

ASECAP'S POSITION AND COMMENTS ON THE

PROPOSAL FOR A DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL ON THE WIDESPREAD INTRODUCTION AND INTEROPERABILITY OF ELECTRONIC ROAD TOLL SYSTEMS IN THE COMMUNITY

Introduction

ASECAP is the voice of the European toll motorways, tunnels and bridges. It represents 112 companies in 14 European countries managing around 21.000 km of toll roads, in other words about 25 % of the total length of the TERN. Its members collect tolls worth more than € 20 Billion per year and overall, ASECAP represents organisation members with many years' of experience in the field of road financing, construction, operations and maintenance.

ASECAP fully shares with the Commission the aim to ensure the interoperability between electronic road toll systems in the internal transport markets of member states of the European Union.

Nevertheless, reinforced by its substantial technical and operational experience, ASECAP considers the specific proposal to secure this interoperable future as impractical and irrelevant.

The 112 concessionaire companies of ASECAP have reached consensus on four issues that overall, request, from the European legislator a revision of the terms of the proposed directive to achieve interoperability whilst being properly aligned with the technical and practical demands of toll collection on a large scale throughout Europe:

- 1 On the decision to remove the use of the DSRC standard by 1st January 2012, ASECAP vigorously defends the right to retain the use of standardised and interoperable DSRC-based toll collection in the internal market of 25 member states. DSRC represents the lowest cost solution for toll collection, is widely available from a competitive industry and already offers the potential to secure interoperability throughout most countries in Europe.
- 2 On the decision to generalise the shift towards satellite technology, ASECAP proposes, instead, the adoption of a multi-modal system that includes, by default, DSRC technology. In any case, ASECAP indicates that it would be more appropriate to "let the market decide" on which technology should be implemented, on condition that the DSRC technology employed is interoperable as defined above.

Therefore ASECAP's members committ themselves to offer to all interested users one on-board unit based on the DSRC 5.8 GHz technology which is suitable for use on the networks which they are aiming to drive, on the basis of technical specifications open to the whole of the issuers.

3 - ASECAP emphasises that contractual interoperability is a much more complex and significant issue than the technical interoperability. The stakeholders in tolling and road use charging are not only operators but also external contract issuers and government agencies. Furthermore, the legal and financial issues, including the enforcement and the necessary cross guarantees between all these stakeholders are considerable.

Therefore ASECAP does not regard, as realistic, that a unique commercial EFC contract could exist for each user throughout Europe by any date. Not even the successful, market-based deployment of interoperable GSM products depends on a similar model that is proposed for toll collection

Instead, the Directive should better promote a European EFC contractual set of rules <u>allowing</u> all issuers to provide European EFC contracts linked to interoperable devices that permit other operators to accept these devices. This EFC contractual set of rules could be available by the 30th June 2005. ASECAP is strongly in favour of such a contractual framework and would be committed to this target date.

4 – Finally, for all of the reasons given above, it seems inappropriate to use the term of "electronic toll service". Instead ASECAP proposes the use of the term "European electronic toll set of requirements".

Overall, ASECAP then considers the implementation timetable of the European system of electronic toll should be the following:

The Commission's currently proposed timetable:

1.	30 June 2004	Adoption by member States of statutory dispositions preparing harmonisation.
2.	from the 1st January 2005	Offer to HGVs exceeding 3.5 t and to buses/coaches a European frame of electronic toll
3.	1st January 2005 -	Any new system of electronic toll is based on the triple technology GNSS-GSM/GPRS-
	31 December 2007	DSRC
4.	before 31 December 2007	Presentation by the Commission of a report justifying the choice of the satellite technology and assessing the need to extend the use of DSRC.
5.	2008	Galiléo comes into service.
6.	1st January 2008	No more use of DSRC for any new system of electronic toll.
7.	from the 1st January 2010	Offer to all categories of vehicle of a "European service of electronic toll"
8.	1st Jan 2008- 1st Jan2012	Desertion of DSRC and migration to the Galiléo-GSM/GPRS system.
9.	1st January 2012	The whole European service of electronic toll has the Galiléo-GSM/GPRS standard.

Instead, ASECAP's simpler timetable is based on 3 stages:

1. 30 June 2005	Adoption by member States of the necessary national provisions to comply with the directive.
	Publication of the European set of requirements, containing the European EFC contractual set of rules.

2. Six months after the coming into force of the Directive

All new electronic toll systems brought into service useat least 5.8 GHz DSRC microwave technology.

3. **1 January 2008**

Presentation by the Commission of a report drawn up with the assistance of the Electronic Toll Committee. This report addresses the list of toll collection operators and of EFC contracts issuers having joined the EFC contractual framework.

The attached annex includes a presentation of proposed amendments to the proposed directive, together with ASECAP's justification and reasoning.

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ANNEX

List of proposed amendments:

- > On the interoperability of the DSRC standard
- > On the proliferation of technologies
- On the safety at toll stations
- ➤ On the harmful feature for environment, congestion and accidents of the building up of toll gates
- > On the objective and scope of the Directive
- ➤ On the timetable for implementing the electronic toll by satellite and mobile communications technologies
- > On the electronic toll service
- > On the features of the European system of electronic toll
- ➤ On the timetable of the directive implementation

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> On the interoperability of the DSRC standard

Amendement WHEREAS 2, 3, 4

(2) The majority of European States which have installed electronic toll systems to finance road infrastructure costs electronic systems to collect road use fees referred to hereinafter "electronic toll systems") use short- range microwave technology and frequencies close to 5.8 GHz, but these systems are currently mutually incompatible. The work on microwave technology undertaken European Committee the Standardisation (CEN) resulted in January 2003 in the preparation of technical standards making for the compatibility of GHz microwave electronic 5.8 systems, following the adoption of prestandards in 1997. However, technical standards encompass compatible variants which are not totally compatible. They are based on the Open Systems Interconnection (OSI) model defined the International by Standardisation Organisation for communication between computer systems.

(2) The majority of European States which have installed electronic toll systems to finance road infrastructure costs electronic systems to collect road use fees (jointly referred to hereinafter "electronic toll systems") use short- range microwave technology and frequencies close to 5.8 GHz. Through co-operative efforts these systems are currently becoming more and more mutually compatible. The work on microwave technology undertaken by the European Committee for Standardisation (CEN) resulted in January 2003 in the preparation of technical standards making for the compatibility of 5.8 GHz microwave electronic toll systems, following the adoption of pre-standards in 1997. They based the Open on Interconnection (OSI) model defined by International Standardisation Organisation for communication between computer systems.

- (3) Manufacturers and infrastructure managers have nonetheless agreed, within the Member States of the European Union, to develop interoperable products based on the pre-standards adopted in favouring the option of high-speed transmission between roadside units and on-board units. This choice should mean that new electronic toll systems can be that will introduced be technically compatible with the latest systems installed in the Community (in France, Spain and Austria).
- **(4)** It essential that is this standardisation work be completed as quickly as possible to establish technical standards ensuring the compatibility of systems electronic toll based on microwave technology. Other standardisation work concerning combination of satellite and mobile communications technology for electronic toll systems should also be completed in order to avoid fragmentation of the market.
- (3) Manufacturers and infrastructure managers have nonetheless agreed, within the Member States of the European Union, to develop interoperable products based on adopted pre-standards in favouring the option of high-speed transmission between roadside units and on-board units. This choice means that new electronic toll systems can be introduced that will be technically compatible with the latest systems installed in the Community.
- (4) This standardisation work is due for formal completion in the nearest future and is establishing technical standards which, complemented by some cross border activity, will ensure interoperability of electronic toll systems based on microwave technology. Other standardisation work concerning combination of satellite and mobile communications technology for electronic toll systems should also be completed rapidly in order to avoid fragmentation of the market.

The electronic fee collection industry, highway authorities and bridge, tunnel and road operators have invested substantial efforts over the last ten years to conclude a European DSRC specification. Additional parallel work was aimed at ensuring DSRC interoperability between EU and EEE countries, including European projects such as MOVE-it, CESARE I, II, CARDME, PISTA and A1. This interoperability work is ongoing and further co-operative projects and cross-border initiatives are being planned at the contractual level.

> On the proliferation of technologies

Amendement WHEREAS 7

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The proliferation of technologies already in use or planned for electronic toll systems in the coming years (mainly 5.8 microwave. satellite positioning and mobile communications) and the proliferation of specifications imposed by the Member States and neighbouring countries for their electronic toll systems compromise both the smooth operation of the internal market and transport policy objectives. Such a situation is liable to lead in future to the proliferation of incompatible expensive electronic boxes in the driving cabs of heavy goods vehicles, and to drivers making mistakes when using them or committing involuntary fraud.

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Justification

The efforts made by the operators to achieve DSRC interoperability throughout Europe will, in the near future, continue the evolution towards low cost, self-installed, compact devices. The feature sets offered by these devices will continue to ensure consumer choice without compromising interoperability. The development of a mass-market in interoperable GSM phones has not limited product variety and, we would argue, should not for electronic tolling products also. There is no conflict between encouraging product differentiation whilst requiring interoperability.

Furthermore, toll operators in member states are already able to specify and procure DSRC-based charging systems based on publicly available (CEN) DSRC standards with the confidence that the DSRC technologies (roadside systems and on-board units) will be offered competitively by several suppliers for initial and future contracts.

> On the safety at toll stations

Amendement WHEREAS 9

Drivers are legitimately concerned to see improved quality of service on the road infrastructure, **particular in terms of safety**, as well as a substantial reduction in the length of queues at toll stations, especially on busy days and at certain particularly congested points in the road network. The definition of the European electronic toll service needs to address that concern.

Drivers are legitimately concerned to see improved quality of service on the road infrastructure, as well as a substantial reduction in the length of queues at toll stations, especially on busy days and at certain particularly congested points in the road network. **Electronic toll will improve this quality of service**.

Regarding the numerous requirements for sustainable efficient transport as part of the terms of reference of the development and upgrading of road infrastructure in all of the member states of the EU, the safety of the user is not at stake at locations where tolls are collected. ASECAP is not aware of any study in the EU that has ever demonstrated increased accident rate at toll stations.

> On the harmful feature for environment, congestion and accidents of the building up of toll gates

Amendement WHEREAS 10

Electronic toll systems contribute significantly to reducing the risk of accidents, and thus increasing traveller safety, at toll gates, to reducing the number of cash transactions and to reducing congestion at toll gates, especially at busy times. They also preclude the negative environmental impact of installing new toll gates or expanding existing toll stations.

Electronic toll systems contribute significantly to reducing the number of cash transactions and to reducing congestion at toll gates, especially at busy times.

Justification

Based on the numerous requirements for sustainable efficient transport that are part of the terms of reference of the development and upgrading of road infrastructure in all of the member states of the EU, reference to the adverse environmental impact due to the construction of new toll collection facilities should be eliminated.

ASECAP is not aware of any study in the EU that has ever demonstrated increased accident rate at toll stations.

Finally, traffic congestion is usually limited to particular days during the year. None of the road user satisfaction surveys conducted in Europe over many years can dispute this claim. On the contrary, in some national surveys, customers award the highest mark to the infrastructure manager for the efficiency of toll collection and for the limited waiting time at toll facilities. It must be noted that the likelihood of congestion at toll plazas simply reflects the congestion experienced on the highway itself. The removal of toll plazas will not automatically remove the cause of congestion.

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➤ On the objective and scope of the Directive

Amendement ARTICLE 1

To achieve the objective set in the first paragraph, a European electronic toll service shall be created. This service must ensure the interoperability, for users, of the electronic toll systems that have already been introduced at national or regional level by the Member States and of those to be introduced in future throughout the Union's territory.

To achieve the objective set in the first paragraph, a European electronic toll set of requirements shall be defined. This set of requirements must ensure the interoperability, for users, of the electronic toll systems that have already been introduced at national or regional level by the Member States and of those to be introduced in future throughout the Union's territory.

Justification

The term "service" seems to be inappropriate, knowing the various status of operators and issuers all over Europe. It is better to define the requirements that will be compulsory in the future for all of them. Furthermore these requirements will define the transactions and records that will help ensure interoperability at the procedural and contractual levels.

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> On the timetable for implementing the electronic toll by satellite and mobile communications technologies

Amendement X ARTICLE 2, PARAGRAPHE 1

All new electronic toll systems brought into service on or after 1 January 2005 and intended for use by all categories of heavy goods vehicles and/or buses and coaches shall, for carrying out electronic toll transactions, use one or more of the following technologies:

- (a) satellite positioning;
- (b) mobile communications using the GSM-GPRS standard (reference GSM TS 03.60/23.060);

All new electronic toll systems brought into service on or after 1 January 2008 shall, for carrying out electronic toll transactions, use at least the first of the following technologies:

- (a) interoperable 5.8 GHz microwave technology as defined in paragraph 2
- (b) satellite positioning;
- (c) mobile communications using the GSM-GPRS standard (reference GSM TS 03.60/23.060);

The interoperability timetable shall commence on 1st January 2008 to take into account the time needed for industry and infrastructure managers to define and deploy standards-compliant, interoperable equipment.

The concessionaire companies require the equipment to comply with DSRC standard and applicable interoperability specifications to ensure a minimum service level for electronic toll collection and for this to be mandatory in any equipment used for toll collection in the cabin of the vehicle.

Firstly, this takes into account the substantial efforts that have been invested by the electronic fee collection industry, highway authorities and bridge, tunnel and road operators over the last ten years to conclude a European DSRC specification. Additional parallel work was aimed at ensuring DSRC interoperability between EU and EEE countries, including European projects such as MOVE-it, CESARE I, II, PISTA, CARDME and A1. This interoperability work is ongoing and further co-operative projects and cross-border initiatives are being planned.

Secondly, it is important to notice that this proposal does not question, and is not in conflict with the parallel efforts of the Community to commence Galileo operations in 2008. As in the German or even Swiss HGV charging system that uses currently available satellite technology, the different technical needs (vehicle authentication on the infrastructure, GSM-based debiting, etc) in the systems GNSS-GSM/GPRS would require that the default charging transaction uses standardised, interoperable DSRC.

Finally, ASECAP considers that, in compliance with the principle of proportionality of article 5 paragraph 3 of the Treaty, the current directive shall not go beyond what is necessary to achieve the objectives of the Treaty and, to do so, there is no need to eliminate DSRC.

In any case, ASECAP is convinced that from the beginning of the establishment of European framework electronic tolls, interoperability could be applied to all users of road infrastructure and not only to heavy goods vehicles and public service vehicles such as buses and coaches.

Amendement ARTICLE 2, PARAGRAPHE 2 to 8

- 2. A European electronic toll service shall be set up pursuant to Article 3 on 1 January 2005. As of this date, operators must make available to interested users on-board equipment which is suitable for use with all electronic toll systems in service in the Union and in all types of vehicle, in
- 2. A European electronic toll set of requirements shall be set up pursuant to Article 3 on 1 January 2005. As of this date, issuers must offer to users who are interested at least one on-board equipment which is suitable for use on the networks which they are aiming to

accordance with the timetable set out in Article 3(3), and which is interoperable and capable of communicating with all the systems operating in the territory of the Union.

- 3. It shall also be possible to link this onboard equipment to the vehicle's electronic tachograph for the purposes of calculating the fees due.
- 4. As of 1 January 2008, all new systems brought into service as part of the European electronic toll service referred to in Article 3 shall use only the satellite positioning and mobile communications technologies referred to in Article 2(1).
- 5. Systems brought into service as part of the European electronic toll service before 1 January 2008 must have abandoned the 5.8 GHz technology by 1 January 2012. A migration strategy for such systems must be formulated and implemented between 1 January 2008 and 1 January 2012.
- 6. To satisfy itself that satellite and mobile communications technology meets the needs of the operators of electronic toll systems, the Commission shall, by 31 December 2007, present a report drawn up with the assistance of the Electronic Toll Committee and, if necessary, a proposal to extend the period of use of microwave systems.
- 7. Member States shall take the necessary measures to increase the use of electronic toll systems. They shall ensure *inter alia* that at least 50% of toll lanes in each toll station are equipped with electronic toll systems by 2005 at the latest.
- 8. Member States shall ensure that processing of personal data necessary for the operation of the European electronic toll service is carried out in accordance with the European rules protecting the freedoms and fundamental rights of individuals, including Directive 95/46/EC and Directive 2002/58/EC.

drive in the memberstates of the Union and in all types of vehicle, in accordance with the timetable set out in Article 3(3). These on-board equipments have to be based on open technical specifications.

- 3. It shall also be possible to link this onboard equipment to the vehicle's electronic tachograph for the purposes of calculating the fees due.
- 4. Removed.
- 5. Removed.

- 6. The Commission shall, by 1 January 2008, present a report drawn up with the assistance of the Electronic Toll Committee to review the measures taken to ensure that interoperable equipment and procedures have been adopted.
- 7. Member States shall take the necessary measures to increase the use of electronic toll systems. They shall ensure that a sufficient number of lanes equipped with electronic toll systems is available with the aim of meeting quality of service and throughput commitments.
- 8. Member States shall ensure that processing of personal data necessary for the operation of the European electronic toll system is carried out in accordance with the European rules protecting the freedoms and fundamental rights of individuals, including Directive 95/46/EC and Directive 2002/58/EC.

The interoperability timetable shall commence on 1st January 2008 to take into account the time needed for industry and infrastructure managers to define and deploy standards-compliant, interoperable equipment.

The concessionaire companies require the equipment to comply with DSRC standard and applicable interoperability specifications to ensure a minimum service level for electronic toll collection and for this to be mandatory in any equipment used for toll collection in the cabin of the vehicle.

Firstly, this takes into account the substantial efforts that have been invested by the electronic fee collection industry, highway authorities and bridge, tunnel and road operators over the last ten years to conclude a European DSRC specification. Additional parallel work was aimed at ensuring DSRC interoperability between EU and EEE countries, including European projects such as MOVE-it, CESARE I, II, PISTA, CARDME and A1. This interoperability work is ongoing and further co-operative projects and cross-border initiatives are being planned.

Secondly, it is important to notice that this proposal does not question, and is not in conflict with the parallel efforts of the Community to commence Galileo operations in 2008. As in the German or even Swiss HGV charging system that uses currently available satellite technology, the different technical needs (vehicle authentication on the infrastructure, GSM-based debiting, etc) in the systems GNSS-GSM/GPRS require a default charging transaction to use standardised, interoperable DSRC.

Thirdly, ASECAP considers that, in compliance with the principle of proportionality of article 5 paragraph 3 of the Treaty, the current directive shall not go beyond what is necessary to achieve the objectives of the Treaty and, to do so, there is no basis to eliminate DSRC.

In any case, ASECAP is convinced that from the beginning of the establishment of the European framework, interoperability could be applied to all users of road infrastructure and not only to heavy goods vehicles and public service vehicles such as buses and coaches.

Finally, the European electronic toll system defined by the proposed directive, relies on, at least until 2010, a market of bundle of services and technologies which, in the mid- and long-term, will evolve with some uncertainty. An implementation report, sponsored by the Commission is therefore needed to assess the efficiency of the toll collection operations, their degree of compliance with the directive and of the status and operation of the interoperability organisation.

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➤ On the electronic toll service

Amendement ARTICLE 3, PARAGRAPHE 1

A "European electronic toll service" shall be set up which encompasses all road infrastructure in the Community on which

A "European electronic toll contractual set of rules" shall be set up which allow all the operators and/or issuers to

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tolls or usage fees are collected. A single subscription contract shall give access to the service on the whole of this network and subscriptions shall be available from the manager of any part of the network.

provide EFC interoperability. Any subscription contract respecting the European electronic toll contractual set of rules shall give access to the whole network. It shall be available from the contract issuers of any part of the network. Its implementation is set up at the third paragraphe.

Justification

ASECAP members consider that the establishment of a single toll contract valid for the whole 25 member States, raises significant problems at the juridical, judicial, fiscal and financial levels relating to the imposition of different levels of juridical structures and commercial intermediaries.

This proposal is inspired by the very efficient models of national compatibility, free of a single subscription contract, developed by systems of credit cards, GSM mobile phone operation and of the issue and acceptance of air transport tickets.

The contractual compatibility should rely on a common European set of rules respected by all contract issuers.

Such a body of European rules should benefit from the outcome of several European projects', including MOVE-it, CESARE I, CESARE II, PISTA, the newly established CESARE III, etc) to create a specification to ensure contractual interoperability.

Finally, collectors of fees or of tolls will not necessarily coincide in the long term with network managers. It is therefore convenient to replace the very general expression "network manager" by the more accurate notion of "contract issuer" developed and used in the European research projects CESARE II and CARDME.

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Amendement ARTICLE 3, PARAGRAPHE 2

The European electronic toll service shall be independent of the level of charges and the purpose for which such charges are levied. It shall concern only the method of collecting tolls or fees. The service shall be the same irrespective of the place of registration of the vehicle, the nationality of the subscriber, the nationality of the operator who issued the subscription, and the zone or point on the road network in respect of which the toll is due.

The European electronic toll contractual set of rules shall be independent of the level of charges and the purpose for which such charges are levied. It shall concern only the method of collecting tolls or fees and of clearing. The system shall allow an interoperability of the contracts irrespective of the place of registration of the vehicle, the nationality of the subscriber, the nationality of the issuer who issued the subscription, and the zone or point on the road network in respect of

which the toll is due.

Justification

ASECAP members consider that the establishment of a single toll contract valid for the whole 25 member States, raises significant problems at the juridical, judicial, fiscal and financial levels relating to the imposition of different levels of juridical structures and commercial intermediaries.

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Amendement ARTICLE 3, PARAGRAPHE 3

All network managers concerned must offer the European service to their customers according to the following timetable:

- (a) for all vehicles exceeding 3.5 tonnes and vehicles carrying more than nine passengers (driver + 8), as of 1 January 2005.
- (b) for all other types of vehicle, as of 1 January 2010 at the latest.

As of 1 January 2010, all EFC contract issuers in the Union must offer to its customers a contract that complies with the European electronic toll contractual set of rules.

Justification

Considering the final legal constraints that need to be resolved (e.g. problems linked to fraudent activity, to the transfer of taxations, etc) and to harmonisation required before such a compatibility exists (e.g. the definition of interoperable contractual standards, removal of applicable administrative barriers between member States, division of responsibility for toll recovery, redistribution of payments between issuers and operators, validation processes period, etc.), ASECAP considers the term of 2010 should be granted as a more reasonable period, to the European legislator and to the Electronic toll committee. This term would also ensure sufficient time for the infrastructure stakeholders to establish supply chains and verified operating processes.

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> On the features of the European system of electronic toll

Amendement ARTICLE 4, PARAGRAPHE 1

1. The European electronic toll service shall encompass the following:

1. The European electronic toll set of requirements, including the contractual

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set of rules, shall encompass the following:

Addition of a new point (k):

(k) Harmonisation of enforcement procedures in order to guarantee each issuer and each operator the collection of their tolls or fees.

Addition of a new point (1):

(1) List of the credit cards.

Justification

The customer's process of contracting with the contract issuers could be significantly eased by linking the electronic toll contract to the user's banking card or credit card; such cards already offer a European network of compatibility between modes of payment; in this case, any contract supplier could easily act as the middleman on behalf of other suppliers for registration of their clients. This mechanism would avoid the creation of a clearing house(s) for fees on a European scale, which would constitute an extremely complex (and in our opinion unnecessary) procedure that could add to the cost of revenue collection that would impact some users or be subsidised by others.

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Amendement ARTICLE 4, PARAGRAPHE 2

- 2. The European electronic toll system shall employ the technical solutions referred to in Article 2.
- 2. The European electronic toll system shall employ the technical solutions referred to in Article 2 and shall rely on a public availability of specifications needed for their realisation.

Justification

Meeting the mandatory requirements for fair competition means ensuring the absence of incentives or market pressures that could encourage the development of a de facto monopoly within the industry responsible for (or related to) producing interoperability technologies themselves.

> On the timetable of the directive implementation

Amendement ARTICLE 6, PARAGRAPHE 1

Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive not later than **30 June 2004**. They shall forthwith inform the Commission thereof.

Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive not later than 30 June 2005. They shall forthwith inform the Commission thereof.

Justification

Considering the publication of the legislative proposal at the end of April 2003 and the average expected duration of the legislative process, a more reasonable but nevertheless still ambitious timetable suggests a more realistic deadline for the integration of the terms of the directive by member states.

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