Opinion on the communication from the Commission to the Council and the European Parliament on telematics applications for transport in Europe

(96/C 18/09)

On 30 March 1995 the Economic and Social Committee, acting under the third paragraph of Rule 23 of its Rules of Procedure, decided to draw up an Opinion on the above-mentioned communication.

The Section for Transport and Communications, which was responsible for preparing the Committee's work on the subject, appointed Mr Denkhaus as Rapporteur. Following the death of Mr Denkhaus, Mr Kielman was appointed Rapporteur. The Section adopted its Opinion on 29 September 1995.

At its 329th Plenary Session (meeting of 25 October 1995), the Economic and Social Committee unanimously adopted the following Opinion.

1. Gist of the Commission communication

1.1. The Report contains a comprehensive description of transport problems, and uses this as a basis for an analysis and discussion of the telematics applications and services currently being considered; it also makes a number of proposals for future Commission activities.

2. General comments

2.1. Improvements in living standards, growth, employment and competitiveness will in the future mean further expansion of passenger and freight transport services in the European Union. By upgrading productivity, infrastructure and vehicle use, this expansion in transport services should be kept under control. Scarce resources in terms of available surface area, energy and potential damage to the environment make such steps necessary. Telematic applications in transport can make a key contribution to boosting infrastructure and vehicle use productivity. Telematics applications can likewise considerably enhance safety as a key component of transport quality.

2.2. Mobility is not an end in itself; it is rather the means to achieve other ends and objectives. Is the term 'sustainable mobility' therefore appropriate? On the one hand, this assumes that mobility can be manipulated; on the other, both mobility and its feasibility are amenable to fairly objective assessment. Using the term 'sustainable mobility' (Commission 1992 White Paper) also raises the question of the long-term feasibility of mobility. In this connection, telematics applications in transport will be of paramount importance in the future.

2.3. In the past, telematics in transport have been of major importance for all forms of transport and their interfaces; this will be even more the case in the future. Road transport, rail transport, inland waterway transport, maritime transport and air transport and, in particular, their interfaces at airports, harbours, terminals and stations all provide extensive scope for future telematics applications, in addition to existing systems. The intermodal impact of cross-system telematics structures in particular has to be taken into consideration.

2.4. If properly applied, telematics applications improve infrastructure capacity utilization factors. Highly positive effects can undoubtedly be achieved by avoiding system overloads and thus traffic jams, by increasing road safety with concomitant lower accident rates, and by providing route planning information on the basis of actual transport volume and traffic flow coordination.

However, in the event of total capacity bottlenecks, telematics applications are no substitute for capacity-effective investment.

2.5. Moreover, the Committee believes that telematics must not be used to force a shift from road transport to other modes, or to curtail use of transport services, as is being called for by some people who are unaware of the actual scope for transferring road traffic and the inadequate capacities of more 'environmentally friendly' modes of transport. The main aims of telematics should instead be to boost the safety and efficiency of all transport carriers. Telematics should, moreover, help improve the compilation and quality of information on transport, for example, on supply and on the interface between private and public suppliers of transport services. This should help 1) create the right conditions for stepping up use of intermodal capacities, and 2) improve the interoperability of systems. In this connection, the shipper's free choice is eventually the shortest way to the most efficient transport system.

2.6. Telecommunications and information technology can however certainly replace the demand for physical transport services in some areas, e.g. tele-sales or tele-working.

2.7. Europe-wide supra-systems, including telematics systems, may act as a brake on competition. In designing potential systems, steps should be taken to avoid monopolies, be they national or Europe-wide, or public or private.

2.8. The Commission's Communication lists a large number of objectives which can be achieved using telematics; however no clear distinction is made between primary and secondary objectives. This may foster over-optimistic expectations for the potential performance of telematics in transport.

2.9. The following key objectives stand out in the light of a) current information on existing or possible telematics transport systems and b) needs created by the challenges posed by the expansion in transport services:

— better safety;

— less environmental damage;

— a higher infrastructure utilization factor, *inter alia* preventing traffic jams;

— benefits for transport users in terms of vehicle use and load factors.

The above-mentioned objectives are designed to improve infrastructure and user productivity, protect resources and upgrade quality; their overall impact on competitiveness is extremely positive, thus helping to secure and boost employment in the European Union.

As regards charging for infrastructure use, telematics offer a method to employ better the principle 'the user pays', with the advantage that the yield will be put where the costs are produced. This is not the case with e.g. the excise on diesel, by which the user pays, but the yield does not always go to where it should (fuelling in the Netherlands and driving in Germany).

2.10. Effective telematics in transport involves managing and guiding transport. One consequence will be changes in users' freedom. Social consensus must therefore be achieved on these changes, compatible with maintaining and developing mobility.

2.11. The introduction of transport telematics as an additional condition for infrastructure use will increase the technological-organizational risks involved. Transport operations will assume an additional dimension, inevitably entailing technical and service risks with implications for the transport system's compatibility with the needs of European citizens. This may well have a detrimental impact on transport users' acceptance of telematics in particular, if, for example, inadequately tested technology were to cause errors in automatic road tolls or disruption in traffic flows, both of which these technologies are of course designed to prevent.

By examining the objective and subjective value of the targets in this area, an assessment should be made of whether the undoubted benefits of telematics in transport are reasonably commensurate with this additional risk.

2.12. Acceptance of telematics in transport by transport users is, however, a major precondition for its effectiveness. If the user acceptance ratio is low (number of users, frequency of use), the systems will be uneconomical and ineffective.

In addition to the clarification of basic questions on the aims, degree of freedom and risk, there are other important preconditions for securing acceptance; these include the transparency of the system, information about it and training people how to use it.

3. In view of the undoubted potentially advantageous effect of telematics applications in transport and of the inadequately defined framework in concrete political debate, the Committee makes the proposals set out below for further development of telematics applications in European transport.

The following steps must be taken:

— objectives must be clarified;

— the political framework must be created;

— conditions for application must be laid down;

— the system must be implemented.

3.1. The main aims of telematics applications, as defined in the list of objectives set out in point 2.9, should be clarified in discussions between all parties concerned and a consensus reached. The aims cannot be pursued in isolation, but only by combined efforts.

3.1.1. Transport operators and users, infrastructure operators, state bodies at all levels, including local and regional administrative bodies, telematics operators and socio-economic interest groups especially should be involved in this discussion on objectives.

3.1.2. The main technological systems for telematics applications in transport have been developed; now a decision has to be taken as to how they are to be used and for what purpose.

3.2. The political framework has to be established on a long-term, reliable basis. Policy should be consistent and harmonized at all decision-making levels.

3.2.1. First of all, it should be made clear: a) which political levels are responsible for what areas, and b) what impact the subsequent decisions will have and to what extent they will be mandatory.

3.2.2. Another crucial element of the political environment is to clarify the degree of freedom required for mobility and transport telematics systems.

3.2.3. The matter of weighing up the risks involved, raised in point 2.11 above, must be discussed and settled by those concerned.

3.2.4. All participants in transport telematics should be subject to statutory codes of conduct, which are to be drawn up by political consensus.

3.2.5. Two questions must be clarified: a) whether telematics applications in transport fall within the purview of the public or the private sector; b) the intensity of competition on the market for telematics service. The Committee leans towards public sector operation of telematics applications whose main purpose is to improve traffic flows and increase safety; additional services can then be operated by the private sector. In any case, the demarcation line between the public and private sectors is changing, as the Commission's Communication points out. Telematics undoubtedly helps shape this change. The Committee therefore endorses the Commission's proposal to establish partnership arrangements between the public and private sectors in this area.

3.3. Reliable conditions for applications must be created.

3.3.1. The systems' architecture must cater for Community-wide standards for transmission technologies, as well as interoperability and flexibility with regard to future requirements.

3.3.2. A comprehensive legal system with binding standards requires a uniform European legal basis recognized and applied at all levels (Member State, regional, etc.). Politics should create conditions whereby uncertainties are removed as far as possible in order to give more certainty to consumers and producers.

3.3.3. Steps must be taken to determine responsibility (allocation of roles) for developing and operating the telematics supra-structure, for opening up the transport infrastructure for telematics systems and for involving transport users. In particular, links must be forged between transport infrastructure and telematics infrastructure.

3.3.4. A list of possible participants (infrastructure operators, transport users, interface organizations) must be drawn up. It has to be decided whether for example pedestrians and cyclists, private aircraft and leisure craft are to be included or not in road transport, air transport and waterway transport respectively.

3.3.5. The operating conditions of telematics systems operators must be sufficiently flexible and interfere as little as possible with competition, without impairing the efficiency of the system as a whole.

3.3.6. Sophisticated telematics systems enable systems operators to glean information on the movements of transport users. For this reason, measures to protect the rights of the individual and personal data are extremely important.

3.3.7. The effects of electromagnetic fields and other forms of interference on health are not fully understood. Particular vigilance is therefore necessary here.

3.4. The potential benefits of telematics applications in transport are so great that those reaping the benefits should also provide them. Consequently, implementation of the systems must be left primarily to the private sector. Where general social interests are involved, public investment in telematics applications is certainly also desirable.

Implementation of telematics applications by commercial or private transport operators can at the most be promoted by the State through start-up funding.

3.4.1. Training people to use the systems is a most important aspect of implementation. Transport qualifications (driving tests) should cover the use of telematics systems as soon as possible. Telematics systems should be designed in a user-friendly manner, so that all transport users know how to use them.

3.4.2. Paying attention to SME (Small and Medium-sized Enterprises) seems a good thing, but the transport sector is dominated by small enterprises. What is considered as a SME in other industries, tends to be a gigantic concern in the transport industry. At the moment, little attention is paid to SMEs. There is a wide range of possibilities in this field, but relatively very few enterprises take advantage of them.

3.4.3. For users and users' groups, added value services in transport telematics should be left entirely to

the market, i.e. to the free play of supply and demand. Public debate in line with points 3.1, 3.2 and 3.3 is not regarded as necessary.

3.4.4. Market information on supply and demand for freight transport services is certainly difficult to ascertain on the basis of telematics applications in transport. Suppliers fear that their market segmentation strategies will be jeopardized and that demand will not be properly met in either quantitative or qualitative terms. Operators themselves are therefore highly sceptical about such market information where it is compiled in isolation.

4. Concluding comments

4.1. Existing telecommunications technologies with Europe-wide standards have already proved excellent for specific telematics applications in transport. To improve safety, reduce pollution, avoid congestion and improve vehicle utilization, we should act forthwith to create the political framework and develop the Europe-wide preconditions necessary for the implementation of the system, which can then be left as far as possible to the private sector.

4.2. Sectoral cost/benefit considerations are conducive to private-sector initiatives by both systems providers and users in the transport telematics sphere. Macroeconomic cost/benefit considerations must accommodate political and social imponderables; nevertheless, the discussion on objectives, means and effects must be conducted as honestly and objectively as possible, taking into consideration the opinions of all those concerned.

4.3. The development of trans-European transport networks provides a good opportunity to clarify goals and establish a political framework and the conditions necessary for using telematics in transport. We should avail ourselves of this opportunity.

4.4. Telematics applications in transport are undoubtedly an important investment for the future of Europe. It is high time that we consolidated and built upon our technological advances through practical application.

Done at Brussels, 25 October 1995.

The President

of the Economic and Social Committee

Carlos FERRER