to ports. There are however many areas where such guidance could prove to be controversial, particularly given the differences in port management systems noted above (European Commission, 2007, ESPO, 2007)

Other areas where the level playing field concept needs to be addressed includes ports concessions, technical-nautical services, cargo handling and ports dues. For port concessions the European Commission requires that fairness and transparency obligations apply. Similarly technical-nautical services such as pilotage, towage and mooring are crucial to the successful operation of ports and legal monopolies which might infringe in this area are discouraged. Labour pools also need to be operated within the existing legislation with service providers able to recruit who they so wish. For port dues the concept of transparency is encouraged so that port users are clear about what they will have to pay. There appears to be some disagreement between the Commission and the industry in this area as the ports industry needs to be able to control and set port charges to meet the requirements of its customers on an individual basis (European Commission, 2007, ESPO, 2007).

5. Integrated Coastal Zone Management

The relationships between transport and port policy on the one hand, and integrated coastal zone management on the other centres particularly around the challenges noted in the introduction to the ports section of this paper (above). There are three themes of interest. The first concerns the regional development of the coastal zone centred on ports. Secondly are the environmental management issues which arise from port and transport development at the coast. Finally are the environmental management and related spatial planning arrangements relating to port and transport development in the coastal zone.

Within the COREPOINT region, large commercial ports constitute the principal focus of regional development activity. There are a number of current schemes either proposed, under development or rejected. The most notable rejected project is Dibden Bay which was planned as a major extension to Southampton (Planning Inspectorate 2004). Projects under development include extension of Dover (Port of Dover 2008) and Felixstowe (Port of Felixstowe 2008). The most ambitious project of all is Mainport Rotterdam, which involves reclamation of a substantial area to seaward of the existing complex of docks (Ministerie van Verkeer en Waterstaat 2006). Also of note is the London Gateway project on the lower reaches of the Thames (DP Ports World 2008). All of these underline the primacy of international shipping development and growth of world trade in coastal development.

A second, related strand of port development in the region centres around other sea uses. Foremost among these is the widespread development of recreational boating, involving development and expansion of marinas in a large number of medium-sized and small ports, rather than in the large commercial ports noted above. A second example is related to offshore oil and gas development, involving not only expansion of the existing North Sea pipeline network, but a small number of key port developments, notably for the handling of liquefied natural gas (LNG), notably at Moss Morran in Fife and currently at Milford Haven. Thirdly, while fisheries have experienced long term contraction in the region, fishing ports – large and small – remain an enduring and substantial constituent part of port activity overall.

The environmental management issues associated with port and transport development at the coast focus on the ports themselves, and the associated land and sea transport links: roads, railways and shipping routes. Principal among these are the construction of ports and harbours and associated coastal defences and navigation channels, and landward links: road and rail, all of which substantially modify the coastal

environment. There is an unbroken history of port development extending back a millennium or more: ports with roots in the European Middle Ages, early modern period and the industrial revolution and its aftermath not infrequently possess substantial cultural heritage resources; while those which underwent large scale expansion between 1870 and the outbreak of the First World War are generally faced with urban renewal on a massive scale, with much of the former docks and associated port land redeveloped for other urban land uses. The best examples are arguably in the United Kingdom – understandably as the first industrial nation – and include London, the Mersey and Cardiff, for example. Such ports are good examples of the application of land use planning in urban areas. Further, port development on large rivers is necessarily an integrated part of river basin management, especially in the construction of flood defences.

A second major environmental management issue centres around waste management. To a large extent this is unremarkable in that ports are generally part of villages, towns and cities by the sea. However, normal waste disposal traditionally ended up in the harbour. Modern sewage and industrial waste disposal schemes now largely avoid this, especially since the advent of the EU Urban Wastewater Directive in the early 1990s. Much of the heavy industry associated with port development has now disappeared, while modern sewage treatment systems and long sea outfalls have taken the pressure off harbour areas. However, large ports have the additional task of dealing with ship-generated waste in large quantities, including ballast water, necessitating development of waste reception facilities.

Ports also have a range of other environmental management issues, including noise, dust, modification of land and marine ecosystems within the port zones, and disturbances due to both land and marine traffic movements. Within Europe as a whole, integrated port environmental management strategies have been developed within the past decade to deal with the full range of environmental management issues (Ecoports Foundation 2008) Such strategies may be legitimately viewed as a contribution to integrated coastal zone management.

Environmental management and related spatial planning arrangements have for long been an important theme in port development, particularly since the 1780-1830 period of the industrial revolution. There ensued a series of stages of development which included both successive transformations of the economic structures of the hinterland and foreland regions of ports and associated technological changes in transport, including the transfer from sail to steam and then to diesel power at sea; and from road /canal to rail and back to road on land, with canals playing a variable but key ongoing

role throughout. The environmental dimension received due weight throughout, through harbour conservancy arrangements necessary for the management of navigation, including maintenance of dredged channels, installation and maintenance of navigation aids, pilotage, and charting, all within geographically defined port limits. All this has resulted in a comprehensive range of port bye-laws governing all sea uses within port limits – the beginnings of a quasi- marine spatial planning system. Within the past few decades there has also emerged comprehensive emergency planning systems developed in association with local government and others, for dealing with major accidents involving shipping and hazardous cargoes. Again, it is legitimate to view this as part of a wider contribution to integrated coastal management. There is some recognition of this in the EU ICZM Recommendation of 2002 (Commission of the European Communities 2000); and more recently in the development of the European Maritime Strategy and Marine Policy (Commission of the European Communities 2006), in which shipping and ports necessarily play an important part.

6. Conclusion

From a mobility point of view, road transport has proved extremely successful at satisfying the needs of individuals and commerce over several decades. Along with this success, however, has come a series of negative impacts notably increased transport-derived pollution, road congestion, and arguably over concentration of industry into certain locations. European transport policy has therefore focused on a few key areas in order to address these problems. Trans European Networks have been developed with particular emphasis on rail modernisation and expansion, road traffic management measures have become ever more sophisticated with charging at the point of use a central plank of current and future policy. At the interface of modes, marine motorways have been identified as a mechanism for reducing road based freight transport in favour of short-sea shipping, and various intermodal initiatives have been put forward to encourage cooperative schemes which generally intend to maximise the use of environmentally friendly modes (rail, waterway and short sea shipping) and minimise the use of road, but build on the strengths of all modes. Major new infrastructure projects reflect these diverse needs.

With regard to ports, consensus exists among many stakeholders, not only on the actual themes, but also on the instruments that should be used to create an effective European port policy. However, most seem to agree that legislation is not generally the correct approach for a very diverse port industry. The port sector would however benefit from clarification of the rules enshrined in the EC Treaty, in terms of, for example, competition, market access, freedom to provide services, freedom of employment and the use of public funding. This could be undertaken through the use of “soft law” instruments, which are not legally binding but aim at indirect legal effects and – above all – practical effects, for example, guidelines and interpretative communications. The EU port policy consultation was initiated with the decision of the Commission to withdraw its proposal for a port services' Directive. The Commission indicated that a European ports policy could not be limited to the questions dealt with by the port services' Directive. Therefore the main objective of an EU ports policy should be to assist European ports to respond effectively to the increase in maritime traffic and the risk of saturation of port capacity (ESPO, 2007). Beyond that, environmental aspects of port and shipping management must be integrated within the wider ICZM Recommendation, and the EU Maritime Strategy and marine policy.

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