

Dynamics of EU Transport Safety Regulation in the European Policy Process: Differences and Similarities

Fleur Fragola

Abstract

The European Community (EC) and subsequently, the European Union (EU), have been central to an impressive development of regulation at the European level. In this 'regulatory age' (Majone 1994), product safety has become one of the first issues to be dealt with, in order to overcome barriers to trade, and should be regarded as a first step to be taken in order to integrate European markets. Transport industries have experienced distinct levels, forms and timing of EU safety regulation. While the automotive industry has undergone a standardisation process since the 1970s, such questions were only addressed in the context of railways in the 2000s. Thus, it is interesting to question and analyse the various interplays of actors and/or events which have characterised the European policy process in each transport sector. In addition, a trans-sectoral comparison will help in explaining such differences and their impact on the validity of traditional EU decision-making theories, such as that developed by Héritier in 1996.

Keywords

Automotive Industry; European Decision Making Process; Railway Safety; Transport.

THE EUROPEAN COMMUNITY (EC) AND SUBSEQUENTLY, THE EUROPEAN UNION (EU), have seen an impressive development of regulation since the European integration project began. This dynamic was accelerated during the 1980s with the development of the Single European Act (SEA)¹ and the progressive elaboration of a Single Market. In this 'regulatory age' (Majone 1994, 1996), product safety has become one of the first issues to be dealt with in order to overcome barriers to trade, and as a first step to be taken to integrate European markets. As Joerges (2001: 181) notes, "for the EC, [product safety] is of central importance because of the concept of bringing about a single European market". Thus, the level of product safety can be considered as an indicator of the level market integration in Europe.

Transport industries are cornerstones of the European market, as far as they are essential to the free movement of goods and people (Provensal 2007). The transport sector represents about 7% of European gross domestic product (GDP) (European Commission

¹ The Commission's White Paper on the completion of the internal market (1985) illustrates this regulatory inflation, in that it lists hundreds of regulatory measures to be taken in order to unite European markets.

A version of this article won the Gordon Smith Prize (2007), which is awarded by the London School of Economics (L.S.E.) for the best dissertation on the MSc Politics and Government in the European Union Programme. The opinions expressed by the persons interviewed during this research are personal and in no way may be taken as the official views of the relative institutions or companies. I am most grateful to Martin Lodge for his valuable suggestions and helpful comments.

2006c: 3) and the demand for mobility will continue to increase. It is foreseen that passenger transport will grow by 35% between 2000 and 2020, while freight transport will achieve a 50% increase over this period (European Commission 2006c: 8).

These sectors are also regulated as a means to guarantee a maximum level of safety to European citizens/consumers. In order to achieve such goals, the EU has been given power to legislate on mandatory technical requirements called 'essential safety requirements'. This prerogative has been strengthened at a legal level, by the introduction of 'safety' as an objective of the European transport policy (Article 71), by the Maastricht Treaty. Yet, despite this common legal basis, each individual transport industry has had specific levels, forms and timing of EU safety regulation imposed on it.

The developments experienced in the road and railway sectors seem particularly interesting to investigate and compare, as they share some similarities (inland transport modes) but follow different intrinsic logics, as rail is a guided transport, contrary to road. In addition, they represent the two transport modes that are the most frequently used by European citizens.² Railway and road illustrate different safety regulation patterns at the EU level. On the one hand, the automotive industry has known a standardisation process since the 1970s, which has led to extensive technical specification of subsystems' requirements and to the European type-approval of (safe) passenger cars. On the other hand, safety concerns were only addressed in the 2000s for the railways. Thus, it is interesting to question and analyse the various interplays of actors and/or events which have characterised the European policy process in each transport sector. Comparing them will help in explaining the observed differences. The research in this article focuses on the topics of 'product' standardisation (i.e. vehicle safety) and mandatory EU regulation, leaving aside the developments in 'process' harmonisation (i.e. European driving licences) and voluntary European standardisation (i.e. norms elaborated by the European Committee for Standardisation (CEN) and the European Committee for Electrotechnical Standardisation (CENELEC).

Two branches of the relevant literature have been used in this research, which are centred on the transport policy and on European standardisation. Comparative analyses of the differential policy processes and policy outcomes concerning mandatory technical regulation have not been documented so far in the literature. Firstly, the comparison rail/road has more often focused mainly on the differential liberalisation process of both industries and their specific implementation throughout the EU (Stevens 2004; Héritier 2001). Secondly, considering the standardisation process, most of the literature focuses on voluntary norms and their effects on actors' behaviour (Austin and Milner 2001; Genschel 1997) or European (market) integration (Egan 1998). As a result, the lack of literature directly focusing on EU decision-making and (mandatory) transport safety regulation has been compensated by a series of fifteen semi-structured interviews, which have been conducted with actors involved in this policy process. These elite actors include officials from the European Commission and the European Railway Agency, European interests groups, national safety authorities and members of the European Parliament. These interviews were conducted in Brussels, Paris and Valenciennes between April and July 2007.

² Until 1995, road and rail were the two main transport modes, in terms of passenger kilometres (European Commission, 2009: 118). Since then, air transport has reached the second place in the performance rating concerning passenger transport, in particular due to the fact that distances covered by airplanes are longer.

The analytical framework will be based on Hérítier's (1996) analysis of the European decision-making process as a 'patchwork' accommodating European diversity and as 'regulatory competition'. Then, two case studies will shed light on the validity and limits of this theoretical explanation, by considering the mandatory technical standardisation in the inland transport sectors.

The first part of this research will set the theoretical patterns of policy-making as developed by Hérítier (1996) and emphasise the general assumptions that underlie her argumentation. The second and third part will offer analyses of EU safety regulation in the railway and road sectors, focusing on their particular policy processes. Finally, a comparison between the two transport modes will be drawn and will lead to concluding remarks on the validity of Hérítier's (1996) theory to understand the mechanisms at stake in the transport industries.

Patterns of policy-making and expectations

Hérítier (1996) explains the European decision-making in terms of a 'patchwork', insofar as she highlights the 'subterfuges' used to accommodate European diversity. It is important to underline that Hérítier's argument refers to legislative processes following the 'traditional' Community method, on matters which involve a consultation of Committees.

As Hérítier (1996: 149) notes, "European regulatory policy-making unfolds in the context of diverse interests and traditions of Member States, [which] clash in the European arena and have to be brought into balance". Thus, there is a competition to impose specific regulatory frameworks and outputs.³ This regulatory race is motivated by the Member States' desire to boost their competitive position in the European market and to limit the adjustment costs. Therefore, Hérítier (1996: 151) notices that it is generally "a State with a strong regulatory tradition that approaches the Commission with a policy proposal", in order to benefit from 'first mover' economic and regulatory advantages. The role of the European Commission consists mainly in acting as a 'gate-keeper', determining the 'most appropriate' policy alternatives. Once the Commission has offered its support to a proposal, this initiative will frame the problem definition, identify the European agenda, and, therefore, have effect on later negotiations.

Once the problem has been framed and the agenda has been set jointly by the first mover and the Commission, the consultation in comitology takes place. This debate involves 'regulatory national experts' under the coordination of the Commission. The work of these committees eases the policy-drafting phase of the decision. However, it is the strategies and 'subterfuges' (Hérítier 1997: 171) amongst Member States in the Council and the European Parliament that determine the final outcomes and the formal decision-making.

Hérítier makes three main assumptions in her analysis. Firstly, Hérítier insists on the fact that Member states are the dominant actors in the European policy process at the agenda-setting and decision-taking levels. It is also interesting to underline that Hérítier assembles under the notion of Member States' strategies, actions taken both in the Council and in the European Parliament. Secondly, Hérítier grants an important role for the European Commission, emphasised by its legislative function, where it determines the framework of the alternative solutions. Finally, Hérítier marginalises the role of any other actors or events in this process.

³ Hérítier (1996) underlines in particular the strategies of the Member States to shape the agenda ('first mover strategy') and the final decisions ('negative coordination, bargaining and compensation').

This article will attempt to identify how well Hérítier's (1996) arguments explain the developments experienced by the railway and automotive industries. These two sectors will indeed provide differentiated empirical cases in terms of timing, content and extent of EU safety regulation. Thus, it will be interesting to see how well Hérítier's (1996) argumentation explains their particular policy process and elucidates the puzzle of their great variation in policy outputs. In order to structure the demonstration, attention will be drawn to specificities of the industry and of their own EU safety regulation experience. On the one hand, the decisive role of actors as 'policy entrepreneurs' (Kingdon 1995: 178)⁴ will be analysed. Three sets of 'actors' will be considered (1) the Member States, (2) the European Commission and (3) 'other' actors). However, similarly to Hérítier's (1996) argumentation, the role played by individuals in these institutions will not be specifically assessed. On the other hand, the importance of events (i.e. accidents, evolution of the transport mode) as 'policy windows' (Hérítier 1996: 166) will be studied. For the clarity of the demonstration, a differentiation will be made between the role of punctual events and of structural trends. This benchmark and method will be used systematically in the railway and road sector. Finally, a comparative analysis of the developments known in both sectors will lead to general conclusions on Hérítier's (1996) arguments.

Railway transport

EU safety regulation in the railway sector

Dynamics of the railway sector

Railway safety regulations were issues kept national until the 2000s. Railway systems have indeed remained under close control of the States⁵, because of their nature and their wide-reaching implications. Indeed the railway sector is characterised by numerous market failures, such as a natural monopoly, economies of density, safety and asymmetries of information (Di Pietrantonio and Pelkmans 2004: 1). In addition, railways have been decisive for national security, wealth and cohesion (both social and territorial). As a result, the development of railways in Europe has led to highly fragmented railway systems (Hérítier 2001: 39). This diversity has limited competition between national railway companies, despite the applicability of EC competition rules to the transport sectors, as confirmed by the European Court of Justice Case (1986), 'Nouvelles Frontières'⁶ (Di Pietrantonio and Pelkmans 2004: 24).

This organisational structure was no longer sustainable in the 1980s (Hérítier 2001: 38). High costs engendered by the lack of competition, standardisation and interoperability as well as the lack of competitiveness of national operators weakened the position of railway in the intermodal competition. Di Pietrantonio and Pelkmans (2004: 2) report that "during the period 1970-2001, rail's [freight] market share collapsed from 21% to 7.8% [while rail passenger transport] decreased from 10% to 6%."

The European Commission began in the 1980s to campaign for a European-wide solution to the decline of the railways, underlining a strategy to 'revitalise' the railways (European

⁴ John Kingdon (1995) develops an explanatory model of agenda-setting through randomness. He analyses this process of agenda setting as the coupling of three streams (problems, policy and political streams) by policy entrepreneurs in the time, during which a policy window is opened.

⁵ The intervention of the state has taken many facets, including state-ownership of the infrastructure and the railway operator, planning strategies, funding (through subsidies) of railway services and railway industries.

⁶ Judgment of the European Court of Justice of 30 April 1986, 'Nouvelles Frontières' (Cases 209-213/84).

Commission 1996). In addition, institutional reforms of the Community like the Single European Act (SEA) and Maastricht Treaty pushed the strategy of integration of railways forward, in the frame of a single European market.

Dynamics of EU (safety) regulation in the railway sector

Since the 1990s, the strategy of the Commission has been based on a dual approach. On the one hand, a common model was adopted to enable future incremental opening of the market. "Unbundling was viewed by many as an inevitable step of reforms pursuing greater efficiency" (Di Pietrantonio and Pelkmans 2004: 16). Directive 91/440 required vertical separation of the accounting of services and management of infrastructure. Directive 2001/12 developed this common framework further with the obligation to create different organisational structures to bear these two distinct tasks. In addition, it required the independence (from railway operators) of certain essential functions, such as the allocation of capacity or infrastructure charging and licensing. An incremental introduction of competition emerged after long negotiations. Competition was opened for international freight transport services by the first railway package (Directive 2001/12)⁷ and generalized to all freight services in 2007 with the second railway package (Directive 2004/51).⁸

On the other hand, interoperability Directives (Directives 96/48 and 2001/16, both amended by Directive 2004/50)⁹ were set up under the treaty base relative to Trans-European Transport Network (Chapter 15, TEU). These Directives made it possible to establish mandatory European specifications, known as Technical Specifications for Interoperability (TSIs), which helped the technical integration of railway systems. TSIs define the technical specifications necessary for the implementation of essential requirements, including safety. TSIs will help the railway sector sidestep the lasting process of rolling stock certification. Sub-systems will have to match the requirements imposed by their related TSI, but once certified as conformed, the certification of this point will be valid all over Europe. These binding specifications are held by the Commission to be "essential to ensure that trains can run safely and seamlessly throughout the entire trans-European rail transport network" (European Commission 2006b: 2). Thus improving safety performance was not the primary objective of EU railway regulation, all the more that "rail is a safe mode of transport" (Lundström 2002: 1). Yet, with the progress toward interoperable Trans-European networks and the progressive opening up of the railway market, it was necessary to maintain at least equivalent levels of safety (ERA 2007).

Before 2004, safety issues were addressed principally through the conditions of attribution of licences or conditions for granting access to the network. It is the second railway package, which has created a harmonized European approach to railway safety. Directive 2004/49 aimed at creating a European approach to railway safety through the obligation for states to create national safety authorities, the establishment of common safety targets (CSTs) and methods (CSMs), as well as the elaboration of common rules for accident

⁷ Directive 2001/12/EC of the European Parliament and of the Council of 26 February 2001 amending Council Directive 91/440/EEC on the development of the Community's railways (OJ, 15.3.2001)

⁸ Directive 2004/51/EC of the European Parliament and of the Council of 29 April 2004 amending Council Directive 91/440/EEC on the development of the Community's railways (OJ 164, 30.4.2004)

⁹ Directive 2004/50/EC of the European Parliament and of the Council of 29 April 2004 amending Council Directive 96/48/EC on the interoperability of the trans-European high-speed rail system and Directive 2001/16/EC of the European Parliament and of the Council on the interoperability of the trans-European conventional rail system (OJ L 164, 30.4.2004)

investigation. A European Railway Agency (ERA) has been set up by Regulation 881/2004 to provide the Commission with an expertise body able to elaborate proposals of TSIs and the requirements for the Safety Directive. Thus a strategy of harmonisation of technical standards, safety management systems and methods, guaranteeing continuing high levels of safety has emerged.

Nevertheless, this strategy was not sufficient to ensure rapid outcomes (European Commission 2006c: 15) particularly in safety-related issues (Desfray 2007). The TSIs follow a long process of drafting and implementation before these binding norms become effective for the construction of any new lines, the investment in new rolling-stock or their 'significant' upgrade (Directives 96/48 and 2001/16). For instance, the TSIs that were requested by the Commission in 2006, which are expected for 2009, and will result in the production of the first interoperable locomotives by 2015 (interview European Commission 2007). Taking into account that the life-time of rolling-stock is about 25 to 30 years, the empirical effects of TSIs will be observed on a medium-term perspective. In the meantime, sets of national rules are likely to persist.

This lack of convergence in national safety requirements and certification processes of rolling-stock is directly hindering their operation on European tracks. In fact, "international operators have to go through repeated approval processes in each Member State where they intend to operate, often requiring the provision of evidence not mutually recognised by Member States" (European Commission 2006b: 3). For instance, the homologation process for a locomotive operating between Germany and France lasts on average 24 months and costs 3 million Euro (European Commission n.d.: 6). To avoid such additional delays and costs, the Commission has envisaged a complementary strategy of cross-acceptance and adopted proposals in December 2006 aiming at facilitating cross-border railway transport and simplifying the certification of railway vehicles. Thus, cross-acceptance of rolling-stock would be a useful and efficient instrument easing the interpenetration of national railway markets in Europe.

Decision-making dynamics and EU railway safety regulation

Decision-making procedures and safety norms

EU legislation relative to safety and interoperability is organized on the typology of a pyramid (see Figure 1, page 338). At the top, essential requirements, including safety, are part of the interoperability Directives which are adopted under the normal Community procedure of co-decision. These requirements are further developed in the TSIs. Elaborated by the European Association for Railway Interoperability (AEIF) until 2004, TSIs are now conceived by the ERA. In both cases, the proposals were made to the Commission, which could approve it by a Commission decision, after positive results in the Article 21 Committee.¹⁰ Voluntary CEN and CENELEC standards are often used by legislators. The voluntary nature of the standards means that EU legal documents do not have to include extensive technical descriptions (European Commission 2007). If they were explicitly referred to in such documents, then the standards become mandatory and part of the *acquis*.

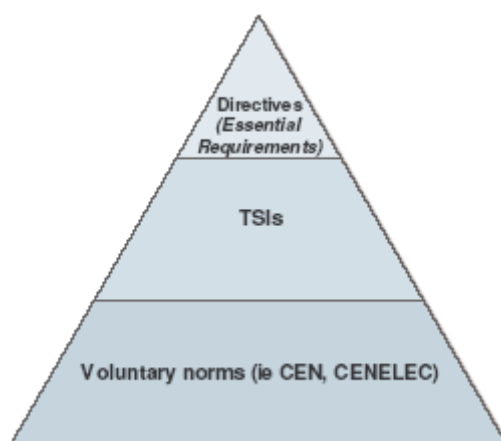
¹⁰ This Committee was set up in art.21 of Directive 96/48 (OJ L 235, 17.9.1996) on interoperability of the European high-speed railway system and is referred to in Directive 2001/16 (OJ L 110, 20.4.2001).

Policy entrepreneurs

Until the mid-2000s

As underlined above, the strategy for the Community's railways seems to have been strongly influenced by the Commission's propositions. Its strategy was to boost interoperability and safety through the progressive liberalisation of the railways' undertakings. Yet, the timing of the reform was determined by the Member States, which had blocked European legislation on railways until the early 1990s (Knill and Lehmkuhl 2000: 68). Member States indeed refused at first to delegate the railway policy to the EU, making any progress on railway safety harmonisation at the EU level impossible. Thus, Member States can be held accountable for the delay and for the late formulation of a European safety approach to railways, through their individual lack of willingness to address any railway-related issues and their votes in the Council. Finally, the role of the rolling-stock industry is more arduous to define, even if there is strong probability that in the beginning of the 1990s its influence was marginal, in so far as the railway supply industry was reorganizing itself and that the European Association for Railway Supply Industries (UNIFE) was nascent.¹¹

Figure 1 : *Legislation pyramid in the railway sector*



After the mid-2000s

The distribution of power between the actors did not remain static. After the shift of the regulatory paradigm and decision level of the railway policy, a sensible reallocation of power between the actors occurred. Member States suffered the loss of their monopoly of control and legitimacy over railway policy. Even though Member States remained crucial in the decision-making process, some institutional changes limited the Council's scope of action. The generalisation of Qualified Majority Voting (QMV) in the Council and the extension of the co-decision procedure in the transport arena by the Amsterdam Treaty slightly weakened (in relative terms) the Member States' position.

¹¹ UNIFE was created in 1991 and in 1992, its headquarters moved to Brussels. This reorganisation and relocation happened in reaction to the establishment of a Single Market (interview A. Lorailère 2007).

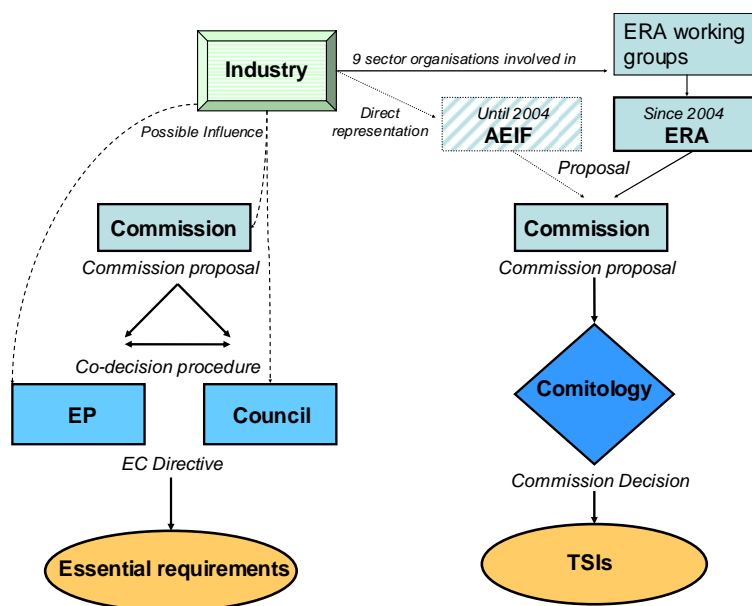
The European Parliament emerged in the arena as a balance to the Council’s supremacy (European Commission 2007). Nevertheless, it has not undermined the divisions inherent to a Parliament (interview D. Sterckx 2007) and relative to the nationality of the MEPs (interview D. Naudet 2007). Yet, there is no causal or corollary relationship between the implications of the co-decision procedure and the role of the European Parliament on the extent, content or timing of the EU railway regulation, in so far as the legislative expansion in the field happened after 1990 (European Commission 2007). In addition, directives are being amended, to be in accordance with Decision 2006/512, to grant greater power of scrutiny over the ‘Article 21’ Committee to the European Parliament.

The role of the Commission increased slightly. The proposals made by the Commission led to a development of non-majoritarian institutions both at EU (ERA) and national level (national safety authorities, infrastructure managers). This evolution amplified the power of the Commission in two self-reinforcing ways. Firstly, the Commission successfully downloaded its own structure and functioning patterns to the newly created institutions. Secondly, it continued the transfer of railway policy from the political scene to the expertise arena, “insulat[ing] the resolution of technical regulatory issues from the day-to-day political changes” (Vos 2000: 1119).

Finally, the railway sector became more and more active and influential in the EU policy process, in particular through the involvement of representative organisations in the discussion and elaboration of TSIs (interview A. Loraillère 2007). Until 2005, representatives of the industry (through the AEIF), were directly responsible for the elaboration of TSIs. This participation of the industry has been institutionalised within the ERA, whose working groups can include representatives of the sector, even if it can happen that groups representing minority positions are not able to influence the final outcome (European Commission 2007).

The increased number and influence capacity of actors produced two effects that may appear paradoxical at first: a growing complexity in the relationships between the actors and a simplification of the entrepreneurial landscape, in so far as major actors could be easily identified (Desfray 2007).

Figure 2 : Diverse decision-making modes according to the two types of mandatory norms and influences



Policy windows

Stakeholders' actions and reactions have to be analysed in a particular context and in the light of specific events. According to Desfray (2007), the structural decline of the railways has been determinant in policy change and the evolution of national politicians' consciousness and strategy related to this policy. On the contrary, punctual events (such as accidents) have not played any significant role either in the policy shift or in the elaboration of EU safety regulation (ERA 2007). This can be explained by their low magnitude (Lundström 2002: 1-3). Despite the resounding criticisms relative to railway safety, in particular in Britain (after the 1993 Railway Act privatizing the sector and the 2000 Hatfield train crash) safety levels have remained very high in comparison with other transport modes and have steadily increased in Britain (Muir 2006).

Road transport

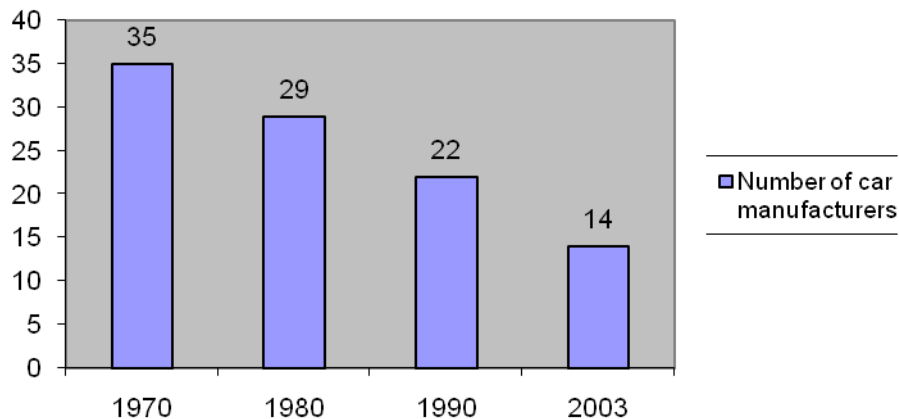
It is necessary to clarify two issues before discussing the case of safety regulation in the road sector. First, it is crucial to dissociate individual cars (category M1), on which the attention of this research is focused, from commercial vehicles, coaches and buses, which have known radically different legislative processes. Second, it is essential to bear in mind that road safety is by nature an integrated issue. Traditional holistic approaches consider road safety as being constructed on three pillars: the vehicle, the infrastructure and the drivers' behaviour (European Commission 2005a). Although this paper will essentially shed light on vehicles' technical requirements, it will succinctly consider the interactions and the evolutions experienced in the two other pillars.

EU safety regulation in the road sector

Dynamics of the road sector

Europe has always been a leading region for the production of automobiles (see figure 3). In 2002, Europe represented 42% of world production (European Commission 2004: 160), making the automotive industry a pillar of European economy in terms of employment, investment and international trade (Rhys 2004: 877). Since the 1970s, two developments have had wide-reaching implications on the structures and dynamics of this industry in Europe. Firstly, the relationship between the states and 'their' national automotive industries changed dramatically. While most European industries benefited from considerable State aid,¹² EC competition law put an end to these practices. Secondly, since 1970s increasing international competition has led to extensive "consolidation and restructuring [that] have radically transformed the industry" (Rhys 2004: 163). The magnitude of the competitive threat posed particularly by Japanese imports has changed the nature of the European car market in the 1980s (Stephen 2000: 22) and the behaviour of car manufacturers that started cooperation arrangements (Weber and Hallerberg 2001: 188). The "opening to international competition of new increasingly important markets such as Eastern Europe, China and Russia" that has accelerated this evolution at the turn of the century (European Commission 2004: 163), as illustrated by the restructuring of car manufacturers.

¹² For instance, between 1977 and 1987 the main beneficiary of State aid (Renault) was attributed ECU 4500M (European Commission, 1990).

Figure 3 : *Restructuring of the European, American and Japanese car Industry*

Source: European Commission 2004:164

Dynamics of European (safety) regulation in the road sector

The various national safety regulations that existed in the automobile sectors after the Second World War could be considered as prohibiting sales of imported goods on safety grounds (Sykes 1995: 16). International and/or regional regulation was necessary to overcome these barriers and ease the free movement of goods, all the more so since the Treaty of Rome had established a custom union (Article 9).

In Europe, safety regulation has been elaborated in two different frameworks. The Working Party 29 (WP.29) was set up under the United Nations Economic Commission for Europe (UNECE) by the 1958-Agreement on international technical harmonisation in the motor vehicle sector. This agreement laid the ground for vehicle regulation, including technical requirements and reciprocal recognition of approved vehicles. In 1995, the 1958 Agreement was revised and opened to all members of the United Nations, independently from their certification procedure. Thus, the WP.29 became "the world forum for motor vehicle technical harmonisation" (Serre 2002: 3). Nevertheless, in reaction to some very integrated procedures (i.e. the majority-voting procedure, the concept of mutual recognition and the directive effect of UNECE Regulations), some countries were not in a position to join the 1958-Agreement. These countries proposed to create a parallel 'Global Agreement' (1998) also aimed towards enhancing the development of technical harmonisation through to the elaboration of Global Technical Regulations (GTRs).¹³

The second structure dealing with safety regulation of motor vehicles is the European Community, which started to regulate the automotive industry in the 1970s. This early process was mainly driven by commercial targets, even if safety has always been a part of the discussion (European Commission 2007). Indeed, as clearly indicated in the Directive 70/156¹⁴ recitals, the observation is made that "in each Member State motor vehicles [...] must comply with certain mandatory requirements, [which] differ from one Member State to the other and consequently hinder trade within the European Economic Community". Thus, Directive 70/156 proposed the 'type-approval' procedure as a means to overcome

¹³ GTSs do not provide direct effect or mutual recognition of approval and are approved by consensus voting.

¹⁴ Council directive of 6 February 1970 on the approximation of the laws of the Member States relating to the type-approval of motor vehicles and their trailers (OJ L 42, 23.2.1970)

such barriers, enabling cars (M1 vehicles only) to be registered and sold within the EC without restriction, once they have received a certificate of conformity. This framework directive was dependent on separate directives regulating individual parts of the vehicle, which were voted on in the 1970s and subsequent years and which have been regularly updated by the Committee for the Adaptation to Technical Progress (CATP). Yet, in order to provide a transition period, temporary measures were laid down to enable a phased change between EC and national requirements. It was the SEA that provided a powerful incentive to strengthen the type-approval method (Potvin 2007) and led to the adoption of Directive 92/53.¹⁵ This directive, amending Directive 70/156, made the harmonisation total and mandatory by 1996 and the EC Whole Vehicle Type-Approval (WVTA) compulsory for passenger cars by 1998.

In both frameworks, safety issues were mainly addressed indirectly through the approval of safe vehicles. Yet, safety was also directly regulated through compulsory equipment of certain safety devices under EC law (i.e. seatbelts; on-going discussion on Electronic Stability Control or daytime running lights.). However, in the EU, vehicle safety has also been associated with a broader 'road safety action programme' as foreseen in the 2001 White Paper and defined in the Communication aiming at reducing by half the number of road deaths by 2010 (European Commission 2003), thanks to an integrated approach of road safety. These policy guidelines addressed, more specifically, 'behaviours' (Directive 2003/20¹⁶ on the compulsory use of safety belts, Directive 2006/126¹⁷ on driving licences) and infrastructure quality (Directive 2004/54¹⁸ on tunnel safety).

In order to avoid regulatory duplication and to ensure coherence between the two levels of regulation, the Community decided in 1997 (Decision 97/836) to become a Contracting Party to the WP.29. Thus, when an agreement is reached between the 27 Member States in the CATP, the Commission has a block vote. An additional effect of this directive has been the provision of equivalence between UNECE Regulations and EC law. Even if a correspondence between UNECE regulations and EC law has existed for some time, there is often a delay between the amendments of the two legislations (European Commission 2007). Thus, the CAR 21 report of the European Commission (2005a) has addressed the question of the simplification of the regulatory framework surrounding automotive technical requirements. It has suggested that "in those areas where the Community has acceded to a UNECE regulation for which in parallel an EC Directive exists, and where the latter does not provide a higher level of safety or environmental protection, the UNECE regulation should replace the corresponding Directive" (European Commission 2005a: 20).

Since the 1970s, the most wide-reaching evolution relative to safety matters has been experienced in the regulation of the vehicles themselves. Attention has tended to focus first on passive safety, where the potential gains in innovation have been the most visible¹⁹ (Potvin). Then, interest has been directed toward active safety, with constant improvement in innovative use of new technologies reducing the likelihood of crashes (i.e. Electronic Stability Control devices) and to encourage safe behaviours (i.e. seatbelt reminders).

¹⁵ Council directive No 92/53/EEC of 18 June 1992 amending directive 70/156/EEC on the approximation of the laws of the Member States relating to the type-approval of motor vehicles and their trailers (OJ L 225, 10.8.92)

¹⁶ Directive 2003/20 on the approximation of the laws of the Member States relating to compulsory use of safety belts in vehicles of less than 3,5 tonnes (OJ L 115/63, 9.5.2003)

¹⁷ Directive 2006/126 on driving licences (OJ L 403/18, 30.12.2006)

¹⁸ Directive 2004/54 on minimum safety requirements for tunnels in the Trans-European Road Network (OJ L 167, 30.4.2004)

¹⁹ This visibility is particularly ensured by EuroNCAP, which provides transparent and independent safety assessment of the main cars sold in Europe.

Innovations are now foreseen in the last phases (post-crash), such as 'eCall'²⁰ (European Commission 2005b). The two other pillars of road safety have been more difficult to regulate, since the State is seen as the sovereign body to legislate on these issues, according to the subsidiarity principle (TEU, Article 3b). Nevertheless, a legal basis is provided by the treaty to allow EC regulation where cross-border traffic is concerned (i.e. safety of the TENs) or when the Single Market and the mobility of persons are at stake (i.e. driving licence). The move from technical harmonisation of vehicles to an integrated/holistic approach for road safety can be observed since the turn of the 21st century. This has been initiated by the combination of political will with existent economic targets (i.e. Single Market integration).

Decision-making dynamics and EU road safety regulation

Policy entrepreneurs

Until the 1980s

States were decisive actors in both the EC and the UNECE, in so far as they were the ultimate decision-makers. Yet, at the EC level, the 1970-1980 period can be characterised by a relatively low level of political decision-making. In the aftermath of Directive 70/156 most of the legislative work on the agenda was technical and consisted of an elaboration of the technical requirements for the vehicles' subsystems. Nevertheless, European states kept a watchful eye on these regulations, which went through Comitology procedures.

The Commission was at the epicentre of the technical harmonisation of motor vehicles. First of all, it embodied the strategy of the EC to achieve a common market and to guarantee the freedom of movement of goods and people. Secondly, the Commission was the initiator of the method and it remained at the heart of the coordination (through legislative proposal and to its role in the Comitology procedure) of the technical elaboration of the standards. Finally, this institution was until 1998 an observer in the WP.29 discussion before it became the EU representing body in this instance.

The process of vehicle standardisation in Europe cannot be fully understood without taking into account the very dynamic and influential role that the industry has played. The manufacturers had a determining impact in the launching, the extension and the success of the type-approval method, which allowed them to achieve economies of scale and made the European automotive industry more competitive. The industry also had an active role in the elaboration of the standards in the EC (through consultations or direct proposals to the Commission) and in the frame of the WP.29.

After 1990s

Legislative and institutional changes in the 1990s combined with a more active and integrated approach to road safety (European Commission 2001) have modified the balance of power between actors. States remained decisive actors and they even saw their role increase with the growth of political decision the Council took (concerning the WTVA, the adherence to the Revised 1958 Agreement or relative to road safety). The shift to a

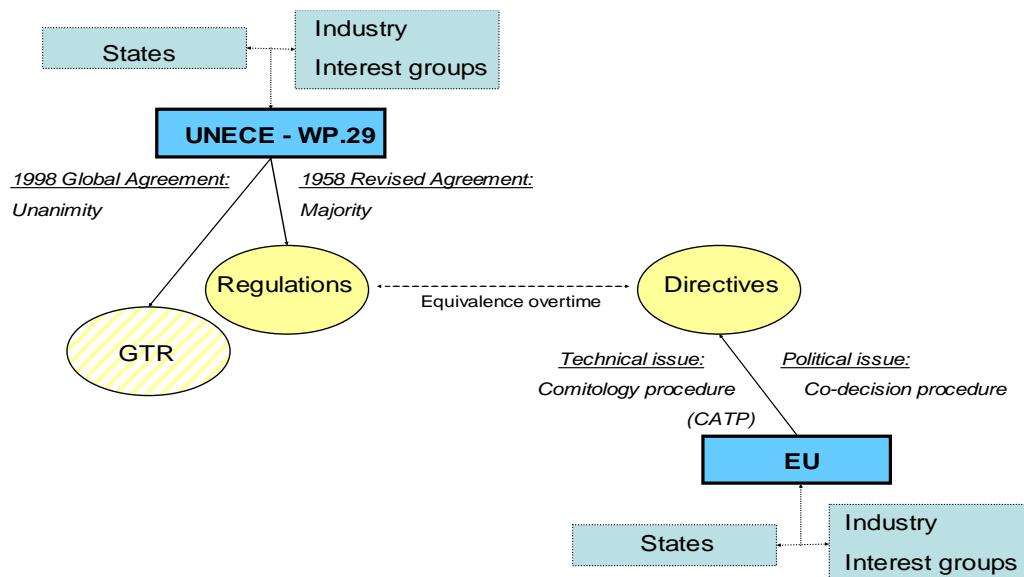
²⁰ The eSafety initiative is part of the Commission's strategy to encourage the development of information and communication technologies for road safety application. ECall is one of the innovations elaborated within this framework and consists of an 'emergency in-vehicle call system', which could reduce the time of emergency response after the car crash by 50%.

mandatory WTVA changed the character of negotiations in the Council. Despite the fact that Member States agreed on a 'reasonable' level of safety regulation being elaborated at the EU level, disputes arose around the definition of the 'reasonableness' of the EU norms. In addition, constitutional reforms led to balancing the power of the Council with the emergence of the EP as a co-legislator and soon as an oversight body of the CATP. The 'regulatory procedure under scrutiny' (Decision 2006/512)²¹ is indeed on the way to becoming the Comitology procedure applied in this sector.

The Commission played an even wider role providing ambitious strategies as imagined in 2001 and included in the 2003 'road safety action programme'. Yet, the Commission had to anticipate decision-makers' preferences and adapt the scope of the reform proposals to them. In addition, even though the Commission did not take the side of the industry, it still had to take care that any action would not have irreversibly negative impacts on the European industry (European Commission 2007).

The industry continued to provide fruitful expertise to the EC/EU and the UNECE. Its involvement even increased, insofar as it also campaigned for a simplification of the legislation that was imposed on them. In addition the relationships between European states and the industry evolved considerably and moved from paternalistic relations to autonomy. The relationship between European industrials also evolved and shifted from competition to increased cooperation, as the creation in 1991 of a representative body at the EU level (the ACEA) illustrates. Finally, new interest groups were created during this last period and aimed at raising political awareness of road safety issues (i.e. ETSC created in 1993). Yet their role and influence in the decision-making process is still peripheral. A summary of the decision-making processes in vehicle safety regulation is provided below (figure 4).

Figure 4: *Decision-making processes in vehicle safety regulation*



²¹ Council Decision of 17 July 2006 amending Decision 1999/468/EC laying down the procedures for the exercise of implementing powers conferred on the Commission (L 200/11, 22.7.2006)

Policy windows

Even though some major traffic accidents (i.e. the accident in the Mont Blanc tunnel) have had a powerful impact on very specific EU legislation, road crashes in general cannot be held as policy windows. The constant and continuous nature of road accidents has been trivialized in our society. As Achterberg (2007) notes, “people are so used to traffic accidents that they do not see it any more as a problem that can be tackled, all the more that the blame and the responsibility for the accident is directed toward the individual and not to the system as a whole”. Therefore, despite the magnitude of traffic accidents, these dramatic events cannot explain the timing and extent of motor vehicle safety regulation.

The leading thread of automotive standardisation has been primarily economic. Yet, pan-European and international developments have potentially had some indirect influence in the framing and the timing of European standardisation. Firstly, the increase in cross-border traffic and with it, the growing interpenetration of vehicles not conforming to national requirements has accelerated the need for political action (Avenoso 2007). Then, vehicle safety in the USA has been contingent and corollary to European evolution in this matter. In 1965 and 1966, the USA was to frame car safety as a policy issue, thanks to the impact of Ralph Nader’s book *Unsafe at any Speed* (1973) and the creation of National Highway Safety Authority. In a few years, major laws were passed and ‘federal safety requirements for new vehicles’ were established; for example, in 1966, seat belts were made mandatory in new cars. Nowadays, the developments in the USA are closely followed by Europeans because the car markets are so highly integrated and European manufacturers sell their vehicles in the USA. For instance, the progress toward a mandatory installation of ESC by 2011 in the USA is being scrutinized in Europe and may have a knock-on effect (European Commission 2007). Even if it is still hazardous to find a causal relationship between policy evolutions in America and Europe, the globalisation and integration of international markets has now created a far closer relationship between the policy development on both sides of the Atlantic.

Comparison between transport modes

As illustrated by the railway and road case studies, the two sectors have experienced different regulatory paths at the EU level. This section of the article provides a comparative analysis of safety regulation in both sectors, as well as explanations for such divergences. A comparative table (figure 5) provides a summary of these findings. The study will be led from an EC/EU point of view, thus considering other European developments such as the ones known inside the UNECE as external evolutions.

Explaining diversity through industry specificities

Although some similarities were shared by both industries (i.e. State subsidies, early fragmented markets), the differences between these two sectors have affected the way and the timing of EU safety regulation. Three main sets of differences are proposed to explain the variation in EU regulatory outcomes. Firstly, the technical, organisational and ideological components of the two inland transport industries have greatly affected the way safety issues have been tackled, as far as this structured the preferences of the decision-makers. The railway sector has been affected particularly by a high political sensitivity to the industry and complex technical barriers in terms of how these issues impact on matters of national interest, such as social cohesion and economic growth. These two factors have hindered integration of railway networks in Europe, making European regulation of railway safety meaningless for decades. By contrast, the automotive industry experienced fewer politico-ideological pressures and technical

difficulties, but this was countered by the potential commercial gains and regulatory demands resulting from the increase in cross-border road traffic between European states. The only similarity in the process is that the integration of transport networks and interpenetration of vehicles within Europe has been a prerequisite for direct and indirect regulation regarding safety.

Secondly, the interactions between the national, European and international levels have to be taken into account to understand the underlying logics of each sector. In the railway, states remained the frame of reference until 1990, at which point it was transferred to the supranational level. The automotive industry has known an earlier and wider shift at the end of the 1950s from the national to the international level (UNECE). The emergence of the EC level in the regulatory framework appeared in the 1970s and was facilitated by the pre-existence of the WP.29 framework, even though the majority of UNECE regulations have been elaborated after 1970 (European Commission 2007).

Finally, safety was not perceived similarly in the two sectors. While it was urgent to intervene in vehicle and road safety, involving profound and massive efforts, transport by rail was less preoccupied regarding safety. Consequently, the cost-benefit results of raising motor vehicle safety were comparatively far more rewarding in terms of lives being saved; all the more that it was easier to regulate this industry (Avenoso 2007).

Explaining diversity through differential European standardisation strategies and treaty bases.

The railway and road examples have illustrated two distinct logics in the elaboration of European transport safety regulation. The EC Directives on automotive regulation have been based on the 'old approach' of standardisation and relied on the principle of total or 'maximilistic' (Farr 1996: 4) harmonisation set out in the Treaty of Rome.²² The strategy of the Community, between 1958 and 1985, was to promulgate extensive detailed technical regulations, product by product (Egan 2001: 61). Because the railway sector only later came onto the EU agenda, the logics of the process have been closer to the 'new approach' of standardisation, which encourages the mutual recognition of regulations and standards throughout Europe. This 'approach' also allows room for harmonisation of safety standards, where necessary. This strategy explains why 'cross-acceptance' (i.e. mutual recognition of rolling stock) is being encouraged as a temporary measure, before the application of TSIs makes it automatic.

In addition, different treaty bases have been used in the two sectors and have had profound effects on the nature and the power of EC/EU action. In the case of railways, the action of the EU has been grounded on various chapters of the Treaty of Maastricht relative to Transport (concerning the liberalisation process) and to Trans-European Networks (concerning the interoperability directives). The automotive standardisation has been based on the chapter regulating the common market of goods, thus benefiting from far-reaching policy instruments to achieve standardisation, all the more as these powers were strengthened by the SEA and the Maastricht treaty.

Explaining diversity through sector-specific network of actors and background events

Policy entrepreneurs

In both the case-studies reviewed, it appears that the Member States are decisive actors in the safety regulation of transport vehicles. Their actions as final decision-maker in the

²² (Articles 3, 30-36 and 100)

Council and through Committees as stakeholders in the elaboration of technical specifications are illustrative in this matter. Yet, these prerogatives are now shared with the European Parliament that has become co-legislator and has fought for increased power over the Comitology process. Originally conceived as a control device over the Commission, these committees have grown more autonomous and consensual (Dehousse 2003: 809-810). The need for closer scrutiny of these committees, combined with the desire of the European Parliament to gain power in this field, have led to Council Decision 2006/512. This act introduces a new type of regulatory procedure 'under scrutiny', which improves the European Parliament information on the Committees' work and allows the legislators to oppose the adoption of the Commission's proposal in some precise cases (i.e. excess of Commission's powers, disrespect of subsidiarity principle, etc.). In the case of railway and automotive regulation, directives are being modified to include these changes.

The European Commission is at the centre of the policy process thanks to its 'formal agenda-setting powers' (Pollack 1997: 106), through its exclusive right of legislative initiative. The Commission also uses 'informal agenda setting power' and acts as a 'policy entrepreneur' (Pollack 1997: 125; Majone 1994: 205) pushing for issues to be put high on the agenda and elaborating proposals that can rally consensus. In particular circumstances, the Commission has been able to press for ambitious and challenging reforms, as has been the case in the railway policy where the railway crisis weakened the consensus for institutional status-quo. Most of the time, however, the Commission has to anticipate the preferences of the European Parliament and Council to increase the probability of its proposals to be accepted. The Commission is also a 'regulatory bureaucracy' (Pollack 1997: 106) and plays a crucial role in the elaboration of the technical regulation initiating proposals, coordinating Committee work and issuing Commission Decisions.

Other non-majoritarian stakeholders have a role in the policy process, particularly at the policy-shaping stage of the decision. "EU meso-level decision-making is more complex than in most national systems. It implicates more and more different types of actors with varying agendas" (Peterson 1995: 75). The dramatic increase of groups, and in particular private actors, seeking to influence the EU policy process has risen exponentially since the 1980s (Greenwood *et al.* 1992; cited in Hix 2005: 211). The participation of these actors is encouraged by the Commission's 'open and structured dialogue with special interest groups' (European Commission 1992). The Commission relies "heavily or wholly on *non-institutional* (especially private) actors for resources" (Peterson 1995: 78). Private actors are all the more interested in providing this expertise that economic and social regulation was more and more elaborated at the supranational level (Hix 2005: 213). Private actors tend to prefer European solutions when competitive threats are high (Weber and Halberg 2001) and uniform sets of rules when markets are fragmented (Majone 1994: 203). In addition, "decision-making at the relatively early stages of the EU policy process is a critical determinant of eventual policy outputs" (Peterson 1995: 75). In fact, "control over knowledge and information is an important dimension of power" (Haas 1992: 2) and "technocratic does not necessarily means apolitical" (Peterson 1995: 74). As a result, because of the openness of the system and of the potential gains of participation, the number of actors involved at the EU meso-level is soaring.

Yet, the lack of 'internal' expertise of the Commission is being compensated by the creation of independent European agencies, as has been the case with the creation of the ERA. As many authors suggests, European agencies have in most cases been limited to the 'gathering and diffusion of information' (Héritier 1999: 10; Majone 1997: 262) and to networking (Dehousse 1997: 61). The ERA's prerogatives go far beyond this task, in particular thanks to its ability to elaborate and submit TSIs proposals to the Commission

(Silla 2002). The legitimacy and technical authority of this agency stem from the legal Regulation which establishes it, the work mandates which it receives from the Commission, but also from its own recruitment procedures and the involvement of sectoral representative organisations in its working groups (interviews ERA 2007). Thus, the authority acquired by the ERA and its proposals may reduce the margin of manoeuvre of the Commission and Committee 21 on the changes/amendments made to these specifications. Yet, in order to validate (or not) this hypothesis, one will have to analyse the level of divergence between the ERA's proposals²³ and the actual Commission decisions.

Roughly speaking, the decision-process, because of its technical content is quite largely depoliticised and 'denationalised' (Bach 1992 cited in Héritier 1996: 155). First of all, "the actors participating in the formulation of the policy specification are often 'non-political': the Commission's Directorate General, national civil servants and private actors" (Peterson 1995: 74). Secondly, the complexity and technical nature of the discussion (as is the case in transport safety issues) ease the insularisation from distributive questions (Héritier 1996: 155). Thirdly, it is possible to observe the growing autonomy of groups of experts, conceptualised under the terminology of 'issue networks' (Majone 1994: 204) or 'policy networks' (Peterson 1995: 76). These groups may transform themselves into 'epistemic communities' (Haas 1992) and move from the mediation of interests, to the creation of their own "sets of normative and principled beliefs, [...]causal beliefs, [...] notions of validity" aiming at "a common policy enterprise" (Haas 1991: 3). Further study needs to be conducted in order to determine whether issue-networks in the railway and road sector have experienced such transformations.

Two other actors are indirectly involved in the EU policy process, namely international organisations and the media. As underlined by the automotive example, the WP.29 has played a decisive role in the elaboration and in the level of current European standards, but also on their current level. The hundred regulations established under this organization have indeed largely influenced EC/EU regulation, and are regularly referred to in EU documentation. In addition, according to the CAR 21 report (2005a), the EU would tend to replace existing EC/EU norms by these international standards. Secondly, it is necessary to stress the importance of the media in the decision-making process, as they are potentially able to modify the actors' preferences. The dissimilar attention of European media coverage of accidents according to their nature is instructive. Roughly speaking attention varies according to the transport mode, the catastrophic nature of the accident and the eventual social or policy background in which this accident occurs. Thus, media are able to 'produce the event' (Champagne 1984: 18), and road crashes are often not conceptualized as an 'event' as such, in particular because of the individual nature of the accident and the large number of such crashes. Therefore, media coverage often occurs a few times a year, when the road deaths' figures are published.

Finally, it is important to bear in mind that the balance of power is not static and varies according to the subject (degree of technical complexity and political sensitivity), the status of the other actors' preferences but also the background environment.

Policy windows

Punctual events can have important effects and foster change. Thanks to the case-studies, three types of event have been identified, with various impacts on the EU safety regulatory process. The most powerful impact of such events has been experienced in the

²³ Four TSIs proposals are being elaborated by the ERA and will be proposed to the Commission by 2009.

constitutional framework. This is particularly the case of the adoption of the SEA, the introduction of 'transport safety' in the Maastricht treaty or the opening of transport policy making to co-decision by the Amsterdam treaty. Secondly, punctual accidents have not been decisive in the policy process, even if it is obvious that in some precise cases (i.e. rail crash in Hadfield in 2000 or the road tunnel accident in Mont Blanc in 1999), crashes have had powerful effects. Yet, these results were determined by very specific circumstances (i.e. railway privatisation in the UK, large series of tunnel accidents in Europe), highly publicised and led to very low level of systemic change at the European.²⁴ Finally, it is interesting to underline that the European policy-making has known some level of interaction and inspiration from extra-European countries and the USA in particular (i.e. road safety in the mid-1960s), although the nature and level of this influence is very difficult to qualify.

Structural trends have played various roles in the decision-making processes. The railway crisis has been a powerful trigger for reform. It changed the terms of the debate from national protectionism to sectoral revitalisation and meanwhile modified the preferences of the actors of the sector, and particularly those of the Member States. Concerning the road sector, the alarming numbers of road deaths since 1970 have not played a similar role. Pragmatic reasons have been the impulse for change.

Patterns of policy-making applied to EU transport safety regulation

Validity

A dual conclusion on Hérítier's (1996) assumptions can be drawn from the two case-studies of EU transport safety regulation. On the one hand, the decisive role of the Member States is validated, even if some variation can be observed overtime. It is important to emphasise that the role of the Member States is determinant both in the framework of the Council and the European Parliament, which has become an autonomous co-legislator. As far as the underlying strategies of the Member States are concerned, generally the cost-benefit analysis prevails on an economic and commercial point of view, as Hérítier (1996) suggested. Yet, it can happen, with media-related (i.e. accidents) and/or citizens' pressure (i.e. preference for dynamic intervention in transport safety) that national governments and the members of the European Parliament decide to go faster and further on some issues. Hérítier (1997; 1999) later considers the existing 'diversity' of interests existing amongst Member States and the strategies or 'subterfuges' they are forced to elaborate to 'overcome deadlocks'.

Secondly, Hérítier is right to emphasize the importance of the Commission in the determination of the trajectory and frame for the evaluation of the policy management. Even though the reviewed empirical cases suggest that the Commission has developed some informal additional powers, enabling it to modify the actors' preferences (in particular of the Member States), the scope of analysis is too restricted to generalise this observation.

Finally, Hérítier's emphasis of the importance of 'denationalized' expertise at the early stage of the decision-making process is useful. This observation is even stronger in the case of technical issues such as the safety specification of transport vehicles. As a result, Hérítier's argument is able to provide a broad understanding of the policy process and its

²⁴ The Hadfield accident led indirectly to a national railway reform in 1997, whereas the Mont Blanc tunnel accident has not led to EU regulation of road infrastructure but only of tunnels present on the TEN-T network.

two key actors. However, the European decision-making 'patchwork' seems to be a far bigger and evolving piece of art of a complex and dynamic nature.

Figure 5 : Comparison Rail/Road

<i>Comparison rail/road</i>		
	Rail	Road
Technical specificity	Complexity: technical, several stages of production, various possible combinations, complex interface with infrastructure	Simplicity: more concise and self contained piece of equipment (easily identifiable), one stage of production (or two), simple interface with the infrastructure
Organisational structure	Fragmented market, Few national champions	Fragmented market, Relatively high number of manufacturers
Ideological content	National defence, Nation building, Involvement in national companies	Involvement in national companies (through state-ownership or subsidies)
Levels of regulation	National	National - International - European
Safety target	Maintain existing levels of safety	Increase the level of safety
Safety method	Elaboration of essential requirements and TSIs	Whole vehicle type-approval: Standardisation of safe vehicles
Model of standardization	New approach'	Old approach'
EC/EU legal basis on which EU safety requirements rely	TEU - Transport and on TENs	TEC - SEA - TEU: Free movement of goods. Common market/Single Market
Member States' role	Decisive (final decision-maker in Council, representation in Committees)	Decisive (final decision-maker in Council, representation in Committees)
European Parliament's role	Decisive (co-legislator, oversight of Comitology procedures)	Decisive (co-legislator, oversight of Comitology procedures)
Commission's role	Central	Central
European agency	ERA (2004) - powerful	None
Industry	Increasing influence - European representative body (UNIFE) created in 1991	Central (elaboration of norms and influence of policy-making) - European representative body (ACEA) created in 1991
Lobby groups	Peripheral	Peripheral
Other actors	No other principal actors	Decisiveness of the WP.29
Media	Large coverage of accidents (more impressive)	Low coverage of accidents
Punctual events	Marginal role of precise accidents - Decisive role of institutional changes	Marginal role of precise accident - Decisive role of institutional changes - Some influence of other continents' policy evolution
Structural events	Decisiveness of the rail crisis for European intervention	Marginal role of road deaths. Impact of commercial issues and increase of cross-border traffic

Limits and actualisation of the argument

This comparison pleads for a dynamic analysis, taking into consideration in the long run the reallocation of power between the decision makers or the increase of actors taking part in the process. Héritier's (1996) analysis undermines the autonomous role of the European Parliament, as well as the function of 'peripheral' actors such as the industry or other non-majoritarian stakeholders at all stages of the policy process. Therefore, Member States are not the only actors pushing for legislation. The increasing institutionalisation of the participation of sectoral representative organisations in the legislative drafting phases (as in the ERA working groups) and the growing involvement of interest groups at all stages of the decision limit the scope of validity of Héritier's (1996) argument. In addition, Héritier overestimates Europe as a frame of reference and does not take enough into account the possible interactions that can emerge from extra-European countries and international organisations. Finally, Héritier does not assess strongly enough the role of windows of opportunity as triggers for change.

Conclusion

The case of EU safety regulation in the railway and road sectors sheds a particular light on the EU policy process. The Europeanisation of these industries and the regulation at the supranational level of their safety requirements have known highly differentiated timings, approaches and results. The sectoral specificities of the industry, their particular network of actors and their sensitivity to corollary events have been decisive in shaping differential EU safety regulation systems.

Héritier's (1996) description of the decision-making process has been useful to identify some heavy trends in particular key decisive actors (i.e. the Member States and the Commission) and logics (i.e. regulatory competition). Yet, Héritier's hypotheses have proved less effective to explain more subtle differences in the policy process and its dynamic evolutions (such as the reallocation of power between actors or the interaction of the legislative process with 'peripheral' actors and background events). Thus, Héritier's concepts of 'patchwork' and 'accommodation of diversity' are useful but they should not only refer to Member States' strategies and behaviours. They could also be applied to the whole policy process, the entire network of actors and to the sector concerned. Therefore, greater attention could be directed to the EU decision-making process itself, as a mechanism able to accommodate the diversity of the sector at stake in order to achieve the fittest legislative outcomes.

The comparison of policy processes relative to safety in two transport modes offers a new focus on the various interactions that exist between the industry characteristics, its actors and associated events, as well as their consequences in terms of EU safety regulation. Firstly, it illustrates the overlapping of political and technical choices, underlying the role of expertise as a source of influence and power. Safety regulation can be held as an arena "in which scientific and technological information battles are central to political outcomes" (Shapiro 1997 cited in Vos 2000: 1130). Secondly, comparison across transport sectors, despite their technical, organisational and ideological differences allows a very instructive illustration of the differentiated impacts of decision-making components. For instance, events have not always had the same impact in opening a policy window for action at the EU level. Finally, it offers an interesting approach to EU safety regulation. In some sectors such as food safety, "the complexity of regulation and the lack of transparency concerning their application may discourage potential exporters, and are often magnified by procedural delays and other administrative practices that may inhibit market access, the discriminatory effects are difficult to determine" (Egan 2001: 57). Contrary to this example,

safety regulation in the railway and automotive industries has been conducted to achieve a greater integration of these markets internationally and regionally, while allocating growing attention to the transparency of the policy process.

Further studies need to be pursued on this theme, extending the scope of research to other transport industries. Maritime and aviation transport have also experienced specific developments regarding safety regulation that would complete the present analysis. Safety regulation in both sectors came late on the European agenda. It is mainly major accidents affecting Europe (i.e. Erika and Prestige shipwrecks) or the impact of terrorist attacks (i.e. 9/11) that have provided not only windows of opportunity for EU safety/security regulations but also a demand from European citizens to react to these threats (European Commission 2007).

References

- Achterberg F. (2007). Interview with the author. Brussels, July. [Head of Communication, European Transport Safety Council, ETSC]
- Austin M.T. and Milner H.V. (2001). 'Strategies of European standardisation', *Journal of European Public Policy*, 8 (3), pp. 411-431.
- Avenso A. (2007). Interview with the author. Brussels, July. [Deputy Director, European Transport Safety Council, ETSC]
- Bellayer-Roille, A. (2001). *Le transport maritime et les politiques de sécurité de l'Union européenne*, Rennes : Editions Apogée.
- Champagne, P. (1984). 'La manifestation, la production de l'événement politique', *Actes de la Recherche en Sciences Sociales*, pp. 52-53.
- Desfray P. (2007). Interview with the author. Paris, April. [Head of Regulation and European Affairs Division, French Railway Safety Authority, EPSF]
- Dehousse, R. (2003). 'Comitology: who watches the watchmen?', *Journal of European Public Policy*, 10(5), pp. 798-813.
- Dehousse, R. (1997). 'Regulation by networks in the European Community: the role of European Agencies', *Journal of European Public Policy*, 4(2), pp. 262-275.
- Di P Pietrantonio L. And Pelkmans J. (2004). 'The Economics of EU Railway Reform', *Bruges European Economic Policy Briefings n°8*.
- Egan, M. (2001). *Constructing a European market: standards, regulation and governance*, Oxford: Oxford University Press.
- Egan, M. (1998). 'Regulatory strategies, delegation and European market integration', *Journal of European Public Policy*, 5(3), pp. 485-506.
- European Commission, Directorate General for Energy and Transport (2007). *The EU's automotive sector: new challenges, responsibilities and opportunities*, MEMO/07/47, Brussels: European Commission.
- European Commission, Communication of the Commission to the Council and the European Parliament (2006b). *Facilitating the movement of locomotives across the European Union*, COM(2006)782 final, Brussels: European Commission.
- European Commission, Directorate General for Energy and Transport (2009). *EU Energy and Transport in figures*, Luxembourg: Office for Publications of the European Community.
- European Commission, Directorate General for Energy and Transport (2006c). *2001 White Paper's Mid-Term Review 'Keep Europe Moving: Sustainable Development for our Continent'*, Luxembourg: Office for Publications of the European Community.

- European Commission, Directorate General for Energy and Transport (2006d). *Maritime transport Policy*, Luxembourg: Office for Publications of the European Community.
- European Commission, EMSA (2006e). *Safer and cleaner shipping in the European Union*, Luxembourg: Office for Publications of the European Community.
- European Commission, Directorate General for Enterprise and Industry (2005a). *Car 21 report: A Competitive Automotive regulatory System for the 21st Century*, Luxembourg: Office for Publications of the European Community.
- European Commission, Directorate General for Information Society (2005b). *Second eSafety Communication: Bringing eCall to Citizens*, COM/2005/431, Brussels: European Commission.
- European Commission, Directorate General for Energy and Transport (2005b). *Safeseanet*, Luxembourg: Office for Publications of the European Community.
- European Commission, Directorate General for Energy and Transport (2004). *European Competitiveness Report 2004*, Luxembourg: Office for Publications of the European Community.
- European Commission, Communication of the Commission to the Council and the European Parliament (2003). *Halving the number of road accident victims in the European Union by 2010: a shared responsibility*, COM(2003)311 final, Brussels: European Commission.
- European Commission, Directorate General for Energy and Transport (2001). *White Paper "European Transport Policy for 2010: Time to Decide"*, Luxembourg: Office for Publications of the European Community.
- European Commission, Directorate General for Energy and Transport (1996). *Paper "A Strategy for Revitalizing the Community's Railways"*, Luxembourg: Office for Publications of the European Community.
- European Commission (1992). *An Open and Structured Dialogue between the Commission and Special Interest Groups*, SEC(92)2272 final, Brussels: European Commission.
- European Commission, Directorate General for Energy and Transport (n.d.). *Cross-Acceptance of Rolling Stock: Towards an integrated European railway area*, MEMO, Brussels: European Commission.
- European Commission (2007). Interview with the author. Brussels, April. [DG Transport and Energy, Unit E3]
- European Commission (2007). Interview with the author. Brussels, May. [DG Transport and Energy, Unit E2]
- European Commission (2007). Interview with the author. Brussels, July. [DG Enterprise, Unit F1]
- European Communities, Eurostat (2003). *Panorama des transports. Aperçu statistique des transports dans l'Union Européenne 1970-2001*, Luxembourg : Office des publications officielles des Communautés européennes.
- European Communities, Eurostat (2000). *La sécurité dans les transports*, Luxembourg : Office des publications officielles des Communautés européennes.
- European Railway Agency (2007). Interview with the author. Valenciennes, April. [Interoperability Unit]
- European Railway Agency (2007). Interview with the author. Valenciennes, April. [Safety Unit]
- Evans, A. W. (2002). 'Major train accident in Europe', *Modern railways*, 59, pp. 37-40.
- Farr, S. (1996), *Harmonization of Technical Standards in the EU*, New York: John Wiley and sons.
- Fragola, F. (2007). *Vers une politique ferroviaire européenne?*; Paris : L'Harmattan.
- Gauvin, B. (2002). 'La réglementation technique et le WP 29', *Autoactualité*, 36.
- Genschel, P. (1997). 'How Fragmentation can improve Co-ordination : Setting Standards in International Telecommunications', *Organization Studies*, 18(4), pp. 603-622.

- Haas P. M. (1992). 'Epistemic Communities and International Policy Coordination', *International Organization*, 46(1), pp. 1-35.
- Héritier, A. (2002). 'Public-interest services revisited', *Journal of European Public Policy*, 9(6), pp. 995-1019.
- Héritier, A. and al. (2001). *Differential Europe*, Lanham: Rowman and Littlefield.
- Heritier, A. (1999). *Policy-Making and diversity in Europe*, Cambridge: Cambridge University Press.
- Heritier, A. (1997). 'Policy-making by subterfuge: interest accommodation, innovation and substitute democratic legitimation in Europe – perspectives from distinct policy areas', *Journal of European Public Policy*, 4(2), pp. 171-189.
- Heritier, A. (1996). 'The accommodation of diversity in European policy-making and its outcomes: regulatory policy as a patchwork', *Journal of European Public Policy*, 3(2), pp. 149-167.
- Hix, S. (2005). *The Political System of the European Union*, New York: Handley Stevens.
- Kingdon, J.W. (1995). *Agendas, alternatives and public policies*, New York: HarperCollins.
- Knill, C. and Lehmkuhl D. (2000). 'An alternative Route of European Integration: The Community's Railways Policy', *West European Politics*, 23(1), pp. 65-88.
- Lodge, M. (2002). 'The Wrong Type of Regulation? Regulatory Failure and the Railways in Britain and Germany', *Journal of Public Policy*, 22, pp. 271-297.
- Loraillère A. (2007). Interview with the author. Brussels, April. [International Technical Affairs Manager, Union of European Railway Industries, UNIFE]
- Lundström, A. (2002). 'La législation de l'UE en matière de sécurité ferroviaire', *Rail International*, 33, pp. 2-7.
- Majone, G. (2005). *Dilemmas of European Integration*, Oxford: Oxford University Press.
- Majone, G. (1997). 'The New European Agencies: regulation by information', *Journal of European Public Policy*, 4(2), pp. 262-275.
- Majone, G. (1994). 'The rise of the Regulatory State in Europe', *West European Politics*, 17(3), pp. 77-101.
- Majone, G. (1990). *Deregulation or re-regulation?: Regulatory reform in Europe and in the United States*, London : Pinter.
- Muir, G. (2006). *The Railway in Britain: on the right lines*, London : ATOC.
- Munoz, R. and Petit N. (2005). *Regulation through agencies in the EU: a new paradigm of European governance*, Cheltenham: Edward Elgar.
- Nader, R. (1973). *Unsafe at any speed: the designed in dangers of the American automobile*, New York: Bantam Books.
- Naudet D. (2007). Interview with the author. Brussels, April. [Christine De Veurac Assistant, Member of the European Parliament, Member of the Transport and Tourism Committee]
- OEEC (2003). *Road Safety: impact of new technologies*, Paris: OEEC.
- O'Neill, B. (2002). 'Accidents or Crashes? Highway Safety and William Haddon, Jr.', *Contingencies*, Jan-Feb.
- Pallis, A. (2006). 'Institutional dynamism in EU policy-making: the evolution of the EU maritime safety policy', *Revue d'intégration européenne*, 28(2), pp. 137-158.
- Pollack, M. A. (1997). 'Delegation, agency, and agenda setting in the European Community', *International Organization*, 51(1), pp. 99-134.
- Potvin M. (2007). Interview with the author. Brussels, July. [Technical Regulation and Safety Officer, Renault]
- Provensal J. (2007). Interview with the author. Brussels, April. [Safety Officer, European Automobile Manufacturers' Association, ACEA]
- Rhys, G.(2004). 'The Motor Industry in an Enlarged EU', *World Economy*, 27, pp. 877-900.
- Roche, C. (2002). 'Après l'Erika : la prévention de la pollution des mers par le renforcement de la sécurité maritime en Europe', *Revue juridique de l'environnement*, 3, pp 373-392.
- Serre, P. (2002). 'Genève: capitale automobile de L'Asie centrale ?', *Autoactualité*, 36.

- Silla, O. (2002). 'L'Agence Ferroviaire Européenne', *Rail International*, 3.
- Spruyt, H. (2001). 'The supply and demand of governance in standard-setting: insights from the past'; *Journal of European Public Policy*, 8/3, pp. 371-391.
- Stephen, R. (2000). *Vehicle of influence: Building a European car market*, Ann Arbor: University of Michigan Press.
- Stevens, H. (2004). *Transport Policy in the European Union*, New York: Handley Stevens.
- Sterckx D. (2007). Interview with the author. Brussels, April. [Member of the European Parliament, member of the Transport and Tourism Committee]
- Sykes, O. (1995). *Product Standards for internationally integrated goods markets*, Washington: Brookings Institution.
- UNECE (2007). 'UNECE works for safe and clean vehicles'; *What UNECE does for you*, 7.
- UNECE (2002). *World Forum for Harmonization of Vehicle Regulations (WP.29): How it works? How to join it?*, Geneva: United Nations.
- Vickerman, R. W. (1991). *Infrastructure and development*, London: Pion.
- Vos, E. (2000). 'Reforming the European Commission: what role to play for EU agencies?', *Common Market Law Review*, 37(5), pp. 1113-1134.
- Weber, K. and Hallerberg M. (2001). 'Explaining variation in institutional integration in the European Union: why firms may prefer European solutions', *Journal of European Public Policy*, 8(2), pp. 171-191.
