

Marshall, T

Infrastructure futures and spatial planning: Lessons from France, the Netherlands, Spain and the UK

Marshall, T (2014) Infrastructure futures and spatial planning: Lessons from France, the Netherlands, Spain and the UK. Progress in Planning, 89, pp. 1-38

doi: 10.1016/j.progress.2013.03.003

This version is available: <https://radar.brookes.ac.uk/radar/items/3e556fea-15e3-4b84-b719-3bd91af8b488/1/>

Available on RADAR: February 2017

Copyright © and Moral Rights are retained by the author(s) and/ or other copyright owners. A copy can be downloaded for personal non-commercial research or study, without prior permission or charge. This item cannot be reproduced or quoted extensively from without first obtaining permission in writing from the copyright holder(s). The content must not be changed in any way or sold commercially in any format or medium without the formal permission of the copyright holders.

This document is the post print version of the journal article. Some differences between the published version and this version may remain and you are advised to consult the published version if you wish to cite from it.

Steering infrastructure futures and spatial planning.

Political economies, politics and imaginaries and the potential role for national spatial planning frameworks

Abstract

This monograph investigates the place of macro-scale spatial planning in steering infrastructure development in Europe. It starts from an examination of the way in which changes in the form of infrastructure development are driven by neoliberalisation and changes in the political and constitutional forms of states. Macro-spatial planning, within states and at supra-national levels, has some role in steering major infrastructure, a role which is affected by the spatial ideas which actors have of the territories for which policy is being made. One focus is on the nature of such spatial imaginaries, and how this affects the abilities of democratic polities to project and debate their territorial futures.

The paper examines four western European states as well as the reform of the European Union Trans-European Networks policy area. This analysis generates an understanding of the interplay of the material and ideational forces referred to above. This understanding is finally put to work to examine the possible scope to improve the working together of macro-spatial planning in one case, that of the UK, concentrating on England within this now plural jurisdiction. Efforts to promote a spatial framework for England have not been successful up to now, in part, it is suggested, because the neoliberalising dynamics have constituted an almost insuperable barrier to even imagining spatially coherent futures for England. However this might be taken as a challenge by academics and practising planners, amongst many others, to stretch the bounds of thinking, in part by drawing on current transition ideas and other storylines exploring and arguing for long term steered change.

Keywords: national planning, major infrastructure, Europe, spatial imaginaries.

Contents

1. Introduction

2.0 State policy making for infrastructure

2.1 First driver - neoliberalisation

2.2 Second driver – changes in state forms

3.0 Macro-level spatial planning and the spatial imaginaries of shaping countries

3.1 The evolution of macro-spatial planning

3.2 Spatial imaginaries and macro-spatial planning

3.3 The European Union and macro-spatial planning

3.3.1 *The EU and infrastructure: TENs energy and transport reforms – overcoming neoliberalisation's contradictions?*

3.3.2 *Bringing in spatial steering from above – a new sectoral layering*

4. Country case studies

4.1 France

4.1.1 *French neoliberalisation and infrastructure*

4.1.2 *National spatial understandings*

4.1.3 *State sectoral planning of infrastructure*

4.1.4 *France, neoliberalisation and state coherence*

4.2 Spain

4.2.1 *Spanish neoliberalisation and state infrastructure policies*

4.2.2 *Spatial imaginaries in Spain*

4.2.3 *Spain – history, polity and infrastructure struggles*

4.3 Netherlands

4.3.1 *Dutch neoliberalisation and infrastructure planning*

4.3.2 *Dutch imaginaries and larger scale state spatial policy*

4.3.3 *The Netherlands – neoliberalising away national spatial coherence?*

4.4 The UK

4.4.1 *UK neoliberalisation and infrastructure policies*

4.4.2 *Changes in UK state form and approaches to planning for infrastructure*

4.4.3 *Arguing for macro-spatial planning – explaining policy directions not taken*

4.4.4 *Spatial imaginaries in the UK*

5.0 Discussion and conclusions from the case studies

5.1 General conclusions

5.2 Further threads from the case analyses

6.0 Implications for the creation of national spatial steering mechanisms

6.1 Proposals

6.1 *Process aspects*

6.2 *Substantive aspects*

7.0 Final overview

Acknowledgements

References

1. Introduction

States are taking infrastructure issues seriously. This applies most of all to the largest types of infrastructure, such as for transport and energy, where projects for rail lines, airports and motorways, and for many kinds of energy generation and transmission or transporting, continue to be promoted in developed countries, and are at the core of less developed countries programmes of investment. Such planning, programming and investing is taking place in an enormous variety of political economic regimes, geographical contexts and governance templates. International competitiveness is held by some interests to be dependent on such investment, with business corporations observing and perhaps admiring the rapid development of such infrastructure in authoritarian states, above all China, in comparison with the slow progress in Europe and USA. International organisations have devoted much attention to the issue in recent years (OECD 2006, 2007, 2011), working on the assumption that world trade growth is generating the need for large scale infrastructure expansion, especially in transport, and that states must service these “gateway” needs. The European Union (EU) has made infrastructure investment, in transport, energy and telecommunications, a core part of its Europe 2020 growth strategy (CEC 2010a, 2011a). This has been linked to a drive towards, in the long term, a low carbon Europe. But the widespread resistance to infrastructure projects has become equally visible. Whether labelled as Nimby or not, this resistance is not limited to just a few European countries and has now been subjected to widespread study (for example Devine-Wright 2011). The same phenomenon has been documented for the United States (Pociask and Fuhr 2011). In this context, national steering or even national planning may be making a comeback, in cases where such state leadership was previously held to be unnecessary, given the liberalising directions of the last three decades or more. That planning or steering might be defined spatially, and the possibility of that is a key focus of this discussion.

The purpose of the monograph is to explore the role of such macro-scale spatial planning in recent development of policy on infrastructure development in Europe. By “macro-scale” is meant primarily that carried out at national state level, but some consideration is given to the tendency to develop policy at EU level. The work of states within federal or semi-federal systems, clearly very important in several EU cases (Austria, Germany, Spain), is not examined here in any detail, but the special case of the evolving component parts of the UK is included, as this introduces issues critical to the UK case, which is treated here at greater length than the three other case studies of France, the Netherlands and Spain.

The analysis starts from an understanding of state policy making for infrastructure. It is possible to analyse fields of state or public policy in a myriad of ways. Here this field is seen as containing several elements, specifically finance (who does the investing), regulation (under what public constraints the investment takes place, and the industries are then managed), and spatial planning (geographical steering). The last is often likely to be the least important, though to students of planning, it is naturally of great interest. The way these elements are combined into a public policy regime has varied greatly in time and space. In the simplest terms, a core dimension, seen here as the primary axis of variation, is the degree of state control and leadership. This affects finance, regulation and spatial planning. It can be thought of as a continuum, with the drivers of change of the last three decades pushing overall to less state control and dominance. The two most important drivers are seen here to be changes in political economy (above all neoliberalisation), and changes in state forms (devolution, shifts in state management formulas, mainly).

Here the primary focus is on the role of spatial planning in state policy for infrastructure. The main interest is not in the detailed sphere of consenting, though this does come into the national and European analyses, but in the “big picture” planning, called here “macro-spatial

planning”. The interest in this dimension is because the great potential for planning appears to be at this level, which has become of ever less interest to contemporary governments, much more focussed on consent processes and speed of decision making.

The analysis will examine how macro-spatial planning works overall, with reference to different state levels, including some treatment of emergent EU processes. A further element which is seen as important to the nature of any spatial planning roles in infrastructure policy is the evolution of the ideas of countries and territories, which are referred to here as “spatial imaginaries”. The analysis therefore has a nested or funnelling character, which proceeds by looking at (1) state infrastructure policy making, (2) macro-spatial planning in state infrastructure policy making, (3) the role of spatial imaginaries in macro-spatial planning. Within each of the national case studies, the focus is on each of these aspects. Naturally this is a long way from being a treatment of all matters related to state infrastructure policy or big scale planning. But it is an appropriate focus in order to seek answers to the question of the role (actual and potential) of such planning within the development of infrastructure development in Europe, which is the question of most interest here.

There is a long running theoretical debate in political science on the role of ideas, of “ideational” factors, as against more “material” dimensions (Hay 2002, John 1998). In spatial planning this has some kind of equivalent in the interpretive and discursive turns of the last 20 years (for example Fischer 2003, Hajer and Wagenaar 2003), and more specifically in discussion of the force of images, maps and other mental representations of space and territories (Dühr 2007, Jensen and Richardson 2004, Neuman 1996). In the field of planning examined here the visualisation of large infrastructure systems within ideas of the future of large territories appears to call for an engagement with this field of thinking. How do the ideas of countries, spatial imaginaries, relate to ideas of big infrastructure systems and the connecting up of territories, urban systems and ecosystems? These ideas may have longer lives and differently acting powers from the force of (in part shorter run) phenomena like changes in political economy and in the constitutions and functioning of states. What sort of “independent” power may such spatial imaginaries have? Hay’s view in the political science debate (2002) is that the ideational and cognitive are intimately connected with the material. In the case examined here, this might mean the mixing together of the “hard” factors in infrastructure development with the “soft” force of ideas of territories. The approach here is not to separate out these dimensions, but to analyse them together. Thus neoliberalisation may select for certain sort of imaginaries (often ones hidden to normal view), but the presence of certain spatial ideas may facilitate macro-spatial planning which can then in turn feed back to generate state steering, countering stronger forms of neoliberalising effects. This element of the study is taken further in sections 3.2 and 5.0.

Two sections follow this introduction, before the country studies. The first section presents an understanding of state policy making for infrastructure in its broader context. The second section brings into this understanding a discussion of how large scale spatial planning relates to this policy making.

The main focus is analytical and explanatory. But the final section of the monograph examines the implications of the analysis and considers a particular policy question: could the making of a national spatial planning framework help to improve policy in the field of major infrastructure? Clearly there are other potential governing innovations or instruments which might carry forward such policy improvement. Examples could include smarter sectoral or sub-sectoral planning (for all transport systems, or just for rail, say), comprehensive use of market instruments amidst as total liberalisation and privatisation as possible, or simply

concentrating on getting project level decisions right. Here all of these are set aside, important though they may well be, to concentrate in the later part of the paper on the national level of spatial frameworks. The UK will be used as a case example to explore the facets of reforming this instrument.

The empirical work here stems largely from a research project conducted in 2008-2010 under an ESRC fellowship, updated where needed by means of further documentary work and some limited interviews. Full details of sources for each of the European country studies, the UK work and the EU section can be found in the working papers and a book based on the researchⁱ. Virtually all the work reported here is in summary form, with almost no direct reference to interview material, and only limited direct quotation from documentation.

2.0 State policy making for infrastructure

The making of infrastructure can be analysed along several dimensionsⁱⁱ. One critical one is the balancing of the roles of public and private sectors, the tasks allocated for states and markets. This has changed radically in most European countries in the last three decades, as liberalising and privatising policies have gained generally increasing sway in most states. State policy itself can be examined along horizontal and vertical dimensions. Horizontally policy may be more or less integrated or sectoralised, depending on the structuring of governments, including the divisions within ministries and agencies. Vertically powers may be distributed between tiers of governments, with central levels sharing powers and finances with federal state, regional and local governments. In the fields of major infrastructure examined here, the sharing is more likely to be at the higher levels of governments, although groupings of local authorities, particularly the largest ones, can be involved in decision making on for example ports or airports in several countries, whilst in some countries local energy, waste and water concerns are still directly or indirectly managing those sectors. These divisions can therefore be analysed in each case, to show the complex landscape of the political economy and governance of infrastructure management and development.

2.1 First driver - neoliberalisation

In the recent historical period (taken as approximately the last three decades) there are two main drivers of change in this set of infrastructure policy landscapes. The first can be broadly characterised as neoliberalisation.

Theoretical work by Neil Brenner, Jamie Peck and Nik Theodore (Brenner et al 2010), promoted a revised approach to thinking about the evolving pathways of neoliberalising capitalism. An earlier paper (Peck and Theodore 2007) had examined the potential of the “varieties of capitalism” (VOC) approach, and in the 2010 article the potential and shortcomings of that body of work was joined by a review of work in two other traditions, before they presented their preferred approach. This goes under the label of “variegated neoliberalisation”, not a very pretty phrase but a useful one. Another way they describe it, as “systemically produced geoinstitutional differentiation” (2010, p 207), is perhaps no lighter on the tongue.

Peck and Theodore’s criticisms of VOC work are largely convincing. That model, presented in many variants but in developed forms in Hall and Soskice (2001), proposed that current capitalism can be best characterised by treating national states separately, and classifying them according to industry structures and business practices, alongside state policies in key areas. The result, at least in Hall and Soskice (2001), was to generate a simple split of liberal market economies, with the USA as the model, and coordinated market economies, with

Germany as the type case, and with all developed capitalist states falling into one category or the other – for example the UK placed with the USA, and France and Japan with Germany. This simplicity certainly caught journalistic and political attention for a while, but it does oversimplify and moves too far from reality.

The variegation model seeks to create a more flexible, fluid and dynamic understanding of contemporary processes, by stressing the layered and complex way in which neoliberalising processes have changed different national situations over three decades or more, with the recent phase seeing a deepened embedding of neoliberal features in all developed countries. The force of internationally operating powers is stressed, both material and ideological, as well as understanding these as rooted in particular states. This helps to get away from a too clear division between change happening within states, and that happening transnationally or even globally – a parallel aspiration drives the work of Massey, as in her study of London in *World City* (2007), where she emphasises how London was both part of a global process, but also a key driver of that change. The spatiality of political economic change is therefore seen as operating in complex ways, with scale conceived in part relationally or perhaps diagonally – despite lengthy recent debates, the conceptualisation of such matters has hardly reached a comfortable linguistic formula, at any rate in English.

The temporal aspect is stressed by Brenner et al. They refer to the “sporadic, yet wave-like, non-linear sequence, generating important *cumulative* impacts” (2010, p 184). More fully: “the spatial unevenness of neoliberalization processes results not simply from a haphazard accumulation of contextually specific projects of marketization, but rather from *patterned and patterning processes* – the consequence of continuous, path-dependent collisions between inherited institutional landscapes and emergent path-(re)shaping programmes of regulatory reorganization at both micro *and* macro scales” (2010 p 202). The layered, wave-like and cross-scalar processes imagined by Brenner et al fit rather well the transformation of infrastructure steering and governing regimes under way in Europe during the neoliberalising decades.

A partial caveat to Brenner et al’s work is the need, nevertheless, to focus very carefully on national models and how these are formed. This is in part consistent with the work of Brenner et al: they note that VOC work calls attention to “the relative durability of institutional geographies at the national (state) scale” (2010 p 206). There is strength in the insistence of the VOC approach that national models are distinctive, viewed at any one moment, whilst any simple typology of such models is to be rejected. The challenge then is to pick out any relevant state distinctiveness and relevant commonalities in whatever sector or field one is interested in, as well as to understand the interplay of transnationalising forces into, out of and around national state formulasⁱⁱⁱ. In the case of approaches to major infrastructure, the aim is to balance the powerful international forces of neoliberalising drives of the last three decades or more, against the remaining considerable differences between national states, in the European cases studied.

Part of these international forces is the new world of infrastructure industries and financing that has emerged in the last two decades or so. This is very variable across sectors and sub-sectors, with say the global nuclear power industry quite different from that for waste treatment or managing buses. But overall, companies have internationalised, often to a global level, leaving for example around half a dozen important gas, electricity and water companies dominating many countries in Europe (work by the Public Services International Research Unit, PSIRU, details this, for example Hall 2010, Hall and Lobina 2010 and Thomas 2009). Nationally based and sometimes publicly owned operations remain important in some

countries, but the force of private power now present in the large companies needs to be factored in when considering infrastructure policy making. Equally the presence of private equity infrastructure funds since around 2000 has changed the nature of investment in some countries and branches. This Macquarie style of operation^{iv} was being predicted as a likely future model, up to the crisis beginning in 2008, since when commentators have been less confident of the growth of this approach. At the same time, however, the crisis is putting even more stress on public finance in many countries, which may be producing a further round of privatisation, and governments turning even more to possibly risky private providers.

2.2 Second driver – changes in state forms

The second driver is alteration in constitutional and political arrangements, which have been changing the forms of states. This is generally interpreted as autonomous of the processes of neoliberalisation, even if it may be argued that there are some common features which have pushed along both processes, particularly the varied ideological pressures which argue against “big government” or “top down” policy models. Just as with the neoliberalisation analysed above, the devolving or rearranging of state power has been highly variable across Europe, with some states affected relatively little (such as Germany and the Netherlands), and some deeply altered by these processes (Spain, the UK, France). So there has been a two level variegation under way. But on top of this must be layered the dynamics of Europeanisation. Europeanisation is treated here as the process of national policy areas being affected by European decision making (for a fuller and more complex characterisation, see Dühr et al 2010 chapters 7 and 23). It is widely considered that over the last 30 years some hollowing out of national state power has been attributable to evolution of the EU. In the fields of infrastructure this is easily identifiable in the fields of transport, energy, water and waste. In every one of these areas critically important policy has been made, largely by powerful Directives, constraining subsequent action by all member states.

There are major differences amongst political scientists about how these changes should be interpreted, but one widely shared line of argument points to increasing “interdependence” between states in Europe, as well as between those states and the rest of the world (Hay 2010). This does not by any means see an all dominating EU (or any other international regimes) sweeping away traditional state power. The post 2008 period is widely seen as a time of the reassertion of such state power in response to economic crisis, with both sub-national and supra-national power centres challenged by this reassertion (Thompson 2010). But this does not mean a retreat in the fields of infrastructure to “islands” of policy making within state boundaries. The dynamics of neoliberalisation, empowering large international corporations in most infrastructure sectors, push against such retreat, and potentially encourage the continuing growth of international regulatory action, including by the EU (Whitfield 2010, also PSIRU publications as above).

In the field of spatial planning Europeanisation is generally seen as less advanced (Dühr et al 2010 stress the need to examine each state individually, as they do for three cases). However EU sectoral policies have certainly in some cases powerful spatial effects. In the infrastructure field the most important policy area is that of Trans-European Networks (TENs), and this will be the focus of section 3.3. It will be seen that the latest reforms proposed to TENs have a real potential to impact on planning, in ways that may compete with or even supersede often weakening processes of macro-spatial planning within states.

Therefore, the constitutional and political landscapes that have been emerging over these decades have powerful effects on infrastructure policy making. Changes will doubtless continue, whether in dramatic form such as state break up (perhaps in the UK, Spain or Belgium) or more modestly in changes in financial and regulatory balances within states and between states and the EU.

3.0 Macro-level spatial planning and the spatial imaginaries of shaping countries

3.1 The evolution of macro-spatial planning

At the broadest level, the two drivers discussed above have impacted as powerfully on “big planning” as they have on the way infrastructure is made (or not made). Before the 1980s some European states had quite strong spatial planning processes at central government level. This continued in one case, the Netherlands, if in strongly moderated form, but elsewhere the dual pressures of liberalising and devolution cut back such influence significantly. In some cases (the Spanish autonomous communities, the devolved administrations in the UK), new forms of macro-spatial planning have been invented. At the same time, as will be seen in more detail below, the EU has been developing some capability over spatially relevant aspects of infrastructure. This has potential to take over some of that force of big scale spatial steering, that was to some extent present in earlier eras within national states. This remains, as will be seen, largely only a potential, though it can be argued that Europeanisation, through framing and ways of imagining, has already had some effects on how key determinants of long term spatial change are shifting.

Macro-level spatial planning does not have to take a comprehensive or integrated form. That is certainly the kind which planners have always aspired to, in its ideal (or idealised) Dutch form. But it can also consist of sectoralised planning of particular fields like railways or ports, or, to move to the weakest form, of apparently non-spatialised policy making where the policy content necessarily implies a certain distribution of spatial effects, by for example prioritising a list of investments or by supporting particular policies which will have clearly differential spatial impacts. Certainly this third type would only qualify as planning if it had contained some thinking about large scale geographies behind the policy, even if unacknowledged or only weakly analysed.

Of what did “traditional” big spatial planning consist? In say the 1960s a very centrally directed strategy was made up for the whole range of major infrastructure systems, with an image of French or Dutch national planning at their height, or even Soviet or Communist systems of control and investment. These required a clear idea in the minds of their creators, whether politicians or planners or some wider public, of what territorial futures were desired. Bodies like DATAR^v and the Commissariat General du Plan in France and the National Physical Planning Agency in VROM (the planning, housing and environment ministry) in the Netherlands were required to prepare societally and politically acceptable strategies, whether fully comprehensive of all major infrastructure sectors or not. Some wider societal consensus was needed for this to be possible, as to how the country or nation should develop or change – in a centralised or decentralised way, in a resource and energy intensive way or not, strongly connected with and dependent on other areas of the planet or not (ports, airports). For the countries which had such strong steering mechanisms in the high Keynesian period from the 1940s to the 1970s, the idea of the future had to be quite explicit, with almost certainly maps indicating general ideas, even if blurred to varying extents for political purposes.

The nature of some examples of this period was surveyed in Alterman's volume of 2001, looking at national level dimensions of planning, both within the classic period, and in the 1980s and 1990s when in many cases less strong and integrated approaches were being adopted. Alterman found that countries at that time maintained some desire and capacity to undertake national steering, certainly in her key cases like Israel, Japan and the Netherlands. She also found that the steering was very often in a second form, of sectoral systems, dealing with say roads planning, or planning for energy systems (or parts of them), rather than in a comprehensive form. Immediately it is clear that such approaches would not necessarily demand such a full idea of the country as more integrated styles. However, it can be argued that there would still have to be an implicit conception of how the country was to be changed, even if this conception was more fragmented and plural than in more comprehensive cases.

There can be a "third" stage of the decomposition of the high Keynesian state model, in which the central state no longer plans, at least explicitly, at all. This may be for ideological reasons, that it is believed that all investment is best left to private corporations operating on profit and loss criteria, as with many railways systems in the nineteenth century, or for various practical reasons, including the federal or decentralised nature of states, meaning strong central leadership is no longer politically possible. In fact such a condition (no planning at all) is much more rare than might be expected, and in general states have maintained the wish to plan sectorally at least, even where, as is common, they no longer control investment directly. So the second case above remains, it appears, the norm, and it remains important to consider the ideas which may motivate the planning that does exist.

3.2 Spatial imaginaries and macro-spatial planning

It is now necessary to look in more detail at one particular focus of this monograph, the way in which steering of infrastructure is affected by the ideas of countries expressed in plans or sectoral policy making. As argued in section 1, the role of ideas in spatialised form is important in planning, alongside more material forces. This dimension is presented here in what some may see as a rather one dimensional and old fashioned way, with little account taken of the flowering of the several varieties of relational thinking of the last twenty years or more (Allen et al 1998, Amin and Thrift 2002, Amin et al 2003, Cochrane (2012), Jonas 2012, Massey 2005). There are two dimensions to that flowering. In part relational thinking has challenged Cartesian or Euclidean ideas of space, arguing that traditional ideas of bounded and bordered entities like countries are no longer useful ways to think about change and the future. Space is seen as more splintered or fragmented, discontinuous, with proximity or distance as very poor indicators of what is tied up with what in causal terms. The account of London by Massey (2007) is perhaps the best example of this thinking in action, problematising the ways of imagining London in some Russian doll set of region, nation, continent, globe. Secondly, the challenge of relational thinking is in the socialisation of spatial thinking, so that geographies are thought about in a less "flat" way, more infused by social relations of all kinds. This comes to Massey's idea of "power geometries". As she puts it in one summary account (1999 p.291): "We cannot make a judgement on the basis of a spatiality abstracted from power relations: always what is at issue is spatialized social power: it is the power relations in the construction of the spatiality, rather than the spatiality alone, which must be addressed".

Without denying the force of much of the "relational turn", it is considered here that there is value in taking traditional understandings of geographical space, old style map based territories, as the basis for analysis, given the importance of this for most large scale spatial planning. Although planning academics have been keen to pick up on this intellectual zone,

with discussions for example of “soft spaces” intended to lead the way beyond thinking of planning as only or predominantly in bounded spaces (Allmendinger and Haughton 2009), real world planning has been struggling to work in such terms. Accounts of those with enthusiasm about relational approaches, such as Patsy Healey’s analysis of recent planning for Amsterdam and its region (2007), suggest that, despite the best efforts of the very-network-society-aware Dutch planners, planning outputs continued to be produced in the same old form, plans for bounded territories, identifying land in the traditional manner. The relationalist challenges were equally turned down by planners in her other case studies – here without even the significant efforts of the Dutch planners to operate in new ways.

It may still be that, once say a national strategy is produced, it is possible to carry out, not an environmental or regulatory impact assessment, but a “relational sensitisation assessment”, which might suggest radically wrong, impractical or incoherent features of the strategy. A more everyday equivalent of such a step could be the Territorial Impact Assessment instrument, which might be used in this way to examine impacts diagonally (Bohme and Eser 2008). Some of these thoughts are pursued in Section 6, but much must remain for future elaboration and development.

How should the spatial imaginaries and macro-spatial planning be conceptualised? It is impossible to “see” such imaginaries, which have to be excavated from the evidence of what is written down and what is done, in a partially speculative way. Other students have had some success in doing this, in order to understand the nature of policy making at particular levels – one classic examination is that by Jensen and Richardson (2004) on European space making paths, whilst McNeill (2004) finds evidence for the changing imaginaries of Europeans and how different transport and communications systems create these new understandings.

We may start simply, from the premise that in order to do something with a large geographical and spatial component, something must be existing in the mind or imagination of the actors involved. This may be made evident in the form of maps or planning documents, as analysed effectively by Dühr (2007), or it may be a textual expression. Metaphors are commonly used – corridors, gateways, hubs, belts. Spatial emphasis may also, as indicated above, be simply implicit in an approach, say to invest more in one part of a country than elsewhere, even if it would be politically difficult to spell this out. Clearly there could come a point where the imaginary of the future form of the country is “so implicit” that one may doubt its existence. Might there not be just a “garbage can” of sporadic and ill connected decisions forming the future territories, part state decided, part driven by market particularities? Many economists would favour a purely market driven process, whereby the government simply sets tax and incentive and regulatory systems, but leaves the resultant geography to a myriad of investment decisions from below, fuelled by a myriad of possibly competing and conflicting imaginaries. Certainly this is possible in part, and has happened to some degree in the past. But there are strong limits to such non-geographically conscious societal steering in the case of major infrastructure. They range from the risks of stranded investments, with serious implications for any economic system and certainly for capitalism, to the brute complexities of technical systems in space, in real and obdurate territories: cities, mountains, seas, airspaces (Marshall 2012). Although states may try to (or pretend to) make policy in a spatially blind way, in the field of large infrastructure, this has little sense.

All of this is deeply linked to the cohering sentiments on which states have generally been based in recent centuries, essentially nationalist ones. The nature of national understandings affects the making of imaginaries, as well as their potential unmaking, as UK observers can

see in the varying paths of nationalism in the UK over the last half century or more, and as any Spaniard, Catalan or Basque (or Breton) could remind us. This is not a primary theme here (for one now dated case see Marshall 1996), but it is valuable to remember how fundamental and deeply historical are some of the pressures affecting something as apparently everyday and practical as infrastructure and its planning.

So every political unit, and above all the still dominant political unit of the state at national level, may be conceived as having ideas about its territory's futures. These ideas may be fuzzy, internally contradictory, politically contested in several dimensions, and on a spectrum of quite explicit to so implicit as to be quite difficult to pin down. There is a scaling to such imaginaries, with subordinate local or regional polities having their own conceptions, and emergent continental and to some slight degree planetary imaginaries starting to play in with national formulas – at least continentally in the European case. However the national state retains a key role in all sorts of ways, and it is essential to be able to keep this in focus, within neoliberalising capitalism's wider dynamics. In particular, not keeping such a focus is politically debilitating, removing the scope for democratic debate and decisions on major infrastructure futures.

3.3 The European Union and macro-spatial planning

EU level activity in the field of spatial planning has elements of all three types of big scale planning described above (Dühr et al 2010, Faludi 2010 are key references). The main emphasis in the relatively brief treatment of the EU dimension here is on Trans-European Networks (TENs). The attempt since the 1980s to build a base of spatial planning thinking at continental levels has not mainly been focused on infrastructure, though some of the content of the European Spatial Development Perspective (ESDP) of 1999 and the macro regional strategy work since the Europe 2000 initiatives of the early 1990s has had infrastructure elements and implications embedded within it. But the ESDP avoided all visual representations. Spatial metaphors like the Blue Banana may have had resonance in wider discussion, but have rarely reached any clear EU policy form. Perhaps more important has been the building of some kind of epistemic community (as Dühr et al 2010 discuss, pp.111-112), of ways of thinking amongst planners active in their national planning contexts, of broader framing. Jensen and Richardson (2004) understood the EU's overall direction as an attempted sedimentation of a hyper-connected Europe, with a strong emphasis on rapid travel continentally, through the creation of a repertoire of spatial practices. It is suggested here that this has been a gradually laid foundation for wider ideas of geographies, on which the more specific and detailed initiatives discussed below may now be building. In a few special areas of Europe the spatial planning impact no doubt goes deeper, particularly in the Baltic where work up to 2010 led to a coordinated macro-regional strategy (CEC 2010b, VASAB 2010). This has been followed by an apparently weaker strategy for the Danube, but given that the outlook for further such macro-regional work is uncertain, this may prove to be only of limited significance for most of the EU (see a fuller discussion in Stead 2011). The reform of the TENs policy area is analysed here in more detail, as here for the first time a potentially more direct spatial impact will emerge from a territorially specific EU policy field. This stems no doubt from the fears of infrastructure corporations that insufficient infrastructure steering will otherwise be available: extra continental wide capacity is needed to counter the weakening of national state capacity.

3.3.1 The EU and infrastructure: TENs energy and transport reforms – overcoming neoliberalisation's contradictions?

The Trans-European Networks (TENS) policy was formulated as part of the follow on from the Single Market drive of 1992, as it was thought that the now unified market needed more unified energy and transport systems (Dühr et al 2010). Key projects were identified in transport, mainly for rail lines, in 1994, and supporting financial mechanisms were created to encourage implementation. The energy involvement was lesser, with very limited financial support. By 2008 some projects remained far from completion, but it was decided that a fundamental reform was needed. The Commission's review acknowledged that the planning of the transport part of TENS "has not been driven by genuine European objectives" (CEC 2009). There had been a real difficulty for the Commission in pushing national governments to press on with the priority projects (Stephenson 2010). So the EU has been working up a package of TENS reforms. This has separate energy and transport components, both of which entail the passing of a Regulation; these Regulations were under consideration in the European Parliament and Council in 2012-13. This led to proposals in both fields by late 2011 (CEC 2011b, 2011c). The result is potentially to increase EU roles in these fields quite considerably.

The reforms for energy include designating key projects as of European interest, for which a streamlined set of procedures will have to be applied by member states. The projects will arise from the work of the new collaborative bodies set up in the electricity and gas industries, Entsoe and Entso-g, which have prepared Ten Year Network Development Plans (TYNDPs), in conjunction with the European Commission (Entso-e 2010, Entso-g 2011). The new set of procedures results from an exhaustive study of problems arising in energy project implementation and the approaches different states were adopting (Roland Berger Strategy Consultants 2011). Effectively the 2008 UK reforms (described below) were seen as best practice, and a similar model of "one stop shop" and faster decision making for the consenting process is being recommended. The reforms are part of a wider package of consideration of energy policy as a whole, looking to 2020 and beyond for the achievement of key EU goals in low carbon, energy security and economic competitiveness.

The transport proposals have involved the design by technical experts of a "core network" for the whole continent, made up of ten corridors, oriented around the main north-south and east-west axes, and focussed especially on freight links, and so based on major ports at many ends of the axes. Figure 1 shows one part of the core network, for rail freight. A "comprehensive network" remains alongside this as developed in the 1990s, effectively including all main arteries in all modes. The key new proposal is to set up a corridor development platform for each corridor of the core network, with these platforms to prepare a corridor development plan, and oversee the implementation of the scheme, so as to complete the core network by 2030. Even more clearly than with the TYNDPs, this is evidently something which will impact on the planning of the territories in which the core network is to pass, and planners at all levels will have an interest in this institutional innovation. It is too early to say what sorts of impacts on planning these would be, and they would vary greatly depending on the existing planning situation in a country or region (extent of national or regional planning coverage, integration of transport and others sorts of planning, for example). A new Community financial instrument is proposed to support implementation of the new programmes, in transport, energy and telecommunications.

Figure 1 about here.

These proposed reforms result in effect from the powerful liberalising drive of the successive energy and transport packages since the 1990s, which have pressed, with considerable success, for countries to unbundle their energy systems, and, to varying degrees, their

transport systems. This has generated a very difficult investment context for the companies now expected to meet the EU's demanding goals in these areas, and the TENs reforms surely emerge from the situation caused by the EU's own actions since the 1990s. New public steering mechanisms are being invented to make up for the loss of control caused by liberalisation. These now take the form of strongly spatially detailed schemas, especially in the transport field.

3.3.2 Bringing in spatial steering from above – a new sectoral layering

These developments take place however against the reality of an extremely modest advance in any common public idea of the European territory as a whole, and with the EU given in many countries very low public legitimacy. If any sort of national spatial planning is now seen as too demanding in the great majority of EU member states, we may well imagine that any sort of continental spatial plan could not rely on any plausible continental spatial imaginary that exists or might be developed. The TENS reforms however take some significant steps to creating the skeleton of such a framework, if only in quite sectoralised terms.

The field of major infrastructure has therefore become an important target of EU policy, strongly pressed by large infrastructure industry businesses, and supported, so far, by most member state governments. This is interpreted as a step in the neoliberalisation pathways of the EU and therefore of European states approaches to infrastructure as a whole. The approach is more interventionist than say the British National Infrastructure Plan, but has some of the same drive to make the investment context attractive to large corporations. What is emerging is a layering of state policy at national and continental scales, with each scale reacting to and learning from each other, with each responding to the pressures of the various business and other interests with powerful influence. The role of environmental interests, as represented by political parties and NGOs, is not discussed here, but these are also significant actors, and there are lesser elements in EU policy which respond to their concerns. Overall though, the infrastructure approaches seen in the EU and UK respond most to a neoliberalising logic, to a greater extent than those analysed in France, Spain and the Netherlands. It is essential therefore to see the common *and* the distinctive processes underway across the national cases. Within-state and cross-state tendencies are both important in the design of new state or para-state steering mechanisms.

4.0 National case studies

The four European states examined here are very different. There are, as should be clear from the discussion of neoliberalisation above, common trends affecting all four, but even the political economic changes differ strongly. Evolutions in state form also vary dramatically. It will be evident therefore that states are highly distinctive. They do not vary in ways that can, say, generate a neat explanatory schema on a four cell grid (though this can be a useful descriptive aid – see Table 1). None are federal, but they are very different sorts of unitary state, with different evolving trajectories of change of state form in the last three decades. The planning systems are quite different. All are affected by neoliberalising and to some extent Europeanising processes, but in different degrees and forms. They offer therefore the classic strengths of qualitative comparative analysis, to help understanding of the forces and trajectories at work, which vary in illuminating ways. There is no aspiration to a “general theory” of state policy making for infrastructure, and the role of macro-spatial planning within this. A broad sympathy for critical realist understandings of social science fences off

such an aspiration in any case: social science cannot strive for predictive capability stemming from such general theorising (Collier 1994).

The country studies work from the conceptual foundations laid above. It is intended that they demonstrate the application of a way of analysing the relationships between large infrastructure steering and national spatial thinking.

Table 1 here.

4.1 France

The pathways of neoliberalisation have taken snaking and heavily contested routes through the France of the last 30 years. More significant residues of strong state steering remain than in most other European states, as much in ways of thinking as in material forces. The polity is marked by two powerful elements which are in some degree autonomous from neoliberalising: the decentralisation of state powers to regions and localities, and the continued sympathy for democratic forms in various shapes, taking elections, street actions, public debating more seriously than in most countries. To understand the ways major infrastructure policy making has evolved, it is necessary to have some grasp of all these elements, and how they impact on ideas of the country. First the neoliberalising paths, state form changes and the national imaginaries are examined, before relating the dominant infrastructure policy zones to these.

4.1.1 *French neoliberalisation and infrastructure*

The varieties of capitalism theorists put France in the coordinated market economies camp, but this was always somewhat uncomfortable, given the clear differences from the strong liberal strands always present in Germany and the Netherlands, or from the less nationally self contained Nordic states. Even varieties of capitalism theorists like Schmidt (2002) were almost obliged to give France a separate category for itself. So here a combination of looking carefully at the state on its own, and seeing the complexities of variegation effects and “external” impulses, is essential. Nevertheless the main track can be described as strongly neoliberal, giving more power to private corporations and to stock markets and financialisation. By the early 2000s France had a range of large internationally powerful corporations, even if some remained (and remain still) with significant state shares (EDF, GDF Suez), whilst others in transport, energy, waste and water, as well as the main branches of industry and finance, were largely privately owned. A few important elements of public control remained, including the management of ports and airports, by now split between central state and local/regional state agents, the ownership of rail infrastructure, the concession systems for managing water and waste water and motorways: all these have given to the state some levers that it no longer had in the more heavily neoliberalised cases like the UK (certainly England within the UK).

Membership of the EU was important in France’s divestment of public control over much of its economy during the 1980s and 1990s, as were the associated ideological currents flowing round the world. France was equally at the centre of resistance to aspects of neoliberalism, providing much of the energy in the anti-globalisation movement which burst into action for a few years around 2000, feeding back on French “domestic” policy as well as influencing international and transnational change. There is a strong case that France has been enormously impacted by EU membership (Smith 2006), with the gradual erosion of the importance of borders affecting territorial shaping, and a complex dance of appearing to be pushed by EU directives to liberalise, whilst really being content or at least resigned to go

along with these liberalising impulses – which especially affected France’s powerful infrastructure corporations.

All this has had a complex layered temporal character. Much of the force of state power and policy directions from the period of high state intervention remains as a substrate or deep current which can continue to push in particular policy directions. Such deep currents may in fact be present in most countries, but they may at times be more visible in France, given the continuing discourse of national coherence which is still key to politics at the national level. So the commentary of Brenner et al (2010) on layering of neoliberalising processes fits the French case very well. What they give less attention to is the importance of changes in politics, to an extent independently of more political economic processes. In France this has been marked above all by the decentralisation waves of the 1980s and the 2000s, in which elected levels of government at regional, departmental and local level all received boosts in powers, legitimacy and funding, often at the expense of the central state (Le Gales 2006, 2008). This has pluralised the polity, such that “thinking like a state” has become a different thing from in the Gaullist heyday. This then begins to link to the issues of the spatiality of the state and how France understands its futures.

4.1.2 *National spatial understandings*

The “default position” of thinking about France has historically been of the country as a unity, which should be steered in a unified manner by the French state. This centred imaginary retains some force, despite the twin battering of neoliberalisation which splinters power centres and regionalisation which empowers the centrifugal forces potentially present in any larger polity. But gradually the imaginary too has been pluralised, meaning that the two sided arguments of the post war decades, around Paris and not-Paris, have become more complex, even if the capital region issue can never really go away in such a single-centred state. The EU effect has gradually played into this as well, with the DATAR theorists in the 1990s giving great emphasis to seeing France within a continental spatial framework, and leading work on the European Spatial Development Perspective, with its stress on cross border porosity and polynuclear development forms. There have been resurgences of nationally focussed thinking, so that the one territory model remains live: in the 1990s years of work round national schemas maintained thinking in that area, as has the work on the Grenelle, an environmentally oriented exercise since 2007 which has finally led to a national transport schema, though still in draft form, and to a reinforcement of national policy making on energy.

There is thus a range of “spatial practices” (to use Jensen and Richardson’s 2004 term) which still carry ideas of France as a whole – some more of these will be mentioned below in summarising on infrastructure sectors. However, more diverse ideas of the country have been reinforced, so politicians may well think at regional and local levels, and such thinking may be given effect, given available budgets and the deals that can be done with private corporations or with state agencies no longer really fully controlled by central government, like SNCF and RFF (dealing with most train services and with rail infrastructure respectively). So there are many spatial practices which can compete within any national schemas and so can dilute the force of singularised national imaginaries. An emphasis remains on the national in France, in comparison with most other European cases (the Netherlands and in different ways Scotland being exceptions, as we will see). That is to say, there remains a powerful national spatial imaginary of the “hexagon” of mainland France, despite the geographical splintering of liberalising, EU and regionalising effects^{vi}. But how much force this has to carry strong national policy remains unclear – the evidence of policy

attempts of the last two decades is that much more fragmented and sectoralised approaches now suit the French polity best. Those attempts (the Pasqua and Voynet laws of the mid 1990s, and the Grenelle initiative of 2007-2012) have probably had overall limited impact in determining infrastructure spatial forms, as against the more negotiated, contractualised and geographically punctuated processes of diagonal power politics.

France never had a national spatial plan in the sense that the Netherlands has had. In the 1960s and 1970s the spatial dimension was contained within the national economic planning, whilst the work of DATAR in steering investment and urbanisation gave this geographical coherence, at that stage primarily to the benefit of large provincial centres, growth poles to rebalance France against Parisian dominance. Investment in energy and transport was linked to this overall planning, although the specific and famous initiatives of that period, the nuclear programme and the high speed rail investment, were to some degree free standing, given their importance politically. Water planning was, and still is, managed by public agencies covering river basins, in a relatively technocratic process, though one naturally consensualised with all levels of government.

4.1.3 State sectoral planning of infrastructure

Since the 1980s planning (“planification”, which does not have a necessarily spatial element, though for infrastructure it almost always does) has been more of a sectoral exercise, with the big agencies or corporations setting their directions for investment under state guidance, but without any explicit comprehensive strategies – this is the work of EDF (and now its grid partner RTE), GDF (now GDF-Suez), Total, SNCF (and since 1997 RFF for rail infrastructure). There is normally however also a state sectoral planning process. For roads and rail this is revised periodically, with the most recent and more ambitious version, the Schema National des Infrastructures de Transport (SNIT) coming out of the Grenelle and so with a strongly green emphasis, but taking very long to prepare and still at the time of writing not approved by the Assembly and so the final guidance of the state (see Figure 2 for a 2011 draft version). The SNIT is different from earlier transport documents in bringing into one planning exercise consideration of all terrestrial modes, and ports, and, in principle, airports, although in the last case the integration appears to be limited. Equally a strong drive has been present in the SNIT to prioritise and quantify for the long term infrastructure maintenance and improvement, as against new build.

Figure 2 about here

For energy, there is also a regular state planning exercise, separately for gas and electricity, which lays out the state’s preference for investments over coming years, which must then, in principle, be followed by all investors. Thus for example this incorporated in the last two rounds the programme for off shore wind, with zones identified from the top and licensing rounds set in motion. Similar leadership from the top has been shown in the nuclear programme, always a politically protected zone, where the president decides – in the case of Sarkozy, for the development of at least two new stations, though work only began on one during his presidency.

4.1.4 France, neoliberalisation and state coherence

How then should the situations shown in these very brief sketches be understood in relation to the frameworks adopted here? The decay of more comprehensive national steering, of infrastructure as of other sectors, is clearly due to the change of state model marked by the advancing neoliberalisation of France, beginning even in the 1970s under the liberal turn of

the Giscard d'Estaing presidency. But the decay has been given its present shape by the completely French born and bred decentralisation dynamic, even if we can always see elements of coherence between the changes in state forms and political economy. The minimum coherence required is that packages of changes do not go directly against each other: the coherence required of internally related key societal pathways. At least we can say that French decentralisation did not go against the grain of the forms that French neoliberalising took, even if it must be seen as a separated phenomenon. We can observe for example how in the second round of decentralisation reforms under the Raffarin prime ministership of the early 2000s, the regions were convenient agencies to take over roles in the management of ports and airports, as the departments were for managing non-motorway roads. This was a sort of French style compromise, not privatising but certainly cutting down public steering power, given the lesser resources of regions and departments.

Coherence is also a good watch word in the functioning of the national spatial imaginary (or imaginaries). The recent pattern is of maintaining sectoral steering but within a looser implementation framework, given the more negotiated relationships between state and corporations, even when it in principle owns them. This pattern still fits a wish to maintain some state control over the changing geography of the country. This is in part for standard political and electoral reasons, given the sensitivity of the French polity to diagonal links between mayors, regional presidents, ministers and so on. DATAR still exists, if in attenuated form, rather emphasising economic development and making localities fit to compete: it is thought worthwhile keeping, as an antenna of the central state in its geographical management role. The Grenelle was, like the proposed national strategies of the 1990s and the Schemas de Services Collectives of the Jospin government, an instrument to give coherence, this time for a France with a greener shape. It is true that the Grenelle's results have been variable, probably reflecting in part the ideological reluctance of a conservative government to indulge in state steering of a really ambitious kind (Boy et al 2012). However, this bundle of features reflects a country with still some sort of evolving spatial idea of what the country should be, even if this is a great deal more fuzzy and less explicitly debated and worked on than 30 or 40 years ago. The urge in this imaginary is still for balance between different parts of the country, even if with possibly contradictory green and economic competition principles within this. The view from Marseille or Bordeaux may still be different from that from Paris, but it is to be doubted if the divergence is as great as that from say Munich or Barcelona or Edinburgh with their capitals, to take other larger European cases. The unitary French state still gives many opportunities to argue and negotiate out ideas of the country, within the much looser formulas of the half (or three quarters) neoliberalised country that France has become.

4.2 Spain

Spain has some similarities to France, inevitably so given the advance of neoliberalisation since Spain joined the EU and the post Franco decisive and continuing shift to a semi-federal state form. But the differences are also marked. As in the French case, it is important to see dimensions other than the predominantly political economic ones to which neoliberalising process theories mainly refer. These are again above all the changing polity, but there are features of physical geography and history which are important, all of which are tied up with competing ideas of the country. Since 2008 the economic crisis is placing many aspects of the state under extreme pressure. Cutbacks in the infrastructure field accompany those of other kinds across the crisis hit state. The discussion here largely avoids entering this boiling cauldron, which may, or may not, change everything.

4.2.1 *Spanish neoliberalisation and state infrastructure policies*

Spain has taken a path similar to France in liberalising and privatising some of its infrastructure industries. Public control remains significant, so alongside the largely private gas, oil and electricity corporations, which as in France and Germany have become major international players, there is an effectively public national grid company, a public rail company, and state managed hydrological agencies which oversee the investments of the range of companies, public and private, active in the water and waste water industries. Ports and airports remain mainly public, although the ports have been largely handed over to regional governments, and the key airports of Madrid and Barcelona are due to be privatised, if satisfactory buyers can be found. So there is a mixed political economy, as in France split now between the parts of the composite and pluralised state. As everywhere, there is EU pressure to further liberalise, but it remains to be seen how this will impact on the current structure, most significantly in rail. The layering effect of such a gradually changing mixed economy is very much present, with complexities introduced, as everywhere, by the real relations between different parts of the infrastructure industries and the rest of the economy – complex cross holdings are the norm, with the evolving economic crisis since 2008 seeing a shifting landscape of collapse, take over, bail outs and stress.

The composite Spanish state has been on a continual knife edge of balancing and conflictual relations between central government and the seventeen regional governments. Infrastructure decisions have long formed an important ingredient in this political process, with goods and bads and benefits and costs traded across the rather indeterminate constitutional landscape. In principle, infrastructure spanning more than one autonomous community (region) is the responsibility of the all-Spain government. Plans are indeed made for gas and electricity links across Spain, to reasonably uncontroversial effect. Rail and road plans have been made every few years as well by the Madrid government, based on the principle since the 1990s of “coffee for everyone” – every region and province to gain accessibility (Figure 3 shows the rail proposals in the 2005 road and rail plan, the PEIT). Central government decides airport investment by the state agency AENA. It also oversees port investment, though in reality that is mostly self financing and therefore rests more now with regional and private actors. Water investment is the terrain of the massively controversial national water planning process, ongoing since the 1980s, with conflict marking drafts, revisions and then sporadic investment, rather than the massive water transfers envisaged earlier. Within-region water planning is now devolved to regions in most cases. So in all these sectors there is a balance marked by still significant state central capabilities, but deeply affected by the power of regional governments and to some extent of private corporations. Between them the neoliberalising political economy and the centrifugal force of the changing polity set the frame for all infrastructure planning and investing. The EU has been a central feature of the political economic change over thirty years, with the pressure of liberalisation normally gratefully accepted by governments seeing this as the path of modernity (like being in the EU), and the very large EU funding of infrastructure also critical across all these sectors: the level of investment achieved would have been unimaginable without EU funding.

Figure 3 here.

4.2.2 *Spatial imaginaries in Spain*

When we come to look at ideas of territory over this period, we see an enormously contested situation, much more so than elsewhere in western Europe, with conflict over the location and nature of territorial policy being at the heart of Spanish politics. Over much of the period

there has still been some enduring idea of the peninsular's geography and the different ways this may be shaped over long periods. This has enabled the degree of sectoral planning mentioned above, but with clear stop signs when governments have tried to go beyond this. This was most evident in the national water plan fights, and in the period when the minister Borrell appeared to some to be trying to make an all-Spain national spatial strategy, the Plan Director de Infraestructuras of 1993, something seen as inconsistent with a Spain constitutionally divided into government areas with wide competences. And the all-Spain view has certainly had increasingly strong inflections, such that now the view from Barcelona (above all) is different from that from Madrid and other more central parts of the country. The all-Spain national imaginary is weaker, assailed by competing views from the "edges" of the peninsular.

A Catalan academic, Germa Bel, has recently expressed this perspective, tracing the different viewpoints back to the formation of the Spanish state, and above all to the making of the centralised model under the Bourbon kings in the eighteenth century (Bel 2012). The placing of Madrid as capital in the centre of the peninsular in 1561 generated a governing urge to connect the country by a radial pattern of roads and later railways. This tendency has continued into recent history, he argues, with the radial geography being emphasised in the rounds of motorway construction and now high speed rail routes, as well as an overprioritising of Madrid as the single hub airport. This analysis valuably connects the nature of a national imaginary with the deep history (Braudel's *longue duree*) which gives it material and intellectual force – in this case going back several centuries. We can see this clashing against the sensibilities, equally historically based, of the non-central Spanish regions and nations, who stress the importance of patterns which are not radial, but based on actual flows of traffic and people, which would suggest a more grid like transport system. Bel's analysis is quite convincing. It would hardly surprise French or British readers familiar with the radially of their capital centred geographies. At times he may overstress the rejection of non-radial investment elements. Plans going back to Franco period times do all show the importance of the Mediterranean corridor and the Ebro corridor (neither radial), although Bel argues that in practice radial routes often trumped these when investment was decided, with the logic of connecting all important cities to the capital – rather than say Barcelona to Bilbao or Seville to Valencia. At any rate, the book has generated argument within Spain and shows the strongly contrasting views of the country. Such contrasts are less important in the field of energy, where national planning, much of it suggesting non-radial investments for gas and electricity transport, does not generate the same competing views.

4.2.3 Spain – history, polity and infrastructure struggles

Such a national picture is not easy to hold in the mind, for several reasons. Many forces are acting at any one time, and with different layering effects. The final effect of say completely privatising the rail system in Spain (to take a possible development, given the EU's preferred models) would take many years to work out, and the impact would depend on the nature of policy on competing modes over that long period, the availability of fuels, the evolution of purchasing power in the key end points of rail journeys, the distribution of political power and tax power in the affected territories of Spain, and so on. So a political economic change connects with evolving polity, inherited geographies of urbanisation and industrial activity (many early railways were primarily freight routes – very relevant given the EU TENs plans to be analysed below). Equally, a particular set of balances and tensions has been seen to be present in the actual evolution of the last thirty years in Spain. In this case it may be that the dominant forces have been political, above all the aspiration for "fair shares" for all parts of the country, and the chance that EU funding gave to deliver this investment in the transport

and water / waste water fields. But this sat within a particular political economic balance, which allowed certain things to be delivered by the composite state in its various forms or by actors it could influence (such as gas and electricity corporations). It is unlikely that, were one of these three elements (the territorial ethic, EU funds, and the political economic opportunity structure) not to have been present, the same infrastructure dynamic, seeing large amounts of new infrastructure construction, would have occurred.

The period since 2008 may represent a new era, driven as much by the stresses created by the economic crisis as by the decaying of much of a shared all-Spain imaginary, with the apparent escalation of different ideas in different parts of the peninsular. Neoliberalisation and state form changes may take different colours, sweeping infrastructure industries and macro-spatial planning approaches with them – most obviously if the Spanish state breaks up. Time alone will show if rupture or continuity win out.

4.3 Netherlands

The Netherlands is famous, at least amongst planners, for its commitment to comprehensive and long term planning of its territory. This is an activity of national government, as well as of provincial and local levels. National level spatial planning has endured in different forms for 70 years. The National Spatial Strategy of 2005 was superseded in 2012 by the National Policy Strategy for Infrastructure and Spatial Planning (SVIR). This is the first national strategy to be prepared by the Infrastructure and Environment ministry, the result of a merger in 2010 of the Transport and Water ministry (VenW), and large parts of the Housing, Spatial Planning and Environment (VROM) ministry. These namings already indicate that the Dutch system gives importance now to infrastructure and has inserted this into its tradition of national physical planning – although the loss of the name Planning in the ministry title is indicative of a certain downgrading of planning's status, which might mean infrastructure "consumes" planning, rather than vice versa. We will see how the national planning tradition has been gradually shifting under the impacts of neoliberalisation and changes in the polity, although the latter have not been anything like as radical as in our other cases. The shifts in the tradition carry with them and implicate changes in how infrastructure is managed nationally. But, however extensive one judges the changes to have been, the reality remains of a uniquely coherent and considered approach to long term infrastructure thinking and strategising (Faludi and van der Valk 1994, Needham 2007).

4.3.1 *Dutch neoliberalisation and infrastructure planning*

The political economic changes have been gradual, moving to formally private forms in many infrastructure fields, including airports, rail, water, electricity and gas, but with in most cases considerable or full public shares or influence over the resulting companies. When genuine and full privatisation has occurred, as in the letting of Rotterdam's waste incineration contracts to a multinational private equity firm, this has caused major concerns. This was one motive behind the setting up of an inquiry in 2006-2008 by the national research agency into how public values were to be maintained in the face of such changes (Arts et al 2008, WRR 2008). This is a rare case of a country which has systematically considered the effects of liberalisation and privatisation on investment, and how this may or may not be consistent with maintaining the public service values held to be important. It is true that the reports had apparently limited impact on the recent liberal and conservative led governments, but they may have helped to retain the cautious and hedged around approach to the privatisation of infrastructure industries which has marked the Dutch approach since the 1980s. This is in spite of a generally strong commitment to principles of competition and a broadly liberal

approach to economic matters since the 1980s: this is however balanced by a view that other principles, of long term environmental and social sustainability, are also important.

In the Dutch case, the link of neoliberalisation to debates on changes in the form of the state has been clearer. The Netherlands is not a country with any basic worries about its status as a unitary state, but there have been ongoing discussions about the extent that national government should steer major sectors of public policy, as against the role of provincial and local governments, in existing or possibly in transformed metropolitan shapes. The latest step in these arguments was the decentralising colour of the liberal-conservative government of 2010-2012, which sought to give more power to the traditional subnational governmental levels. The post-2012 government may make adjustments in this respect, but the coalition agreement does not point to a return to a strong national physical planning approach.

This “local is beautiful” view fits a neoliberal approach to governing, alongside a commitment to private sector roles in many services, and so whilst the argument is not that changes to the polity are totally dependent in this case on the wider political economic ideological shifts, the link is much stronger than in France or Spain.

This policy is enshrined in the latest national strategy (Ministry of Infrastructure and the Environment 2011^{vii}), in which thirteen issues are listed as the ones on which national government should concentrate:

1. Outstanding business climate in urban regions.
2. Energy network and transition.
3. Pipeline network.
4. Use of subsurface.
5. Robust rail, road and waterway network.
6. Better use of existing network capacity.
7. Maintenance of existing transport networks.
8. Improving environmental quality.
9. Adaptation to climate change.
10. Preservation of unique cultural heritage.
11. Network for wildlife habitats.
12. Military sites.
13. Careful and transparent planning decisions.

These encapsulate all major infrastructure issues, as well as those of security, including dealing with climate change. Now definitely excluded are the determination of settlement change, urbanisation and housing and economic development policies, which are set to be the prerogative of provincial or local levels. In reality the Dutch government had been retreating from strong positions in these areas since the late 1990s, and so the latest strategy, if approved in its current form, will essentially codify this retreat. Figure 4 is a map from the finally approved version of the national strategy, showing logistics links internationally, including TENs corridors and the main ports of Schiphol and Rotterdam.

But the central role retained in infrastructure is clear enough. The latest Planning Act (which came into force in 2008) changed the traditional way of dealing with these major issues. Since the 1960s there has been a system of National Key Planning Decisions, which has been used to plan for the future development of key sectors – transport, water, electricity transmission, pipelines, as well as individual major projects, such as those for Schiphol airport and Rotterdam port, and for the new rail lines for the high speed route and the freight Betuwe line. These have been both sectoral planning and spatial planning exercises, in which

the planning ministry VROM was able to secure the coherence of such sectoral work with its overall spatial planning goals. A system of collaborative working within government, up to the Cabinet level, ensured that this did in principle happen, although normal issues of ministerial power and government policy priorities naturally intervened. Since 2008 the system is for a similar process of preparing structural visions. With the merging of ministries, the planning role may be weaker, but clearly the possibilities of integrated approaches within one ministry are also considerable. The Dutch system remains marked by a wish to integrate policy in these areas, and the presence of these high level institutional mechanisms continues to give a chance for this to happen. The fact that considerable control remains in public or semi public hands in the main transport sectors (with for example public consortia controlling the companies running Rotterdam port and Schiphol airport) and in much of the water and energy systems, means that the levers are also there to turn long term policy directions into effect – although this evidently depends on financing and the political and ideological priorities of governments.

Figure 4 about here.

4.3.2 Dutch imaginaries and larger scale state spatial policy

All this is tied up with the ideas of the country held by and debated within the Dutch public sphere. The presence of the complex institutional machinery described above means that public discussion has been needed for many decades to decide on what territorial goals are paramount. This is famously related to the position of the Netherlands as a territory needing continuous defence from the sea, and with an enormously complex balancing of water, land and air ecosystem processes. This has always pressed for a holistic and very consciously spatial approach to managing public affairs, with “the public” susceptible to a very broad conception. This is generally seen as the basis of the national physical planning tradition, alongside the consensualised political system (Andeweg and Irwin 2005, Lijphart 1999). This means that there is a much more settled and “talked out” national spatial imaginary than in other countries, and this is both the basis for national spatial strategies, and the envelope within which these strategies can intersect with wider societal and ideological debates. The longstanding discussions of spatial concepts like the Randstad and the Green Heart, or the invention of ideas like Mainports (Rotterdam and Schiphol – Netherlands as a transit country), all these are tributaries of a wish to pin down existing and potential future spatial realities. One has only to compare the rather stuttering attempts to do the same thing across Europe to see the difference of a mature and evolving public sphere in the Netherlands: less successful examples might include the Growth Areas of the English Sustainable Communities Plan of 2003, the Grand Paris debates of the 2000s, the Flemish Diamond idea of the 1990s, the Madrid transport grid of the 1990s. This imaging can happen at any level – Neuman (1996) discusses the metropolitan scale. But the national level spatial imaginary is surely one ingredient which would be essential for the effective thinking about long term infrastructure futures and their relation to other key elements of spatial change – urbanisation, the location of key economic activities, ecosystem functioning.

This is not to say that the Dutch equipment of ideas and institutions has resulted in the coordination of planning and infrastructure development in a truly effective way. Dutch commentators have been extremely critical of the functioning of their big spatial planning processes since the 1990s, seeing the planning of for example the new rail routes, especially the Betuwe line, as poor, and the stuttering and perhaps dishonest expanding of Schiphol as another case of how not to make good strategic decisions (Huijs 2011, Huijs and Annema 2009, Priemus 2008, Priemus et al 2008, Zonnefeld 2005). An outsider may take a less

critical view, on these and other cases. It is clear that water or transport or energy planning, in varying degrees, is undertaken consciously in relation to wider spatial goals, and with some long term idea of the country in the minds of the strategisers and political deciders. For the purposes of this paper, that is no small achievement, and so inevitably becomes some sort of benchmark against which other countries are judged.

4.3.3 *The Netherlands – neoliberalising away previous national spatial coherence?*

What then of the play of neoliberalising processes in the Netherlands? Above all, this has been a primary factor in weakening comprehensive national spatial planning, as well as many of the levers on which that depended for its point – public funding of housing, a wider conception of the public interest, confidence in the implementation of major projects. In relation to the last, the struggle to deal with the Betuwe freight line project may be seen as more about the tortuous modes chosen for implementation than basic planning questions, though those certainly existed. These modes involved a complex set of public private partnership vehicles, combined with strong EU requirements due to the liberalisation of rail systems and therefore the need for common operational and safety standards (this being the first big project taking on this agenda). When achieving a goal in an infrastructure project has to operate with hands tied behind the back of governing agencies in this way, it is not surprising that the whole governing enterprise can lose its orientation. If the Dutch state were to try to resolve a really serious challenge now (as it did many times in the years since the 1940s), it is not so clear that it could do so, for example achieving the goal of transition to a low carbon society.

Against these effects, it is still the case that the neoliberalising processes have only gone so far, leaving some scope both to maintain planning competence, including at the national level, and to implement. The fact that the Dutch national planning tradition has retained an important slot for infrastructure matters is a good example of how neoliberalisation often adapts and skews national peculiarities, rather than starting from some position more tightly linked to strong marketising ideology. As it is, Dutch observers were not very happy with what they saw as the “infrastructural turn” in Dutch planning, whereby the weakening of more social interventions and the greater role of the economy ministries in planning, meant that infrastructure became perhaps the main concern of strategic planning by the turn of the century (WRR 1999). But such a turn seems to be reinforced by developments since then, including the latest national strategy. This may chime with the analysis of Brenner (2004), where he sees one key output of his “Rescaled Competition State Regime” as the promotion of “premium infrastructure” as a key instrument in local and regional competition strategies. In his work, this was largely focussed on the metropolitan level, but the point evidently applies nationally as well (or continentally, as the EU argues). We will see how this also fits with ways of analysing approaches to infrastructure in our next case, the UK and its variants.

4.4 The UK

The UK is especially interesting, for several reasons. It is the west European state that made neoliberalism into its key state project earliest and to the greatest effect. This is especially so in infrastructure industries, whereby most of these were privatised by the mid 1990s – roads remain an exception, as in many otherwise determined marketising regimes. There is therefore a longer history of operation under a private, but heavily publicly regulated, regime. Another feature is the effect this, and other factors, have had on planning. Any chance that planning might take a strong nationally steered form disappeared after 1979, and although regional planning made a serious comeback between 1990 and 2010, this had only limited

strength for major infrastructure, given government resistance to any sort of national spatial framework. Such resistance is surely in part due to the strength of neoliberalising ideology and practice over the last three decades. A third interesting feature has been the divergence of practices in relation to infrastructure and planning between the four parts of the UK since 2000. This is examined below by looking at the regimes for England and Scotland. The omission of Northern Ireland and Wales is not because their cases would not be of considerable interest. Northern Ireland was quick to prepare a spatial strategy for the province, which is being reviewed (Department for Regional Development Northern Ireland 2001, 2011). The Welsh Assembly Government has been very active in preparing strategies, including the Wales Spatial Plan of 2004, also updated (Welsh Assembly Government 2008). However it has been decided to limit the main consideration to the case which has put most energy into national spatial planning, Scotland, alongside the UK government as a whole. As before, first the political economic dynamic is briefly sketched in, before analysing the relation this has to national sectoral planning or ways of implicit planning, and to ideas of the countries that the UK, England and Scotland are becoming.

4.4.1 UK neoliberalisation and infrastructure policies

The dynamic of liberalisation and privatisation of infrastructure has been uneven and variable across time and sector, as well as across parts of the UK. In Scotland water and waste water is still managed as a public sector operation, and in Wales the basic framework for the same industry is a non profit company. Rail was fully privatised only in 1996, but the infrastructure came back into semi-public ownership in 2004, following the collapse of Railtrack. Regulation has taken over various public interest roles across most industries (again roads being still an exception), and regulatory machinery therefore interacts in complex ways with the spatial planning system's treatment of infrastructure. For example, for a large water scheme, planning approval would be needed, under a new centralised system legislated for in 2008 and 2011, but more demanding would be for the relevant water company to satisfy the economic regulator OFWAT and the Environment Agency that a new reservoir was needed as part of the pricing and investment regime which those agencies oversee. Another example is the airports regime, whereby for example the decisions on the expansion of London's airports certainly come under the planning system, but the value of any investment to any airport operator is critically affected by the economic regulator, the Civil Aviation Authority, as well as by the decisions of the Competition Commission. This last body intervened to dramatic effect after 2008, to force BAA to sell two of its three London airports. In the long run this will probably affect infrastructure decisions as much as or more than the policy and practice of economic or spatial regulation.

In other ways UK infrastructure industries are different from those seen in other cases. Most are now owned by non-British companies, and in some cases these are private equity companies with no general interest in the business concerned, but only on the extraction of financial gain, often in the relatively short term. In energy and water sectors ownership by French, German or Spanish companies is almost the norm, whilst in transport the picture is more mixed, with UK companies also important in rail and bus. The effects of such changes are not the main focus of interest here, but they may be expected to affect investment behaviour, one of the key concerns of countries now interested as much in long term security and responding to the low carbon agenda, as forcing down prices or generating operating efficiency. This concern is quite evident in the National Infrastructure Plan approach, which has surfaced to be a main element of government policy in the last three years or so.

The National Infrastructure Plan (NIP) is not a plan in the normal urban planning sense of the word. It is an approach to dealing with infrastructure policy which fits the UK model of private but regulated infrastructure industries. It responds to the challenges of persuading infrastructure providers to invest in new or updated systems, in, as its authors see it, a radically open and competitive market for global finance. It stems from a decision under the pre 2010 Labour government to set up Infrastructure UK, which would bring together previous bodies in the Treasury concerned with private finance initiatives, but link this to wider aspects of infrastructure policy. As such, it was an imitation of similar bodies set up in Canada, Australia and Ireland since 2002, also in highly liberalised contexts where concern at falling investment since privatisations and the need for better government coordination were emerging as issues. The idea of a National Infrastructure Plan was continued by the post 2010 government, and the second and more developed version of the Plan was published in October 2011, with a progress report a year later (HM Treasury 2010, 2011, 2012).

The Plan identifies a number of projects, mostly for road widening, which will benefit from government funding over the next few years. These do not respond to any strategy, but simply assemble lists supplied by the four key infrastructure ministries (Transport, Energy, Environment and Business). More significant are the parts of the Plan which discuss a range of initiatives to tackle regulatory regimes, including further efforts to ensure that projects are not delayed or rejected by the planning system. The Plan is therefore an attempt to design a new policy approach, seeing infrastructure as both an element of the competitive equipment of a country and part of a bidding war for finance. UK governments have been desperate for find funders for a new nuclear power programme (the dominant reason for the reformed planning consent regime under the Planning Act 2008) as well as for other important elements such as new roads, waste incineration or airports. They consider that investors respond to a package of factors, including the ease of regulatory systems (including spatial planning), and the tax and subsidy systems (which can be designed to reduce the risk involved in large infrastructure schemes).

4.4.2 Changes in state form and approaches to planning for infrastructure in the UK

There are two important areas of change in the way the state has configured itself in the UK in the last 20 years or so, both of which impact on spatial policy and planning, in particular in relation to infrastructure. Most evident has been the devolution settlement of 1998-1999, giving Northern Ireland, Scotland and Wales various forms of self rule. Brief treatment of the results in the area of macro planning and infrastructure is given here for Scotland. Second has been the variation in the treatment of England, in relation to national and sub-national spatial policy. The attempt to establish regional planning as a settled part of English governing was stopped in 2010, after twenty years of gradually advancing practice, essentially because of the difficulty in finding an accepted political settlement (Swain et al 2012). The regionalisation drive incorporated significant work on some aspects of major infrastructure, particularly for water supply issues, and in some regions in relation to renewable energy provision. However most of the major transport and energy decisions remained within the hold of the UK government, as far as England was concerned, or in various shared forms, for the parts of the UK governed by devolved administrations after 1999. It is important to understand this divergence of paths since that date, and this explains the separate treatment given to Scotland here. This is by no means equivalent to differences of treatment in countries like Spain or Germany which have systematic, constitutionally allocated powers to central and sub-central jurisdictions. To understand the role of macro-spatial planning in relation to infrastructure, there follows an examination of the overall UK approach, and a separate discussion of evolution of Scottish practice.

The normal UK government approach for many years has been to prepare sectoral strategies or plans for each sector (roads, rail, airports, energy, water and so on). In the pre-privatisation era, before the 1990s, these had strong steering and spatial components. Since then there have been complex arrangements to try to ensure coherence within each infrastructure sector, but these have normally been much less directive than in the continental European cases, except where effective state control has been maintained, as in road and rail infrastructures. No attempt to summarise these sectoral steering processes is made here (see Marshall 2012 for more detail). There were criticisms that the use of occasional White Papers did not give the clarity and certainty needed in a largely privatised system, and the sphere of major infrastructure planning was therefore hived off from the normal town and country planning system under the Planning Act 2008 (amended in 2011 and 2013, under a change of government). This new regime created a two step process for a nationally controlled system. Firstly, departments draw up National Policy Statements (NPSs) for each sector (now mainly just for energy, and ports and national transport networks), which established the need to invest over coming years. These are approved by Parliament. Planning consents are then given under a special speeded up procedure run by a National Infrastructure Directorate in the Planning Inspectorate, an agency of central government (for a short while an Infrastructure Planning Commission existed, with commissioners deciding independently of government ministers, but this was removed in 2011, and final decision powers returned to ministers). After a public inquiry and decision process, which in its main examination stage should not take longer than six months, plus three months government consideration, the appropriate government minister can then issue most relevant consents in one package.

Therefore, for the jurisdictions where this new regime applies (in England for all projects over certain threshold levels, in Wales in some sectors), this new approach represents a degree of change to the established pre-2008 approach. However the NPSs are in the main not spatial documents (the exception being that for nuclear power, which designated all the eight sites where future power stations might be located). The UK approach therefore continues to avoid any spatialised approach to the infrastructure field, except that which continues to go on within the relevant companies and bodies which plan for their own particular fields (examples are the grid transmission companies which work, with government input, in the Electricity Networks Strategy Group, as shown in publications in 2009 and 2012, or the water companies which prepare long term plans for investment, under the oversight of the Environment Agency).

Both the elements described above, the reformed planning process and the NIP, surely represent responses to a relatively advanced stage of neoliberalising processes. They reflect the urgency seen by both large corporations (now very influential actors in the UK polity) and governments, to remove the uncertainty and risk with which much infrastructure investment has been afflicted since the forming of the new private but regulated regimes. It is interesting to contrast these with the reforms undertaken in Scotland during the same period. As noted, privatisation is a little less complete there, but the same challenges may be seen to be present. But the response of the Scottish government, given extensive but not complete powers on planning and infrastructure under the devolution settlement of 1999, was to create a National Planning Framework (NPF), first approved in 2004, and revised in 2009 (Scottish Executive 2004, Scottish Government 2009). NPF2 not only gave extensive, some might say exaggerated, attention to energy and transport issues, but also selected fourteen nationally designated projects which, after government approval, were held to be established as required in principle, subject to normal planning approval processes. We see therefore a quite different response to the challenges of deciding key projects, much more similar to the

Dutch approach in some ways, although naturally lacking the years of experience and debate which Dutch national level planning can look back on. Scotland has also produced Infrastructure Investment Plans, which summarise all capital investment by the Scottish government (Scottish Government 2008, 2011). These are less ambitious than the NIP, given that there is lesser control over regulatory and financial levers, compared with the UK government. But they also point to a search for a more integrated public sector approach than is normal within the UK government.

The key difference in Scotland from the UK government approach (which applies in fact only fully to England, partially in Wales) is the urge for a comprehensive spatial planning framework, not a series of sectoral schemes, whether in NPS or White Paper form. Whether or not the fourteen key projects really flow that logically from the NPF, the attempt is there, as in the Netherlands, to see the future of the country in the round. In the case of Scotland, this entails a fairly traditional approach, with the exception of the ambitious drive for basing a new economy partially on renewable energies (as well as continuing with old style gas and coal extraction). This has become a key part of the governing strategy of the Scottish Nationalist Party led governments since 2007, with energy and territory as core mobilising concepts in imagining independence for Scotland.

4.4.3 Arguing for macro-spatial planning – explaining policy directions not taken

There were in fact significant attempts to persuade the UK government that they should move to prepare comprehensive national spatial frameworks, whether for the UK as a whole, or just for England. These attempts ran parallel to the regionalism era, and although both English regionalism and national framework approaches are now absent and perhaps unlikely to be promoted again in the near future, the arguments around national spatial frameworks provide an interesting contrast to the actual ways of managing this field as described above in the a-spatial NIPs and NPSs. A flavour of this “working against the grain” is given here, particularly some discussion of why the attempts have been, so far, completely unsuccessful.

Pressure for some sort of spatial planning at national level built up from the early 1990s, and has been championed by professional and pressure groups, most consistently the Royal Town Planning Institute (RTPI) and Town and Country Planning Association (TCPA), since 1998 (Alden 1999, Ecotec and Faber Maunsell 2004, Heatherington 2006, National Planning Forum 2007, Shaw 1998, RTPI 2000, RTPI 2006, Wong et al 2000, Wong 2002, Wong et al 2006). Other efforts from the professional world included the persistent calls by the Institution of Civil Engineers (ICE) in its State of the Nation reports for a national spatial strategy or national infrastructure strategy (most recently, ICE 2012). Government agencies also joined in such as the Council for Science and Technology, a prime ministerial advisory group (CST 2009), the Sustainable Development Commission (SDC 2011) and the Committee for Energy and Climate Change (2011).

After 2010 the collapse of the regionalist project left a return to the national integrating approach the only way remaining for the enthusiasts of such bigger scale planning. The TCPA published a transport oriented report (Heatherington and Hall 2010), and followed this by studies on *England 2050?* and *The Lie of the Land!* (TCPA 2011, 2012). The RTPI for its part commissioned work on a Map for England from the same Manchester University academics involved in earlier exercises, with some results published in 2012 (Wong et al 2012). All of these began to advance more sophisticated ideas of UK and English geography, trying to open up the spatial imaginaries of planners and policy makers in a way that had not been attempted for many years. Figures 5 and 6 show the business as usual (unwanted) 2050

scenario, and an idea of functional spatial clusters in a multi-speed England. However, up to now the effort has not had any success.

Figures 5 and 6 about here.

Why was government resistant to any more integrated approach? Why were the sectoral White Papers (for aviation, rail and energy as a whole) and (from 2008) National Policy Statements, the height of forward thinking government action at national level in the infrastructure sphere, and the Sustainable Communities Plan of 2003 the furthest reached on housing issues? The resistance is deep seated, as only at the time of the 1965 National Plan did anything like an overview materialise from a UK government outside wartime, and that lacked spatial dimensions, to be brought out by regional planning machinery which duly produced strategies for much of the country up to the end of the 1970s. Regional planning from 1990 to 2010 did clearly take an integrated approach to planning of the relevant regional territories and do much to subject some kinds of infrastructure to scrutiny within an overall spatial strategy, but this remained in most cases within a silo system of national government which delivered the key frameworks and funding decisions from above for each sector.

There is a good case that the main reason for the resistance has been the path of neoliberalisation, within this most neoliberalised western European state. The waning of support in the Netherlands from the late 1990s onwards is clearly consistent with this interpretation, as more and more liberalising and right wing coalitions weakened Dutch national spatial planning, with the most drastic attack coinciding with the most right wing of all, from 2010 to 2012. The fact that more support was given to comprehensive strategising in Scotland, Wales and Northern Ireland from 2000 onwards does point to the specific determination of the UK centre in opposing such approaches for England, highlighting the force of market ideology within the core territory of the UK state. The “outer” territories were able to imagine their future, at least in the Welsh and Scottish cases, helped by a sense of common culture, of nationalism, of perhaps a less fractured polity than the UK (in its governing England incarnation) had had for several decades, as well as, in the cases of Wales in Scotland, slightly more collectivist and interventionist political cultures as a whole.

Neoliberalisation appears to have led to a situation where UK politicians were simply unable to think geographically about the area they were governing. Is this in part because they thought this was simply wrong to do? This would have been so for politicians completely wedded to the belief that the private sector must be left to decide on as many investments as possible, within the relevant regulatory regimes. But many politicians were not so wedded – one has only to think of Conservatives like Michael Heseltine, or several ministers in the New Labour governments of 1997 to 2010, to realise that intervention was permissible to them. For them, we need to consider the possible critical reasons for rejection. These may include:

- primarily ideological – ways of approaching issues were framed out so that a consistent study, analysis and prescription was unthinkable; this could include the removal of a manageable sense of the general or public interest, to which planning has always appealed at any level, and which is arguably a necessary prior condition to any spatial policy making;
- primarily “political”, a fear of showing real priorities, annoying some part of the electorate or some part of the funding and power base of the parties;

- or mainly to do with the fragmented essence of the UK administration, only able to integrate on a few key issues, not issues seen as secondary such as this, where silo government rules.

Each of the three may be given a more or less historical colouring, in that they can be seen as deeply rooted in state practices, with the balancing of spatial priorities long written into the repertoire of UK governments. Such balancing can be argued to depend on being kept vague and if possible invisible, much of the time. Each of the above reasons no doubt contributed to the result, even if at any time one played the more powerful part. However, it appears that ideology was critical to the choices made, given that the era when more explicit spatial policies were made was that ruled by one ideology (welfare state Keynesianism), whilst the current era must be described as far more liberalised. The political and state administration factors must be seen as more embedded, running through both eras. It has been clear that when definite ideological new paths have been taken, some of these political and administrative factors have been subject to change, when politicians have been sufficiently emboldened to press that change.

The implications of that conclusion are clear enough – that an ideological shift is a necessary condition to move forwards on the policy issue discussed here, even though actors would have to be conscious of the need to operate on political and state administrative design elements at the same time. We return to this issue in the closing discussion in 6.0.

4.4.4 *Spatial imaginaries in the UK*

However, how should we balance the power of ideologies with the force of territorial ideas in the UK case? Explicit strategies with spatial clarity for the UK or its parts have rarely been promoted. A regional strategy existed from the 1940s to around 1980 to support the weaker economic areas, with assisted areas shown on a regularly revised map, including effectively much of the country outside southern England. Since the 1980s this strategy has been less clear, rising and falling but without the strong commitment shown earlier, and often reduced to the areas shown as beneficiaries of EU regional aid. Rather it has been argued, by geographers in particular, that the governments have in all cases leaned towards a “south first” policy in general policy and project support terms, thus reinforcing the dominance of southern England which stretches back for centuries through British history (Allen et al 1998, Amin et al 2003). It is suggested that the idea of the UK is really an appendage of a Greater London / Greater South East, which contain and are symbolised by the monarchy, elite institutions, the capital city, the dominant financial industrial sector, and the core nodes of higher education, research and high technology dominance, as well now as nearness to European power centres. This dominating national imaginary may, it is argued, be moderated at times, for example by the presence of Labour governments dependent on the votes of non-Southern electorates, but is never really removed entirely.

This broad picture of an idea of the UK as historically dominated by a London centred perspective makes much sense. There have been both influential sub-national imaginaries centred on the North, on Wales, Scotland and Northern Ireland, and on influential regional centres, and to some extent competing imaginaries emerging from these bases, but to a lesser extent than in the cases of France, Spain or Germany. Devolution after 2000 began to change this pattern. Previously any sectoral infrastructure strategy, for say airports or roads, tended “naturally” to have a focus on London and on its connections to the rest of the country, a tendency that had become stronger since the decline of the regional policy framework after 1980. The rise of to some degree competing power centres with different ideas of the future

after 2000 has partially destabilised this settled and dominant national imaginary. But as shown above, UK governments have resisted recent calls to make national spatial frameworks, so big projects like the HS2 scheme for a high speed rail line linking London to the north (promoted by governments since 2008) are placed in a policy vacuum, clear of any spatialised and analytical discussion of gains and losses. But the destabilised national imaginary and the absence of any general consensus make the implementation of such a scheme deeply problematic. Legitimacy is founded normally on the basis of some sort of shared ideas, and in the case of large infrastructure projects, this has generally a large geographical component. In the UK, a combination of the erosion of ideas of general interest by neoliberalising processes over several decades, and the gradual cracking of the polity, mean that thinking about big infrastructure futures is highly problematic, lacking both general and geographical coordinates. Under these circumstances it remains to be seen whether the combined response of UK governments described above (reformed planning system, NIP) will be adequate for encouraging or securing much long term investment, whether for economic growth or low carbon goals.

5.0 Discussion and conclusions from the case studies

5.1 General conclusions

Simply in relation to the three factors examined here, the country studies can be summarised as follows. Table 2 supports this.

- France has had decreasing control through macro-spatial steering of major infrastructure, due to declining force in all three respects (neoliberalising, changes in state form, weaker spatial imaginaries). But this decreasing control has been only to a modest extent, given that the decline on all three dimensions has only been partial.
- Spain's ability to steer major infrastructure has been reduced by strong impacts from the fragmenting state form, as well as the powerfully competing state imaginaries, but, like France, it has maintained some force in key infrastructure sectors, through continued central state control, despite neoliberalisation.
- The Netherlands has maintained reasonable levels of steering capacity and some integrating capability between spatial planning and major infrastructure development, although this has been declining in the face of neoliberalisation forces. The inherited force of continuing spatial imaginaries has served to reduce the impact that such neoliberalising would have had, in a similar way to the French situation, but with less impact from changes in state form.
- The UK has experienced two somewhat divergent processes. One has been the dynamic of divergent experience resulting from the devolution processes of the last 15 years, meaning that the cases have to be examined separately for each of the four jurisdictions. However the overall impact of neoliberalisation has affected to some degree the UK as a whole as well as each jurisdiction – but England to a much greater degree. The absence of any historically integrated spatial imaginaries, beyond that of an implicit southern England centric model, has served to make this weakening of state steering of infrastructure development stronger in England, where it has not been countered by other post devolution political initiatives in spatial planning (as has been the case particularly in Scotland).

It can be seen therefore that the force of neoliberalisation may in some cases be offset by continuing ideas of countries, facilitating attempts to steer infrastructure development coherently (Netherlands, France). Equally changes in state form can reinforce the dynamics

coming from neoliberalisation in some cases (France and Spain), or push these forces in different shapes (the UK).

Table 2 here.

The broad conclusion from the case analyses is that the twin drivers of change in these European states are making the steering of infrastructure development harder. Macro-spatial planning is only being used fitfully, with the exception of the Netherlands, and even there a more comprehensively integrated approach may be gradually falling away. Coherent ideas of territories and possible futures have been weaker than in the past, and in several cases more and more contested. This weakness and contestation is equally driven by the same two forces of neoliberalisation and changes in state forms.

The responses to these developments have been various, matching the strong variety of each state trajectory. One emerging approach has been the one characterised by the UK National Infrastructure Plan, trying to make the management of “UK PLC” fit for the world market, by adjusting spatial planning (in the 2008 Planning Act), financial incentives and regulation, aspiring to a new “integral steering” model. A second approach is to adapt spatial or sectoral planning approaches, as in the new Dutch national spatial frameworks, the frameworks in Scotland and Wales, and the more sectoralised steering in France (SNIT, Grenelle) or in different vein, in Spain (for rail and road, and energy networks). A third strand is emerging, as the EU tries to reform its TENs processes, so aiming to overcome the confusions and difficulties generated by the liberalisation of energy and transport systems and the parallel weakening of national state capacities.

These responses are by no means negligible in their varied attempts to meet the challenges caused by the difficulties being encountered in infrastructure development. However they have, at least so far, significant weaknesses, with none looking very likely to “fill the gap” left by the falling away of state steering capacities, whether these were strongly or weakly spatialised, strongly or weakly comprehensive or sectoralised. Following the analysis above, this is because they are unable to address the root cause of the problems, generated by powerful neoliberalisation and state form drives. It may be logical to assume that only changes which altered these drives, particularly that of neoliberalisation, would have a chance to impact effectively, especially if the aim is to make trend breaks, transitions to forms of living (low carbon in particular) which are unlikely to be selected for in neoliberal regimes. Such turning back of neoliberalisation is likely to take different forms in each national context – although recent critical work on the deepening crisis in Europe and the EU has suggested the need for the EU to press some common policies (EuroMemorandum 2013). A reversal of the changes in state forms seems less likely, and, from the perspective taken here, less desirable. It is perfectly possible for well articulated infrastructure and macro-spatial planning approaches to function within the more devolved and multi-level systems common now in most European states.

Such a change of course would at least make available the option of the (re)construction of macro-spatial planning in the service of major infrastructure development, above all in energy and transport fields, developed through democratic forms. French and Dutch experiences still provide some guidelines and inspiration for such reconstruction, with the French CNDP (public debates) system being one developing model (Fourniau 2007, Revel et al 2007). Another key ingredient, visible in all the continental European cases, is an effective conjugation of democratically elected levels of government to work out desirable pathways to

new models of infrastructure systems. A combination of work between all spatial levels is needed to make democratic sense of infrastructure futures.

5.2 Further threads from the case analyses

Three supplementary threads can be drawn out of the analysis. The first is that it is essential to focus on the specifics of each state, as well as the variegating processes coming “from outside”. In one sense the polity is one, the EU plus all its members, but in another sense each national polity is radically on its own. The same applies to the political economic regimes. Infrastructure regimes remain obstinately national in some respects, but have to be understood within the internationalised industry landscape, where Asian corporations may fill the funding gap for UK nuclear power stations, and where Rotterdam port competes with Hamburg port, both in public ownership but under equal international pressure (their leaders would argue). Infrastructure planning regimes are now being pressed by the EU towards the best practice identified as the UK planning reforms of 2008-2011, a sort of convergence that has by and large not emerged in the normal planning systems, but which is clearly seen as critical at the major project level by some interests. So the field of infrastructure gives a live picture of the processes of regulatory differentiation underway through neoliberalization, as conceptualised by Brenner et al (Section 2.1). There is some indication too that there are tendencies in Europe (through the EU and the large utility corporations) and globally (through policy copying of the Infrastructure Canada/Australia/etc type) towards some common approaches, to play against the national distinctiveness brought out here. If neoliberalisation is not turned back, it is likely that such responses will gather force, imposing financialised and economy dominated approaches to infrastructure development over more socially or environmentally led policy directions.

The second thread takes the above general conclusions further. The analysis reveals that there is considerable scope for improving the relationship between wider thinking on infrastructure futures and spatial planning practices. The Dutch model here was presented as having many strengths, without intending to idealise it. The need to think about infrastructure change geographically and in some more effective democratic ways suggests the need for elected governments to take more responsible and considered approaches to spatial issues, as against concentrating only on market driven mechanisms related to financing and regulation, important though these clearly are. Sectoral planning processes, like the National Policy Statements in the UK, are too weak, as they systematically hide important connections, making policy for low carbon futures, for example, much harder to move towards. This should bring big spatial planning back onto national political agendas, if not at national level, then at federal state or region level as may be appropriate in some sectors and cases. Work by non-governmental groups like the England 2050 and Lie of the Land projects (TCPA 2011, 2012) shows that something can be done, even with few resources: government backed efforts could do far more. At the same time though it must be realised that large parts of key spatial planning policies will continue to be made “behind the backs” of any open planning activity, by the way zones of change have been “framed out” of planning, by sectors becoming marketised, or by scale changes such as “localism” which removes the scope for public consideration of big choices. Academic analysis could contribute to bringing out such “invisibilised planning” by states, and making it visible to publics.

The third thread is more reflective, on the implications for developing thinking about spatial imagining. This is more in the form of questions than conclusions. How might the implicit models that are clearly present in countries be brought out into the political daylight – or is

this always going to be too much against the grain of politics, at least in normal times? What are the implications of developing divergences between spatial imaginaries, within states, for example in Spain or the UK? Are there ways that this could be brought out also into the open, to generate more productive politics and policy making? Could academic work contribute to these research and public sphere processes? How far could better understanding of long historical processes, with the type of analysis done by Bel on Spain, help to make manifest the deepness of the challenges of shifting some geographical dynamics? There is plenty of experience in running federal systems, which have invented kinds of answers to many of these questions, but as ever, answers will be uniquely tailored, as so federal “lessons” will only take us so far. Other answers may well be found in fresh dimensions of democratic systems, which remain still to be exploited much more fully, beyond any simple representative and deliberative splits (see for example Saward 2010).

6.0 Implications for the creation of national spatial steering mechanisms

What are the implications of these considerations for any conceivable spatial strategising at national level? Do they make such strategising so unlikely as to be not worth pursuing? What steps might be valuable in promoting a turn to more integrated and intelligent long term strategising, necessarily including major infrastructure directions. A particular issue is what might fertilise the development of lively and effective spatial imaginaries, drawing on the considerations in section 3.2. Are there first steps that can be taken which might open up a more creative and dynamic imaginary?

The analysis works by taking the UK as a case study, concentrating on what might be done particularly in England. The UK is in itself an interesting case, and it is to be hoped that some of the lines of thinking may have relevance in other European state cases, although clearly the distinctiveness of each case makes such cross-context working something that has to be approached with great care. A preliminary condition for progress on most of the ideas below would be major shifts in the trajectories of liberalisation, which has been seen as the main force affecting approaches to infrastructure and macro-spatial planning.

6.1 Proposals

6.1.1 Process aspects

How might a more strategically coherent approach to state and public policy steering be worked towards? In principle, if some political interest could be found for such a project, there might be three dimensions which, especially if combined, might have an effect. The broad lines are in the words data, democracy, deliberation and dissent. Those in other EU states may be able to analyse their situations and the scope for reforms in somewhat parallel manners; but it is not appropriate here to try to recommend reform paths from an outsider perspective.

One would be the approach perhaps best epitomised by German practice, which emphasises sharing of best practice across all planning levels, in the ARL (Akademie für Raum- und Landesplanung), and the collection of data and high grade analysis, in the BBSR, the research institute managed by the federal government. Academics in Britain have at times pushed in this direction, as discussed in section 4.4.3 on a Map for England, where the impacts of national policy were mapped onto the territory of England, to simply trace incoherences or potential opportunities. The German four yearly spatial planning report to the Bundestag is a far more substantial affair, with consistent research backing and data series. A government push along these lines, though not easy to justify in the absence of wider support for steering

programmes, might be able to turn the climate of opinion, by showing the realities of long term change and the effects of government policies. The call for a “Companion Guide” to sit alongside the NPPF, including arrangements for monitoring, has some of the same data oriented approach (Swain 2011).

A second approach would be to work from recent policy drives precisely in the area of infrastructure, including the National Policy Statements and the National Infrastructure Plan of the Treasury, with a cross cutting unit having a spatial-environmental brief to promote consistency in these policy instruments. An important element of this would be to expose this process of continuous monitoring, discussion and adjustment to public view, with regular “examinations in public” of issues, using television and all relevant media. Equally important would be to link this process to government backed research in universities, so that arguments could be directly plugged into research work, in turn exposed to public debate. This would therefore expand the field opened up by the policy initiatives of 2007-2011, but within a frame which took seriously the need to build an open area of public discourse, relating to party and pressure group politics, not pretending to be in some autonomous and expert zone of governance.

A third approach would take its lead from the French initiative of 2007-2012, the Grenelle, accepting that the area of spatial planning is too tied into most other areas of political controversy and that what is needed is an opportunity, probably at regular intervals (perhaps once a decade, shortly after each census) to arrange a national deliberative democratic process to obtain a broad consensus about the needs for national construction or reconstruction. The Grenelle was structured round a highly Green agenda, and that gave it coherence and a strong linking to all major infrastructure issues, and to some extent to other macro spatial planning questions. In the UK/England, it may be much harder to imagine a successfully built coherence in this way, but surely some governments could gain from such an open attempt, which would expose public policy making to full view, and possibly build wider public understanding of issues and trade offs facing governments. At least conflict and dissent would be exposed to debate, and perhaps areas of agreement identified. The England 2050 report made the same sort of proposal, suggesting a Royal Commission made up of non party, independent members – a rather less politicised approach, perhaps with parts of the first approach mentioned above.

How would these three approaches work together? They could be tried independently, and each would have some value that way, and might lead on to steps on the other paths. All would serve to widen the public conversation on options, data and imagining futures, if conducted in the ways suggested above. A new expertise would be created (such expertise is quite evident to any outside observer in the Netherlands, France and Germany, even in the present era of large scale government cutbacks), alongside a more informed public. If the third were attempted this might lead on to initiatives in the first and the second forms, simply because the current research and data weakness of UK government, and the incoherence of major infrastructure policy making, would doubtless be rapidly visible. A combination of all three would be most effective, placing the (occasional) national debate alongside the continuous process of adjusting infrastructure and sectoral policy making, all placed on a firmly data rich and researched foundation. Clearly this is a long way from the understanding of the tasks of government which is the norm in the neoliberalising variant which is the UK. But the traditional arguments of efficiency gains would certainly be appropriate in this case. Getting geography wrong, misinvesting in infrastructure, being unable to deal with widespread social conflict about the future, all pose massive burdens on state budgets. The sorts of initiatives described above would cost a fraction of any such burdens, however

ideologically threatening they would appear to the neoliberalising mindset. In fact the cost of all three together must be infinitesimal when set against most large infrastructure projects.

Are there other more creative ways to whet the appetite for building future oriented spatial imaginaries? Almost certainly yes. If the joint forces of the creative industries and the scientific/cartographic/geographical academic milieux could be combined, it seems almost certain that new thinking could emerge to build new spatial images and imperatives. The work of geographers like Danny Dorling has pointed to the scope for imaginative liberation in this sense in recent years (Dorling and Thomas 2004, 2011). But these tracks would need to emerge from some collective working together, which might be spurred from one or more of the above initiatives. The fights now endemic in England over new infrastructure and new urbanisation may be making clear the advantages of developing new ways of thinking about social-economic-geographical futures. There is real “governance pain” caused by having no conceptualised and visualised ideas of future geographical pathways.

Substantive aspects

In substantive terms, what might a renewing spatial imaginary for England and perhaps the UK gets its teeth into? The above more process oriented proposals point towards some of the key elements needed. A long term and ideologically clear framing would be needed, in order to give a sufficiently integrating and connecting force to any government or societal project. This must then lead to the invention of effective storylines, narratives, images (Hajer 1995, Neuman 1996). Ideas on geographical transitions or transformations would need to advance with such simplifying mental constructs and techniques in mind. Some handles have been given by metaphors or terms generated in recent years, including polycentricity and national rebalancing. Both of these point to a more even distribution of economic success over England / the UK, which would in turn lay a basis for more even distribution of demographic pressures, generating in turn more evenly spread development pressures. These were precisely the basis of the classic French drive to promote cities and regions far from Paris, as well as the balancing efforts in regional policies in many states, including the UK. However no such formulas have been promoted in the UK, at least in explicit forms, since the 1980s. More dominant have been the arguments that agglomeration is essential for economic success on the global stage, and that in the UK case this involves unconditional support for the Greater South East, as the “golden goose” which lays the eggs of economic growth (Leunig and Swaffield 2007, Martin 2008, Massey 2007). If that were the path to be taken, then the market’s imaginary hardly needs to pin down the state role explicitly, being content with occasional interventions when politically or economically vital (to overcome critical economic crises, or to maintain public order).

In practical spatial planning terms, the steps could be as follows.

First, a simple mapping and analysis exercise, starting from the sorts of multiple overlay work hinted at in *A Map for England*. This could valuably learn directly from Dutch national planning traditions, with its several layers approach. These have provided a first layer of physical forms, green and blue, with over that the major long term hard-to-change elements such as big infrastructure and fundamental settlement forms, followed by the faster changing rhythms of behaviours, small physical alteration, management shifts – crossing into spatial management not major physical change.

Secondly, there could be a “relational sensitisation” stage, as referred to above, which would above all work at several scales simultaneously, moving diagonally and jumping scales, to seek to work through what changes if other paths are taken in different modes and registers.

This could only emerge politically and openly, in a networked planning process which cut back and forth from localities to sub-regions up to central levels and where appropriate, to continental issues – just as Dutch national steered planning was accustomed to do during its heyday from the 1960s to around 2000, in case this sounds impossibly tortuous.

The substance could be valuably informed by historical understandings. In the same way as public debate in Spain is informed by discussions such as that of Bel on four centuries of state policy, and Raymond Williams (1965) spoke of the Long Revolution when discussing societal change, going back a similar time period, any full discussion of transitions, whether ecological, economic or social, may need to think about very long term “power geometries”. In some respects it is fortunate that the possible break up of the United Kingdom (in the shape of the independence of Scotland) places such long term thinking on the intellectual agenda. However the risks that the confusing and entangling effects of nationalism will overcome their clarifying and stimulating side are real, and it will require a conscious effort by planning thinkers to try to argue through possibilities, alongside bigger public discussions. Projects of deep controversy such as those for transport or energy infrastructure (the TGV Mediterranean in France in the early 1990s, Stuttgart 21 in Germany recently, HS2 and windfarms in England now) can equally be the spur to thought and innovative response, if approached in the right way.

Finally, the continental dimensions need to be addressed, in all the fields where they are now of pressing relevance – energy supply, freight transport systems, air travel, shipping and the management of the European seas. The commentary on the TENs reforms in section 3.3 pointed to the current policy directions of the present EU regime. These may be seen as having serious weaknesses, especially their sectoral character, backed by the low legitimacy of the EU polity. However some ways to approach these supra-national issues will be needed, and this applies as much to the UK as it does to all other European states. What has been suggested above has abstracted from the continental dimension, but this is not possible in reality. All discussions of port or airport or freight line expansions (or contractions), or of energy policy options, need to be framed by advances in this wider policy area.

7.0 Final overview

Any overview of the current range of policy making for major infrastructure in developed countries takes us a long way from the sorts of potential directions discussed for the English case above. The authoritative and official storylines are generally quite different from those. The dominant one, promoted equally by international organisations and national governments, is that the market must be the mechanism for curing infrastructure deficits. The UK National Infrastructure Plan has a similar character to those for Australia, Canada and New Zealand in that sense, even if the balance of goals, especially in relation to low carbon trajectories, appears to differ significantly. A secondary narrative, particularly since 2008, is that states do in fact have an important role, in classic Keynesian terms, to get the economy going again, which can be most straightforwardly done by state spending on “shovel ready” projects in infrastructure fields (OECD 2009). But this is rarely painted as something desirable in itself, but a temporary measure to get the economies back on the right neoliberalising path. Observation of such programmes shows generally that high carbon directions remain the norm. The EU policy directions since 2008 are distinctive in, on the face of it, pressing low carbon directions as core elements of strategy. However, given the nature of the EU, very largely dependent on the actions of member states and large corporations, this narrative may remain unimplemented.

Such an overview should act as a reminder of the real nature of “actually existing” stances on major infrastructure and so give a clear message that the sort of more publicly directed spatial steering advocated above is remote from current realities. Some sort of major jolting, by power shifts of some kind and by real world economic challenges, would be a precondition for transformation in these profoundly ideologically formed landscapes of state positioning. In the terms of Brenner’s 2004 book, the state strategies as much as the state spatial strategies would need massive transformation in all the countries surveyed here, with the partial exceptions of the Netherlands and Scotland. Such change could only realistically come from the supersession of the varieties of capitalism dominant in recent decades. A thorough rebuilding would be needed of the thinking about the way that the futures of societies are reconstructed within their territories. Green thinking has tried to move in this direction in recent years, in the formulation of “transition strategies” - as in Transition Towns, for example, in a localist form (Hopkins 2008). But this type of imagining of futures has never effectively bridged across to the dynamics that wider social and economic transformation would involve. Recent discussion of “degrowth” may move in this direction (Aries 2011, Xue 2012), rooted as it normally is in anti-capitalist understandings. All this may appear to take us a long way from the everyday world of roads and airports or national planning frameworks. But it can be argued that a field such as major infrastructure, given its very evident systemic insertion in global supply chains and other such basic economic-ecological features, cannot help bringing us back to such considerations. One message from that is that academics and professionals interested in such areas need to ask very basic questions, start from first principles, if they are to make a useful contribution in future, rather than tread carefully along the middle of the intellectual and political roads. Such instruments as the UK National Infrastructure Plan can give first handholds or initial hints about where state policy making might go, but pure incrementalist policy thinking in that way is unlikely to take spatial planners far in any directions which might in due course generate some democratic legitimacy and conviction.

Two final suggestions are given in relation to further work. A productive lens for further work will surely be to take infrastructure policy as a defined field in its own right, which can then identify “national infrastructure approaches”, examined across several normally separated state roles (financing, regulating, spatial planning). This could help to produce a far more satisfying idea of what a “National Infrastructure Plan” could be, than the one produced in the UK in 2011, interesting though this pioneering effort is in many ways. Somehow, the ingredients of state action, private and financial power and long term ideas and aspirations need to be combined in a more effective way.

Secondly one other perspective has hardly been explored here, but must be critical for taking these issues forward. This much wider lens would consider the relation of the changes discussed here to democracy. The attempts to “depoliticise” decisions in policy fields such as these has been related to tendencies to “de-democratisation” (Flinders 2012, Hay 2007). The EU is widely seen as a political phenomenon with weak democratic legitimacy, raising issues about situating decision processes at that level. Discussion of democracy also needs to take note of the mutations ongoing in nationalism in all the cases studied. Infrastructure questions are in part nations questions, and understanding this may help to develop non-technocratic ideas of future forms, appreciating that passionate commitments have great force in this policy zone, and that these need to be talked through. This perspective would also deal with the implications of current political economic trajectories and the evolving national spatial imaginaries (both analysed here), but with the greater focus on the normative and institutional design issues present in any discussion of democracy (Stoker 2010).

Acknowledgements

Most of the debts incurred during the research behind this monograph are described in the book published in 2012. But I should add a small number of extra interviewees or helpers not mentioned there. Interviews at the European Commission in 2010 included those with Helmut Adelsberger, Transport Directorate, Kitti Nyitrai, Energy Directorate and Jean Peyrony, Regional Directorate, as well as, by telephone, with John Walsh, Regional Directorate, in 2012. I was also able to speak with Andrew Price in the UK Department for Transport, in 2011-2012 and Peter Sellen at HM Treasury. The English and UK studies benefited from interviews with Mike Ash, chief planner Department of Environment and successor ministries 1996 to 2006, Andrew Bennett, chair of Environment Select Committee and successor bodies, 1995 to 2005, Hugh Ellis, Chief Planner, TCPA (previously at Friends of the Earth 2002 to 2009), Vincent Goodstadt, Director of the Glasgow and Clyde Valley Plan, active in regional and strategic planning in Scotland since mid 1990s, and Neil Sinden, Head of Policy and Research, CPRE (at CPRE since early 1990s, except period in middle at ROOM). John Glasson gave valuable advice on an early draft. I am very grateful to all these for their help, as well to those mentioned in the book, whose work also contributed to this account. Finally I should acknowledge the very valuable comments of three anonymous referees, and the supportive work of the series editor, Yvonne Rydin.

References

- Alden J, (1999). Scenarios for the future of the British planning system, *Town Planning Review*, 70, 3, 385-407.
- Allen, J., Massey, D. and Cochrane, A. (1998) *Rethinking the Region*, London: Routledge.
- Allmendinger, P. and Haughton, G. (2009). Soft spaces, fuzzy boundaries and metagovernance: The new spatial planning in the Thames Gateway, *Environment and Planning A*, 41, 617-633.
- Alterman, R. (ed.) (2001) *National-Level Planning in Democratic Countries*, Liverpool: Liverpool University Press.
- Amin, A. and Thrift, N. (2002) *Cities*, Cambridge: Polity.
- Amin, A., Massey, D. and Thrift, N. (2003). *Decentering the Nation*, London: Catalyst.
- Andeweg, R. and Irwin, G. (2005). *Governance and Politics of the Netherlands*, Basingstoke: Palgrave Macmillan.
- Aries, P. (Ed.) (2011) *Decroissance ou recession*, Lyon: Paragon/Vs.
- Arts, G., Dicke, W. and Hancher, L., (2008). *New Perspective on Investment in Infrastructures*, Amsterdam: WRR
- Bel, G. (2012) *rastructure and the Political Economy of Nation Building in Spain 1720-2010*, Brighton: Sussex Academic Press.
- Bohme, K. and Eser, T. (2008) 'Territorial impact analysis of EU policies', in Faludi, A. ed *European Spatial Research and Planning*, Cambridge MA: Lincoln Institute of Land Policy.
- Boy, D., Brugidou, M., Halpern, C. and Lascoumes, P. (2012) *Le Grenelle de L'Environnement*, Paris: Armand Colin.
- Brenner, N. (2004) *New State Spaces*, Oxford: Oxford University Press.
- Brenner, N. Peck, J. and Theodore, N. (2010) 'Variegated neoliberalization: geographies, modalities, pathways', *Global Networks*, 10, 2, 182-222.
- CEC (2009) *TEN-T: A policy review*, COM(2009) 44 final, 4/2/2009, Brussels: CEC.
- CEC (2010a), *Europe 2020. A strategy for smart, sustainable and inclusive growth*, COM(2010) 2020 final, 3/3/2010, Brussels: CEC.

- CEC (2010b) *EU Strategy for the Baltic Sea Region. Action Plan*, December 2010 (Brussels: CEC).
- CEC (2011a) *A growth package for integrated European infrastructures*, COM(2011) 676, Brussels: CEC.
- CEC (2011b) *Proposal for a Regulation of the European Parliament and of the Council on Union guidelines for the development of the trans-European transport network*, COM(2011) 650 final, Brussels: CEC.
- CEC (2011c) *Proposal for a Regulation of the European Parliament and of the Council on guidelines for trans-European energy infrastructure*, COM(2011) 658 final, Brussels: CEC.
- Cochrane, A. (2012). Making up a region: the rise and fall of the ‘South East of England’ as a political territory, *Environment and Planning C*, 30, 95-108.
- Collier, A. (1994) *Critical Realism: An Introduction to Roy Bhaskar's Philosophy*, London: Verso.
- Council for Science and Technology, (2009). *A national infrastructure for the twenty first century*, London: CST.
- Department for Regional Development Northern Ireland (2001) *Shaping our Future. Regional Development Strategy (RDS) 2025*, Belfast: DRDNI .
- Department for Regional Development Northern Ireland (2011) *Shaping our Future. Regional Development Strategy (RDS) 2025. 10 Year Review, Draft*, Belfast: DRDNI.
- Devine-Wright, P. (2011) *Renewable Energy and the Public*, London: Earthscan.
- Dorling, D. and Thomas, B. (2004). *People and Places: a census atlas of the UK*, Bristol: Policy Press.
- Dorling, D. and Thomas, B. (2011). *Bankrupt Britain: An atlas of social change*, Bristol: Policy Press.
- Dühr, S. (2007) *The Visual Language of Spatial Planning*, London: Routledge.
- Dühr, S., Colomb, C. and Nadin, V. (2010) *European Spatial Planning and Territorial Cooperation*, Abingdon: Routledge.
- Ecotec and Faber Maunsell, 2004, *Surface infrastructure of national economic importance (SINEI), A study for England's Regional Development Agencies*, January 2004.
- Energy and Climate Change Committee (2011) *Energy and Climate Change – Third Report*, London: ECCC.
- Entso-e (2010) *Ten-Year Network Development Plan 2010-2020*, Brussels: Entsoe.
- Entso-g (2011) *Ten-Year Network Development Plan 2011-2020*, Brussels: Entsoe.
- EuroMemorandum (European Economists for an alternative economic policy in Europe) (2013) *The deepening crisis in the European Union: The need for a fundamental change*, downloaded 11/2/2013 from http://www.euromemo.eu/euromemorandum/euromemorandum_2013/index.html
- Faludi, A. (2010) *Cohesion, coherence, cooperation. European spatial planning coming of age?*, Abingdon: Routledge.
- Faludi, A. and Van der Valk, A. (1994) *Rule and Order. Dutch Planning Doctrine in the Twentieth Century*, Dordrecht: Kluwer.
- Fischer, F. (2003) *Reframing Public Policy: Discursive Politics and Deliberative Practices*, Oxford: Oxford University Press.
- Flinders, M. (2012) *Defending Politics*, Oxford: Oxford University Press.
- Fourniau, J-M. (2007) L'institutionnalisation du débat public, *Revue Projet*, n° 297, 13-21.
- Hajer, M. (1995) *The Politics of Environmental Discourse*, Oxford: Oxford University Press.
- Hajer, M. and Wagenaar, H. (Eds) (2003) *Deliberative Policy Analysis: Understanding Governance in the Network Society*, Cambridge: Cambridge University Press.
- Hall, D. (2010) *Waste Management Companies in Europe 2009*, London: PSIRU.
- Hall, D and Lobina, E. (2010). *Water Companies in Europe 2010*, London: PSIRU.

- Hall, P. and Soskice, D. (Eds.) (2001). *Varieties of Capitalism: the institutional foundations of comparative advantage*, Oxford: Oxford University Press.
- Hay, C. (2002) *Political Analysis*, Basingstoke: Palgrave.
- Hay, C. (2007) *Why we hate politics*, Cambridge: Polity.
- Hay, C. (Ed.) (2010) *New Directions in Political Science*, Basingstoke: Palgrave.
- Healey, P. (2007) *Urban Complexity and Spatial Strategies; Towards a Relational Planning for our Times*, London: Routledge.
- Heatherington, P. (2006). *Connecting England*, London: TCPA.
- Heatherington, P. and Hall, P. (2010). *Connecting Local Economies- the Transport Implications*, London: TCPA.
- HM Treasury (2010). *National Infrastructure Plan* London: HM Treasury.
- HM Treasury (2011). *National Infrastructure Plan 2011*, London: HM Treasury.
- HM Treasury (2012). *National Infrastructure Plan, Update 2012*, London: HM Treasury.
- Hopkins, R. (2008) *The Transition Handbook*, Totnes: Green Books.
- Huijs, M. (2011) *Building Castles in the (Dutch) Air*, Delft: TU Delft.
- Huijs, M. and Annema, J.A. (2009) *The Politics of Evidence Based Policy Making*, Delft: TU Delft, Transumo Transports, Deelrapport 2.
- Institution of Civil Engineers, (2012). *State of the Nation: Water*, London: ICE.
- Jensen, O. and Richardson, T. (2004) *Making European Space*, London: Routledge.
- John, P. (1998) *Analysing Public Policy*, London: Pinter.
- Jonas, A. (2012). Region and place: Regionalism in question, *Progress in Human Geography*, 36, 263-272.
- Knieling, J. and Othengrafen, F. (Eds.), (2009). *Planning Cultures in Europe*, Farnham: Burlington.
- Le Gales, P. (2006) 'The ongoing march of decentralisation within the post-Jacobin state', in Culpepper, P., Hall, P. and Palier, B. (eds) (2006) *Changing France*, Basingstoke: Palgrave, pp. 198-222.
- Le Gales, P. (2008) 'Territorial politics in France: le calme avant la tempete?', in Cole, A., Le Gales, P. and Levy, J. (eds) *Developments in French Politics 4*, Basingstoke: Palgrave, pp. 156-171.
- Leunig, T. and Swaffield, J. (2008) *Cities Unlimited*, London: Policy Exchange.
- Lijphart, A. (1999). *Patterns of Democracy*, New Haven: Yale University Press.
- McNeill, D. (2004) *New Europe: Imagined Spaces*, London: Arnold.
- Marshall, T. (1996). Catalan Nationalism, the Catalan Government and the Environment, *Environmental Politics*, 5, 3, 542-550.
- Marshall, T. (2011a), Reforming the process for infrastructure planning in the UK/England 1990-2010, *Town Planning Review*, 82, 4, 441-467.
- Marshall, T. (2011b). Planning at the national level in Europe in relation to major infrastructure, *European Planning Studies*, 19, 5, 887-905.
- Marshall, T. (2012). *Planning Major Infrastructure*, Abingdon: Routledge.
- Martin, R. (2008). National Growth Versus Regional Equality? A Cautionary Note on the New Trade-off Thinking in Regional Policy Discourse, *Regional Science, Policy and Practice*, 1, 1, pp. 3-13.
- Massey, D. (1999) Spaces of politics, in Massey, D., Allen, J. and Sarre, P. (Eds.) *Human Geography Today*, Oxford: Polity, pp.279-294.
- Massey, D. (2005) *For Space*, London: Sage.
- Massey, D. (2007) *World City*, Cambridge: Polity.
- Ministry of Infrastructure and the Environment (2011). *Draft National Policy Strategy for Infrastructure and Spatial Planning*, The Hague: Ministry of Infrastructure and the Environment.

- Nadin, V. and Stead, D. (2008). European planning systems. Social models and learning, *disP*, 172, 35-47.
- National Planning Forum, (2007). *Statement on a National Spatial Strategy for England*, agenda item at March 2007 meeting. NPF webpages accessed 12/8/2012, http://www.natplanforum.org.uk/archive2006_2007a.htm
- Needham, B. (2007). *Dutch Land Use Planning*, The Hague: SDU Uitgevers.
- Neuman, M. (1996). The imaginary institution: Planning and politics in Madrid, *Planning Theory*, 15, 120-131.
- OECD (2006) *Infrastructure to 2030. Telecom, Land Transport, Water and Electricity*, Paris: OECD.
- OECD (2007) *Infrastructure to 2030. Mapping Policy for Electricity, Water and Transport*, Paris: OECD.
- OECD (2009) *Going for Growth*, Paris: OECD.
- OECD, (2011). *Strategic Transport Infrastructure Needs to 2030. Main Findings*, Paris: OECD.
- O'Neill, P. (2010) Infrastructure financing and operation in the contemporary city, *Geographical Research*, 48, 3-12.
- Peck, J. and Theodore, N. (2007). Variegated capitalism, *Progress in Human Geography*, 31, 731-772.
- Pociask, S. and Fuhr, J. (2011) *Project no Project*, Washington: US Chamber of Commerce.
- Priemus, H. (2008) 'How to improve the early stages of decision-making on mega-projects', in Priemus, H., Flyvbjerg, B. and van Wee, B. (eds) *Decision-Making for Mega-Projects*, Cheltenham: Edward Elgar, pp. 105-119.
- Priemus, H., Flyvbjerg, B. and van Wee, B. (eds) (2008), *Decision-Making on Mega-Projects: Cost-benefit Analysis, Planning and Innovation*, Cheltenham: Edward Elgar.
- Revel, M., Blatrix, C., Blondiaux, L., Fourniau, J-M., Hériard Dubreuil, M. et Lefebvre, R. (Eds.) (2007), *Le débat public : une expérience française de démocratie participative*, Paris: La Découverte, Recherches.
- Roland Berger Strategy Consultants, (2011). *Permitting procedures for energy infrastructure projects in the EU: evaluation and legal recommendations*, Berlin/Brussels: Roland Berger Strategy Consultants.
- RTPI, (2000). *Providing the Links. The Case for a National Spatial Planning Framework*, London: RTPI.
- RTPI, (2006). *Uniting Britain*, London: RTPI.
- Saward, M. (2010) *The Representative Claim*, Oxford: Oxford University Press.
- Schmidt, V. (2002). *The European Futures of Capitalism*, Oxford: Oxford University Press.
- Scottish Executive (2004). *National Planning Framework for Scotland*, Edinburgh: Scottish Executive.
- Scottish Government (2008). *Infrastructure Investment Plan*, Edinburgh: Scottish Government.
- Scottish Government (2009). *National Planning Framework for Scotland 2*, Edinburgh: Scottish Government.
- Scottish Government (2011). *Infrastructure Investment Plan 2011*, Edinburgh: Scottish Government.
- Shaw, M. (1998). Towards a national spatial planning framework? in *Planning*, 20 February 1998, p. 14.
- Smith, A. (2006) 'The government of the European Union and a changing France', in Culpepper, P., Hall, P. and Palier, B. (eds) (2006) *Changing France*, Basingstoke: Palgrave, pp. 179-197.

- Stead, D. (2011) 'European macro-regional strategies: indications of spatial rescaling?', *Planning Theory and Practice*, 12, 1, 163-167.
- Stephenson, P. (2010) 'The Role of Working Groups of Commissioners in Co-ordinating Policy Implementation: The Case of Trans-European Networks (TENs)', *Journal of Common Market Studies* 48, 3, 709-736.
- Stoker, G. (2010) The rise of political disenchantment, in Hay, C. (Ed.) *New Directions in Political Science*, Basingstoke: Palgrave, pp. 43-63.
- Sustainable Development Commission (2011) *National Infrastructure. Embedding sustainable development in decision making*, London: SDC.
- Swain, C. (2011) Addressing the missing spatial dimension in the NPPF, *Town and Country Planning*, October 2011, 432-437.
- Swain, C., Marshall, T. and Baden, T. (Eds.) (2012) *English Regional Planning 2000-2010*, Abingdon: Routledge.
- TCPA, (2011) *England 2050?*, London: TCPA.
- TCPA, (2012) *The Lie of the Land!*, London: TCPA (retrieved 10/2/2013, http://www.tcpa.org.uk/data/files/Lie_of_the_Land_ExecSummary.pdf).
- Thomas, S. (2009) *An analysis of the contemporary developments and corporate policies in the European energy sector*, London: PSIRU.
- Thompson, H. (2010) The character of the state, in Hay, C. (Ed.) (2010) *New Directions in Political Science*, Basingstoke: Palgrave, pp. 130-147.
- VASAB (2010) *VASAB Long-term Perspective for the Territorial Development of the Baltic Sea Region*, (Riga: VASAB Secretariat).
- Welsh Assembly Government (2008) *People, Places, Futures, The Wales Spatial Plan Update 2008*, Cardiff: WAG.
- Whitfield, D. (2010) *Global Auction of Public Assets*, Nottingham: Spokesman.
- Williams, R. (1965). *The Long Revolution*, London: Penguin.
- Wong, C. (2002). Is there a need for a fully integrated spatial planning framework for the United Kingdom?, *Planning Theory and Practice*, 3, 3, 277-300.
- Wong, C., Baker, M., Hincks, S., Schulze Baing A. and Webb, B., (2012). *A Map for England*, Manchester: Centre for Urban Policy Studies, Manchester University, report for RTPI.
- Wong, C., Rae, A. and Schulze Baing, A., (2006). *Uniting Britain – The Evidence Base: Spatial Structure and Key Drivers*, London: RTPI.
- Wong, C., Ravetz, J. and Turner, J. (2000). *The United Kingdom Spatial Planning Framework: A Discussion*, London: RTPI.
- WRR, (1999). *Spatial Development Policy* (summary of the 53rd report), The Hague: WRR.
- WRR, (2008). *Infrastructures. Time to Invest*, Amsterdam: WRR, Amsterdam University Press.
- Xue, J. (2012) Planning for degrowth in big Chinese cities, paper presented at AESOP congress, Ankara, 11-14th July 2012.
- Zonneveld, W. (2005) 'In search of conceptual modernization: The new Dutch "national spatial strategy"', *Journal of Housing and the Built Environment*, 425-443.

Captions for figures for Steering infrastructure futures

Figure 1

Trans-European Transport Network: Proposed core network, for railways (freight), ports, rail-road terminals (RRT),

Source: CEC (2011) *Annex to proposal for a Regulation on Union guidelines for the development of the trans-European transport network*, COM(2011) 650 final/2, Brussels: European Commission.

Figure 2

Schema National des Infrastructures de Transport, rail freight proposals

Source: Ministère de L'Écologie, du Développement Durable, des Transports et du Logement (2011) *Schema National des Infrastructures de Transport (draft October 2011)*, Paris: Ministère de L'Écologie, du Développement Durable, des Transports et du Logement

Figure 3

Railway network actions proposed under the PEIT to 2020

Source: Ministerio de Fomento (2005) *Plan Estratégico de Infraestructuras de Transportes*, Madrid: Ministerio de Fomento.

Figure 4

Map showing (inter)national accessibility of urban regions with leading economic sectors

Source: Ministry of Infrastructure and Environment (2012) *Structuurvisie Infrastructuur en Ruimte*, The Hague: Ministry of Infrastructure and Environment.

Figure 5

England in 2050. Business as usual scenario

Source: TCPA (2011) *England 2050*, London: TCPA.

Figure 6

Functional spatial clusters in multi-speed England

Source: Wong, C. et al (2012) *A Map for England*.

ⁱ See Marshall, T. (2012) *Planning Major Infrastructure*, Abingdon: Routledge, Marshall (2011a, 2011b), and working papers to be found on each national case study at the project web address.

<http://planning.brookes.ac.uk/research/spg/projects/infrastructure/index.htm>

ⁱⁱ Again, much more analysis can be found in Marshall (2012).

ⁱⁱⁱ Recent work in discussing alternative planning cultures, in the search for an explanatory model for the evolution of change in spatial planning across Europe, has both drawn on cultural approaches (Knieling and Othengrafen 2009), and on parallel discussions on social welfare systems (Nadin and Stead 2008).

^{iv} The Australian bank Macquarie developed a global approach to private equity investment with special emphasis on infrastructure funds, thus becoming by 2008 a major holder of assets such as toll roads and airports. O'Neill (2010) gives one account of the phenomenon.

^v This is the body set up in the 1960s to oversee territorial dimensions of French state policy. It still exists though with a reduced role.

^{vi} The hexagon is the term used conventionally in France to describe mainland France, derived from the shape that this can be seen as having, in very broad terms. No doubt few countries imagine themselves as a shape (geometric or otherwise), perhaps indicating an explicit French consciousness in thinking about themselves territorially.

^{vii} This list is taken from the draft strategy, which is to be found with an English summary, but the difference from the final strategy is not I think great. The final strategy of March 2012 was not yet translated to English at the time of writing.