PERSPECTIVE

Trans-European network development and governance in historical perspective

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The development and governance of Europe's transnational infrastructures predates any European Union infrastructure policies. A historical perspective makes visible important legacies from the past.

In the last decades, the European Union (EU) has become an important player in transnational infrastructure development and governance. The European Commission's White Papers proclaiming the urgent need for Trans-European Networks (TENs) for transport, energy and telecommunications from the mid-1980s portrayed Europe as a continent of 'missing links', a metaphor borrowed from the business lobby. It is important to note, however, that many transnational infrastructures were already firmly in place by this time, as were structures of transnational infrastructure governance.

Recent developments, we argue, should be interpreted against this historical background. Yet historical research, not unlike governance research (Djelic and Sahlin-Andersson 2008), has for long been blind to transnational issues (Van der Vleuten and Kaijser 2006). Here we briefly discuss a few aspects of the long-term development of transnational infrastructure and its governance in Europe.

Explicit discussions on Europe's cross-border infrastructure and governance go back to the early nineteenth century. Already at that time, we find arguments that transnational infrastructure produces socio-economic integration, much like current claims accompanying the TENs. 'Railways have more relation to the religious spirit than we think', noted French engineer and future senator Michel Chevalier in the 1830s. 'Never has there existed an instrument of such power to link together scattered peoples' (Van der Vleuten and Kaijser 2006: 9–10). We even find calls for some kind of supranational governance in this era. At the occasion of the Vienna Congress in 1814–15, negotiating the European order after the Napoleonic Wars, the French philosopher Claude-Henri de Saint Simon called for a European Parliament to take on matters of common European interest such as large trans-border waterway projects.

Public debate on transnational infrastructure building and governance came out repeatedly over the following two centuries. Particularly in the 1920s engineers and politicians widely discussed about European roads, railways, aviation, electric power, telephone and broadcast networks. The heated debate continued further again after the Second World War and in recent decades. In the meantime, multiple transnational infrastructures were built and a European infrastructural integration process began. This phenomenon remains largely hidden in the current academic scholarship on European integration.

Trans-border infrastructure proliferation

Let us briefly appreciate the extent of transnational infrastructure building prior to the EU era. Although Saint Simon's idea of a European Parliament did not materialise for a long time, transnational networks overwhelmingly did: the transport and communication revolutions that sparked off the modern era preceded the formal European Integration by over a century.

In transnational infrastructure genealogy, we may distinguish three overall developments. Firstly existing infrastructures like navigation and road networks greatly improved in terms of length, density, quality and usage. Waterways counted as long-distance arteries all along. Roads, by contrast, were rediscovered as such in the age of the automobile. Transnational road use was symbolically introduced in several well-advertised road races, such as the Courses des Capitales (1889–1903) between Paris, Amsterdam, Berlin, Vienna and Madrid. Calls for high-quality continental road networks that were suitable for automobiles culminated in the 1950s when the Declaration on Main International Traffic Arteries was introduced. This document gave life to the so-called E-road network (Schipper 2008).

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Secondly entirely new and highly transnational transport networks were added to the infrastructure landscape. In the nineteenth century, railways attracted most popular attention. Governments embraced cross-border projects to (re)position their countries in economic and military geographies of Europe, usually contracting private companies to build and exploit lines. Dutch and Belgian rail projects tied competing harbours to the Central-European hinterland from the 1830s while Greek and Italian projects did the same after the Suez Canal was opened in 1869. Alpine countries built hugely expensive railway tunnels to attract trade, while Prussian and Austria-Hungarian interests promoted connection to the Balkan Peninsula

and ultimately Turkey and Iraq. Besides, by 1901, Russia's Trans-Siberian railway was operational. Indeed a contemporary observer noted in 1910 how 'frontiers are wiped out' between Europe and Asia from the Channel to Vladivostok (Anastasiadou 2008). In the twentieth century, a fourth transport network, aviation, further strengthened transportation across the globe, as maritime shipping had done earlier.

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Thirdly we observe functional differentiation of infrastructures. Communications and energy supply, previously served by transport infrastructures, obtained separate networks. In the nineteenth century, electric telegraphy was widely regarded as another pivotal harbinger of integration. The efforts made by European governments and private companies produced a web that by 1900 spanned the subcontinent and the globe. In the twentieth century this telecom infrastructure expanded with telephony and broadcasting networks. Even the latter had important transnational and European dimensions, witness the International Broadcasting Union's 'European Concerts' radio shows in the 1930s and the Eurovision network of the 1950s (Lommers and Fickers in press).

In the sphere of energy supply, cross-border electric power lines were established from 1906. By 1930 Austrian, Czechoslovak, Danish, Finnish, French, Italian, German, Luxembourg, Norwegian, Polish, Swedish and Swiss utilities were involved in cross-border power exchange. Electric power grid maps from 1969 show electrical linkages from Northern Norway to Southern Italy and from Portugal to Russia (Lagendijk 2008).

The point of this brief overview is to underline that by 1970, when Brussels' influence on infrastructure development was still negligible, infrastructural integration had been in progress for well over a century with overwhelming results. The subcontinent had been embedded in a huge, yet unevenly distributed, human-made geography of networks.

Transnational governance

A similar point applies to transnational governance. Today massive re-regulation clearly affects transnational infrastructure governance. Yet the EU has not invented the latter phenomenon (Djelic and Sahlin-Andersson 2008). Brussels rather constitutes an additional player in older transnational infrastructure governance structures. Indeed we argue below that satisfaction with such older structures helps explain the often-proclaimed failure of Brussels infrastructure policies up to the mid-1980s.

Here we would like to draw particular attention to the elaborate patchwork of international organizations involved in infrastructure governance. As noted, national governments and private companies were key players in transnational infrastructure development during the nineteenth century as they are today. Their interactions were and are governed by contracts, concessions and bilateral agreements. Where coordination problems remained, however, international organizations stepped in early.

The Vienna Congress did not establish Saint Simon's European Parliament; but it did found the first intergovernmental organization, the Central Commission for Navigation on the Rhine. Its Convention of Mannheim (1868) still governs Rhine traffic today. Other early and prominent international infrastructure organizations include the *Verein Deutscher Eisenbahnverwaltungen* (1847), which associated railway companies from a number of countries to work on technical standards, through rates, international routings and custom regulations. The International Telegraph Union (1865) set telecom standards and organized cross-border interconnections. For road traffic, international automobile and touring club associations attenuated the astronomic import fees that all drivers were charged at the borders, and developed international licenses for drivers and vehicles. The International Electrotechnical Commission (1906) defined electric equipment standards. By the First World War, international organizations made up an increasingly important part of transnational infrastructure governance.

This patchwork of rule makers would become increasingly crowded in two noteworthy waves. In the 1920s, against a background of economic and infrastructural nationalism, engineers contemplated road, rail, airway, telephone and electric power infrastructures on international scales. Europeanist politicians joined in because the European infrastructure seemed a rapid, low-key road to their envisioned United States of Europe. Several proposals for international infrastructure financing and governance were discussed at the highest political level, the League of Nations. By 1934, however, it had become clear that national and sector interests preferred a bottom-up development of European infrastructures, with gradual connection of national networks—often still under construction.

Still infrastructural nationalism was countered by a range of new international organizations. The label international in the International Air Traffic Association (1919), the International Conference for Very High Voltage Power Grids (1921), the International Railway Union (1922), the International Broadcasting Union (1925) and the International Union for Electric Energy Producers and Distributors (1925) should not disguise that these organizations primarily dealt with European affairs.

This story repeated itself after the Second World War. Forms of supranational infrastructure governance were pushed again, not least by United States (US) negotiators. These saw transnational infrastructure as a means to rapidly rebuild an integrated Europe—and thereby an economic and military barrier to the spread of communism. Yet again, national and sector interest (now often represented by ministers responsible for nationalized utilities) preferred to invest in national infrastructure and subsequently develop cooperation. Remarkably for most stakeholders to be European meant to withstand US policies and choose the path of gradual infrastructure development via national building blocks. Examples of organizations implementing this idea include the Union for the Coordination of Production and Transport of Electricity (1951), the European Conference of Ministers of Transport (1953), the European Civil Aviation Conference (1955), the European Broadcasting Union (1956) and the Conference of European Post and Telecommunication Administrations (1959). All tackled myriad issues related to cross-border infrastructures. Yet ownership, finance, construction and control remained the

domain of individual nations-state or utilities. The patchwork of international organizations itself formed a key negotiation site for integrationists, state and sector representatives, next to traditional tools of bilateral agreement and concessions (Lagendijk 2008; Schipper 2008).

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European Union infrastructure policy

Acknowledging this elaborate regime of transnational infrastructure governance of the 1950s helps reinterpret the emergence of EU infrastructure policy in several ways. For one it places in perspective the much discussed failure of the infrastructure policies of EU predecessors. For instance the 1957 European Economic Community (EEC) treaty announced a Common Transport Policy as a logic next step in the integration process. But in 1972 former European Commission president, Walter Hallstein, found the transport system left in 'a state of old-fashioned pastoral seclusion'. In 1983 European Commission Transport director, Jürgen Erdmenger, talked about the 'saddest chapter in the history of European integration' (both cited in Schipper 2008: 12). In 1985 the European Court of Justice condemned this state of affairs with its infamous 'inactivity verdict.' Poor results for other EEC infrastructure policies received similar evaluations.

The problem of this interpretation, however, is the European Commission's persistent habit to equate European integration with its own institutional history. It neglects how other organizations, usually representing far more countries than the Six of the EEC, worked for European integration in the 1950–70s and developed more elaborate and successful infrastructure policies. The United Nations Economic Commission for Europe (1947), which among others developed the 1950 E-road plan and mediated electric power linkages across the Iron Curtain, had a pan-European scope. The Organization for European Economic Cooperation (1948) started with sixteen participants and carried out equally elaborate infrastructure policies. Such organizations worked in close cooperation with those dedicated to specific infrastructures mentioned above.

The crucial implication is that government and sector interests concerning transnational infrastructure policies had alternative options outside the EEC framework. For instance, the famous Spaak Report (1956), which preceded the Rome Treaties (1957), recommended common policies both for telecommunications and air services next to atomic power. Only the latter, however, materialized in the shape of Euratom. Some EEC members still tried to develop a common telecom policy, but failed: most members preferred less restrictive organizational settings with broader membership like International Telegraph Union and the Conference of European Post and Telecommunication Administrations (Laborie 2006). Common inland transport and energy policy did make it into the EEC treaty, but did not prosper. This 1950–70s preference of EEC member states to collaborate on technological issues in broader settings outside the EEC framework is also known for European patent and research cooperation.

When Brussels did enter the transnational infrastructure realm from the mid-1980s, it started by absorbing the work previously done in these alternative settings. With surprisingly rapidity the EU became the main arena for negotiation. Its older peers often felt bypassed as sector lobbies and governments reoriented their energies towards Brussels, sometimes even relocating their main offices there. The European Conference of Ministers of Transport, for instance, repeatedly discussed whether it was still necessary until it finally found a temporary raison d'être in focusing upon transport relations between the EU and non-EU countries. Today transnational infrastructure governance continues to be a crowded patchwork of organizations, albeit with an increasingly centrally-positioned EU.

Conclusion

We would like to conclude by noting that the current situation does not necessarily signify the final triumph of supranationalism. Integration theorists continue to discuss the nature of the EU as a supranational or intergovernmental creature or something in between, and, in EU-dominated infrastructure governance, national and sector interests may prevail as they have always done. The bulk of financing and construction remains decentralized and the list of TENs priority projects itself has been read as a traditional intergovernmental negotiation process in which governments pushed pet projects that they would like to build anyway, as opposed to representing the most rational transport infrastructure from a supranational perspective (Sichelschmidt 1999). Governments may also use the EU setting to implement rules that would be controversial in domestic politics. Either way, current transnational infrastructures programs and governance were not built on a tabula rasa, but constructed upon heavy legacies of the past, some of which might be changed more easily than others. ★

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