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Liberal Environmentalism: The Public-Private Production of European Emissions Standards

In the late twentieth century, the European Union (EU) emerged as a global leader in setting environmental protections, including vehicle emissions standards. But member state consensus around environmental rules did not come easily, and the regional norms set by the EU and its predecessor, the European Economic Community, had complex origins. This article argues that stricter common emissions standards were ultimately achieved through a public-private process during the program to create the Single European Market in the 1980s and 1990s. For regional policymakers, standards were key to achieving an internal car market and strengthening the auto industry's global competitiveness; for many European carmakers and their transnational business associations, common norms could facilitate economies of scale and level the playing field. The "liberal environmentalism" born out of this convergence of interests produced European standards that fell pragmatically between the greenest member states and those most invested in protecting their national champion firms.

Keywords standards, environmental governance, auto industry, European integration, Single European Market

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In the late twentieth century, the European Union (EU) emerged as a global leader in environmental regulation. On the world stage, the newly formed Union demonstrated its leadership in the international climate agreements negotiated in Rio de Janeiro in 1992 and Kyoto in 1997; within the region, it exercised its capacity for consensus—however imperfect—by setting progressively ambitious environmental policies, including collective vehicle emissions standards.¹ The Euro I to VII norms, implemented from the early 1990s to the present, developed a regional legal framework for regulating car emissions and became pillars of European environmental policy. They also continue to serve as vectors for access to the Single European Market. Early European norms reflected just the lowest common denominator, and diverse national interests impeded the development of more advanced vehicle emissions standards. But as this article argues, amid the Single Market Program (SMP) of the 1980s and 1990s, divergent public and private interests converged on stricter common European norms. Policymakers in the European Commission (the Commission) saw emissions standards as essential to achieving their objectives of creating an internal car market in the region and strengthening the auto industry's global competitiveness, while European carmakers and their transnational business associations recognized that common norms could facilitate economies of scale and level the competitive playing field. The resulting “liberal environmentalism” sought to make internal market by setting standards that would favor European firms and restrict the access of foreign producers.

Such an interpretation of European standard setting builds on narratives that locate the origins of global environmental governance in the creation of a liberal economic order and identify the role of corporations in the development of global governance.² Historical scholarship in the same vein has drawn on studies of business influence to uncover the ways that firms and interest groups have shaped the policy contours of international environmental regulation.³ On the auto industry in particular, research has recast emissions standards as tools

¹Sebastian Oberthür and Claire Dupont analyzed the EU's role in global climate governance in their article “The European Union's International Climate Leadership: Towards a Grand Climate Strategy?,” *Journal of European Public Policy* 28, no. 7 (2021): 1095–114.

²On the connections between global business and global governance, see Tim Bartley, “Transnational Corporations and Global Governance,” *Annual Review of Sociology* 44, no. 1 (2018): 145–65.

³For a review of literature on business and global governance, see Sabine Pitteloud, Grace Ballor, Patricia Clavin, Nicolás Perrone, Neil Rollings, and Quinn Slobodian, “Capitalism and Global Governance in Business History: A Roundtable Discussion” (Harvard Business School Working Paper No. 22-081, Boston, June 2022). Relevant scholarship on business influence

of political economy, highlighted business debates between safety and environmental standards, discussed the power and limits of expertise in setting international standards, and exposed the shortcomings of environmental protections developed through multi-stakeholder bargaining.⁴ In the context of contemporary Europe, scholars have identified the SMP as the context in which the Commission developed common environmental and social policies for member states in the European Economic Community (EEC), the predecessor of the EU.⁵ Others have uncovered the tensions between national approaches and collective policymaking in the region, especially for states of different

includes Luca Lanzalaco, "Business Interest Associations," in *The Oxford Handbook of Business History*, ed. Geoffrey Jones and Jonathan Zeitlin (Oxford, 2008); Neil Rollings and Matthias Kipping, "Private Transnational Governance in the Heyday of the Nation-State: The Council of European Industrial Federations (CEIF)," *Economic History Review* 61, no. 2 (2008): 409–31; Wolfgang Streeck and Philippe C. Schmitter, "From National Corporatism to Transnational Pluralism: Organized Interests in the Single European Market," *Politics & Society* 19, no. 2 (1991): 133–64; Justin Greenwood, *Interest Representation in the European Union* (New York, 2017); Sylvain Laurens, *Lobbyists and Bureaucrats in Brussels: Capitalism's Brokers* (Abingdon, 2018); and David Coen, Alexander Katsaitis, and Matia Vannoni, *Business Lobbying in the European Union* (Oxford, 2021). Works on business and global environmental governance include José Célio Silveira Andrade and José Antônio Puppim de Oliveira, "The Role of the Private Sector in Global Climate and Energy Governance," *Journal of Business Ethics* 130, no. 2 (2015): 375–87; Hartmut Berghoff and Adam Rome, *Green Capitalism? Business and the Environment in the Twentieth Century* (Philadelphia, 2017); Ann-Kristin Bergquist, "Renewing Business History in the Era of the Anthropocene," *Business History Review* 93, no. 1 (2019): 3–24; Geoffrey Jones, *Profits and Sustainability: History of Green Entrepreneurship* (Oxford, 2019); and Ann-Kristin Bergquist and Thomas David, "Beyond Limits to Growth: Collaboration Between the International Business and United Nations in Shaping Global Environmental Governance" (UNIL Working Paper No. 80, 2022). For more on the complex relationship of private and public governance, see Neil Malhotra, Benôit Monin, and Michael Tomz, "Does Private Regulation Preempt Public Regulation?" *American Political Science Review* 113, no. 1 (2019): 19–37.

⁴Recent work in this area includes Mattias Näsman, "The Political Economy of Emission Standards: Politics, Business and the Making of Vehicle Emission Regulations in Sweden and Europe, 1960–1980s" (PhD diss., Umea University, 2021); Ann-Kristin Bergquist and Mattias Näsman, "Safe before Green! The Greening of Volvo Cars in the 1970s–1990s," *Enterprise & Society* 24, no. 1 (2023): 59–89; Mattias Näsman and Sabine Pitteloud, "The Power and Limits of Expertise: Swiss–Swedish Linking of Vehicle Emission Standards in the 1970s and 1980s," *Business and Politics* 24, no. 3 (2022): 241–60; Samuel Klebaner, *Normes environnementales européennes et stratégies des constructeurs automobiles. Un jeu coopératif aux résultats ambigus* [European environmental standards and vehicle manufacturers' strategies: A cooperative game with ambiguous results] (Paris, 2020); and Alice Milor, "Construire l'automobile, conduire l'Europe. Industriels, consommateurs et responsables politiques (1972–1998) [Building cars, driving Europe: industry, consumers, and policymakers (1972–1998)]," (PhD diss., Sorbonne University, 2021).

⁵Recent work by Laurent Warlouzet connects European environmental and social policies to the Single Market Program; see Warlouzet, "The Implementation of the Single Market Programme (1985–92): The Examples of the Car Emission and of Competition Policy," in *Reshaping Europe: Towards a Political, Economic and Monetary Union, 1984–1989*, ed. Michael Gehler and Wilfried Loth (Baden-Baden, 2020), 247–62; and Warlouzet, "A Social Europe with a Greener Perspective: The Evolution of the Delors Commission around 1989," *Studi Storici. Rivista Trimestrale Dell'Istituto Gramsci* 62, no. 1 (2021): 189–209.

sizes and with different domestic and international priorities.⁶ Research by business historians has demonstrated how companies and interest associations exploited both the process of market making and intergovernmental tensions to shape policies and norms for the Single European Market.⁷ But more work is needed to bring these literatures together to examine the role of automakers in developing European environmental regulation during the 1980s and 1990s.

Filling this gap is important for several reasons. First, we need to understand the origins of the regional emissions standards that helped to position Europe as a global leader in environmental protections. Legislative standardization was central to policymaking for the Single Market.⁸ At the same time, exhaust emissions were one of the most salient public opinion issues across the region in the 1980s and 1990s. Yet the capacity of business interests to influence regional policy was also growing. What role, then, did the incentives of market integration, the pressures of public opinion, and the interests of business play in developing common norms?⁹ Second, recent international histories

⁶See, for example, Marine Moguen-Toursel, "Strategies of European Automobile Manufacturers Facing Community Environmental Standards," *Business and Economic History On-Line* 1 (2003): 1–28; Samuel Klebaner and Sigfrido M. Ramírez Pérez, "Managing Technical Changes from the Scales of Legal Regulation: German Clean Cars against the European Pollutant Emissions Regulations in the 1980s," *Management and Organizational History* 14, no. 4 (2019): 442–68. Mattias Näsman's work has also analyzed the ways market integration tempered the ambitions of smaller states like Sweden, Switzerland, Norway, and the Netherlands to develop stringent environmental regulations; see Näsman, "Political Economy of Emission Standards," sec. 1.2.

⁷Among others, the following works have argued that business interests shaped European integration: Alexis Drach, "An Early Form of European Champions? Banking Clubs between European Integration and Global Banking (1960s–1990s)," *Business History* (advance online publication, 7 Feb. 2022), <https://doi.org/10.1080/00076791.2021.2025220>; Drach, "Reluctant Europeans? British and French Commercial Banks and the Common Market in Banking (1977–1992)," *Enterprise & Society* 21, no. 3 (2020): 768–98; Benjamin Bürbaumer, "TNC Competitiveness in the Formation of the Single Market: The Role of European Business Revisited," *New Political Economy* 26, no. 4 (2021): 631–45; Maria Green Cowles, "Setting the Agenda for a New Europe: The ERT and EC 1992," *JCMS: Journal of Common Market Studies* 33, no. 4 (1995): 501–26.

⁸For foundational work on European standards and market integration, see Michelle Egan, "Bandwagon or Barriers? The Role of Standards in the European and American Marketplace" (Working Paper No. 1, University of Pittsburgh Center for International Studies, 1997); Egan, *Constructing a European Market: Standards, Regulation, and Governance* (Oxford, 2001); and Egan, *Single Markets: Economic Integration in Europe and the United States* (Oxford, 2015).

⁹On standards and safety, see Alice Milor, "Whose Business Is Road Safety? From a Fragmented to an Integrated Approach in France and Europe (1972–1998)," *Transfers* 9, no. 3 (2019): 41–60; Marine Moguen-Toursel, "Defining a European Vehicle: Community Standards as Integration Tools or Trade Barriers for European Enterprises?" in *The European Enterprise: Historical Investigation into a Future Species*, ed. Harm G. Schröter (Berlin, 2010), 67–80. On global competition in automaking, see Alice Milor, "Ownership Matters: French Governments and Automotive Industrialists Facing the Japanese Challenge, 1974–1986," *Business History Review* 96, no. 4 (2022): 833–55; Grace Ballor, "Liberalisation

have echoed contemporary debates between views of regional market integration as an inherently neoliberal project driven by transnational capitalism, on the one hand, and perspectives of Europe's social and environmental protectionism as evidence of its defense against neoliberalism and globalization, on the other.¹⁰ Resolutions to these debates lie in joint histories of regional market liberalization and the development of common environmental policies. Finally, what kind of common emissions standards were produced through this public-private process? One of the perennial problems of intergovernmentalism is achieving consensus, and support for the most ambitious position is extremely rare; most often, the lowest common denominator drives collective action. That the "Brussels effect" has exported EU norms to other governance systems around the world compels us to answer: What sort of norms were produced in the context of competing member state interests, global competition, and corporate influence?¹¹ And what are the implications of those origins for the futures of global environmental governance and economic cooperation?

By uncovering the process through which regional policymakers and multinational corporations developed collective car emissions standards in the context of the EEC's Single Market Program, this history aims to shed light on the connections between European environmental governance and regional economic integration. Evidence from the archives of European institutions makes it possible to reconstruct the bargains through which member states, regional policymakers, and industry leaders set car emissions rules for the EEC as a means of completing the internal market and paving the way for further cooperation.¹² What becomes clear is that the consensus established around new common emissions rules in the late 1980s and early 1990s was driven not by the principled environmentalism that had given rise to national policies but rather by exogenous competitive

or Protectionism for the Single Market? European Automakers and Japanese Competition, 1985–1999" *Business History* 65, no. 2 (2023): 302–28.

¹⁰Laurent Warloutet has written extensively about neoliberalism and European cooperation. See, for example, *Governing Europe in a Globalizing World: Neoliberalism and Its Alternatives following the 1973 Oil Crisis*, (Abingdon, 2018); and "Implementation of the Single Market Programme." On European integration and neoliberalism, see also Grace Ballor, "Europe between Nationalism and Neoliberalism," *American Historical Review* 127, no. 1 (2022).

¹¹On the exportation of EU norms, see Anu Bradford, *The Brussels Effect: How the European Union Rules the World* (Oxford, 2020); and M. Crippa, G. Janssens-Maenhout, D. Guizzardi, and S. Galmarini, "EU Effect: Exporting Emission Standards for Vehicles through the Global Market Economy," *Journal of Environmental Management* 183, no. 3 (2016): 959–71.

¹²The CCMC/ACEA does not maintain a publicly accessible archive, but those of European institutions—in this case consulted at the Historical Archives of the European Union—have preserved communication between the CCMC/ACEA and the EC/EU.

pressure from foreign regulators and an endogenous desire by both firms and policymakers for regional market integration. Common emissions standards proved key to the collective neomercantilism of strengthening Europe's geopolitical influence by reducing imports and boosting exports, especially as the EEC incorporated the social and environmental policies of northern European countries into its regional economic strategies for market integration and global competitiveness. In this liberal environmentalism, the "weak interests" of environmental protections first implemented in the United States and northern Europe achieved regional legitimacy and political power through public-private coalitions.¹³ While developing stricter common norms initially proved difficult in the face of competing business interests and the divergent political economy approaches of member states, the collective desire among policymakers for market integration and among producers for protections against foreign competition ultimately motivated the development of regional emissions standards that fell between the greenest member states and their least regulated counterparts. These findings suggest that the dynamics of the SMP changed the process of intergovernmental bargaining, especially when firms and business associations began to actively participate in the negotiation of member state consensus. As a result, these findings also recast the shape of the EU, its market, and its regulations in the context of business influence.¹⁴

This article begins by tracing, first, the evolution of transatlantic competition in autos over market share and standard setting and, second, the concurrent mobilization of the European auto industry through transnational business associations. It then reconstructs debates within European institutions and among industry leaders about car emissions in the Single European Market. The conclusion considers the implications of the policies implemented during the 1992 Program for understanding the relationship of business to the EU, formed in 1993, and its approach to environmental governance in the twenty-first century.

Early Emissions Regulations, 1957–1985

In both the United States and Europe, the postwar boom of the 1950s was characterized by "miraculous" economic growth, suburbanization,

¹³ Gunnar Trumbull theorized the circumstances in which "weak" or less salient interests can achieve political power. See Trumbull, *Strength in Numbers: The Political Power of Weak Interests* (Cambridge, MA, 2012). On the "weak interests" of environmental regulation, see David Vogel, *Trading Up: Consumer and Environmental Regulation in a Global Economy* (Cambridge, MA, 1997).

¹⁴ Andrew Moravcsik, *The Choice for Europe: Social Purpose and State Power from Messina to Maastricht* (Ithaca, 1998).

and surging middle-class demand for passenger cars. Amid this boom, six states in Western Europe formed three European Communities in the 1950s, including the EEC, later renamed the European Community (EC). American producers such as Ford and General Motors, which had entered European markets in the early twentieth century, showed themselves to be “more European than the Europeans.”¹⁵ Together with other American manufacturers, they capitalized on the new European customs union by building cars for the whole EEC, setting off a competitive race between European producers and the European subsidiaries of American automakers and creating the specter of a “*défi américain*.”¹⁶ Some European carmakers, like BMW, developed ambitions about crossing the Atlantic the other way and claiming a share of the giant US market, which continued to swell as disposable incomes grew, fueling increased demand for durable goods like cars.

The rapid increase of motorization produced negative knock-on effects: not only did more cars on the road mean more accidents, but air quality quickly worsened in areas with the highest traffic.¹⁷ In the 1960s, activists like American consumer advocate and political disruptor Ralph Nader pushed for new safety and environmental regulations, going so far as to accuse carmakers of deliberately producing dangerous vehicles.¹⁸ Because issues of safety and air quality were of increasing political salience among the general American public, they soon entered the realm of “noisy politics.”¹⁹ The United States subsequently passed the Clean Air Act in 1963, providing research funding for emissions-abating technologies, the Motor Vehicle Air Pollution Control Act in 1965, the National Traffic and Motor Safety Vehicle Act in 1966, and, following the creation of the Environmental Protection Agency (EPA), the controversial Clean Air Act amendments of 1970, which gave the federal government the institutional authority and capacity to develop

¹⁵ On Ford in Europe, see Hubert Bonin, Yannick Lung, and Steven Tolliday, *Ford, 1903–2003: The European History* (Paris, 2003); and Mira Wilkins and Frank Ernest Hill, *American Business Abroad: Ford on Six Continents*, 2nd ed. (Cambridge, U.K., 2011).

¹⁶ Jean-Jacques Servan-Schreiber, *Le défi américain* [The American challenge] (Paris, 1967). Servan-Schreiber sounded an alarm at the extent to which American firms had taken advantage of the EEC’s tariff-free zone, “invading” Europe and threatening to render it a mere subsidiary of the United States.

¹⁷ For more, see Marine Mougen-Toursel, “Demande de sécurité des véhicules et normes automobiles depuis les années 1960 [Demands for vehicle safety and automotive standards since the 1960s],” *L’Atelier du Centre de recherches historiques* (2008).

¹⁸ In 1965, Nader published his book *Unsafe at Any Speed: The Designed-In Dangers of the American Automobile*, in which he faulted American car manufacturers for failing to include crucial safety features in their vehicles.

¹⁹ Pepper Culpepper, *Quiet Politics and Business Power: Corporate Control in Europe and Japan* (Cambridge, U.K., 2011).

environmental regulations for both industrial and vehicular emissions for domestic producers and exporters alike.²⁰

Europeans had become concerned, too, about road safety and pollution. Rising numbers of vehicle accidents and worsening air quality energized a new generation of European environmental activists in the 1960s. Most European governments were slow to respond to activist pressure, however, until the United States passed legislation to regulate passenger cars. Very quickly, concerns about the global competitiveness of European industry were intensified by economic downturn that began in 1967 when the postwar miracles ended, economic growth plateaued, and the auto industry's revenues fell precipitously.²¹ Under these dual activist and economic pressures, Germany approved a car emissions law in 1968, to take effect in 1970. France followed soon after, with legislation limiting the carbon monoxide content of car exhaust and regulating the composition of gases emitted by gasoline-fueled cars in two stages, by 1971 and 1972, respectively.²² Moreover, national differences persisted in standards for auto safety, noise, and performance, resulting in a patchwork of disparate national norms and requirements for autos across the European region that hindered regional economies of scale and long-term business planning.²³

Some of the problems of fragmented norms were remedied by efforts to develop international environmental governance in the 1960s. The North Atlantic Treaty Organization (NATO) created a scientific research committee, the Committee on the Challenges of Modern

²⁰In 2022, the US Supreme Court was poised to roll back this federal authority and potentially reverse decades of environmental legislation. See Adam Liptak, "Supreme Court Considers Limiting EPA's Ability to Address Climate Change," *New York Times*, 28 Feb. 2022. On the history of US emissions policy, see James E. Krier and Edmund Ursin, *Pollution and Policy: A Case Essay on California and Federal Experience with Motor Vehicle Air Pollution, 1940–1975* (Berkeley, 1977).

²¹Ulrich Jürgens, "The Development of Volkswagen's Industrial Model," in *One Best Way? Trajectories and Industrial Models of the World's Automobile Producers*, ed. Michael Freyssenet, Andrew Mair, Koichi Shimizu, and Giuseppe Volpato (New York, 1998), 277.

²²Commission of the European Communities, "Proposition d'une directive du conseil concernant le rapprochement des législations des Etats membres relatives aux émissions de gaz polluants en provenance des moteurs à allumage commandé équipant les véhicules à moteur [Proposal for a council directive on the approximation of the laws of member states relating to gas emissions from combustible engines in motor vehicles]," 1, COM(69)939 vol. 1969/0163, Historical Archives of the European Union, Firenze, Italy (hereafter, HAEU). See also W. Berg, "Evolution of Motor Vehicle Emission Control Legislation in Europe: Leading to the Catalyst Car?" (SAE Technical Paper 850384, 1985), 17–38; and Berg, "Legislation for the Reduction of Exhaust Gas Emissions," in *Traffic and Environment: The Handbook of Environmental Chemistry*, vol. 3, ed. Dušan Gruden (Berlin, 2003), 175–253.

²³On the fragmentation of markets in this period, see Mira Wilkins, "Multinational Automobile Enterprises and Regulation: An Historical Overview," in *Government, Technology, and the Future of the Automobile*, ed. Douglas H. Ginsburg and William J. Abernathy (New York, 1978), 221–58.

Society, with the express purpose of studying the environmental problems of its members, although it did not deal directly with auto emissions. The Organization for Economic Co-operation and Development (OECD) also created a general environmental task force. Most importantly, the United Nations Economic Commission for Europe (UNECE) played a key role in international vehicle regulations. It emerged in the mid-1950s as a forum in which international regulation could take shape, motivating automakers to mobilize and form the International Organization of Motor Vehicle Manufacturers (OICA) in 1955 to lobby the UNECE and contribute to the drafting of technical specifications.²⁴ In 1958, the UNECE created the legal framework for contracting countries to set vehicle regulations, laying the foundation for the world forum on harmonization in this area known as WP29. Then, in August 1970, the UNECE developed prescriptions for modest common vehicle emissions standards with Regulation 15. Importantly, though, UNECE standards were nonbinding. Not only was their global implementation heterogeneous, but signatory states also struggled to agree on subsequent modifications to develop international UNECE standards further.²⁵ UNECE norms did become binding when they entered into EEC legislation, however. This was the case with Regulation 15, to which EEC member states quickly indicated their intention to conform, albeit with a reasonable delay for implementation.

In parallel with the development of international vehicle regulations, the EEC faced new concerns about the vitality of European industry and the integration of European markets. In May 1969, the European Commission met to discuss the threat of market fragmentation posed by the different national emissions standards of Germany and France and to develop a plan for “the elimination of technical barriers” in the auto market.²⁶ The plan proposed to adopt emissions standards similar to the UNECE’s Regulation 15 as a means of harmonizing regulations among member states, which, the Commission claimed, the auto industry supported.²⁷ In the following year, the European Council issued two related directives: the first outlined EEC type approval for motor vehicles; the second, a framework emissions

²⁴ See Andrew M. McLaughlin and William A. Maloney, *The European Automobile Industry: Multilevel Governance, Policy, and Politics* (New York, 1999), 109. OICA stands for the French name: Organisation internationale des constructeurs d’automobiles.

²⁵ See Näsman, “Political Economy of Emission Standards.”

²⁶ Representatives from the CLCA met with the Commission in May 1969. See: European Commission, “Proposition modifiée de la Directive du Conseil concernant le rapprochement des législations des États membres relatives à la réception des véhicules à moteur et leurs remorques,” COM(69)939 vol. 1969/0163, Oct. 1969, HAEU.

²⁷ Directive 15/70/220/EEC was based on UNECE Regulation 15.

policy adopted just one month later, effectively made Regulation 15 compulsory for EEC members. This policy—Directive 70/220/EEC, “on the approximation of the laws of the Member States relating to measures to be taken against air pollution by gases from positive-ignition engines of motor vehicles”—stipulated that no member state could discriminate against vehicles compliant with the adopted emissions standards by refusing type approval.²⁸ By doing so, it laid a foundation for common emissions rules in the EEC and removed barriers to cars bought and sold between EEC markets. In the event of infractions against this mutual type-approval agreement, the Commission could take violating member states to the European Court of Justice, even if it immediately expressed its reluctance to do so.

A Global Contest of Norms

Despite this regional progress, the EEC’s emissions standards fell behind those of the United States and Japan.²⁹ Severe air pollution in the 1960s had motivated the Japanese government to address environmental protection earlier and even more assertively than its European and American counterparts. In 1966, Japan became the first country in the world to introduce carbon monoxide emissions controls for automobiles. It introduced lead-free gasoline and supported the development of new engine technologies to reduce pollution.³⁰ By 1978, its emissions control standards had far surpassed any Western regulation, national or international.³¹ As a result, Japanese producers adapted their models to strict emissions standards at a very early stage, giving them an advantage over most of their competitors from the United States and Europe and enabling them to capture significant shares of foreign markets by the 1970s.³² The United States simultaneously developed its own rules for car emissions. Amendments to the 1970 Clean Air Act required

²⁸“Council Directive 70/220/EEC on the approximation of the laws of the Member States relating to measures to be taken against air pollution by gases from positive-ignition engines of motor vehicles,” Official Journal of the European Communities, 20 Mar. 1970, Articles 2–4.

²⁹Näsman and Pitteloud, “Power and Limits of Expertise.”

³⁰European Parliament, Committee on Economic and Monetary Affairs and Industrial Policy (ECON), “The Automobile Industry in the Community: Evidence Given on the European Automobile Industry for the Hearing Organized by the Committee on Economic and Monetary Affairs and Industrial Policy,” 28–29 Oct. 1985, Economic Series no. 7, 12-1985, Archive of European Integration, Pittsburgh (hereafter, AEI).

³¹European Parliament, ECON, “Bonaccini Report I,” Dec. 1980, 19. For more on Japanese emissions standards, see David Bauner, “International Private and Public Reinforcing Dependencies for the Innovation of Automotive Emission Control Systems in Japan and USA,” *Transportation Research Part A: Policy and Practice* 45, no. 5 (2011): 375–88.

³²On competition between European and Japanese automakers in the late twentieth century, see Ballor, “Liberalisation or Protectionism.”

automakers to cut emissions of carbon monoxide (CO), hydrocarbons (HC), and nitrogen oxides (NO_x) by 90 percent by 1975–1976.³³ Although the final implementation of these emission reductions was ultimately delayed until 1983, giving the rules the shorthand name “US83,” American automakers had already begun fitting cars with catalytic converters to meet stricter emissions rules in the 1970s. Most common was the three-way catalytic converter, a device that used both oxidation and reduction to effectively abate all forms of exhaust emissions.³⁴

By contrast, the EEC had only established a baseline of “optimal harmonization,” capping standards at a low ceiling and impeding any individual member states’ ability to set stricter norms. The EEC had also not collectively addressed the relevant issues of energy or new technology, even if European car models were more fuel efficient than US ones. The Commission followed developments in the United States extremely closely, as is evident in the many archived folders containing copies of memos from the EPA, Federal Register, and US Department of Energy.³⁵ But this information did not result in any major efforts in the EEC beyond some modest reforms of the 1970 directive. By the late 1970s, Europe lagged well behind the United States and Japan in its less stringent approach to regulating car emissions.

The crises of the 1970s exacerbated the global contest in automobile manufacturing and the stakes for market fragmentation. After increasing at an average annual rate of nearly 6 percent in the 1960s, growth in demand for cars slowed to 2.5 percent during the 1970s and just 0.5 percent in the early 1980s.³⁶ Some of this downturn was the product of oversaturation in the global car market after the postwar boom. Most, however, was the result of the oil crises of 1973 and 1979, which severely restricted the global supply of petroleum, drove up the commodity’s prices, and produced two severe recessions. In what became a buyers’ market, the consumers financially positioned to make new purchases demanded much more of their passenger cars than ever before, prioritizing smaller, fuel-efficient cars over larger, fuel-intensive ones. International trade agreements negotiated through various rounds of the General Agreement on Tariffs and Trade (GATT) prohibited explicit tariff protectionism by signatory countries. And EEC member states had agreed to remove all tariff and nontariff barriers that could

³³Later regulations addressed particulate matter (PM) emissions as well.

³⁴For a detailed explanation of the implementation of catalytic converters, see Näsman, “Political Economy of Emissions Standards,” sec. 4.3.

³⁵Commission of the European Communities, “Importation of Nonconforming Motor Vehicles and Vehicle Engines, Environmental Protection Agency,” 13 Sep. 1985, Washington, DC, to Mr. Daout, DGIV, BAC-253/1991_0059, HAEU.

³⁶G. Lafay, C. Herzog, L. Stemitsiostis, and D. Unal, *Commerce international: la fin des avantages acquis* [International trade: the end of acquired advantages] (Paris, 1989).

impede the free flow of goods between their markets. Still, the economic downturn and global competition of the 1970s and early 1980s motivated European governments to implement creative, nontariff forms of protectionism as a means of supporting national industries and domestic firms against foreign competition.³⁷ These different national approaches undermined the larger efforts to integrate markets in the region.

Industry Mobilization

Faced with rising global competition, oil and economic crises, as well as the development of national and international environmental regulations, the European auto industry found in transnational business associations the ability to articulate common positions and engage in collective action. National automobile trade associations had come together to form regional associations in the early 1950s—namely the OICA and the Liaison Committee of the Automobile Industry of the European Communities (CLCA)—in an effort to lobby the many international organizations that proliferated in the postwar years, especially the UNECE.³⁸ But the downturn of the late 1960s, growing competition with foreign producers, and the transatlantic contest over standards motivated European producers to form more focused associations oriented around the EEC and its increasing institutional capacity to coordinate industrial and commercial policy. These dynamics would play a crucial role in the industry's involvement in shaping emissions standards during the 1992 Program.

One such association was created at the encouragement of the European Commission in the early 1970s. Initially formed in 1970 as a technical committee of research and development directors from each of the leading producers in the EEC, the so-called X-Group became a platform through which the industry could, with the Commission's support, develop a more ambitious organization, the Committee for Common Market Automobile Constructors (CCMC) in 1972.³⁹ Unlike the CLCA, which was oriented around national industry associations,

³⁷Miranda Schreurs explains that the oil crises shifted policymakers' attention from environmental issues back to economic ones in the major auto-producing countries of the United States, West Germany, and Japan. See Schreurs, *Environmental Politics in Japan, Germany, and the United States* (Cambridge, MA, 2002).

³⁸McLaughlin and Maloney, *European Automobile Industry*, 110.

³⁹Sigfrido M. Ramírez Pérez, "Transnational Business Networks Propagating EC Industrial Policy: The Role of the Committee of Common Market Automobile Constructors," in *The History of the European Union: Origins of a Trans- and Supranational Polity, 1950–72*, ed. Wolfram Kaiser, Brigitte Leucht, and Morten Rasmussen (London, 2009), 77; Ballor, "Liberalisation or Protectionism."

the CCMC offered chairmen from Fiat, Renault, Peugeot, Volkswagen, Citroën, British Leyland Motors Corporation Daimler-Benz, and later Alfa Romeo, BMW, and even Volvo a forum to meet directly with one another and with European Commissioners.⁴⁰

Throughout the 1970s, the CCMC continued to discuss the industry's priorities for standards across the region, serving as a kind of consultancy for the Commission's work on eliminating technical barriers to trade under Alterio Spinelli and François-Xavier Ortoli in exchange for reciprocal attention to its policy interests.⁴¹ Its achievements in influencing EEC emissions standards were modest in the 1970s, largely because of its unanimity principle for decision making, but its organization in this period laid the foundation for its activities in the decade that followed.⁴² In July 1981, for example, the CCMC wrote to Frans Andriessen, the commissioner tasked with the competition policy portfolio, to outline its independent research program on "the interrelationship of automotive exhaust emissions and fuel consumption."⁴³ This program was designed to compare a European-produced vehicle compliant with Directive 78/665/EEC with gasoline-fueled models from the United States, California (which had set its own, more stringent, standards), Japan, and Sweden and diesel-fueled models.⁴⁴

Concerns about foreign competition and the need to develop strategies to remain profitable in an increasingly globalized, and increasingly liberal, macroeconomy united the interests of industrialists and policymakers around the shared objective of market integration in wider circles, too. Charismatic Volvo CEO Pehr Gyllenhammar leveraged his contacts in Brussels to propose a new transnational association of industrialists that would bring European CEOs together

⁴⁰Volkswagen's motivation here was largely to ensure that its domestic competitor would be subject to the same standards and not in a position to negotiate separately with either the West German state or EEC. Despite being based in Sweden, not an EEC member state, Volvo was admitted to the group through the loophole of its ownership of French truck maker DAF.

⁴¹Alterio Spinelli, "Report on the Future of Europe at the Meeting of the Istituto Affari Internazionali," Rome, 21–24 Nov. 1973, CAB/VII/130/73, AEI. This report laid out objectives for market integration that closely resembled the proposals drafted by the CCMC in previous years, which the group had shared with the Commission at meetings in Paris, Venice, and Brussels between 1970 and 1973.

⁴²The CCMC was also not represented in the UNECE's WP29, while OICA was.

⁴³CCMC to Director General III Mr. F. Braun, "Impact of Tighter Exhaust Emission Regulations on Passenger Car Fuel Consumption," 2 Jul. 1981, BAC-253/1991_0059, HAEU.

⁴⁴From the World Trade Organization (WTO) to the General Agreement on Tariffs and Trade (GATT), global trade relations in the 1970s and 1980s were becoming increasingly liberal. Of course, some national governments, notably Japan, persisted in the preservation of protectionist policies, as did many European member states. But the general trend was trade liberalization, limiting the range of mechanisms at the EC's disposal to restrict foreign competition in the region.

and give him a seat at the European policymaking table that he otherwise would not have had coming from a country outside the EEC. In 1983, Gyllenhammar, along with industry Commissioner Etienne Davignon (DG III) and Commissioner François-Xavier Ortoli, convened a group of sixteen industry leaders to form the European Round Table for Industry (ERT). Within this group, the automaker members of the ERT, including Fiat and Renault in addition to Volvo, vocalized their support for market integration.

Over the following two years, meetings between the European Commission and the ERT—and continuing correspondence between the Commission and industry associations like the CCMC—contributed to the Commission’s preparation of the “White Paper on Completing the Internal Market” in the spring of 1985, which launched the Single Market Program to achieve full market integration through a “New Approach” to standardization and rapid legislative harmonization across member states.⁴⁵ Whether industry “set the agenda” for the SMP or business leaders simply submitted suggestions to the Commission, business maintained a seat at the policymaking table during the processes of developing and executing the 1992 Program.⁴⁶ In the debates between various member states’ approaches to emissions standards, the CCMC and ERT shared the position that reducing fragmentation between European markets should take priority over everything else.

Member State Differences and the Luxembourg Agreement

Despite the agreement to pursue legislative harmonization by 1992, EEC member states approached the problem of emissions regulation differently. Small countries without domestic car industries, for example, like Denmark and the Netherlands, generally supported strict environmental standards. Countries with producers highly dependent on national markets, like France and Italy, were at the other end of the spectrum, wary of overly stringent standards and insistent on long lead times before the introduction of any new requirements.⁴⁷ French and Italian automakers also produced smaller, cheaper cars than their counterparts elsewhere in Europe and the United States, for which the addition of new environmental technologies like catalytic converters would constitute a larger

⁴⁵On the standardization process, see Grace Ballor, “CE Marking, Business, and Market Integration,” *Business History Review* 96, no. 1 (2022): 77–108. For an introduction to the history of international standards, see JoAnne Yates and Craig N. Murphy, “Introduction: Standards and the Global Economy,” *Business History Review* 96, no. 1 (2022): 3–15.

⁴⁶Maria Green Cowles, “Setting the Agenda for a New Europe: The ERT and EC 1992,” *JCMS: Journal of Common Market Studies* 33, no. 4 (1995): 501–26.

⁴⁷For more on national differences, see Klebaner, *Normes environnementales européennes*; and Milor, “Construire l’automobile, conduire l’Europe.”

percentage of total manufacturing costs. Britain fell somewhere in the middle of this schematic. Its producers had developed “lean-burn” engine technology, which met only the lowest emissions standards but was cheap and offered the benefit of increasing fuel economy.⁴⁸ For their part, while the European subsidiaries of American producers were already prepared to meet the much more stringent standards exacted by US regulators, they sided with the British preference for a lean-burn solution because of their European production and market interests.

Germany emerged from the crises of the 1970s with the most aggressive proposals for increased environmental standards, a trend motivated by both the rise of green political parties and pressure from its export-oriented national champion carmakers to align domestic policies with those of the United States.⁴⁹ Its approach to environmental regulation was also greatly informed by emergent ideas about decoupling energy consumption and economic growth in the 1970s and 1980s.⁵⁰ Perhaps most of all, global competition motivated Germany’s adoption of stricter emissions norms. After the United States finally implemented the Clean Air Act emissions standards in 1983, the German government moved quickly to align its policies with those of its biggest competitor and largest overseas export market.⁵¹ What had started as principled environmentalism had become market pragmatism. In addition to reducing the limits of exhaust emissions, German policymakers also articulated their intentions to mandate the use of catalytic converters by 1986.⁵² The devices were costly and required a wholesale switch to unleaded gasoline fuel. But the German government reasoned that producers like Volkswagen had already begun to integrate catalytic converters into their latest models, and suppliers like Bosch were prepared for a large-scale rollout of the new technology.⁵³ Meanwhile, specialist producers like BMW and Daimler-Benz welcomed strict emissions standards, giving the domestic

⁴⁸ European Parliament, “Getting Around to Getting Rid of Car Fumes, Mark Milner on the Exhausting and Costly Luxembourg Agreement,” 16 Sep. 1987, CPPE-1491, HAEU.

⁴⁹ See Klebaner and Ramírez Pérez, “Managing Technical Changes,” 455.

⁵⁰ Stephen G. Gross, “Reimagining Energy and Growth: Decoupling and the Rise of a New Energy Paradigm in West Germany, 1973–1986,” *Central European History* 50, no. 4 (2017): 514–46.

⁵¹ Vogel, *Trading Up*.

⁵² Peter Sutherland, “Federal Republic of Germany, Measures to Promote the Introduction of Anti-pollutant Motor Cars: Memorandum to the Commission from P. D. Sutherland,” 20 Feb. 1985, p. 2, PSP-405, HAEU. See also Klebaner and Ramírez Pérez, “Managing Technical Changes,” 450.

⁵³ The actual cost of catalytic converters to producers varied widely, with volume producers expecting a 4 percent to 7 percent increase in the total production cost per vehicle and smaller manufacturers facing even higher costs. Näsman, “Political Economy of Emissions Standards,” 247. For more on Bosch’s position, see Klebaner and Ramírez Pérez, “Managing Technical Changes,” 451.

government confidence that its approach would actually afford its auto industry a comparative advantage over its competitors. German officials were so assured of their automakers' market advantages and the necessity for emissions regulation, in fact, that they appealed to the EEC to embrace similarly strict standards and technology requirements for the region. The standards Germany proposed in 1977 had been watered down in 1979 and implemented as an EEC directive in 1982. It was time, they thought, for the EEC to go further.

The broad base of European producers and suppliers had yet to be convinced, however. Citing the high component cost of catalytic converters, especially relative to the total built cost of small economy cars, even the Verband der Automobilindustrie rejected the aggressive German proposal immediately, while German automakers lobbied the government to offer fiscal incentives that would entice customers to buy "clean cars," which they defined as vehicles that met US83 standards and included catalytic converters. Representing the regional industry, the CCMC appealed to the EEC for a common position on standards in the wake of Germany's detrimental effort to "go it alone."⁵⁴

European policymakers also worried about the consequences of the proposed German fiscal scheme to facilitate US83 compliance, which seemed to some commissioners to be a violation of the EEC's common commercial policy as outlined in the Treaty of Rome. British officials, not wanting to be outdone by the Germans or to have to forfeit their preferred lean-burn approach, immediately cried market distortion. In the months that followed, the Commission undertook an extensive legal review of the proposed German incentives to test their adherence to or violation of several articles of the treaty, focusing in particular on Article 92 on state aid.⁵⁵ Commissioner for competition (DG IV) Peter Sutherland found no violation of Article 92, but industry Commissioner Karl-Heinz Narjes determined that Germany's requirement of catalytic converters and fiscal incentive would give its own domestic industry an undue advantage since German producers had invested the most in the new technologies.⁵⁶ After an unsuccessful appeal arguing that the cost of a catalytic converter far exceeded the proposed fiscal incentive, Germany dropped its unilateral adoption of US83 standards and its corresponding incentive scheme in favor of finding a collective EEC solution.⁵⁷

⁵⁴Eberhard von Kuenheim, speaking for the CCMC in 1984. On this, see Klebaner and Ramírez Pérez, "Managing Technical Changes," 453.

⁵⁵Other articles in question were 5, 30, and 93.

⁵⁶Klebaner and Ramírez Pérez, "Managing Technical Changes," 453.

⁵⁷On interstate bargaining over car emissions, see Henning Arp, "Multiple Actors and Arenas: European Community Regulation in a Polycentric System: A Case Study on Car Emission Policy" (PhD diss., European University Institute, 1995).

Through the course of more interstate bargaining, member states settled on the “Luxembourg Agreement” negotiated in March and June 1985. This first EEC emissions regulation beyond the norms set by UNECE was a modest, tiered set of common emissions standards to be implemented in three stages from 1988 to 1993.⁵⁸ It required large cars to comply with the EEC’s version of US83 standards beginning in 1989, incentivizing producers to install catalytic converters on vehicles in that category, but it granted medium-sized cars a long implementation time, keeping the British lean-burn approach viable in the interim. It also mitigated the shock of new standards for small French and Italian cars by dividing the requirements into two stages, with the second to be decided at a later date.

Producers recoiled at the uncertainty of this open-ended arrangement. The CCMC rejected the Commission’s proposal as “arbitrary” and asked that all relevant factors be taken into account before further regulation was drafted. Parliamentary reports reveal the CCMC’s frustration with the Commission’s “fail[ure] to insist upon its 1981 ‘global approach’ initiative which was meant to examine the impact of measures in a global context e.g. noise regulation, technology safety, cost-benefits” and its critical view that “the decisions on future emissions standards were made primarily in response to political challenges rather than long term necessities”—or even, in its view, compelling scientific evidence.⁵⁹ The automaker members of the CCMC were concerned about the risk of market fragmentation and regulatory uncertainty if member states developed their own rules and the EEC did not proceed together, and they preferred a global type-approval approach that would outline one combined set of norms for manufacturers to follow.⁶⁰

Some member states were also strongly opposed to the compromise for a variety of reasons. Denmark, frustrated by the inability to set its own more exacting standards and disappointed by the way the Luxembourg Agreement coalesced around the lowest common denominators, used its veto power to block the deal for two years, rendering it void until 1987. With pollution in Athens reaching record levels, Greece also opposed the Luxembourg arrangement out of a desire to retain the autonomy to take even more decisive action. As a result, no common emissions standards were implemented in 1985. While Denmark and Greece prioritized sovereignty, other states took strong environmental positions. Germany expressed concern about the possible links between

⁵⁸“Octane Level Set for Lead-Free Petrol,” *European Community News* 17 Oct. 1984, PSP-405, HAEU.

⁵⁹European Parliament, ECON, “Automobile Industry in the Community,” 2 (summary report).

⁶⁰European Parliament, ECON, “Automobile Industry in the Community.”

the nitrogen dioxide (NO₂) emissions of cars and the problem of acidic precipitation polluted by industrial and combustion emissions—or “acid rain”—that threatened both urban and rural environments. The German position contrasted sharply against the French and Italian neomercantilists who opposed the implementation of catalytic converters, which they saw as prohibitively expensive for their national champions producing economy cars.⁶¹

Viewed through the lens of comparative political economy, the proposal and failure of the Luxembourg Agreement highlights the differences in national approaches. It also reveals the supranational role of the EEC and the paths to eventual compromise. In some ways, the legal debate over German fiscal incentives marked a turning point in the EEC’s approach to vehicle emissions by framing law as a form of mediation between regulators and firms.⁶² The German position also catalyzed the Luxembourg Agreement, laying a foundation for the directives of the late 1980s. The launch of the SMP, treaty reform in the EEC, and the strengthening of transnational associations reshaped institutional capacity and positioned firms to play an even more active role in developing the common emissions standards that cut through national differences to achieve the shared objective of an internal market integration and alignment with global markets.

Public-Private Convergence and Common Emissions Standards

In addition to the “White Paper on Completing the Internal Market,” the Single European Act (SEA) signed in 1986 drastically changed the economic and regulatory landscape in the EEC.⁶³ The SEA provided the institutional reform needed to complete the white paper’s nearly three hundred steps of legislative harmonization by the ambitious target deadline of December 1992. It modified the process of intergovernmental bargaining by introducing qualified majority voting (QMV), thereby removing the potential of individual dissenting member states to impede collective decisions in the process of market making. The SEA also embedded environmental policy—and emissions standards—within the objective of market integration. Title VII of the act dealt specifically with the environment, and Article 100-A-3 allowed for new

⁶¹ Warlouzet, “Implementation of the Single Market Programme,” 6. These debates highlighted the gaps between industry objectives and the perspectives of national governments about what businesses needed, especially since many CCMC member firms were also national champions.

⁶² Klebaner and Ramírez Pérez, “Managing Technical Changes,” 442–68.

⁶³ European Commission, “White Paper on Completing the Internal Market,” May 1985; European Council, Single European Act (1986), Official Journal, No. L 169/1.

measures to be taken by individual member states insofar as they were in service of completing the internal market.⁶⁴ Articles 130S and 130T elaborated on the EEC's collective approach to environmental protections, in which the European Parliament (EP) enjoyed increasing influence through its augmented consultative role introduced by the cooperation procedure of the SEA.⁶⁵ But because unanimity was still required in decision making about the harmonization environmental policy, the SEA stipulated that "the protective measures adopted in common pursuant to Article 130S shall not prevent any member state from maintaining or introducing more stringent protective measures compatible with this Treaty."⁶⁶

If the CCMC enjoyed only lackluster influence over the Commission's industrial policy initiatives of the 1970s, the new landscape of the 1980s provided the group with fresh opportunities for intervention. Not only was the Commission's New Approach to market integration predicated on close cooperation with nonstate stakeholders, but the policy scaffolding around the Single Market also motivated the CCMC to engage with the Commission in a new way and around new issues.⁶⁷ Two other factors greatly contributed to changes in the relationship between the Commission and the CCMC in this period. First, the Commission became a much more dynamic and capable institution: new and charismatic personalities like Commission president Jacques Delors joined the halls of Berlaymont, and portfolio delegation among commissioners was restructured to increase the policymaking capacity of commissioners responsible for particular policy spheres, especially the DG III (responsible for industry and the Single Market) and DG IV (in charge of competition). Second, the nature of global competition had also changed. Not only were Japanese firms importing autos to Europe at extremely low prices thanks to government subsidies but Japanese producers had also ramped up their production of cars and component parts in Europe in what came to be called

⁶⁴ Warlouzet, "Implementation of the Single Market Programme," 5.

⁶⁵ Nigel Haigh and David Baldock, "Environmental Policy and 1992" (Institute for European Environmental Policy, 1989), HW-37, HAEU. The Treaty of Maastricht later granted Parliament the power of co-decision, putting it on equal footing with the Council in policymaking on issues relating to employment and industrial relations. The parliamentary co-decision procedure is enshrined in Article 294 of the Treaty on the Functioning of the European Union (TFEU).

⁶⁶ Single European Act, Article 130S-T.

⁶⁷ This "new approach" included collaboration with other EU institutions, the European Free Trade Association (EFTA), and international standardization bodies including the European Committee for Standardization (CEN), the European Committee for Electrotechnical Standardization (CENELEC), and the European Telecommunications Standards Institute (ETSI).

“tariff-jumping FDI.”⁶⁸ These changes in the landscape of global competition strengthened the connections between industry and regional policymakers.

In October 1985, the EP’s Committee on Economic and Monetary Affairs and Industrial Policy undertook an extensive review, “The Automobile Industry in the European Community,” in part to understand why the Luxembourg Agreement had failed. The review surveyed European academics, trade unions, suppliers, environmental groups, producers, and transnational industry associations—as well as those with interests in European markets, including Ford, General Motors, and the Japan Automobile Manufacturers Association—on three thematic pillars of issues. The first question addressed the economic and industrial implications of the Commission’s efforts to implement a “clean car” directive on emissions standards. While environmental groups called for stricter measures in 1985 and Europe’s alignment—not just with US standards but with those of California, among the most stringent in the world—the CCMC replied that the 1985 proposal and compromise had gone too far.⁶⁹

Just as the first harmonization initiatives of the SMP were being implemented in 1986, the CCMC submitted a white paper to the Commission in which it expressed concerns about the ways foreign competitors might take advantage of a liberalized internal market if national protections were removed.⁷⁰ The Commission reassured the industry that the Single Market would not favor foreign competitors but be a boon to all producers in the region. This exchange set the stage for frequent communications between the CCMC and Commission during the SMP. CCMC members met regularly with commissioners and exchanged position papers and confidential documents even more frequently, leading to the perception that industry exerted considerable influence over the 1992 Program, at least where cars were concerned. The primary objective of the CCMC throughout these exchanges was the harmonization of standards across EEC member states. By remedying fragmentation and creating a truly internal market, they argued, they could compete with their American and Japanese rivals, which were steadily gaining market share across the EEC. After the progress toward common emissions standards stalled in 1985, and because carmakers

⁶⁸ Frédérique Sachwald, *Japanese Firms in Europe* (Reading, 1995), 111. See also works by Hitoshi Suzuki and Alice Milor.

⁶⁹ European Parliament, ECON, “Automobile Industry in the Community,” 23.

⁷⁰ “Livre blanc du Comité des constructeurs automobiles du marché européenne [White paper from the Committee of Automakers on the European Market],” Dec. 1986, PE2-16864/16878, HAEU. These fears echoed the arguments of Jean-Jacques Servan-Schreiber from two decades earlier.

develop models years in advance of their release, the CCMC was eager for the Commission to settle the uncertainty of harmonized norms.

By July 1987, Denmark's two-year blockade of the Luxembourg Agreement had lapsed, and the Commission proposed Directive 88/76/EEC, which resurrected the failed deal. The European Council finally passed the agreement that December, thus enacting stricter common auto emissions standards for the Single Market, to take effect in 1989. But the standards, already a modest compromise when they were drafted in 1985, had not aged well, and the directive was poorly received by those member states and firms advocating for a full adoption of US83.⁷¹ In February 1988, the Council adopted another directive requiring catalytic converters for small passenger cars. This Small Cars Directive set both a ceiling and a floor on common emissions standards and prevented member states from setting unilateral norms, as Germany had attempted.⁷² It also allowed, but did not obligate, member states to reduce car exhaust levels in stages between 1988 and 1993.⁷³

Meanwhile, CCMC members were frustrated by the continued uncertainty of a multitiered, variable approach to emissions. The majority expressed a willingness to adopt more stringent standards than those set out in the directives of 1987 and 1988 if those higher standards would guarantee their cars access to more and larger markets and would ensure that they remained competitive against foreign producers. The outlier was the PSA Group (Peugeot and Citroën), headed by chair Jacques Calvet, who was an outspoken nationalist and favored a neomercantilist relationship with the French government over regional harmonization and collective standards.⁷⁴ Peugeot also opposed the move to adopt US83, since it had invested in lean-burn engine technology instead of costlier catalytic converters.⁷⁵ Calvet's refusal to

⁷¹ Automakers also lobbied domestic governments regarding national and European environmental regulations, sometimes seeking member state support for their regional policy interests and sometimes leveraging member state influence in the regional policymaking sphere. For an exemplary study of the dynamics of national and regional lobbying by automakers, see Sigfrido Ramírez Pérez, "Public Policies, European Integration, and Multinational Corporations in the Automobile Sector: The French and Italian Cases in Comparative Perspective, 1945–1973" (PhD diss., European University Institute, 2007).

⁷² Medium-sized British cars using lean-burn technology were exempt from this requirement.

⁷³ "Press: Autos in Single Market," 1987, HW-37, HAEU.

⁷⁴ Roland Stephen, *Vehicle of Influence: Building a European Car Market* (Ann Arbor, 2000), 102.

⁷⁵ Recent work has uncovered the differing approaches of French firms, including the PSA Group. See, for example, Milor, "Construire l'automobile, conduire l'Europe." On the comparative approaches of European carmakers to these changes, see the earlier work by Samuel Klebaner: "The Co-evolution of Product and Environmental Performances: The Trajectories of Car Manufacturers in the European Market," Conference Paper, GERPISA Colloquium, 30 March 2017; and Klebaner, "Managing Regulations: The Integration of the Air

cooperate would later jeopardize the integrity of the association; in contrast, the convergence of positions among the other producers would also prepare the regional industry to find consensus in the future.

The Council developed a revised “common position” in September 1988, which then went to the European Parliament, where it was critiqued for being too industry friendly.⁷⁶ The EP put forward its own recommendations for stricter measures, which were subsequently rejected by the commissioner for environment, British Stanley Clinton-Davis, who prioritized harmonization and the completion of the market over the strictness of environmental norms.⁷⁷ Within months, Clinton-Davis’s term ended and Italian Carlo Ripa di Meana assumed the environment portfolio. A “green pioneer” to some and a “compromise candidate” to others, Ripa di Meana recognized that the widespread adoption of US83 in Sweden, Switzerland, and Austria pressured the EEC to do the same, to which Commission president Delors agreed.⁷⁸ With green policy issues looming large in the parliamentary elections of 1989, a stricter, reexamined proposal went to the Council in June 1989. This new proposal would require US83 standards to be mandatory for all cars in the EEC.⁷⁹ While Germany had wanted new standards to be implemented by 1991 and Britain had supported a longer lead time until 1993 to accommodate a transition from lean-burn technology to catalytic converters, the Council settled on implementation by 1992, just in time for the Single Market deadline. Directive 89/491/EEC was passed in July 1989, implementing revised common car emissions standards for the EEC in line with other major global auto industries. It also laid the foundation for type approval required to achieve a true internal car market.

At the same time, Calvet’s tensions with his fellow chairmen in the CCMC came to a head over simultaneous debates about whether the EEC should consider cars made in Europe by Japanese subsidiaries (transplants) to be imports and counted against the voluntary export restraint (VER) in place to protect European producers from the onslaught of Japanese competition.⁸⁰ In the context of the CCMC’s unanimity rule for decisions made by the group, Calvet’s hard line on the

Pollutant Emissions Limits in the Car Manufacturers Economic Activities,” Conference Paper, GERPISA Colloquium, 7 March 2019.

⁷⁶ Warlouzet, “Implementation of the Single Market Programme,” 7.

⁷⁷ These policy debates took place at the European Parliament on September 13, 1988. See Stephen, *Vehicle of Influence*, 104.

⁷⁸ On the role of Ripa de Meana, see Warlouzet, “Implementation of the Single Market Programme”; and Warlouzet, “Social Europe with a Greener Perspective.”

⁷⁹ Stephen, *Vehicle of Influence*, 107.

⁸⁰ On the breakup of the CCMC and the creation of the ACEA, see Ballor, “Liberalisation or Protectionism.”

issue of Japanese transplants and unwillingness to support stricter common emissions standards rendered consensus impossible.⁸¹ The group was forced to dissolve in 1990. The following February, leading European automakers—many of which had been members of the CCMC—with the notable exception of Calvet, formed the European Automobile Manufacturers' Association (ACEA), through which they could make collective decisions via a new QMV mechanism with a 75 percent threshold.⁸² Unlike its predecessor, the ACEA allowed European subsidiaries of US companies to join, which Ford Europe did immediately.

With this new industry association in place, European automakers moved to reengage the Commission on emissions standards. Throughout 1991 and 1992, the ACEA remained in regular communication with the Commission about developing more harmonized emissions standards for automakers in the EEC, especially during the final stages of the SMP. This dialogue contributed to the Euro I directive passed in 1992 and laid the foundation for the many successive Euro directives that followed (Table 1). Directive 85/210/EEC had required member states to introduce unleaded gasoline—necessary for catalytic converters—by October 1989, paving the way for the Euro I directive, which required all cars in the EU to be fitted with catalytic converters. By the time Euro II passed in 1996, the Commission's emissions directives were in force not just in the EU but across the European Economic Area (EEA), the trading bloc created in 1994 between member states of the EU as well as members of the European Free Trade Association (EFTA) including Switzerland and Norway.

Over time, formal European emissions standards have become progressively stricter as new technologies have made their way to market, even as producers have simultaneously infringed on environmental protections and prioritized performance and profit, as was the case with Volkswagen's "Dieselgate" scandal in the 2010s. Euro VII standards, set to be implemented in 2025, are expected to reflect the recently approved Commission directive to eliminate all CO₂ emissions by 2035, effectively banning combustion engines in favor of new electric vehicles (EVs).⁸³ In response, the ACEA expressed general support for

⁸¹ Calvet famously articulated his nationalist view that "Europe would be achieved to the detriment of France."

⁸² "Interview with Ms. Innike Herreman, ACEA," Brussels, Dec. 1993, MID-102, HAEU; McLaughlin and Maloney, *European Automobile Industry*, 123.

⁸³ The State of California passed a similar target before Euro VII took effect, prompting several other US states to do the same and creating more transatlantic competition in standard setting. For more on Euro VII, see European Commission, "European Vehicle Emissions Standards—Euro 7 for cars, vans, lorries, and buses," accessed 18 July 2022, https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12313-European-vehicle-emissions-standards-Euro-7-for-cars-vans-lorries-and-buses_en.

Table 1
 “Euro I–VI” Emissions Directives

<i>Legislation</i>	<i>Year</i>	<i>Directive</i>	<i>Target</i>	<i>Standard</i>
Euro I	1992	91/441/EEC 93/59/EEC	Passenger cars Passenger cars and light trucks	Required catalytic converters; unleaded petrol; and set limits for CO, HC+NO _x , PM
Euro II	1996	94/12/EC (& 96/69/EC) 2002/51/EC	Passenger cars Motorcycles	Reduced limits; differentiated limits for petrol and diesel
Euro III	2000	98/69/EC 2002/51/EC	Any vehicle Motorcycles	Modified testing procedures; reduced limits; set separate HC and NO _x limits
Euro IV	2005	98/69/EC (& 2002/80/EC)	Any vehicle	Reduced particulate limits for diesel; particulate filters for some diesel engines
Euro V	2009	715/2007/EC	Light passenger and commercial vehicles	Required particulate filters for all diesel engines; set particulate limits for direct injection petrol engines; stricter limits for particulate emissions
Euro VI	2014	459/2012/EC	Light passenger and commercial vehicles	Stricter NO _x limits for diesel and petrol engines; implemented Exhaust Gas Recirculation (EGR), NO _x absorbers, Selective Catalytic Reduction (SCR), and Cerium fluid for some diesel engines; established new testing regimes

Source: EUR-Lex, accessed 6 Feb. 2023, <https://eur-lex.europa.eu/>.

the ambitious target, even if it also shared concerns about the hurried timeline, the commitment to batteries over other technologies, and the need for an EU-wide network of charging stations to support the shift to EVs.⁸⁴ Unimpressed by the consensus targets and unwilling to wait for regional infrastructure, Volvo announced its decision to leave the ACEA precisely because it wanted more stringent emissions standards than the group was willing to support.⁸⁵

Conclusion

In the 1970s and 1980s, pressures of global economic competition exacerbated differences in national approaches to environmental governance, which threatened to create a patchwork of national standards that could function as market barriers, thereby jeopardizing the EEC's sustained efforts to create a common market since the 1957 Treaty of Rome. Some states, such as France and Italy, wanted to protect their national car industries from overly stringent standards; others, like Germany, embraced the strict norms of overseas markets because of their export orientation; still other states, including Denmark and the Netherlands, were home to strong social movements that demanded greater environmental protections. But different national approaches risked market fragmentation and frustrated carmakers' efforts to internationalize. Even the Luxembourg Agreement, a compromise brokered by the European Commission with input from the automakers' association in the context of the new SMP and after Germany proposed to adopt strict US83 standards, failed to pass the Council's unanimity vote in 1985.

But the SMP and its objectives both to overcome market fragmentation between member states and to make European industry globally competitive had made updated common vehicle emissions standards an imperative. Moreover, the SEA provided the framework in which institutions like the Commission and the EP had increased capacity to develop and propose policies and qualified majority voting better facilitated bargaining between member states. By setting market integration as the primary objective and harmonization as the means to achieve it, the 1992 Program also carved out a more prominent role for

⁸⁴Peter Sigal, "Industry Groups Express Concern after EU Lawmakers Back 2035 Zero-Emissions Target," *Automotive News Europe*, 9 June 2022; ACEA, "European Electric Vehicle Charging Infrastructure Masterplan," *ACEA – European Automobile Manufacturers' Association* (blog), 28 Mar. 2022, <https://www.acea.auto/publication/european-electric-vehicle-charging-infrastructure-masterplan/>.

⁸⁵Nick Carey, "Volvo Cars to Leave ACEA Car Lobby Group over Climate Goals," Reuters, Autos & Transportation section, 8 July 2022, <https://www.reuters.com/business/autos-transportation/volvo-cars-leave-acea-car-lobby-group-over-climate-goals-2022-07-08/>.

industry in the discussions about what policies would strengthen the positions of European automakers. The CCMC enjoyed a regular seat at the policymaking table throughout the 1980s, and when the group collapsed under the weight of its unanimity principle and Calvet's refusal to cooperate, the industry reorganized itself through the ACEA. Both of these industry associations provided the Commission and the EP with feedback as they deliberated the draft proposals for directives on EEC standards. Faced with the dual threats of market fragmentation and fierce global competition, revised common standards for vehicle emissions became a central policy aim for the EEC during the 1992 Program.

While the automakers represented by the CCMC and ACEA produced for diverse market segments using different production methods and maintained distinct preferences for solutions to the problem of car emissions, they embraced common emissions standards because of their shared interests in widespread market access and their desire to remain globally competitive against Japanese and US producers who were already manufacturing according to more stringent standards. Even the PSA Group eventually rejoined its counterparts on the ACEA and participated in offering suggestions to the Commission for common standards. With the market as motivation, manufacturers and national governments eventually found consensus around a common position. As a result, the process of setting common emissions standards, which in national contexts often resembles a "race to the bottom," became a process of finding a pragmatic solution to the problem of disparate national norms that would ensure both market cohesion in the region and European competitiveness on a global scale.

The directives passed during the 1992 Program and the role of auto industry associations in shaping them subsequently paved the way for the genealogy of Euro standards that defined the EU's approach to environmental regulation in the twenty-first century and in which the ACEA continues to participate. Without the urgency of a shared market objective, however, and in different competitive circumstances than those of the 1980s and 1990s, the ACEA has splintered over different approaches to emissions standards. Volvo announced its decision to leave the group to pursue its own more ambitious plan of trading combustion engines for EVs on a short time frame. Changes to the landscapes of energy geopolitics and the global economy may alter the EV calculus for other manufacturers in the association and pressure member states and regional policymakers to hasten or delay the implementation of new standards in the EU. Lessons from the development of emissions standards for the Single Market in the 1980s

and 1990s, which reveal the circumstances in which public and private interests converge on support for stricter regulation, can help contextualize those possible futures. If private actors have coproduced existing common emissions standards, what role might they play in collective energy transition in the future?

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