1. Introduction
Since 1989 Central Europe has been the ground for ‘regime competition’ between neoliberal and stakeholder models of market economy. Most observers of the region’s industrial and socio-economic evolution are sceptical about the chances of socio-economic upgrading. Some argue that with a strong drive to privatisation and deregulation of their economies the countries of Central Europe championed the neo-liberal agenda outright. A more differentiated view subdivides Central Europe into three distinctive paths: it argues that while Baltic states can be described as neoliberal, the former Visegrad countries are ‘embedded neoliberal’ states as they have certain more elaborated welfare and industrial policies, while Slovenia took on board most of the neo-corporatist arrangements. Thus, for most new EU member states a pessimistic picture about the outcome of ‘regime competition’ is drawn. Using the post-war West-European experience as the analytical background, Bohle and Greskovits argue that ‘what arrived to the East by the second half of the 1990s were those types of transnationally organised industries and industry fragments that are usually the least hospitable to a capital-labour accord’ (Bohle and Greskovits 2004: 10). A number of further authors do not consider the industrial foundations of new capitalist countries as robust. While some talk of outright de-industrialisation, others describe the industrial capabilities during the 1990s as an ‘extended workbench’ and outward-processing trade.

2. Rethinking reindustrialisation in Central and Eastern Europe
The re-emergence of strong industrial capabilities in Central Europe in the late 1990s and early 2000s is not well understood. In the early 2000s some observers focused on the quantitative increase, with Business Week in 2005 even labelling the region ‘Detroit East’, but most of them failed and fail to understand the qualitative change that was taking place in the region and its causes. The evolution in East European subsidiaries of the MNCs is often characterised as ‘hybridisation’ between host and home country traditions in employment relations, but such a description is not satisfactory in analytical terms. The most comprehensive state-of-art analysis of the field was recently provided by
Bluhm (2007:198) who finds the evidence of complementary specialisation of production strategies and of ‘rationalised embeddedness’ in employment relations in the subsidiaries of German companies in selected central European countries. Complementary specialisation of East European subsidiaries takes the form of standardised or diversified quality production, while rationalised embeddedness in employment relations refers to a certain employment protection, cooperative but exclusively plant based employment relations and a strategy of longest possible preservation of the comparative labour cost advantage. Bluhm’s research raises the idea of a close fit between the production organisation and firm governance in the East European subsidiaries of multinational companies (MNCs); the emergence and the nature of this relationship, however, is not systematically discussed.

Three perspectives seem important in this regard. One, the embeddedness of multinational companies as focal points of regional and global production networks in the local/regional economies. Second, how are production regimes constituted? Four elements matter here: (1) strategies with regard to the organisation of production as well as product; (2) network governance; (3) firm governance; and (4) skill provisions. Third, going beyond the simplistic distinction between the ‘high road’ and ‘low road’ strategies of firms to provide a more nuanced analysis.

3. Governance of value chains and production models in the automotive industry

Industrial and socio-economic upgrading in Central Europe is not a country-specific evolution, but a regional phenomenon. The emergence of a regional network in the enlarged EU has already been referred to by Pries (2006). Next to the three ‘classic’ dimensions of international competition in the knowledge economy - cost, quality and flexibility - Pries (2006: 22) identifies the fourth dimension - innovation. He argues that with expansion of the EU to the East the European automotive producers received an opportunity to combine cost, quality and innovation competition in a way that is impossible in other comparable large regions, through the differentiated and lasting management of the entire value added chain'. The automotive sector was chosen because we think that research findings for the automotive industry might provide a more general insight into the direction of socio-economic change in Central Europe because of its size and trend-setting role. Such transformations include the reorganisation of production as well as innovations in organisational models and in employment practices. Furthermore, in most countries that have an automotive industry it is the leading export industry so that it often assumes the role of pace-setter also in relation to collective bargaining.

The focus in this policy brief is on the automotive production value chains of one of the biggest car MNCs – the Volkswagen Group, and assesses the evolution of production regimes of the four subsidiaries of the Volkswagen Group in Poland, Hungary, Czech Republic and Slovakia since the early 1990s. We find that since the late 1990s-early 2000s, there has been technological and product upgrading in the Central European automotive industry, bringing more value added to the region. One of the standard ways of thinking about such cross-national production networks, is one in which the value chain is practically completely disintegrated and modularised into tasks with high VA activities remaining with large core producers and suppliers in the developed world, while low VA activities are outsourced to low-cost production locations. Contrary to this development, the division of labour in the MNCs and the role of the Central European sites in these international value-chains of the multinationals, has changed dramatically. Whilst the division of labour between locations in the early 1990s followed this logic in which core activities remained in the centre and low VA activities moved out, production strategies in the East have evolved to more sophisticated and higher value added production activities since the early 2000s.

It may be too early to talk about a new production model in Central Europe, but a comparison between the industrial and production strategies of the mid-2000s and those of the mid-1990s suggests that the differences in production depth and model choice are both large and stable. Whatever
else, therefore, a process of industrial upgrading seems under way in Central European car producing sites. Over a period of just 15 years Central European subsidiaries of the German MNC have become ‘state of the art’ just-in-time production locations. They have upgraded their product and production strategies from a peripheral position to full-scale transnational partners. They participate on equal terms in tenders called by the mother company and receive a growing share of company-wide responsibilities. Supplier networks, often also involving sophisticated multinational first-tier suppliers, are organised regionally as well.

4. Sustainability of regional industrialisation

How sustainable is this regional automotive cluster in Central Europe? Answering that question requires tracing and analysing the evolution of the institutional underpinnings of the VW subsidiaries’ production strategies. Within the companies and within their production networks the original equipment manufacturers (OEMs) have to resolve two strategic problems: (i) knowledge organisation and (ii) governance of knowledge. The former includes the areas of recruitment and training, flexibility of work organisation, quality control etc., while the latter refers to decision-making and cooperation. A production process has become embedded in the local institutional structures and sustainable if these problems are resolved. These issues have characteristics that we usually associate with ‘collective action problems’: it would be beneficial for all firms to cooperate if they all did, but in the absence of binding arrangements that would make all of them cooperate, it pays each one individually not to contribute to the public good being produced and free ride on the contributions of the others. Since all firms know this to be the case, none of them work toward the public good and it fails to be produced. Local governance of interfirm cooperation has therefore become a key condition for sustainable industrial upgrading.

One key insight is that while industrial upgrading in the automotive subsidiaries has been taking place – there is some evidence of local embeddedness within the companies and within local supplier networks – it is incomplete. In all four subsidiaries, cooperative institutions of firm governance were established during the 1990s and certain working conditions usually associated with ‘high road’ practices are in place. The OEMs have also achieved a certain level of local embeddedness through cooperative links with their supplier network. Some common initiatives in innovation and research between the first-tier suppliers, usually also multinational companies that established their subsidiaries in Central Europe, and the OEMs exist. However, industrial upgrading is not yet fully sustainable. In many fields collective action problems are not resolved and local embeddedness within the companies and within the production network remain limited. To the former belong limited provisions in the field of vocational training provisions: while firms are facing skills shortages, they also fear that trained workers will be poached by the competition. Arrangements for training
therefore have to rely on ad hoc inter-firm governance mechanisms which attenuate the collective problems. Moreover, regional (as in local) embeddedness is limited: cooperation with local universities and research institutions as well as involvement of OEMs in the development of local second and third tier suppliers is and remains at a low level.

5. Industrial upgrading and embeddedness

Most observers of the political economy of CEE in the 1990s would be surprised to find, a mere ten years later, that in some of the most successful transition economies sophisticated engineering goods were being produced which, according to the conventional wisdom, required the deep technological knowledge that only the German vocational training system seemed able to provide, or that entire regional economies exist which appear to combine the advantages of proximity with the benefits of international exposure. Yet that is exactly what has emerged in the broad geographic area roughly defined between the south of the former GDR, southern and south-western Poland, the Czech Republic, western Slovakia and western Hungary. That area is now home to the largest concentration of automobile manufacturers in the world, where more cars per capita are built than anywhere else in the world, and of automotive suppliers ranging from relatively simple components (plastic and textiles, for example) to highly complex electronic and electro-mechanic computerized systems.

Focusing on the organisation of automotive production chains in Central Europe, there is strong evidence of both industrial upgrading and a relatively low level of embeddedness of these production networks in the regional knowledge and capabilities’ structures. Companies rely more on skills, need and produce higher skills, and invest in process and product development capacity. Yet at the same time, their links with the immediate regional and national environments are tenuous: skill production is semi-privatised, cooperation with local authorities and universities is limited, and while links with suppliers are strong, many of these (especially the first-tier suppliers) are themselves part of multinational companies. To some extent this is due to the limited development perspectives that these multinational companies imported when they arrived in the region in the 1990s in search of cheap labour; but in part it is also due to the complex nature of the new production regime emerging. Understanding the nature of the collective action problems between firms, and how and why they could or cannot be overcome through regional and local governance mechanisms constitute one major task of social science research: it will allow us to clarify the extent to which this limited embeddedness constitutes a significant constraint on the industrial upgrading process in the region.

Industrial upgrading in CEE, we discover today, requires more than simply importing the productive apparatus and leaving it all to companies to sort out the remaining problems. This much is obvious. The more complex product market strategies become, the more companies have to rely on cooperation with other firms, and with regional and national authorities. That cooperation is impossible to build on an ad hoc basis, i.e. when needed, since cooperation in such a network will not only be a function of need. Governing such fragile cooperative networks requires actors who are both engaged in the building of inter-firm networks and parties whose direct interest goes beyond the gains to be had from contribution to the network.

Bibliography