

# THE ROAD TO EUROPE, EUROPEAN INTEGRATION, ROAD NETWORKS AND THE EUROPEAN CITIZEN

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## ABSTRACT

Inspired by the endeavour a Dutch journalist, this essay embarks upon a quest for Europe's elusive E-road network. The green plates used to indicate the routes of the network are omnipresent, yet the network's past has remained elusive. This is undesirable, because the network and its accompanying flows can provide an enriching perspective on the process of European integration. Thus this remarkable phenomenon of the second half of the 20<sup>th</sup> century can be freed from its tight link with the EU and its predecessors.

After introducing these underlying themes, the essay depicts the history of the E-road network, especially in its early years. The essay focuses on three distinct but interrelated aspects of the network, namely the technical specificities of the network, the accompanying flows that it has supported and the ideological component of European unification that was the rationale for promoting the E-road network.

## 1. INTRODUCTION

Under the title 'Get your kicks on the E3' the Dutch journalist Tijs van den Boomen wrote a series of articles for the Dutch newspaper *NRC Handelsblad* between 12 June and 28 August 1999. The series concerned the fate of the E3, one of the former arteries of the so-called E-road network. The E3 is part an extensive network of European 'main international traffic arteries spanning the continent since its inception in 1950. The Inland Transport Committee of the United Nations Economic Commission for Europe (ECE) sponsored the network. The route was renumbered in 1975, but as one of the large transversals of the network, Boomen nevertheless wanted to trace the impact it still had today on the route it used to follow.

By travelling from Vaalimaa on the Finno-Russian border to Lisbon Boomen reconstructed the story of the E3. Boomen found the 'old' E3 was still alive, for example in the names of various establishments *en route*. Boomen stumbled upon the Swedish roadside café 'E3 Baren', the Padborg based Danish transport firm 'E3 Spedition & Transport', [1] the 'E-DRY' discotheque in the Ruhr area near the German-Dutch border, [2] and the E3 beach at the shore of a sand quarry in the Dutch village Eersel. [3] The former artery also gave its name to the 'E3 Prijs Vlaanderen', a 'single day semi classic cycle race' in Flandres, which had its first official edition in 1958 and is organised yearly up to today. [4]

The E3 also appeared in the stories of passers-by Boomen met during his quest. A former migrant worker effortlessly summed up the passage points along the E3 stretch that used to bring him from Portugal to the Renault factories in Paris. A man travelling with his family to Morocco had been undertaking the journey regularly ever since 1966 when he started working in a chicken slaughterhouse in the Dutch town Barneveld. In Belgium Boomen met Rogier Claerhout, who worked in maintaining the Belgian stretch of E3 after it was finalized

in the early 1970s. The Belgian road worker happily presented Boomen with a memorial book on the E3 and a bright orange overall with the E3 sign sawn into it.

Today the E-signs decorate many highways across Europe. Yet most Europeans do not know what they represent. Boomen's experience in starting up his research for the article is typical in this respect. He narrates "It turns out to be difficult to find out when the E3 was wiped off the map, road builders prefer making plans for the future over archiving their past. The [Dutch] Ministry of Transport and Water Management initially refers to Brussels, but neither the European Union nor its predecessors have had anything to do with the road. It was the United Nations, or to be more precise the [United Nations] Economic Commission for Europe. Only the UNECE was capable of bridging the political sensitivities between Western and Eastern Europe. But the Geneva headquarters too lacks callable knowledge on the realisation of the E3. Christopher Smit, secretary of the Transport Divisios [sic] was prepared to descend 'into the dusty cellars'. Two weeks later an envelope plopped down my letterbox, made of brown wrapping paper that seemed to date from Kafka's time. It contained carbon copies of typed sheets full of declarations and annexes, all neatly formulated in both French and English." [5]

Several elements from this anecdote are relevant. First, it highlights the role of European organisations apart from the EU and its predecessors. They have become largely invisible due to the current dominance of the European Union. If Stevens' suggestion that the proliferation of lobbies and interests groups in Brussels can be taken as an indicator of the growing prominence of the EU has some truth to it, [6] then it must follow that the empirical observation that many international non-governmental organisations have been willing to devote their limited resources to influencing other European organisations suggests that the impact of the latter might have been larger than is usually acknowledged. In the words of Olsen "European transformations are not limited tot he EU and its member states or to Western Europe. Cross-border relations have been, and are, managed through a variety of transnational regimes and institutions besides the EU (...) and adequate understanding of the ongoing transformations requires attention to other European transnational institutions, regimes and organization as well as non-member states." [7]

Second, the story of the E3 interconnects the history of large-scale infrastructures and European integration broadly defined. In a Cold War context the network included both Eastern and Western European countries – at least on paper. Nevertheless by studying the E-network and similar plans we can get a glimpse of European integration beyond the Iron Curtain, the most significant divide in contemporary European history. Overcoming the East-West divide was one of the central goals of the ECE's first secretary-general, the Swede Gunnar Myrdal. An in his conception transport had an important role play in this respect. In an August 1954 statement he noted "Our Inland Transport Committee is proud of the fact that it has been the centre for practically all the real work of European integration in the transport field accomplished since the war." [8]

The E-road network has recently attracted the interest of historians. Mom places the development in the context of the desire for long-range mobility, especially for purposes of tourism. He traces the emergence of the 'limited-access highway', which he considers a 'turning point in the history of mobility'. The E-Network shortly appears in this article as a post-war episode. [9] Blomkvist writes more elaborately about the E-road network, in which he traces the impact of traffic engineering, an American road building paradigm that was being diffused from Yale University through a system of stipends for European engineers distributed through the International Road Federation, a powerful road lobby organisation that counted many large multinational companies among its members. [10]

Although Mom and Blomkvist's contributions constitute an important step forward with regard to our understanding of the E-road network, many of its aspects remain elusive. First of all, the E-road network changed considerably over time, both in terms of its scope and its technical characteristics, but these developments remain unclear. Second, the Europeans for whom these roads were built do not appear in either contribution. We need to get a hold of the use of such networks before we can truly judge them. Third all, the E-road network was technologically cast ideological project for European unification. This aspect, along with the associated in- and exclusions is not fully treated in the mentioned contributions.

Bringing together technology, ideology, and its use this essay wants to contribute to understanding the process of European integration through the lens of technology. This approach is in line with recent research in the field of history of technology. Misa and Schot have recently claimed, "European integration depended on and was shaped by material networks, technical systems, and the circulation of knowledge and artifacts." [11] It is remarkable that, despite the fact that European historiography in general acknowledges that the role of infrastructure is crucial for European integration in terms of market harmonisation, political cooperation and the formation of a European culture and identity, it has hardly if at all been the object of historical scrutiny. [12] Because of this fact and because decision-making on such networks has largely taken place beyond public attention or scrutiny, Misa and Schot refer to it as 'hidden integration'. The next sections seek to 'unhide' this process in a case study of the E-road network.

## **2. THE ORIGINS OF THE E-ROAD NETWORK**

Transport issues ranked high on the political agenda in the period after the Second World War. When after the war the United Nations system was created, one of the first regional organisations it founded was the Economic Commission for Europe, an intergovernmental organisation aiming to facilitate the reconstruction of Europe, raise the level of economic activity and strengthen their mutual economic relations. [13] The resolution founding the Commission asked specific attention for the European transport situation and, thereupon, the ECE assumed the tasks of the European Central Inland Transport Organization, one of various 'emergency' organizations founded during the war to prepare for the necessary transport reconstruction after hostilities had been put to an end.

Soon after it began its work, the ECE established an Inland Transport Committee (ITC) that started its work in October 1947 to deal with the tasks that had been assigned to ECE with regard to transport matters. Inland transport included transport by railroad, road, inland waterway and pipeline, but explicitly excluded civil aviation and maritime shipping for which universal organisations were deemed more appropriate. [14] The ITC sponsored more meetings than any other ECE body and in budgetary terms was by far the most important of the ECE committees. [15] It is also noteworthy that the United States evaluated the work of the ITC favourably, despite its misgivings about the ECE as whole and its doubts on the usefulness of almost all other ECE technical committees. [16]

With the transport system in disarray, the ITC installed two 'ad hoc' working groups for road transport at its first meeting, one dealing with short-term problems, the other with long-term problems. [17] At its second session in February 1948, the ITC created a more permanent organizational framework to deal with European road transport by setting up a Sub-Committee for Road Transport "to consider and deal with matters essentially concerning road transport". [18] The Sub-Committee held its first session on March 17, 1948, electing the Dutch representative Vonk as its chair. Most of the work of the sub-

committee took place in working parties, in which groups of specialists prepared policy on specific road related issues. A Working Party on Highways was among the first to be set up by the Sub-Committee. Its terms of reference included the determination of routes to be equipped for international traffic flows, and the specification of characteristics of such routes in conjunction with the Permanent International Association of Road Congresses (PIARC, 1908). [19] The ITC expressed the wish that the composition of the working party should be a mix of economic experts and technical specialists trained in road-building, and that it should keep its scope open for countries from the Middle East and North Africa. [20]

The first session of the Working Party on Highways took place in Geneva in early April 1948 and was chaired by the Danish representative Bang. The working party attached a tentative map of the main international traffic arteries it envisioned to its report. To a large extent, the Europe embedded in the network sketch formed a fair representation of the countries participating in the first meeting. The preliminary network connected the Benelux, Denmark, France, Germany, Italy, Sweden, and Switzerland. Luxembourg was the only country not represented at the meeting that formed part of the network. The network reached out to the rest of Europe by including 'desirable roads' from Berlin to Warsaw, from Bavaria to Prague, Bratislava, Budapest and ending in Beograd. Vienna was to be connected too, and a German-Italian connection would make use of the Brenner. [21] Figure 1 contains a October 1948 version of this network as it appeared in the Dutch road journal *Wegen*.

Figure 1- Early Proposal of the E-Road Network



Source: *Wegen* 19/20, October 1948, p.204

During the same period important work was being done to ease the operation of Europe's road network. Indicative for the scope of road carriers' troubles in operating the existing road network was the obligation in some cases to transfer goods from one truck to another at the border in order to get them to their final destination. A solution for such troubles was found in the 'freedom of the road' agreements that liberated commercial road traffic between European countries on a large scale. The process leading up to these arrangements was started up in the fall of 1947 by American official Cecil Calvert working for the Office of Defense Transportation. [22] The European countries cooperating in the agreements freed road transport to a much larger extent than before the war. [23] The sixteen member countries of the Organization for European Economic Cooperation (established 1947) signed the agreements and were joined by Czechoslovakia and

Hungary. The first agreement arranged the freedom of operation for transit traffic for a period of six months starting December 6, 1947 and would be prolonged several times. [24] Eventually a more permanent solution was found in the 19 September 1949 *Convention on Road Traffic*.

Thus we see that the international discussions concerned both the network and its accompanying flows. The latter discussions were not restricted to commercial road freight transport but also included other types of motorised mobility like individual automobile travel, and bus services. Large projects for a European motorway network had been proposed during the Interbellum as well, but failed at the time. [25] Now the ECE made similar proposals with fresh zeal. Its effort would result in a declaration covering Europe with trunk roads and branch roads from the northern tip of Sweden to the southern coast of Sicily, as we shall see in the next section.

### **3. DEFINING THE E-ROAD NETWORK**

On 16 September 1950 the Declaration on the Construction of Main International Traffic Arteries was signed in Geneva. The original five states that were party to the agreements were Belgium, France, Luxembourg, the Netherlands and the United Kingdom. They were later joined by Austria (1951), Greece and Sweden (1952), Norway (1953), Portugal and Turkey (1954), Germany and Italy (1957), Poland, Spain and Yugoslavia (1960), Bulgaria and Hungary (1962), Finland and Romania (1965), Denmark (1966), Ireland (1968), and Czechoslovakia (1973).

The Declaration was a straightforward document. The usual lofty phrases of preambles to important international agreements were kept to a minimum. The 1950 Declaration only mentioned that the signatory states were consciousness of the need to develop international road traffic in Europe and that they considered it “essential, in order to establish closer relations between European countries, to lay down a co-ordinated plan for the construction or reconstruction of roads suitable for international traffic.” Three much larger annexes forming the actual substance of the Declaration followed the short text of the Declaration itself.

The first of these annexes specified the routes of the E-roads, each receiving a unique number. [26] Numbers E1 thru E30 were reserved for main traffic arteries; roads receiving a higher number were considered branch and feeder roads to the main arteries. The original Declaration specified 22 main routes and 62 branch routes. [27] The routes were constantly amended ever since the Declaration was signed. Typically, the route would shift to a nearby itinerary once a better road had been constructed there. This mechanism gave the network the character of a meandering river landscape.

The third annex laid down the characteristics of the sign used to indicate the E-roads. These were crucial for the recognition of the roads by travellers. The signs consisted of a green rectangular plate with a white inscription of an ‘E’ followed by the corresponding number of the road (see Figure 2). However, there was no way in which putting up the signs could be exacted from signatory states, and many governments did not put them up. By 1957, only the Netherlands and Portugal had fulfilled their promise to mark the main international traffic, and the United Kingdom used a slightly modified sign on some, but not all, of its E-roads. To excuse themselves for not having fulfilled their obligations other countries pointed to budgetary difficulties, the fact that the roads in questions had not yet been brought up to the necessary standard, or that neighbouring countries had not yet adhered to the Declaration. [28]

Figure 2 – E-road sign in Turkey\*



Source: General Directorate of Highways, Planning Division, *Main International Traffic Arteries: Sections within Turkey* (Ankara, April 1961), Appendix IV, p.3, in: G.IX.13.1.29.18657, jacket 7.

\* The Turkish government was notified that the white dot in the middle did not conform the standard as specified in the third annex.

The second annex specified the ‘conditions to which the main international traffic arteries shall conform’ and was arguably the most important of the three annexes. [29] The annex specified characteristics of the E-roads themselves (chapter A) and ancillary services that should be provided along these roads (chapter B). E-roads came in three different categories (see Table 1). The second category could be roughly equated with ‘motorways’ as we know them today, but this was not the case for the first category. The third category was provisional and occurred at the time in Italy, for example.

Table 1 - Road categories 1950 Declaration

Category	Carriageways	Lanes	Width*	Density
I	1	2	7 meter (6 m)	< 600 vehicles/hour
II	2	4	2 x 7 meter	> 600 vehicles/hour
III	1	3	10,50 meter (9 m)	not specified

Source: IRF (1952), *Main International Traffic Arteries*, Brochure ‘Europe no. 1’.

\* The numbers between brackets are widths allowed in exceptional cases (e.g. in mountainous terrain).

Apart from the roads themselves, the annex stipulated that separate cycle tracks and footpaths should be provided where densities of such traffic required them. E-roads were to avoid built-up areas and eventually all level crossings and intersections should be suppressed. Ancillary services also formed an important aspect of the E-roads and smoothed traffic in several respects. The second annex specified four ancillary services. First, border-crossing facilities should be adequate for expected traffic densities. It was recommended to establish frontier posts at the same spots on both sides of the border and to harmonize opening times. Second, parking lots along the road should be provided, especially along stretches with few access points. Provision posts, garages and places to eat and rest should also become part of the network, particularly in underdeveloped regions. Third, first aid posts should be established in accordance with the regulation of

the International Federation of Red Cross Societies. Fourth, emergency telephones should be provided at regular intervals along E-roads.

The E-roads of the 1950 Declaration deviated from their Interbellum predecessors. First, most pre-war plans concentrated on the construction of motorways, while the E-roads came in three different categories. In terms of technical specificity, the network was much more detailed than any of the Interbellum plans. This was an acknowledgement of the fact that motorways were not necessary across the continent. The pre-war plans simply left out those areas where automobile densities were too low to merit motorway construction. Now ordinary roads in Europe's peripheral areas could be included in a network without the accompanying high costs of motorway construction in areas where this was hardly profitable or necessary. A second difference is that the routes could be assigned before the road had been upgraded to the standard that had been assigned to it. Mom has rightly stated that the E-numbers basically refer to routes. This meant that the network was created overnight on 16 September 1950 without any previous road construction or upgrading. From this perspective, the assigned categories of roads formed a future ambition level rather than a reflection of a road reality.

#### 4. EUROPEANS AND THE E-ROAD NETWORK

The maps of the E-road network accompanying the Declaration made clear that some countries were more connected than others. Table 2 gives an overview of the lengths of the network in 1955. It shows that some Eastern European countries, notably in the Balkans, were not connected at all. Countries like Bulgaria, Hungary, and Romania would remain white spots on the E-road map for over a decade until they submitted their corresponding stretches for the network.

Table 2 - Absolute and Relative Lengths of the E-Road Network (1955)

Country	E-roads (km)	E-	Inhabitant/E-	Automobiles/E-
Austria	1.877	0,022	4.000	68
Belgium	1.075	0,035	8.000	510
Denmark	805	0,019	5.217	305
Finland	2.220	0,007	1.910	55
France	6.675	0,012	6.500	500
Germany	5.968	0,025	8.300	330
Greece	2.425	0,018	3.130	14
Italy	6.671	0,022	7.100	138
Luxembourg	90	0,035	3.300	246
Netherlands	1.150	0,034	9.200	270
Norway	2.140	0,007	1.500	93
Portugal	1.108	0,012	7.150	113
Spain	4.271	0,008	6.555	56
Sweden	3.805	0,008	1.890	171
Switzerland	1.125	0,027	4.350	257
Turkey	4.835	0,006	4.320	13
United Kingdom	1.545	0,006	32.800	2.430
Yugoslavia	1.700	0,007	9.300	16
Total/Average	49.485	0,011	6.500	260

Source: IRF (1955), *Main International Traffic Arteries*, Brochure 'Europe no. 2'.

The density of the network varied greatly from one country to another. The United Kingdom, the most motorized countries of Europe in terms of car ownership, vied with Turkey for being the country with the least E-roads per square kilometre (6 m/km<sup>2</sup>). This contrasted with the density in important transit countries such as the Benelux, the Alpine countries and Germany (22-35 m/km<sup>2</sup>). The UK figures looked even bleaker when the ratio per inhabitant or vehicle was calculated. Where individual nations' network was small in comparison with other countries, this was because the governments in question had submitted just few roads. However, Geneva procedures were not always clear for the outside world. In a biting article Henry Gasquet, president of the Touring Club de France (TCF), criticized the large gaps in the E-network in (western) France and claimed the ECE had turned his country into "un territoire vierge comme l'était encore, sur les cartes de mon enfance, le Sahara". In his equally bitter response, the director of the ECE's Transport Division Charguéraud-Hartmann (a Frenchman himself – and long-time member of the TCF) tried to clear his organisation of such accusations, pointing out its dependence on the input of its member countries. [30]

Over time the gaps of the network gradually filled up in a process of constant revision that resulted in a considerable densification of the network. The European Conference of Ministers of Transport (ECMT), a Paris based organisation held biannual conferences among the transport ministers of Western European countries, fulfilled an important role here. It adopted its first resolution with regard to road traffic at the same conference in Brussels (13-17 October 1953) at which the organisation itself was created. The resolution concerned the E-road network, amplifying the E-network with arteries on the Iberian peninsula, instructing its Committee of Deputies to propose measures to effectively coordinate the international arteries, and to propose statutes for an international road financing institution (see beneath). [31]

In 1967 the networks in the France and the United Kingdom grew tremendously after the ECMT embarked upon a landmark extension of the E-network. In the same vein Ireland, an ECMT member since 1963, yielded and joined the E-network, after having insisted for more than fifteen years that it was kind of absurd to have E-roads on an island not physically connected to Europe's mainland. [32] Densification of the network was accompanied by an expansion towards European countries not previously connected. A clear example is the expansion of the network in the Balkans, in which the IRF played an important role. [33] In 1957 it organised a conference in Salonika in which participants from Greece, Yugoslavia, Turkey, Italy and the United States were present. The conference aim was to develop a 'firm' construction program, explore the possibilities of mutual assistance and establish a coordinating committee to keep track of the process. [34] The conference paid special attention to the E5 in the participating countries and on a more general level how the Balkans might fit into the E-network. [35] Ensuing meetings took place in Istanbul (1958), Belgrade (1959), Brindisi (1961), and in the Bulgarian seaside resort Varna (1965), where further E-roads for South Eastern Europe would be defined. [36]

The IRF's concern for road development in Europe's less developed regions indicates that for the IRF the 1950 Declaration was a vehicle to further its aims. Through its consultative status at the United Nations, the IRF had direct access to the policy process in Geneva. At meetings the IRF consistently underlined the need to live up to the 1950 Declaration. It viewed the fact that the Declaration did not contain any financial specifications as a fundamental flaw and it was also worried about the absence of a concrete time schedule for the work. [37] The IRF understood well that several countries needed outside help to realize their sections of the network. Therefore, the IRF paid particular attention to spelling



out the international financial methods that would allow a flow from the richer countries to the poorer ones. It submitted a memorandum to the ECE on the establishment of a European Road Investment Fund, along the lines of the road investment funds that had been created in various European countries, in July 1952. [38] The IRF also took care to keep the broader public informed about the developments with regard to the E-road network, issuing several 'Europe brochures'. [39]

Despite the major additions to the network discussed above the overall pattern of E-network development was one of relatively slow expansion and long periods of stasis. Table 3 illustrates this pattern well. In fact, the table clearly shows that the E-road network could also contract and diminish in length. This peculiar phenomenon becomes understandable when we remember that the network shifted the route number to shorter connections between nodes in the network once these had been established.

Table 3 – E-Road Lengths, Selected Countries (1955-1985)

Country	1955	1965	1975	1985
Austria	1.877	-	1.823	2.320
Belgium	1.075	1.093	1.073	1.123
Denmark	805	-	.886	824
Finland	2.220	1.804	2.316	2.322
France	6.675	5.943	8.324	8.500
Germany	5.968	5.762	6.119	8.142
Greece	2.425	2.742	3.972	4.285
Italy	6.671	6.402	6.402	8.526
Luxembourg	90	89	-	-
Netherlands	1.150	1.336	1.348	1.352
Norway	2.140	2.278	3.935	4.803
Portugal	1.108	1.246	1.246	1.382
Spain	4.271	5.928	5.838	6.545
Sweden	3.805	3.409	3.942	4.531
Switzerland	1.125	1.309	1.238	1.240
Turkey	4.835	4.600	6.841	7.008
United Kingdom	1.545	1.651	2.360	3.417
Total	49.485	45.592	57.663	66.320

Source: IRF (1955), *Main International Traffic Arteries*, Brochure 'Europe no. 2'.

The increases in length did not necessarily reflect the construction of new roads. Existing roads became part of the E-network at the moment they were 'E'-labelled. As I have stated earlier, this label should be considered an ambition level rather than a road reality. In 1950 there were very few E-roads that really fulfilled the requirements of the road category that had been assigned to them, but as construction proceeded over the years, E-road standards increasingly reflected the actual situations. Table 4 and 5 show this for selected countries in the years 1967 and 1975 respectively.

Table 4 - E-road Lengths in Accordance with Category Specifications and Future Lengths (1967), Selected Countries

	E-Motorways	Future E-Motorways	Total E-Roads	Future Total E-Roads
Austria	370 (25%)	1.523	494 (27%)	1.803
Belgium	267 (31%)	850	371 (36%)	1.037
Germany	3.321 (66%)	5.048	3.910 (68%)	5.762
Netherlands	575 (46%)	1.245	797 (51%)	1.537
Portugal	57 (100%)	57	485 (39%)	1.248
Switzerland	175 (17%)	1.025	272 (21%)	1.264

Source: ECMT, *Annual Reports*.

\*Numbers between brackets represent the percentage of the future totals.

Table 5 - E-road Lengths in Accordance with Category Specifications and Future Lengths (1975), Selected Countries

	E-Motorways	Future E-Motorways	Total E-Roads	Future Total E-Roads
Austria	619 (38%)	1610	672 (39%)	1704
Belgium	810 (72%)	1126	810 (72%)	1126
Germany	4468 (78%)	5709	4804 (79%)	6045
Netherlands	950 (70%)	1343	952 (61%)	1353
Portugal	61 (100%)	61	784 (55%)	1436
Switzerland	634 (54%)	1176	717 (56%)	1287

Source: ECMT, *Annual Reports*.

\*Numbers between brackets represent the percentage of the future totals.

Tables 4 and 5 indicate that in that relatively short period of time, a lot of upgrading of E-roads was achieved. For example in 1967 the E-road network in Belgium was 1037 km in length, of which 850 km were conceived in the future as motorways. Of these lengths, only 371 km (or 36%) respectively 267 km (or 31%) had actually been built in accordance with the road category specifications. In 1975, all of Belgium's 1126 km of E-roads have been assigned future motorway status. This time 810 km or almost of 72% of these E-roads has actually already been upgraded to a motorway.

Where does all of this leave the user? There are few source on the actual use of the E-road network. To monitor actual use, the ECE organised road censuses on the E-roads every five years, starting in 1955. These were organised on the same day across Europe at different locations along the network. This resulted in a collection of maps showing the traffic densities in bright green and red colours. As mass motorization took off, the use of the E-roads increased dramatically. In 1955, the average daily density of vehicles amounted to less than 2000 on more than half of the E-roads in Austria (60%), Norway (95%), Portugal (90%), Spain (81%) and Yugoslavia (100%). By 1965 this was only the case in Norway (59%), Portugal (66%) and Yugoslavia (53%). In West European countries, densities were significantly higher. Nevertheless, the increase in density was equally astounding. The average of 10.000 vehicles a day was reached in 1965 on 47% of the E-roads in Belgium, 42% in Italy, 48% in the Netherlands and 49% in Western Germany. [40]

The assigned road categories related to traffic density. This meant that the adequacy of the category assigned to a certain road could change over time. The European road network developed against the background of mass motorisation, taking place from the 1950s onwards, when car ownership grew exponentially in many European countries. [41]

Table 6 shows the adequacy levels for motorways and overall adequacy for 1967 and 1975 for the same set of countries as Tables 4 and 5. Table 6 shows that adequacy levels for motorways are generally higher than for E-roads overall. This suggests that, given the traffic density levels, most of the non-motorway E-roads should actually be upgraded to that category. The overall adequacy level rose in all countries except Austria. A careful comparison of the tables also shows that adequacy levels were typically higher than the rate of the network that conformed to its technical specifications, suggesting that roads were built or upgraded ahead of actual need.

Table 6 - Adequacy of E-roads in Selected Countries (%)

	Adequacy E-Motorways 1967	Adequacy E-Motorways 1975	Overall E-Adequacy 1967	Overall E-Adequacy 1975
Austria	100	100	86	76
Belgium	81	100	73	93
Germany	81	79	75	79
Netherlands	94	92	72	89
Portugal	100	100	39	96
Switzerland	100	99	57	72

Source: ECMT, *Annual Reports*.

## 5. EPILOGUE

There are several possible answers to the question 'Is the E-road network important?' One way of answering that question is by looking at the importance that was assigned to it by those who enabled its creation. Available sources suggest that the E-road network has an important place in the self-image of the ECE. It is the first the organisation mentions as the ITC's 'main achievements' in a booklet celebrating the 40<sup>th</sup> anniversary of the ECE. [42] The high degree to which other organisations have sought to 'claim' the network is perhaps another indication of its relative success. The ECMT illustrates the point. The very first resolution it issued at its founding meeting in 1953 concerned the extension of the network in Spain, which was not a member of the ECE at the time. [43] The committed involvement of NGOs such as the IRF from an early stage onwards points in the same direction. Furthermore, the network inspired a similar network in Asia where the Economic Commission for Asia and the Far East proposed an Asian Highway network in 1960. For obvious reasons, there was a great deal of activity with regard to how to connect this network with its European counterpart. [44]

As for the E-network itself, it continues to change shape and expand. An ECE press release of 12 October 2001 proudly stated that as from 4 December the E-roads will reach the borders of China. The step was hailed as an "important milestone in [UNECE's] endeavour to integrate the transport networks of its Caucasus and Central Asian member countries into European transport networks." [45] This fits into a broader pattern of ever more ambitious motorway network plans that were launched after the fall of the Berlin Wall. The general feeling was that it was now finally possible to achieve the long hoped for coherence and more even distribution of the network across Europe, now including its Eastern half – and beyond. A king-size book called *Auf Allen Straßen nach Europa*, translated on the inside as 'All Roads Lead to Europe', catches the spirit of the time very well. This multilingual (10!) book formed 'a joint activity by Daimler-Benz and Mercedes-Benz concerning the single European market' and was strategically published in 1992, the year in which the European Union came into being when the Maastricht Treaty went into force. The book focuses the public's attention on the vital importance of roads for Europe.

In his 'message of greeting', Vice-President of the European Commission Martin Bangemann already brings this to the fore by stating that "Roads are in physical terms essential links for a Europe that is growing ever closer together. (...) But roads are also mental lines linking a known starting point and a rather less certain future." [46] In the following article "The New Europe is the Europe of Transport" [47] Prof.Dr. Willi Diez makes very clear that road arteries should be the backbone of Europe, inextricably linking the provision of adequate road transport services to the process of market integration. The opening chapter proceeds with a cacophonous collage of photographs of bridges and tunnels representing crucial connecting nodes of the European network under the title "A Clear Road across Europe". [48] The second chapter entitled "Linked by Treaties" opens with the AGR-Agreement (1975) that reformulated the 1950 E-road network. [49] By placing these European achievements in the field of road transport upfront in a book of which the rest is mainly dedicated to European political developments, the E-network is portrayed as the harbinger of European integration.

Organisations such as the IRF seek to capitalize on the post-1989 situation as well. In 1990 the IRF launched the 'Advanced Integrated Motorway System in Europe' (AIMSE) project, followed five years later by EUROVIA. In these initiatives, road transport is portrayed as the 'key to Europe'. Both proposals failed to obtain the results the IRF had hoped for, but what is important here is that the roots of such projects with regard to road transport are consistently traced back to the 1950 Declaration. [50]

Yet despite all these facts, there is little evidence to indicate that the E-road network has become a network of Europe's citizens, to the contrary. To illustrate this, we return to the E3 we have met at the beginning of this essay. The fate of the E3 can be considered a symbol for the difficult relationship the EU has today with its citizens. To turn the E3 into a living reality, enthusiastic individuals had created the 'E3 - Fédération Route d'Europe 3' in 1957. It represented towns and municipalities along the E3 and included members from Denmark, Norway, Sweden, Germany, the Netherlands, Belgium, and France that met at the annual 'general meetings'.<sup>51</sup> In November 1974 the federation sent a letter to the Secretariat of the ECE requesting that the organisation would be allowed the exclusive use of the 'E3' in its name. In his response, director Halbertsma of the Transport Division informed the unfortunate representatives of the federation that the number E3 was about to be assigned to a secondary branch road of the network, entirely on French territory. [52] This was part of the major revision of the Declaration in 1975 when it transformed into the *European Agreement on Main International Traffic Arteries*. A main change was the renumbering of the network according to a new logic. The old system allowed for only thirty main routes; once they were used only branch roads could be added to the network. [53] The new system gave the E-network a grid structure in which ten trunk routes were established from north to south (two numbers, all ending in 5) and 10 from east to west (two numbers, all ending in 0). [54] Branch roads started with the same digits as the main roads of which they formed a branch. It was thought that the general structure of the system would hence become more comprehensible to its users. Yet they were never consulted. It was an "inglorious end for a European artery". [55]

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1. See <http://www.e3spedition.de/>.

2. See <http://www.e-dry.de/>. In German, 'dry' is a homonym of 'drei', which means 3.

3. See <http://www.e3strand.nl/>.

4. See [http://en.wikipedia.org/wiki/E3\\_Prijs\\_Vlaanderen](http://en.wikipedia.org/wiki/E3_Prijs_Vlaanderen).

5. Tijs van den Boomen (2002), *Asfaltreizen: Een Verkenning van de Snelweg*, chapter "Highway door Europa", pp.127-184.

6. Handley Stevens, *Transport Policy in the European Union* (Houndmills, Palgrave MacMillan, 2004), p.31.

7. Johan P. Olsen (2002), [“The Many Faces of Europeanization”](#), ARENA working paper 01/2, p.6.
8. Cited in Jean Siotis (1965), “The Secretariat of the United Nations Economic Commission for Europe and European Economic Integration: The First Ten Years”, in: *International Organization* 19:2, pp.177-202, supra note 9.
9. Gijs Mom (2005), “Roads without Rails: European Highway-Network Building and the Desire for Long-Range Motorized Mobility”, in: *Technology and Culture* 46:4, pp. 745-772, particularly p.763 and after.
10. Pär Blomkvist (2006), “Roads for Flow – Roads for Peace: Lobbying for a European Highway System”, in: Erik van der Vleuten & Arne Kaijser (eds.), *Networking Europe*, Sagamore Beach: Science History Publications, pp.161-186.
11. Thomas J. Misa & Johan Schot (2005), “Inventing Europe: Technology and the Hidden Integration of Europe”, in: *History and Technology* 21:1, pp.1-19, here p.2.
12. Erik van der Vleuten & Arne Kaijser (2005), ‘Networking Europe’, in: *History and Technology* 21:1, pp.21-48. For a rare exception dealing with European road building, see Gijs Mom (2005), “Roads without Rails: European Highway-Network building and the Desire for Long-Range Motorized Mobility”, in: *Technology and Culture* 46: 4, pp.745-772.
13. Evan Luard (1966), *The Evolution of International Organizations*, New York: Frederick A. Praeger Publishers, p.254. ‘Resolution of the Economic and Social Council Creating the Economic Commission for Europe, March 28, 1947’, in: *International Organization* 1: 3, pp.575-577.
14. Resolution 9, ‘Classification of Inland Transport’, E/CN.2/65, 26-3-1949, p.19, all ‘E/’ and ‘W/’ documents refer to official United Nations documentation and have been consulted in the library of the United Nations Office in Geneva (UNOG).
15. United Nations (1957), *In the Service of Europe: Ten Years of International Cooperation in the United Nations Economic Commission for Europe*, New York, p.25. In 1954 the ITC had the highest budget estimate among the ECE’s technical committees. The ITC’s expected budget of \$ 230.300 was more than 70% higher than the estimate for the Coal Committee, the second highest, see Appendix A, ‘Approximate Budgetary Costs of Major Fields of Activity of the ECE – 1954’, E/ECE/182, 20-1-1954, pp.32-33.
16. Phillips to Cohan, 31-10-1951, folder ‘ECE-ITC February 1951-December 1951’, box 23, Lot 54D388, Records of the Component Offices of the Bureau of European Affairs, 1944-1962 (Bureau of European Affairs), Record Group 59, National Archives of the United States at College Park (RG 59).
17. ‘Report on the First Session’, E/ECE/TRANS/31, 19-10-1947, p.6.
18. Resolution 13, ‘Establishment of a Sub-Committee on Road Transport’, adopted 5-2-1948, E/ECE/93, annex I. The establishment of a railway equivalent followed suit, but it would take until 1957 before inland waterways would get their sub-committee, see Resolution 31, ‘Establishment of a Sub-Committee on Rail Transport, adopted 29-10-1948, E/ECE/93, annex II; ‘Report of the ITC to the ECE’, E/ECE/265-F, 12-3-1957, p.4.
19. PIARC was an adequate pick for such a task. The organisation dedicated itself to the exchange and diffusion of technical knowledge with regard to road-building.
20. ‘Terms of Reference’, E/ECE/TRANS/WP7/1, 22-3-1948.
21. ‘Report of the Working Party on Highways’, E/ECE/TRANS/WP7/3, 9-4-1948, and the annexed map.
22. Clarke to Calvert, 24-5-1949, and n.a., n.d. [August 1949], folder ‘freedom of the road’, box 10, entry 3238A, RG 84.
23. Clarke to Whitnack, 30-8-1949, box 10, entry 3238A, RG 84.
24. ‘Relations of ECE to ERP’, n.d., p.9, folder ‘Economic Commission for Europe’, box 9, Lot 54D389, RG 59; ECA, 2<sup>nd</sup> Report, 30-9-1948, p.17; OEEC (1949), *Report to the Economic Cooperation Administration on the First Annual Programme, July 1<sup>st</sup>, 1948 – June 30<sup>th</sup>, 1949*, p.39.
25. Mom, op.cit., Lando Bortolotti (1996), “I Congressi Autostradali Internazionali del 1931 e 1932 e le Prime Proposte di un Sistema Autostradale Europeo”, in: *Storia Urbana* 75, pp.5-26; Ingrid Heckmann-Strohkark (1999), “Der Traum von einer Europäischen Gemeinschaft: Die Internationalen Autobahnkongresse 1931 und 1932”, in: Martin Heller & Andreas Volk (eds.), *Die Schweizer Autobahn*, Zürich: Museum für Gestaltung, pp.32-45, Frank Schipper, “The Drive for Peace? Road Building and the European Project during the Interbellum”, paper presented at the SHOT Conference in Minneapolis, 3-6 November 2005, [TIE working document no.12](#).
26. Although routes received a unique number in principle, they joined route with other routes on several occasions. This could lead to the assignment of double numbers along certain stretches of road.
27. E/ECE/TRANS/WP17/5, 26-7-1950, pp.2-9.
28. ‘Application de l’Annexe III de la Declaration – Note du Secretariat’, W/TRANS/SC.1/165, 4-6-1957.

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29. It underwent a significant revision in 1957.
  30. Henry Gasquet, "Un défi à la Géographie", extract from "La Revue du Touring-Club de France" no. 589, September-October 1949; Charguéraud-Hartmann to Gasquet, 1-11-1949, GIX.12.7.2.9.6069, ECE Archives, UNOG (hereafter: GIX.12.7.2.9.6069).
  - 31 Road Transport, Resolution 1 on the development of International Traffic Arteries, in: ECMT – Council of Ministers (1953), *Resolutions*, vol. I, pp.33-34. Its sixth resolution at the same meeting concerned frontier posts on E-road border crossings.
  32. Road transport problems, Resolution 22 and 23 concerning the Revision of the International Trunk Roads Network, in: ECMT – Council of Ministers (1967), *Resolutions*, vol. XVII, pp.55-62.
  33. The original initiative had grown out of an ECE debate on the development of Southern Europe started in 1954, which had resulted in the project for a circular highway through Greece, Italy and Yugoslavia, with an extension to Syria through Istanbul and Ankara, see 'Summary of questions considered and decisions taken at the first meeting of the Expert Group', ECE/SE/2, 30-7-1954 and subsequent ECE/SE documents. 'Report of the working party on transport questions on its first session', ECE/SE/TR/1, 30-11-1955.
  34. UNOG, GIX/13/1/29, 18657, jacket 2, 'Final Report Salonika Highway Conference for International Roads for South-East Europe', 15-17 November 1957; n.a. (1958), "The Salonika Conference November 15<sup>th</sup> to 27<sup>th</sup> 1957", in: *Road International* 28 (spring), pp.33-34.
  35. IRF, *Main European Arteries (E Roads) Traffic Census Maps 1965* (Geneva, 1965), p.3. The E5 was a transversal route from London to Istanbul.
  36. *Routes du Monde* 12, 1965, pp.2-3.
  37. IRF, *Main International Traffic Arteries* (1952), Brochure 'Europe no. 1', p.7.
  38. Clarke to Myrdal, 9-7-1952, GIX.12.7.3.8.9223.
  39. IRF, *Main International Traffic Arteries* (1958), Brochure 'Europe no. 3'; IRF, *Main International Traffic Arteries* (1960), Brochure 'Europe no. 4'.
  40. The respective figures for 1960 were 20%, 11%, 29% and 25%, see table 'Percentage of total length of E-roads classified by average daily motor traffic densities', ECE Transport Division (1968), *Annual Bulletin of Transport Statistics for Europe*, vol.19, p.xxvii.
  - 41 Tony Judt (2005), *Postwar*, New York: Penguin, particularly chapter X, 'The Age of Affluence'.
  - 42 ECE (1987), memorial booklet 1947-1987, p. 77.
  - 43 Resolution No.1 concerning the development of International Traffic Arteries, ECMT, *Final Act, Protocol, Rules of Procedure, Resolutions* (vol.1), pp.33-34. In fact, all of the first six resolutions related to road transport bear reference to work of the ECE.
  44. M. Noury, "The Asian Highway", in: 'Documentation', VIIth IRF World Meeting, 1973, Munich, Germany, pp.3-4; Tha Dok & Kiyoshi Sato, "Asian Highway", in: 'Documentation Summary', VIIIth IRF World Meeting, 16-21 October 1977, Tokyo, Japan, p. 113. See the 'Proposed Asian Highway Route Map', see [http://www.unece.org/trans/main/eatl/img/asian\\_highway\\_route\\_map.pdf](http://www.unece.org/trans/main/eatl/img/asian_highway_route_map.pdf) to get a flavour of the current status of the network.
  45. Press Release " "E" Road Network Extended to Central Asia and Caucasus", 12-10-2001, [www.unece.org/press/pr2001/01trans07e.htm](http://www.unece.org/press/pr2001/01trans07e.htm). The state of the E-network in Central Asia and the Caucasus is represented in a map at [http://www.unece.org/trans/main/eatl/img/eatl\\_e-roads.pdf](http://www.unece.org/trans/main/eatl/img/eatl_e-roads.pdf).
  46. n.a. (1992), *Auf allen Strassen nach Europa*, Bonn: Helmuth Reuther, p.5.
  47. "Das Neue Europa ist das Europa des Transports".
  48. This is an inadequate translation of the German original, "Freie Fahrt durch Europa".
  49. *Auf allen Strassen nach Europa*, p.35.
  50. "AIMSE: The European Motorway Project for the Europe of Tomorrow"; "Eurovia", pp.6, 9 (copies seen at the IRF Geneva Office).
  51. Map 'Europastraße 3: Pyrénées-Stockholm'; Christiansen to Möser, 21-4-1966, GIX.12.7.3.6.9002, jacket 5.
  52. Persin & De Decker to President ECE, 14-11-1974; Halbertsma to De Decker 27-11-1974, GIX.12.7.3.10.50522, jacket 1.
  53. Heinrich Hasskamp & Richard Vreden (1976), "Europastraßen – Hauptstraßen des internationalen Verkehrs", in: *Strasse und Autobahn* 27: 11, pp.419-430.
  54. Hasskamp, VIII World Meeting
  55. Boomen, op.cit., p.132.