FLEXIBLE SPECIALISATION, INDUSTRIAL CLUSTERS AND DISTRICTS AND 'SECOND' AND 'THIRD GENERATION' LOCAL AND REGIONAL POLICIES

A.H.J. (Bert) Helmsing

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For further information contact:
ORPAS - **Institute of Social Studies** - P.O. Box 29776
2502LT The Hague - The Netherlands - FAX: +31 70 4260799
E-mail: **workingpapers@iss.nl**

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ABSTRACT

This paper observes that the conceptual bases for local regional industrial policies has been undergoing substantial changes. A distinction is made between several generations of policies. The ‘first generation’ of regional policies was based on the importance of exogenous growth factors. The ‘second generation’ of policies focussed on local endogenous factors. The theoretical base supporting these policies received strong impulses since the mid-80s from new insights derived from flexible specialization and industrial districts literature. A new and ‘third generation’ of policies is emerging that goes beyond endogenous growth, and seeks to superceed the division between exogenous and endogenously oriented policies. The analysis of growth and competitiveness has moved from the firm itself, and clusters of firms and to incorporate basic and institutional conditions fostering growth. This article provides an overview of contributions to the theory of regional industrial development underlying second and third generations of regional policies. A distinction is made between macro-regional theories and those that have an industrial organization and district focus. The review includes a selected number of case studies drawn mainly from Europe and Latin America.

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CONTENTS

1. RE-THINKING REGIONAL DEVELOPMENT – THREE GENERATIONS OF POLICY PERSPECTIVES

Regional development policy perspectives have changed considerably. For the purpose of this paper, a distinction is made between three generations of policy perspectives[1]. The first generation of regional policy emerged in the 50s and 60s under a perspective of re-distribution of economic growth. It was a generally known and empirical fact that economic growth did not occur simultaneously throughout a territory but it is selective and uneven. Its cumulative character was accepted by many and central questions concerned its structural permanence and the processes of its reproduction. There were considerable differences in interpretation as to whether this unevenness would increase or decrease over time. Centre-periphery theories argued that structural factors would reproduce and intensify inequalities. Others were more optimistic and predicted that regional inequalities would decline over time. Regional industrial policies were mostly framed in the optimistic variant and were derived from neo-classical theories of optimal resource allocation. Policies aimed at reducing impediments to mobility and at removing monopolistic elements that would keep prices from competitive level (Maillat, 1998). The national government was the central actor in first generation policies. Through its regulatory powers and through financial incentives it could influence the location of firms. The provision of infrastructure was considered an important instrument to stimulate local demand and at the same time overcome regional disadvantage. Regional inequalities were a central issue in theories and policies of regional development. Can regional policies alter such structural patterns and reduce regional inequalities? It is interesting to note that recently several authors have taken a renewed interest in regional inequalities, as we will see below.

In the late 70s and early 80s considerable scepticism emerged about the effectiveness of conventional regional policy instruments, and while a debate raged about whether policies were really ineffective or actually never put to a real test in Latin America (Boisier et.al. 1982), two important changes occurred. One was the search for regional development alternatives. The other relates to drastically changing national and international contexts. Already in the late seventies, several regional development analysts were looking for alternatives for the then dominant regional development para-

digm. Walter Stohr advocated selective spatial closure (Stohr & Fraser Taylor, 1981) and John Friedmann the agropolitan approach (Friedmann & Douglass, 1978). Although there are considerable differences between the two, they have in common the search for endogenous development alternatives based on local actors, resources and capacities.

Shifts in national economic policies, the opening up of national economies and processes of economic restructuring and internationalisation of production during the 1980s, have re-shaped regional economic landscapes. Existing core regions have been seriously affected by restructuring At the same time new growth regions emerged outside the established core regions, which became known as industrial districts, and which were successfully competing internationally. Well-known examples are the 'Third Italy' in the central-northern part of Italy, Baden-Wurtumberg in Germany, West Flanders in Belgium, Silicon Valley, in the United States, and Sinos Valley, in Brazil. These experiences gave rise to a new local and regional development alternative and demonstrated the potential strength of endogenous regional industrial development.

Flexible specialisation and industrial districts re-defined the frame of reference for regional policies and gave rise to a *second generation* of local regional industrial policies. Central to these endogenous regional development policies is the notion "to increase the developmental capacities of a region – to challenge international competition and technologies by mobilising or developing its specific resources and its own innovative abilities" (Maillat, 1998:7). An important difference with the first generation policies is that government is not at the centre stage of policy. Instead endogenous development emphasises the roles of inter-firm co-operation, of business associations, of unions, and of government to develop, in interaction with each other, specific skills, resources and 'rules of the game'. Public policy remains important but in a different capacity. Below we will review literature on the flexible specialisation and industrial districts and we will review some of the main characteristics of these policies.

Currently we are moving towards a *third generation* of regional industrial policies. These third generation policies are, on the one hand, a response to the further study and evaluation of endogenous regional development and policies. On the other hand, they result from the recognition that globalisation makes territorial production systems and not just companies compete with each other. This means that new policies cannot be exclusively local but must take into account the position and the positioning

of territorial production systems within a global context. Furthermore, recent experiences tell us that policies cannot be exclusively local or regional, to the point of excluding sectoral and (inter)national policies and contexts. Horizontal co-ordination among a range of actors needs to be complemented by vertical co-ordination between levels. The third generation policies are premised on the recognition that new policies need not necessarily require more resources but seek to enhance 'system's or systemic rationality' in the use of existing resources and programmes. Third generation policies supersede the opposition between exogenous and endogenous development policies.

The purpose of this paper is to review recent theories of regional industrial development and to examine their policy implications. We begin by examining, in section 2, recent trends in international competitiveness and the theory of 'new competition'. The analytical model of 'structure, conduct, performance' is used to reflect on these trends. Section 3 reviews various strands of theories that are all based on the notions of flexible specialisation and industrial districts. A distinction is made here between macro-regional theories and meso-perspectives on clusters and industrial districts. The section is concluded with a review of case studies of clusters and districts. Section 4 examines second and third generation policies, their main intervention areas and actors. The paper ends with some concluding remarks.

2. FIRMS, INTERNATIONAL COMPETITIVENESS AND NEW COMPETITION

2.1 Introduction: from macro economic adjustment to industrial restructuring

Many countries, rich and poor have been undergoing economic restructuring processes which, amongst others, are shaped by processes of globalisation of economic activity and in which policies of economic adjustment and liberalisation figure prominently. Public policies of adjustment found their origin in and were primarily shaped by international development co-operation, governments and international lending institutions and by growing concerns to cope with debts, restore macro-economic balances and national economic growth (e.g. World Bank, 1987, Van der Hoeven & Van der Kraaij, 1994). Processes of globalisation of economic activity find their origins inthe growing mobility of capital, information and of multinational enterprise and in rapid changes in technology and in intra-firm and supra-firm level industrial organisation

(e.g. Dickens, 1998, Best, 1990; Porter, 1990; Humphrey, 1994; Bennett et al, 1993; Scott & Storper, 1992).

Policies of adjustment in the 80s and early 90s have increased exposure of national and local economies and their firms to these globalisation processes. However, insufficient attention has been paid to the need to create appropriate institutions, which would enable firms to make use of new opportunities and cope with the new competitive threats. Adjustment not only calls for an unwinding of 'old' institutions but must also focus on the active creation of new ones as these do not necessarily emerge spontaneously but arise out of national, and meso level processes of deliberate private, collective and public action.

It is important to observe that `adjustment' is normally taken to refer , implicitly or explicitly, to developing and transitional economies. However, processes of globalisation and restructuring of industries affect all countries and, unless international trade is restricted, they are likely to be a permanent feature of economic development. Restructuring is world wide, both passively, as a phenomenon affecting people, places and sectors, and, actively, as policy interventions. Feyter defined economic restructuring as a "collection of interventions, by those whose interests are connected with the perspective of an industry, that are directed towards re-organising an industry's economic and technological capabilities, so that the industry may meet international competition, whilst coping with generally accepted social considerata at the same time" (Feyter, 1986). Others argue that in view of the changing nature of competition, restructuring concerns not only sectors of industry but essentially concerns the advancement of the productive potential of particular local economies and societies (i.e. territories). Hence it not only refers to firms existing today in a particular sector of industry but also to the utilisation and development of the productive potential of the population both in enterprise development, new firm formation and development of the human resources and related infrastructures (Bennett & McCoshan, 1994). Third generation policies should, in my view, depart from the latter and wider perception.

2.2 International competitiveness and new competition

International competitiveness is changing as result of the rapid globalisation of industry. The world's exports have been growing over the past 25 years with rates between 11 and 20%. At the same time, foreign direct investment has been expanding at

unprecedented rates in the last 10 years between OECD countries (31% p.a.), a great part of which concerns services industries (OECD, 1993). Also, the composition of world trade has, according to the same source, been changing with a declining share of resource intensive industries, stable shares of labour intensive industries and rising shares of scale intensive (e.g. paper, cars), differentiated (e.g. electrical & non-elec. machinery) and science based industries (e.g. computers, professional equipment).

A range of global technology factors drives changes in international competitiveness. Among these are: increasing rate of technological innovation, broader applicability of new technologies (NT), shorter process and product life cycles with faster replication, decreases in the proportion of direct unskilled and semi-skilled labour in total production costs. Quality and speed of delivery has improved dramatically thanks to NT. Substantial savings have been generated in the use of inputs (increased energy efficiency, savings in material, less wastage and scrap, new lighter, stronger materials). As a result, direct production costs have declined as share of total costs while development and transaction costs have risen. Furthermore, NT has made possible changes in the organisation of production improvement and competition, which has both qualitative and quantitative effects on competition (Dahlman, 1993, Dickens, 1998, OECD, 1993). New dimensions of competitiveness include: quality of product, short delivery times, after sales service, responsiveness to customers, product differentiation, innovative product design, aggressive marketing and efficient distribution and logistic networks

As a result of these above trends, competition is not just a question of cheaper factors but above all better management of these factors, both within firms, between firms and within and between communities and nations. With regard to firms, Dahlman phrased it as follows: "the speed of technical change and the greater emphasis on product design, development, marketing and service means that being a low cost producer is no longer a sufficient condition for competitiveness ...[It depends on].. speedy and reliable delivery, high quality and ability to expand the range of production and services to fit customer's changing needs" (Dahlman, 1993:13). A firm has to deal, internally, with more functional areas of concern in order to remain competitive. Furthermore, the competitiveness of a firm is increasingly determined by the competitiveness of its suppliers, and servicing firms and factors in the business environment (Porter, 1990).

New competition

Michael Best has given a powerful interpretation of the changing nature of competition, with his theory of 'new competition' (Best, 1990). New competition distinguishes itself from 'old' competition in four dimensions. Firstly, and at the centre of his theory is the entrepreneurial firm, which is "an enterprise that is organised, from top to bottom to pursue continuous improvement in methods, products and processes" (ibid:2). The latter constitutes the basis of strategic advantage, rather than lower production costs per se. Best rejects the notion of the product cycle, according to which technological innovation passes through a sequential process, ultimately leading to a low cost mass production technology. In stead, a firm would have to pursue continuous improvements, something that has organisational requirements and demands attention to detail. The second dimension is the importance of the production or commodity chain. Competitiveness depends as much on the firm itself as on that of its suppliers. Suppliers are an important source of innovation and improvement. Under new competition conditions supplier and buyer invest in long term relationships, consult and jointly establish quality norms and standards. The third dimension concerns the importance of so-called 'sector institutions': "A sector can include a variety of inter-firm practices and extra-firm agencies such as trade associations, apprenticeship programmes, labour education facilities, joint marketing arrangements and regulatory commissions, each of which facilitates inter-firm co-operation" (ibid:17). In other words, "firms not only compete, but they can also co-operate to provide common services, to shape 'the rules of the game' and to shape complementary investment strategies" (ibid). The fourth aspect is a strategic industrial policy on the part of government which would need to have a production rather than a distribution focus, seeking to shape markets, stimulating and undertaking complementary investments in support systems, and encouraging firms to develop strategic alliances.

Factors of competitiveness can be identified at three levels. Firstly, at the level of the firm, competitiveness stretches into all major functional areas: choice of product, choice of technology, plant and equipment, organisation of production, purchasing, R&D, product design, quality control, hiring, training and management of labour, marketing & distribution, finance, costing and accounting (Porter, 1985, 1990; Reid, 1993). Secondly, at the level of inter-firm relations, the crucial factor concerns the efficiency of supporting and supplier firms providing inputs and services. Many different aspects

may be distinguished under the broad heading of network based competition. Most attention has been paid to production subcontracting, in either a hierarchical or co-operative horizontal network form (e.g. Sverisson et.al. 1993). Less attention has been given to producer services. Another area of inter-firm relations concerns firm level collective action as part of competitive strategies. Firms may seek to co-operate with each other in market development, R&D, process and product design in an effort to create economies of scale and reduce indivisibility's, both contribute to reduce costs and cost risks for each participating firms. The theory of collective action suggests that such co-operation doesn't come about automatically, but depends on a number of factors concerning the type of (semi-)collective good, the number of participating firms and the organisation of the action (Olson, 1960; Popkin, 1981). Thirdly, factors contributing towards competitiveness, at the level of the business environment, may be grouped into 4 areas (Dahlman, 1993, Bennett & McCoshan, 1994). Namely, i) physical infrastructure (esp. transport and communication); ii) human infrastructure (quality & productivity of the labour force); iii) institutional (economic) infrastructure (legal, finance & financial services, export support institutions, technology support institutions (norms & standards, testing, quality control, R&D); and, finally, iv) the macro economic environment.

Overseeing the three levels, one can argue that the first level consists of factors, which are under the control of the firms themselves. As regards the second level, firms have (varying degrees of) indirect control: much depends on how they relate to other firms and whether firms agree to engage in various forms of inter-firm co-operation. Finally, firms have little if any direct control over third level factors. These are either in the public domain or in part provided by (large) business interest associations.

2.3 Expanded framework of Structure, Conduct & Performance

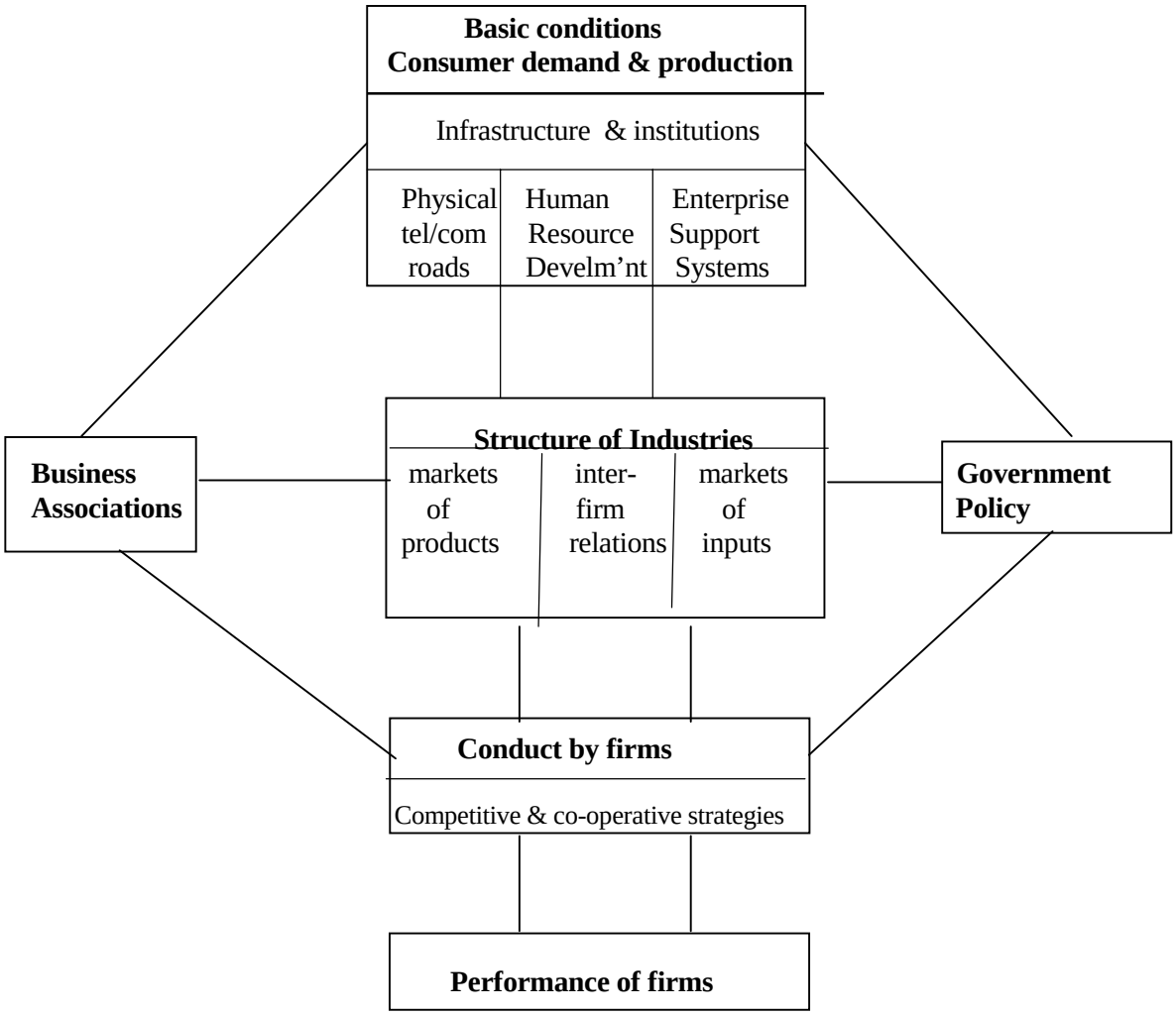
Strategic conceptions concerning firm behaviour have replaced the neo-classical theory of the firm, and they have two basic notions in common. The first is that a firm faces certain given's in its environment, these may be grouped in basic conditions and in (market) structure. Basic conditions refer to consumer demand (elasticity, seasonality, substitutes, location etc) and to production (technology, materials and substitutes etc), while (market) structure refers to barriers to entry and exit, numbers of buyers and sellers, product differentiation, etc. The kind of product sectors the firm is active, the different sources of competition (from substitutes, from rival firms, from suppliers or buy-

ers) all are part of structure. The second basic notion is that within basic parameters the firm is able to shape its own actions assume a certain stance or adopt a certain competitive strategy. The manner, in which the firm behaves and implements a certain deliberate series of actions, will ultimately shape its performance. That performance may then be measured in terms of profits, market share etc. These are the features of the Structure, Conduct Performance (SCP) model, which has its roots in the industrial organisation literature of the 50s (Carlton & Perloff, 1987: 4).

Below we have expanded the SCP model in order to capture the changing nature of international competitiveness and principal elements of new competition, which were discussed above (see figure 1). The 'basic conditions' have been broadened to included physical and economic infrastructure and transaction, regulatory and business support institutions. The 'structure' is widened to include not just market structure but the inter-industry structure and inter-firm relations. The 'conduct of firms' not only refers to competition but also co-operation between firms. Firm level strategies form the basis through which 'conduct' is analysed. 'Performance' remains as originally defined in the model.

Finally, with regard to government policy, one could say that the international trend is that policies of industrialisation are moving away from direct government intervention (in firm's behaviour), particularly withdrawing policies that selectively affect conduct and performance of firms (e.g. via foreign exchange allocations, price controls and project approvals). Governments shift towards facilitating changes in structure, leave most actions to firms and business associations (include public-private partnerships) and concentrate attention on basic conditions (physical, economic and institutional infrastructures and the macro economic environment). Given the general climate of reducing role of government and raising government's own responsiveness to its clients, emphasis has been shifting towards improving government's performance and raising `systemic rationality' of enterprise support systems (Bennett & McCoshan, 1994). Last but not least, 'business associations' have been added to stress their importance in market governance structures.

Figure 1: Expanded SCP model



3. FLEXIBLE SPECIALISATION AND REGIONAL INDUSTRIAL DEVELOPMENT

3.1 Introduction

Important to the development of second and third generation regional policies, have been new perspectives on regional industrialisation, which have in common the notions of flexible specialisation and of industrial district. Below we will review a number of key constituent elements that authors combine in a variety of manners.

In the mid-80s flexible specialisation was heralded as an alternative model of capitalist industrial development that could challenge large-scale 'fordist' production (Piore & Sabel, 1984). The then prevailing economic crisis in Europe and in the United States was seen as evidence that mass production had reached its limits as the dominant industrial model. Flexible specialisation was presented as an alternative for future prosperity. The two models were seen as polar opposites whereby mass production operates with special purpose dedicated machine technology operated by semi-skilled workers. Specialisation is driven by this technology and increasingly refines the tasks of workers (de-skilling). Re-tooling of these increasingly complex operations becomes time consuming and expensive and production runs have to increase. In contrast, flexible specialisation is based the manufacture of custom made products by use of multi-purpose technology and flexible production methods operated by skilled workers. Production runs can be small as re-tooling times and costs are low. As a result products can become differentiated. Innovation into product designs becomes a challenge and a way to avoid cost price competition (on undifferentiated or homogeneous products).

'Fordist' production needs stable and homogeneous mass markets. The economic shocks of the seventies and early 80s caused ruptures in these markets. Demand declined and the ability of governments to maintain economic stability via Keynesian policies had come to its fiscal and political limits. According to Piore & Sabel, there were already a number of industrial districts where flexible specialisation had already taken root in small firms and which had begun to challenge mass production. One of the most famous, has become known as the 'Third Italy', situated in the north-west and central parts of that country, where large concentrations of small and medium sized firms were successfully manufacturing in spite of rising levels of international competition. This contrasted strongly with other areas in Europe where the same industrial

sectors were already highly concentrated in large firms and/or were declining as production moved to low wage countries.

The success of the small firms is based on long traditions of craftsmanship in the manufacture of custom made and design intensive products. The emergence of new technologies of automated machines permitted these firms to respond more flexibly to demand based changes in product specification (cf Piore & Sabel, 1983; Sengenberger & Pyke, 1991, Pedersen et al, 1994). Rather than organising an entire production process within its own plant(s), a firm can opt to rely on other firms that have specialised in the manufacture of certain components or sub-processes and that are able to produce these in a variety of specifications. The firm can draw on these other specialist manufacturers and this would enable it to specialise on its own products, components or sub-processes, serving its own requirements as well as that of the other firms. It would be advantageous for small firms to specialise and the division of labour between firms would advance progressively. Inter-firm subcontracting constitutes the basis of sectoral specialisation.

Flexible production in small and medium sized firms occurred in a spatially concentrated manner. Internal economies of scale that had been the basis of large scale production within a single firm were replaced by external economies of scale arising from the division of labour between a number of small firms. In these spatial concentrations of firms, known as clusters, also economies of scope emerged, as the variety of different types of firms increased, making new combinations of production resources possible.

The Piore & Sabel's book, the Second Industrial Divide, has been criticised on a number of grounds. Williams, et al. (1987) offer an elaborate and powerful critique. They argue that the polar opposition between mass production and flexible specialisation is problematic. Also in mass production have re-tooling times gone down. For example, by adopting modular product designs mass production combines flexibility with large production runs, and achieves at the same time product differentiation. "..dedicated equipment and limited product variety are not unproblematic characteristics which can be used to differentiate the mass production enterprises and industries from the rest" (Williams, et al. 1987: 416). Fordist type assembly systems are in use in only a small part of industrial sectors. It represents an advantage in the case of manufacturing products with large numbers of components, but is less effective for techni-

cally less complex products. Direct labour costs constitute nowadays only a small fraction of total production costs.

The breakdown of mass markets is also criticised. Demand may have become saturated and replacement demand may have become stable. Consequently firms seek to develop new products in order to grow. Markets may become fragmented under the impact of increasing consumer exigencies and competition from other firms, but that. in itself, is no argument that undermines large-scale mass production. Last but not least, flexible production systems often have high development and commissioning costs (ibid: 430). These costs would have to be financed up-front and this would constitute a great barrier to small firms. Not only in terms of the volume of output via which to recoup these overhead costs but also in the financing of these outlays.

Notwithstanding the points made by Williams et al, it is important to signal the empirical trends that the average firm and establishment size, as measured in employment, has actually declined in the recent past in many countries. Furthermore, the proportion of small firms has risen. Figures on Europe quoted by Sengenberger & Pyke (1991) confirm these trends. It should be added here that large firms may actually have generated small firm growth, either via decentralisation, devolvement or vertical disintegration (ibid). Decentralisation would mean that a large firm would break up into smaller units which all remain under its ownership and control. Devolvement concerns licensing and franchising practices through which large firms maintain links with small firms without owning them. Horizontal and vertical disintegration refers to externalising production into separate units of ownership. The growth of small firms has also been stimulated by the recession in the late 70s and 80s, which caused large firm to restructure and to retrench workers who in turn set up their own small firms. Finally, the business environment in many countries has become less hostile to small firms.

Summarising, one could state that there are other ways of achieving flexible production, than flexible specialisation, which do not imply the disappearance of internal economies of scale. Large firms make use of flexible production methods, to reorganise their assembly systems, increasing organisational flexibility, decentralising production and by increasing flexibility of labour. Even if large firms vertically disintegrate, this doesn't imply the disappearance of 'large scale control'. Putting it differently, even if flexible specialisation would constitute the end of 'fordism' as a particular form

of organising large-scale production, it would not imply the disappearance of large firms.

Asheim makes the important point that flexible specialisation technology has made flexible production methods *also* come available in the realm of small firms. “A new feature in the history of capitalist industrial development is the opportunities opened for small firms to engage in diversified quality production where high degree of flexibility and efficiency in the production of specialised (semi-customised or customised) quality competitive products are attained through a small firm’s new ability to change promptly from one product or process configuration to another, due to the availability on the market of relatively cheap re-programmable computerised production equipment” (Asheim, 1992: 50). Flexible specialisation gets now a restricted meaning and refers to “this new form of production organisation, which, based on flexible multi-use production techniques and skilled workers, has resulted in a new competitive market situation for *independent* small firms” (ibid, p 50, emphasis mine).

In the subsequent theoretical developments two lines may be discerned. One concerns macro level theories of industrialisation and regional development, the other concerns meso level theories of local industrial organisation and industrial districts. Below we will begin with the macro level theories and subsequently go into more detail with regard to the second line.

3.2 Macro regional theories of flexible specialisation & accumulation

Scott, Storper and Walker have been important contributors to this line of theories. Allan Scott followed the initial argument of Piore & Sabel of a polar contrast between fordist and flexible production, but developed it further as two contrasting regimes of accumulation, drawing on the French regulation school. In his view, flexible accumulation is based on three major ‘ensembles’ of industrial sectors: revived artisan and design intensive industries producing largely for final consumption; high technology industrial sectors each with an associated webs of inputs suppliers and dependent contractors, and sectors containing service functions, especially business services (Scott, 1988). His central thesis is that flexible production has “an evident propensity to disintegrate into extended social divisions of labour thus giving rise to many specialised sub-sectors. This process is a reflection of the tendency for internal economies to give way before a progressive externalisation of the structure of production under conditions

of rising flexibility and it leads at once to a revival of production, to locational convergence and re-agglomeration" (Scott, 1988: 175). Increased competition and heightened uncertainty about final demand expose firms to high levels of risks, which cannot be compensated by the internal economies of scale and scope generated by an entire production system and as a result large firms begin to vertically disintegrate. The latter sets in motion the process, described above, where agglomerations of specialised producers emerge. As long as external economies are expanding, firms can obtain increasingly diverse inputs at lower prices. Transaction costs rise, as purchases constitute a growing proportion of inputs. These rising costs may be compensated, according to Scott, by increasing the proximity of producers, thus giving rise to further spatial concentration of production. The re-agglomeration of production would give rise to the emergence of new industrial spaces and regional economies.

In labour market terms, the process results in a differentiation between high skilled workers who are central to the core production processes within the firm and the lower and unskilled workers who are engaged in the manufacture of subcontracted components and inputs made by other firms. Productivity gains do not spill over to all workers and this is the basis of a new regime of 'flexible accumulation'. Flexibilisation of labour markets would result as new forms of work and contracts emerge, leading to the dissolution of former labour market rigidities.

Lovering's critique on the Scott's theory in part reiterates the earlier points made by Williams et al. He questions the notion that the decline of fordist production is exclusively caused by the disappearance of internal economies of scale as a result of heightened market uncertainty. He emphasises the problems of distinguishing the two as polar opposites, the requirements of flexible specialisation, etc. He is also critical of Scott's claim that externalisation under flexible specialisation generates new regimes of accumulation without invoking wider societal and historical processes, and ignoring the national state dimension (Lovering, 1990).

In 1992 Scott and Storper came to a reformulation in which they took into account some of the earlier critique. A territorial production system consists of 4 levels. At the bottom there are productive units or plants. These have linkages among them. Linked plants together may constitute agglomerations. A region is defined as a co-ordinated economic system. In order to generate increasing returns to scale firms seek economies of scale and economies of scope. These economies may be generated inter-

nally, within the firm, or, externally, in agglomerations. A typology of productive systems may be devised in terms of the relative importance of these economies (high or low) and the way in which they are generated (internally or externally)., Firms shy away from achieving internal economies of scale and scope when competition and uncertainty are rising. In stead they prefer to obtain these externally. Flexible production methods make this possible.

Agglomeration not only contributes to lower production costs by achieving external economies of scale and scope, but also leads to lower transaction costs as "proximity translates into lower costs and wider opportunities for matching needs and capabilities" (ibid, 1992:17). The authors add however that agglomeration is not a sufficient condition to reduce transaction costs. They invoke new institutional economic arguments: information is not perfectly available, there are information asymmetries and these may result in higher transaction costs. Regulatory institutions and social practices are important to keep transaction costs down by keeping opportunism in check. Furthermore, technological innovation needs institutional support, as firms are often unable to shoulder the entire costs individually. Innovation is crucial in current international competition as competitive advantage in increasingly humanly made rather than based on given resource endowments. Flexibilisation of the labour market needs new institutions to increase information exchange on changing job opportunities and for retraining.

Summarising, industrial agglomerations represent a stock of external economies, institutions, social and economic capitals that together constitute a technological innovative capacity of a territory. "The idea that successful reproduction of capitalist economic systems cannot proceed in the absence of institutionalised agencies and collective action holds not only at the level of the national economy but also at the level of the regional economy, where, because of the specialisation, agglomeration and place specific character of production, peculiar forms and imperatives of institutional order present themselves" (ibid, 1992: 16/7). There is wide variety of institutions and market orders, ranging from intensely competitive ones to others with high levels of formal or informal co-ordination.

Increasing global interaction and exchange make regional production systems compete with each other. This exerts pressures on regional production systems to adapt. "Regions in which (such) co-ordination is weakly developed and in which un-regulated

competition prevails, face many problems and predicaments that compromise long run viability. These regions are all the more vulnerable because in a world of contested markets they find themselves faced with competitors based in regions that provide effective regulatory and coordinating services" (1992: 22). "The viability of contemporary flexible production agglomerations depends to a degree upon effective institution building at the regional level" (1992:22). In other words, the viability or strength of a regional production system depends as much on the firms as on the regulatory, coordinating and supporting institutions.

Flexible specialisation and third world development

Storper examined flexible specialisation in relation to industrialisation in the Third World. He argued that import substitution industrialisation theory was about a wholesale transplanting of fordist production but without the necessary social and regulatory institutions, producing its own dependent form of industrialisation (Storper, 1990). Much of this was based on the product cycle of technological innovation whereby only technologically mature production processes would be transferred, lock-stock and barrel, to low cost countries. In these countries, import substitution strategies failed, amongst other reasons, because demand growth was insufficient to induce more advanced stages of import substituting industrialisation. The relatively small and protected national markets took away the pressure on firms to engage in technological innovation of their products. The latter principally took place, if at all, via imported machinery, components and designs. Competition, in as far as it existed, was cost price based, but often markets were oligopolistic. The existence in these countries of large labour surpluses reduced the power of unions and the scope for wage bargaining and for real wage increases and this in turn reduced the growth of internal demand.

In the 80s flexible production emerged. Storper continues to rely here on the 'second industrial divide' model but refined the notion of flexibility. Flexible production systems consists of "forms of production characterised by a well developed ability both to shift promptly from one process and/or product configuration to another ('dynamic flexibility') and to adjust quantities of output rapidly up or down over the short run without any strongly deleterious effects on levels of efficiency ('static flexibility')" (1990:431). Thus, flexibility may be achieved in three ways: a) through flexible production technology within the firm; b) through horizontal and vertical disintegration

and a deepening division of labour between firms; and, c) via flexibilisation of labour (ibid: 431).

World markets changed as a result of the same process. A greater inter-penetration of markets emerged and markets became contestable, creating higher risk for existing producers: flexible production is both cause of the inter-penetration and contesting of markets and effect of it in the sense that it induces further market differentiation and narrower product niches. The market differentiation has the important effect that producers are forced to expand into new markets for these differentiated products and to export in order to recoup the investment costs associated with their development (Storper, 1990:432). Exports are therefore a necessary corollary of flexible specialisation.

Central to Storper's argument is that flexible production systems are regional or territorial production systems. While industrialisation via 'branch plants' and subsidiaries had become to a large degree 'footloose', flexible production systems require agglomeration as many of the (previously internal) economies of scale and scope are externalised into networks of firms. Furthermore, local institutions are needed, as well as physical and economic infrastructure in order to generate 'dynamic flexibility'.

According to Storper regional flexible production systems constitute a new opportunity for industrial development in the South. Several arguments are forwarded. First of all, there are limits to the further decentralisation, from advanced countries, of production under the 'fordist mode', for developing countries to rely on it as a basis of industrialisation. Furthermore, flexible specialisation creates opportunities for new players to contest many *existing* markets. Fundamentally different regional industrial policies are however needed. Conceptions of growth poles and a focus on small firms only are both inadequate, according to Storper. "The emphasis here is not on strengthening the small firms per se, ..., but on firms of different sizes and functions in relation to a system of firms embedded in a production process" (ibid:435). Current formulations of growth pole policies would need to be reformulated as they rely on new large firm investments that are capable of triggering and/or attracting supplier firms. The regional production systems (RPS), which Storper advocates, are based on the development 'from the bottom up' of a social division of labour and specialised labour markets. The development of RPS is extremely selective, as a number of pre-conditions would have to be satisfied. *The key issue is that spatial and sector policies need to be devel-*

oped in concert with each other around specific regions or localities. There would be no place for blanket policies (ibid: emphasis mine).

3.3 Meso perspectives on flexible specialisation: small firms and industrial districts

The second group of flexible specialisation theories concentrates less on the macro regional and spatial aspects and more on small firms and their interactions within an agglomeration: the industrial district. While some authors have dedicated themselves exclusively to small firms, others conceptualise a broader framework. They all have in common that the analysis concerns firms and inter-firm relations, rather than regional production systems. An industrial organisation perspective predominates.

While small firms were in the past seen as disadvantaged especially as compared to large firms, flexible specialisation has created new opportunities for small firms to engage in diversified quality production. The clustering of small firms in industrial districts gives additional competitive advantages to small firms (cf Asheim, 1992: 50). Most authors recognise that flexible specialisation is not restricted to small firms. Some explicitly distinguish it from a large firm variant of flexible specialisation (e.g. Pedersen et.al. 1994). In many developing countries however small firms dominate the industrial structure, and there are relatively few large firms. Therefore it is relevant to examine the significance of flexible specialisation and of industrial districts for small firm industrialisation.

Geographical concentration of (small) industrial firms in developing countries is as such not a new phenomenon. Classical location theory points to several factors (Smith, 1976, Gilbert, 1979). Demand may be concentrated, specific key inputs, resources or skilled labour may only be found in certain locations. Such a geographical concentration would be nothing more than a collection of 'atomised' firms. An industrial district is partly a product of such location factors but would have additional features. As we will see below, different authors emphasise different ones. Starting from the same common base of flexible specialisation, as described above, we will examine below the main elements of this industrial organisation perspective. This will be followed by a review of a number of case studies on industrial clusters and districts in Europe and Latin America and elsewhere.

Industrial districts

There are many definitions of industrial districts, each author putting his or her own emphasis. It is increasingly used as a generic term covering a wide diversity of situations (Van Dijk, 1994). Many authors draw on Marshall (1891) who first described the notion of industrial district, as the geographical concentration of small producers that are specialised in the production of particular goods. Attention is centred on external economies generated by a division of labour at the level of that district, which would compensate for the lack of internal economies that can be achieved by small firms themselves. It would be beyond the resource base and capacities of a small firm to organise an entire production process on its own. Inter-firm subcontracting constitutes the basis of sectoral specialisation. Thus, an industrial district would represent the progressive specialisation of all the firms working in the same sector in the same area (Brusco, 1989:259)

Sengenberger & Pyke (1991) define an industrial district as "networks of (largely) small firms which through specialisation and subcontracting divide amongst themselves the labour required for the manufacture of particular goods; specialisation induces efficiency, both individually and at the level of the district; specialisation combined with subcontracting promotes collective capability. Economies of both scale and scope are the result" (1991:1).

The advantages of geographical clustering of firms arising from a sectoral division of labour are called localisation economies. The geographical concentration of industry generates additional advantages, namely economies of agglomeration. If many buyers and sellers were geographically concentrated, it would be easier, and quicker for a buyer to find a seller with whom to conclude a business deal or contract. It would easier to find potential sellers and compare their products and their offers, to check on reputation so as to reduce risk, etc. There is more information around and it is easier to come by. In other words transaction costs (potentially) can go down. Furthermore, the great variety of demands, products and producers generates more opportunities for innovation. This requires entrepreneurial dynamism.

Another aspect elaborated by Marshall and taken over by many industrial district authors is that of 'industrial atmosphere'. Firms in districts that are in frequent contact with each other, develop local business practices based on trust and this would lead to particular local value systems (business codes). In the modern interpretations

'industrial atmosphere' also forms the basis for new forms of co-operation between firms and for collective action, leading to the formation of producer associations. The success of an industrial district lies in this broader social and institutional aspects (Asheim, 1992).

An industrial district would generate costs advantages, create opportunities for (faster) learning and for innovation and technological upgrading. Visser (1996) takes these three localised sources of competitive advantage and examines their relevance for small firm clusters. Visser develops his argument from the perspective of the theory of the firm. Firms exercise four functions: transformation of inputs into outputs; procurement and sales function, innovation in products, processes and the organisation and management of risk. Competitiveness may be based on technology, purchase prices, reactive and innovative ability and advantages in relationships with other economic agents. Size plays a key role in enhancing competitiveness: in terms of scale of production, composition of production, accumulated experience, degree of vertical specialisation and knowledge.

Can clustering and increased inter-firm interactions compensate for disadvantages of small size? In order to examine this the notion of business environment in which these interactions take place needs to be clarified. The business environment has, according to Visser, three dimensions. The first concerns the functional interrelations between firms. These involve risks and transaction costs. The business environment has an institutional dimension, which has historically evolved and which refers to the interaction between entrepreneurs, their organisations and regulatory institutions. Out of these interactions emerge business practices. These shape transaction costs and patterns of subcontracting. The third is the territorial dimension, which is the specific configuration of functional and institutional dimension. These may vary across localities.

Visser defines a cluster of firms as a "geographical concentration of sub-sector specific activity at a location with a certain industrial experience; the driving forces of which may range from one or more similarities in the business strategy of firms (making the location attractive because of externalities), to a certain degree and type of functional interdependence of firms" (Visser, 1996:227). Characteristic elements are high density of activity, proximity of actors and distinct local histories. Proximity would generate cost economies, density would contribute to (faster) diffusion of infor-

mation and knowledge, while local history would shape the learning and dynamic effects (ibid).

Collective efficiency and collective action

Another group of authors stress collective efficiency through joint (Schmitz, 1989 and 1999) or collective (Sengenberger & Pyke, 1991; Spath, 1991) action as a basis for (small) firms to overcome their disadvantages and pay less attention to spatial clustering and agglomeration economies. The point of departure of the latter group of authors is small enterprise development. The big problem of small firms is not 'being small' but 'being isolated': "as individual firms, acting on their own, they are in a poor position to compete. They lack the resources and the economies of scale and scope normally available to large companies and they lack the political voice necessary for influencing their economic and political environment" (Sengenberger & Pyke, 1991:8). "The main problem of small firms is their isolation and powerlessness, particularly in an environment aligned to large private and public enterprises" (Spath, 1991: 4). By joining efforts and pooling knowledge and resources they can do better. Networking among small firms is crucial.

Sengenberger & Pyke distinguish between a 'high road' and 'low road' of industrial restructuring. The low road to restructuring is to meet stronger competition in markets by raising one's own competitiveness through lowering labour costs and by a deregulated labour environment. This form of destructive competition can be very successful. The alternative would be the 'high road' to restructuring which is based on enhancing efficiency and innovation by better organisation, better mobilisation of resources and by safeguarding workers rights and wages. High labour standards not only would push firms to innovate but also make it possible (Sengenberger & Pyke, 1991). They argue that collective action on the part of business associations and trade unions can induce industry to take the high road and prevent destructive competition into the low road.

Hubert Schmitz introduced the notion of collective efficiency (Schmitz, 1989, 1995). For him, the local agglomeration economies are less important. They are in a way "old hat" and generally available to all firms. Clustering permits firms to engage in different forms of joint action, which create additional advantages. Special reference is made to inter firm vertical co-operation (with suppliers and customers) and to horizon-

tal co-operation. Rather than stressing collective interest representation of small firms, the author stresses self-help organisation. More recently a further distinction is made between passive and active collective efficiency, whereby the former refer to the transformation and transaction cost advantages. Active collective efficiency denotes joint action aspects in both production and distribution. As competition gets more intense passive collective efficiency would not be enough. Firms would have 'to shift gear' and seek inter-firm co-operation as a means to become more competitive (Schmitz, 1999a, 1999b).

Joint action may vary in terms of number of participating firms (bi-lateral or multi-lateral) and may either be oriented in vertical or horizontal direction (Schmitz, 1999a). In his most recent work Schmitz continues to stress the importance of joint action but has become more appreciative of local external economies (Schmitz, 1999b). The latter may arise from continued private investment of firms in the cluster (technological spillovers or seepage, of benefits of training of workers to other firms). Contrary to neo-classical perceptions that such external effects would lead to under-investment, Schmitz argues that firms will continue to invest as they are not only providers of such external economies but in the same vein also benefit from investments of other firms in the cluster.

In this context, collective efficiency may contribute to increasing returns to scale, which some international trade theorists (e.g. Krugman, 1991) consider more important to explain international trade patterns than comparative cost advantages per se.

Networks and Networking

Some Industrial District approaches to flexible specialisation emphasise the crucial role of agglomeration and geographical clustering, others focus instead on networks and networking that need not be based on geographical proximity (e.g. Porter).

Networks have in most instances a two-fold significance. On the one hand, networks refer to inter-firm relationships, especially to (networks of) subcontracting. On the other hand, networks are considered a third and hybrid form of economic co-ordination, in between co-ordination via the market and co-ordination via (managerial) hierarchies. Starting with the latter, there is a range of intermediate forms that concern long term relations between independent parties based either on formal arrangements (contracts) or informal mechanisms (e.g. trust). This third form is often denoted net-

works as it refers to enduring relationships between firm (Thompson, 1991). Market relationships may develop into networks and networks may be formed when large firms decentralise their operations. An important distinction in this context would be between horizontal and vertical networks. Most literature considers networks to be forms of horizontal exchange between independent and small firms. This also applies to most of the flexible specialisation cum industrial district literature.

In other types of networks, however, this is not the case. Relationships are between unequal parties and sometimes there are dependencies in a formal sense (e.g. an end-assembly firm that has a strategic share ownership in firms supplying components and parts). Alternatively, dependencies may be created via large firm decentralisation and/or maintained by informal or by extra-economic means.

The three forms of economic exchange are not mutually exclusive as horizontal networks have a lot in common with market exchange and vertical networks with hierarchy (Powell, 1991; Knorringa, (1996). Increasingly it is recognised that transaction costs may also be lowered thanks to the existence of trust generated by social relationships and that generally exchange relationships are socially embedded.

Subcontracting has been the second focus of networking. Flexible specialisation has contributed to a change in the perspective on subcontracting. Particularly among theorists on small firm development, views on subcontracting have been mixed. While some emphasised the positive aspects, especially regarding new opportunities in inter-firm markets, where subcontracting firms would have a positive influence on the efficiency of small firms and on their capacity to innovate (Liedholm & Mead, 1989). Others stressed the more negative side of subcontracting, namely that it would give rise to dependencies between (large) firms and their small firm subcontractors. The latter is what some call dependent subcontracting. This in contrast to ‘interdependent subcontracting’ among firms (Visser, 1996).

In this context the distinction between industrial and commercial subcontracting is also useful (Knorringa & Weijland, 1993). In commercial subcontracting the subcontractor is a trader/financier who does not participate in manufacturing processes. Instead the contractor organises a network of producers who are provided with contracts that indicate quantities, product ranges, technical specifications, delivery schedules etc. Often the contractor provides key inputs and/or pre-finances these. The contractor usually holds critical marketing and market information to which the subcontractors have no

access. The subcontractor may be firms or individuals or households. They may either produce finished products or be organised to manufacture components in a complementary manner, forming together a production chain. In industrial contracting the contractor undertakes a production process and uses subcontractors for particular purposes e.g. assembly of components made by the contractor, production of components as inputs in the contractors own products, or the subcontractor undertakes particular tasks in a production process (ibid, 1993). Most flexible specialisation cum industrial district theorists focus on industrial and interdependent subcontracting.

Network dynamics is an important and contested issue. Do networks remain horizontal or does differentiation occur as some more successful firms begin to organise a cluster of firms, achieving central co-ordination and control positions, either from within or from the outside? Does networking have to be horizontal in order to be advantageous for small firms? There are several competing views on this. One is the view just emulated above that argues that relations between large and small firms would lead to asymmetric relations and be to the disadvantage of the small firms. Exploitation may result. Others have tried to approach the issue from the empirical side. In their study on two surveys in New York State, Young and others have attempted to test the propositions of Storper & Walker on flexible specialisation. They found that much of the key propositions of flexible specialisation hold (e.g. technology, custom-made products, embeddedness) but small firms do not interact exclusively with each other. Regional networks are build around core oligopolistic firms. Many small firms are regular suppliers to these firms. However, the small firms also sell outside the cluster and the networks do not keep them captive or dependent (Young et al, 1994: 37). Echeverri-Caroll and others arrived at a similar conclusion in their research on networking between high tech firms in a North American metropolitan region. Small firms do not compromise their independence when they enter in asymmetric networking. They benefit from the information and knowledge of large firms. The small firms maintain their independence as large firm linkages do not exceed (on average) 25% of their sales. At the same time this linkage exposes the firms to new quality demands and makes them more competitive (Echeverri-Caroll et.al. 1998). Other case studies demonstrate the opposite. For example, Cho (1994) in his study of networking in three regional clusters in South Korea found the emergence of complex but flexible inter-firm co-operation networks, and these also consist of large firm-small firm configurations. Particularly in labour inten-

sive sectors, large firms have decentralised production into small firms as a strategy to decentralise labour management problems and concentrate on design and marketing and co-ordinating the small firm supplier putting out network.

In order to differentiate types, Markusen (1996) made a classification of industrial districts. The first is the archetype 'Italian' district consisting of predominantly small firms. The second is the so-called 'hub and spoke' district in which large firms organise asymmetric subcontracting networks. The third is the 'satellite' district in which small firms are subcontractors supplying large firms outside the district. The interaction between the small firms is therefore low. The fourth is an industrial district based on public policies. For example district consisting of defence industries or industrial activity surrounding a large state university.

3.4 Case studies of clusters and industrial districts

The empirical testing of the main propositions of flexible specialisation and industrial districts is complicated by the fact that there is a relatively small number of detailed empirical studies. Below we will briefly examine mainly European and Latin American clusters and industrial districts and some other found elsewhere.

Schmitz and Musyck reviewed the key features of European industrial districts. Industrial districts are found in textiles, shoes, furniture, tiles, and mechanical engineering in the 'Third Italy'; in garments and furniture (Jutland, Denmark); in metal working, mechanical engineering and vehicle manufacture in Baden-Wurttemberg, Germany, and in carpet weaving, frozen vegetables and chipboard in South West Flanders, Belgium (Schmitz & Musyck, 1994). In other words, these include sectors, which are also common industries in many countries of the South. Generally the districts have been successfully exporting internationally through innovation rather than reducing wages and raising flexibility of labour. The 'high road' of restructuring is followed.

Rabellotti (1995) compares two footwear districts of small and medium sized firms in Italy, Brenta and Marche) with two footwear districts in Mexico (in Guadelajara and Leon). In both countries there are strong backward linkages between firms and their suppliers, but in Mexico these inter-firm links are primarily market based, while

those in Italy come closer to the ideal type co-operative relations. The forward linkages are weak in both Italian and Mexican industrial districts. There is a production bias, while commercial and marketing functions are poorly developed. Supporting institutions were only partially examined and appear weak in both countries. In Mexico relations with supporting institutions are more informal while in the Italian cases solidarity networks came into existence. Rabellotti examined the districts at times in which mayor changes were taking place in international markets. This led her to conclude that "[T]he static industrial district model does not take into account the possibility than an external radical change, such as changes in competitive position in the cases analysed, may represent a sign of rupture in the evolutionary path of the districts and eventually result in a new organisational form, distinct from the original one, and possibly remote from the tradition and the archetype of the model" (ibid: 39).

Wilson (1994) examined the garment industry in Mexico and found that under the impact of increased international competition, established firms have adopted flexible production methods, primarily by subcontracting to home based or micro enterprises. In response to intensified competition, firms went 'underground' to circumvent labour legislation, company and taxation regulation as another way to lower costs. Wilson argues that "it is the workers who are made flexible" (Wilson, 1994:153). Rather than clustering, firms have relocated away from established centres of production and moved to rural areas, where wage costs are much lower and it is easier to conceal illegality. Subcontracting is on the increase but it is in a dependent form. Flexibilisation, thus, gave rise to informalisation of production[2].

Schmitz (1995) examined the case of the footwear district in the Sinos valley in the State of Rio Grande do Sul, Brazil. The cluster represents 30% of national production and 80% of the Brazilian footwear exports. It consists of some 480 shoe making firms and another 1800 firms in allied, complementary, machinery and specialist service industries. In all respects this corresponds to a large sectoral and geographical concentration with all the qualifications of a 'deepened' division of labour. A progressive division of labour has occurred, though the large majority of firms have remained final assemblers and none has become a `stage firm' that is exclusively dedicated to production of intermediary inputs, components or parts. Furthermore, a number of large firms have developed. At best the cluster would have been an industrial district some time ago. Schmitz found a number of examples of collective action by the firms leading to

the establishment of support institutions, such as fairs and exhibitions, training and research centres, information exchange etc. A number of producer and professional associations were established. Flexible specialisation emerged alongside fordist production organisation in large firms. Increased international competition in more recent years resulted in smaller orders and shorter delivery times, forcing the large firms to adopt more flexible production methods. Some large firms decentralised part of their production and small firms caught up with the new trends. In other words, flexible specialisation happened in both the small firm and the large firm variant.

Meyer-Stamer studied textile, metal engineering and ceramics industries in the State of Santa Catarina (Meyer-Stamer, 1998). He emphasised, in contrast to Schmitz, that the historical economic conditions were not very favourable to the formation of industrial districts. On the contrary, protected national markets and oligopolistic competition stimulated vertical integration within large firms. The inefficiency of integration (at sub-optimal level within the large firm) was compensated by the better insulation it gave from the turbulent macro-economic environment. He showed that only the ceramics industry began to develop towards an industrial district in the nineteen nineties when competitive conditions had shifted towards 'new competition'. The other two sectors were much slower to adopt new organisational forms. Something that he explained in evolutionary economics terms.

Visser (1996) examined in great detail the district of La Victoria in Lima, Peru which contains a large cluster of nearly 2000 small and 50 medium sized clothing firms, as well as some 150 companies selling equipment and components. Furthermore, it houses more than 4000 traders in cloth fabrics and accessories. The figures vary depending on information source and do not include micro-enterprises in the vicinity. In the Victoria district there are two large wholesale food markets, which attract large numbers of clients, from Lima as well as from other parts of Peru. As a wholesale centre it has good transport connections with the rest of the country. The clothing firms (in the so-called Gamarra cluster) were examined and compared with control groups sampled in four other parts of Lima.

Contrary to the industrial district hypothesis, Visser found very little subcontracting among Gamarra firms and even *less* than in the control groups of dispersed firms. He argued that small firms in the other areas had less access to final demand and had to rely on 'dependent subcontracting' with external agents and intermediaries.

Many of the Gamarra firms had excess production capacity and continued to maintain this. Many had engaged in vertical integration instead of vertical disintegration, by incorporating retail operations.

The Gamarra firms did have important transaction costs advantages. There are low search and information costs and it is relatively easy to copy from competitors. Because of the size of local demand, sellers of fabrics can dispose of larger volumes and offer a greater variety. Dynamic learning effects are found to be limited: there was very little self-organisation, relationships with local governments were strained and there was a lot of conflict among producers (Visser, ibid).

There are several case studies from India. Cawthorne, for example, reports on a 'low road' industrial cluster in knitwear industry: "..an example of an industrial cluster specialising in an activity (garment manufacture) in which, to date at least, technological limitations more or less dictate that improvements in competitiveness and efficiency come almost entirely from increasing pressure on worker's labour" (Cawthorne: 1995:43). Industrial district characteristics are applicable in the sense that there is a large geographical concentration in a particular sector, agglomeration economies are present and there is (potential) for collective efficiency via horizontal linkages. There is also considerable growth including of exports. Both large and small firms benefit from agglomeration via out-contracting to other firms (jobbing) and 'in-contracting' (to own decentralised units, where managers are on piece rates). It is relatively easy to start up a new small firm. New entrepreneurs acquired basic skills. by working in other firms. A key issue was that the market was highly segmented. Firms could co-operate while operating in different product market segments. Access to market channels was more important than the capacity of the firm to improve quality of its own products. Large foreign and national trade agents would determine product specifications. Static agglomeration effects occurred in the sense that the cluster attracted national and international trading agents (ibid: 151).

Labour practices had however not improved, though employment had increased. Some firms saw subcontracting as a strategy to prevent the growth of the firm's labour force and the emergence of associated labour management problems.

Knorringa (1996) studied a large artisan based footwear cluster in Agra, India. Using sub-sector analysis the author examined producer-trader relations in different market segments. The cluster has attracted a large number of buyers and many special-

ist suppliers and services. Different market channels are characterised by different transaction regimes, ranging from auction type direct sales to networking and subcontracting and direct control. Clan and network overlap in the intermediate transaction regimes. Subcontracting occurred in different forms. Not only producer based subcontracting which is central to the notion of industrial district but also trader based subcontracting. The build up of trust was found to be a significant factor in producer-trader relations in order to gain more regular orders. The author found that those market channels which have a higher degree of co-operation between producer and trader have better growth options than those characterised by less or no co-operation (e.g. auction).

Das (1998) reported on another Indian industrial cluster in tile making, arguing that it represented a mix of high and low road restructuring. The cluster was characterised by stagnating technology and absence of subcontracting. Labour and working conditions were poor. There was some inter-firm co-operation (e.g. joint procurement), some collective action leading to the formation of a producer association that represented the producers' interests to government. Design was the principal means of product differentiation and competition and this contributed to the establishment of a Flooring Tile Design Institute. The principal economies of the cluster were static in character. It "multiplied the chances of finding a large number of customers/traders" (ibid: 46) and gave easy access to inputs and services.

The number of cases reviewed above is too small to be able to establish firm conclusions in relation to the theory of flexible specialisation and of industrial districts. Some preliminary observations can be made. Firstly, there is a great variety in types of industrial districts and types of clusters. Some are homogeneous in size, others heterogeneous. Some clusters were at some stage on the 'high road' of industrialisation (e.g. Sinos Valley, Brasil, and Baden Wurtumberg, Germany), while others were clearly on the 'low road' (districts in Mexico, India). The same macro-economic conditions could give rise to opposing tendencies, as in the case of Brasil. In the footwear sector, the district concerned acquired less favourable features, while the ceramics cluster began to transform itself into a district. In some cases there was collective actions which played an important role, while in others it was absent. Neither in the Latin American cases nor in the Indian ones, were all central propositions of the theory found to be applicable. This refers, amongst others, to subcontracting linkages between small firms in a district, the deepening of the division of labour and the emergence of firms exclusively dedi-

cated to intermediate outputs, and to the expected dynamics effects of clusters and districts.

Very recently, studies have come up with new evidence on clustering and its effects. A number of them have appeared in a second special World Development issue. Taken together, these studies contribute several important findings. First of all, there seems to be a growing consensus that there are many different types of clusters, not only in advanced countries (cf Markusen) but also in developing countries. The differentiation in types of clusters is needed in order to deal with the fact that the alleged advantages of clustering and features of industrial districts are not always found. In reviewing African case studies, McCormick (1999) argued that there are at least three different types, defined in terms of stages in the clustering cum industrialization process. The first type is the so-called 'groundwork cluster' (pre-industrial), in which micro and small enterprises dominate, many of which are survival oriented. Cluster advantages are limited to market access. The second is the 'industrialising cluster', which is still primarily local market oriented but which contains more advanced units. Also this type enjoys limited external effects. The third category is the so-called 'complex industrial cluster', which contains firms oriented towards national markets and to exports. This cluster comes closest to the alleged theoretical ideal type. Case studies record here also joint action, albeit on a limited scale and ad-hoc. Most African clusters enjoy passive cluster advantages only. This classification has some resemblance with the one, proposed by Altenburg and Meyer-Stamer (1999) based on the examination of Latin American case studies of clusters. They propose a three-fold typology. The first, called survival cluster of micro and small enterprises, roughly combines the first two listed by McCormick. The authors also consider cluster advantages to be limited and largely passive. Their second type refers to more advanced and differentiated mass producers, which typically were established during the era of import substitution. Their third type has no counterpart in the African classification. It consists of clusters of TNCs. The authors look to cases in Central America, especially Mexico where NAFTA has triggered a re-orientation of foreign investment and attracted new foreign investment in the form of core suppliers. The Gamarra cluster in Lima, Peru, studied by Visser would fall in the first category of clusters and firms enjoy primarily passive effects arising from local external economies. Visser's recent contribution confirms this. Firms primarily enjoy passive collective efficiency advantages in the transaction sphere (Visser, 1999).

A second important finding of the recent studies is the fact that frequently there is considerable differentiation between firms within a cluster. Clusters are not homogenous in terms of firm characteristics, nor do clusters remain homogenous over time. Some firms benefit more from clustering than other firms. Agglomeration economies accrue. in principle, to all firms and hence are an unlikely cause. The question therefore arises whether active collective efficiency helps to explain these differences. Studies of Rabelloti and Schmitz (1999) and Schmitz (1999a) demonstrate that there is a positive association between inter-firm cooperation as a component of active collective efficiency and economic performance of firms in the researched cluster. This applies especially to medium sized firms. Rabelloti and Schmitz found that large firms draw less on the cluster while small firms engage less in joint action. Knorringa, examining footwear industry in Agra, India found market channels to be an important differentiating factor within the cluster (Knorringa, 1999).

A third interesting finding is that several authors found that increased exposure to (new) competition induces firms to engage in more inter-firm cooperation (Rabelloti (1999), Knorringa (1999) and Schmitz (1999)). In most instances this applies to vertical cooperation with suppliers and sometimes with contractors. Horizontal cooperation, sometimes needed to increase efficiency at the meso-level, is much more rare. Catalysts are needed (as found in the ceramics industry studied by Meyer Stamer, 1998), but potential catalysts do not always succeed in playing their role (e.g. the state government in Rio Grande do Sul in the shoe industry analised by Schmitz, 1999). It would seem appropriate to add that this inter-firm cooperation refers to more advanced or complex clusters or to (groups of) exporting firms within a cluster.

A fourth important finding is that collective efficiency contributes to economic performance. Rabellotti and Schmitz (1999) and Schmitz (1999a) observed a positive association between collective efficiency and economic performance of firms in clusters in Mexico, Brazil and Italy, using several performance indicators. Elsewhere Schmitz argued that clustering may be one of the factors contributing to increasing returns to scale and to competitive advantage of firms in clusters (Schmitz, 1999b).

Industrial district as a policy prescription

For many the industrial district has become a model to emulate. But can industrial districts be replicated and serve as a model? Asheim (1992) argued that this not

only depends on access to flexible specialisation technology, but also on the existence of capable small firms and the necessary agglomeration economies. Do small firms have the technical competence and professionalism? Are there a sufficient number of producers in the sector to give rise to external economies? Can agglomeration economies be planned? Can joint action and partnerships with government be stimulated? Furthermore, Asheim considers several threats to industrial districts. One would be the disintegration of supporting local social institutions under the impact of (inter) national processes of social and institutional change; An industrial district might be undermined by external pressure. For example, when external large firms buy into industrial district firms. The district may also collapse as a result of internal pressure when industrial district firms switch to external suppliers. These type of issues effectively played a role in one of the Italian districts. Cooke & Morgan (1994) examined one of the archetype industrial district, namely, Emilia Romagna. According to the authors, the small firms lacked innovative capacity, the increases in wages and salaries reduced their competitiveness and subcontracting was moving away and towards lower cost regions and countries. Under fiscal pressures the government decided to rationalise the support system. In order to survive the support agencies had to begin to market their services in larger markets, reducing thereby their attention to local firms. Larger firms emerged out of processes of amalgamation and acquisition. Other small firms responded by forming consortia with other small firms, pooling for example their procurement or marketing.

Zeitlin (1992) maintained that the 'Italian district' is too restrictive to serve as a policy prescription and he formulated a more open model. This included an extended division of labour between small and medium sized firms, common support services and local mechanisms for conflict resolution. Humphrey (1994) argued that the industrial district model has three important problems. Firstly, it is in most definitions restricted to small firms. This has obscured the role that large firms play in districts. The emphasis on inter-firm relations has diverted attention away from researching the internal structure and dynamics of firms. As has been argued by many, externalisation and subcontracting is but one of the responses to increased competition and uncertainty. Furthermore, entrepreneurial competence is assumed but this can not be taken for granted in many small firms. The industrial district model is focused on inter-firm relations within the districts but failed to be specific on the external linkages of the district. Schmitz added that differences in firm size might have implications for the characteris-

tic socio-economic features of industrial districts, namely competition with co-operation, joint action, and embeddedness (Schmitz 1994). As argued earlier by Asheim, intra-district firm dynamics may be altered when large firms emerge in clusters or introduce themselves in clusters from the outside.

What are the dynamics of industrial districts, what trajectories are possible under what conditions? What is the capacity of a cluster to respond to external changes and what is the role of external agents? There is general agreement that one of the major changes affecting clusters is the increasing international competition as countries open up their economies. Humphrey (ibid) suggested using the notion of global commodity chain. Global chains organise global markets and a distinction may be made between producer driven and buyer driven chains. The former being co-ordinated by large manufacturing firms, while the latter are co-ordinated by large retailers and trading companies. The global chains consist essentially of sets of networks, some of which may be extended into existing industrial districts. "The trajectory of development of the cluster will be the outcome of an interaction between the firms and institutions in the cluster and the other elements in the commodity chain. Whether or not insertions into a commodity chain will create development potential for a cluster will depend on both its position in the chain and the capacity of firms and institutions to make use of or create sources of competitive advantage and opportunities for upgrading (Humphrey, 1994:158). The kind of integration would vary by type of chain, and for the demand characteristics of the products

The case studies indicated indeed the importance of changes on the demand side for the future of the clusters. The question however would be to what extent the demand side is the most important aspect to focus on. Of equal importance are the competitive capacities of the individual firms and of the cluster as a whole. This involves competence of entrepreneurs, access to flexible specialisation technology and support services. This line of reasoning has been developed especially by Sengenberger & Pyke, 1991, Spath, 1991, Pyke, 1992, 1994).

The case studies, reviewed above, also indicated that dynamic efficiency often did not occur, at least in the Latin American (and Indian) cases. Many entrepreneurs did not (yet) realise that their competitiveness not only depended on their own actions but also on that of their suppliers and their business environment and that inter-firm co-operation could, in various ways, be instrumental to achieving this. The Brazilian shoe

cluster was in this regard a significant exception, at least for some period of time. The recent evidence showed the considerable heterogeneity of firms, their intra-cluster behaviour and their performance within the clusters concerned (Rabellotti and Schmitz, 1999 and Schmitz, 1999a)

The questions raised by Schmitz, Humphrey and others are very relevant once industrial districts are in existence, but there is another set of questions that concerns how industrial districts emerge in the first place. Geographical clustering may be considered a necessary but not a sufficient condition for an industrial district. Location theory gives a set of possible reasons why geographical clustering would take place: demand, inputs and labour availability would be three possible reasons for firms to cluster. In large and medium size cities these factors are often present.

Knorringa (1997) and Knorringa and Meyer-Stamer (1998) examined cluster trajectories in different parts of the world, using the typology of Markusen (1996) as their point of departure. A cluster may develop into an 'Italianate district'. In the case of the ceramics industry in Santa Catarina, the experiences of the Italian ceramics industrial district effectively served as a role model. As indicated earlier other authors have doubts about the innovative capacity of small firms to sustain their district. A more common type is the 'hub and spoke' industrial district in which large firms of the district organise the cluster. The footwear cluster in Sinos Valley would be a Latin-American example. The third type is the 'satellite district' in which small firms are subcontractors to large firms outside the district. In this case the district would lack inter-firm linkages.

Time would be another important factor. It takes time for producers to interact with each other and begin to reap the economies of localisation and agglomeration. The case studies indicated that the local 'industrial atmosphere' is not necessarily conducive to the emergence of an industrial district. Sometimes there are certain historical accidental factors, including rural and agricultural ones, that create the foundation for the posterior formation of districts (e.g. the Ludhiana manufacturing industry in India related by Meenu Tewari, 1998).

McCormick (1999) and Altenburg & Meyer-Stamer (1999) have distinguished several types of clusters and suggest different policy prescriptions for each category. McCormick stresses the importance of basic macro-economic and institutional policies in relation to 'groundwork' clusters. Altenburg and Meyer-Stamer suggest typical small

and micro-enterprise credit but also favour networking programmes. They caution on effectiveness given lack of experience of intended beneficiaries and known programme failures (e.g. the empresas integradoras in Mexico). For more complex or advanced clusters, the authors argue the importance of the general business environment, the role of benchmarking and training and advisory services and a step by step development of technological development activities. For the TNC based clusters selective attraction of FDI, supplier development programmes and technology transfer to domestic firms in the cluster are seen as realistic policy options.

4. REGIONAL INDUSTRIAL POLICIES

4.1 Introduction

The rapid development of space reducing technologies and emergence of global competition in the eighties and early nineties did not bring the end of regions. Quite the opposite: globalisation is an intensely localised phenomenon. Furthermore, some regions have been capable to develop new forms of industrial and territorial organisation around small and medium sized firms that could compete in international markets. At the same time older core industrial regions with concentrations of large firms faced severe industrial decline.

New policy prescriptions came to the fore, based on flexible specialisation and industrial districts, which compare favourably with the more defensive ‘selective spatial closure’ strategy of the early ‘endogenous development’ protagonists. Central to the notion of ‘second generation’ policies is that competitiveness not only depends on the capabilities of the individual firm, but also depends on the capabilities of its suppliers and the environment in which the firm operates. Clusters of firms not only benefit from known types of agglomeration economies but could also deepen the division of labour so as to compensate for disadvantages of scale and to generate new economies of scope by recombining the variety of inputs and capabilities in new ways. Vertical co-operation between firms and its suppliers enhance competition between firms. By horizontal joint action common services can be generated. Industrial districts are not simply new forms of industrial organisation. They are also particular socio-economic territorial entities. Common institutions that regulate and support play a central role. A number of aspects of the local business environment as thus re-conceptualised.

While flexible specialisation and industrial districts have been an important theoretical foundation of 2nd generation policies, it is important to stress however that a range of policies and instruments came about in response to immediate problems of industrial restructuring and conversion. That is to say they are not framed in theories of industrial development per se but were formed mostly in local practices to cope with problems of industrial restructuring and industrial conversion. These are often denominated as local management approaches (cf Coffey & Polese, 1985).

This section is organised as follows. Section 4.2 will review literature on the principal policy areas, instruments and the actors of 2nd generation policies. In section 4.3 we will outline main dimensions of 3rd generation regional industrial policies.

4.2 Second generation policies: intervention areas

A number of policy areas are identified in the relevant literature. However there are considerable differences in emphasis. 'Endogenous' firms and the co-operation among firms has become the key policy issues. External firms and investment, which played such an important role in 'first generation' policies, are of minor importance, if considered at all. The institutional support infrastructure is highlighted. Policies should not be imposed from above, but locally embedded if they are to succeed. Finally, local government has become identified as an actor.

Firm, inter-firm co-operation and association

The firms themselves are the most important actors in second generation policies. A basic point of departure is that entrepreneurs must realise that their competitiveness depends not only on their own capability but also on the efficiency of their suppliers and the environment in which they operate. The crux of industrial district experiences is that firms would respond to opportunities created by the clustering of firms and to the benefits of inter-firm co-operation. The industrial district model postulates that firms will engage in vertical specialisation in the manufacturing of sub-processes, parts and components and that this contributes to the generation of economies of scale and scope, raising the competitiveness of the cluster as a whole (Schmitz, 1992; Pyke & Sengenberger, 1994). Often implicit is the notion of co-manufacturing agreements between firms so as to be able to attend to large order, or to complement each other's product ranges.

Other areas of collaboration mentioned in the literature are joint marketing efforts, joint procurement, acquisition and tendering for orders, especially in relation to export markets, sharing or pooling of production facilities, machines and tools, joint contracting, pooling or undertaking of product design and research & development activities (cf Best, 1990). This collaboration may take place on a selective basis between small groups of firms, but it may also develop into more institutionalised forms.

This alleged disposition to co-operate stands in contrast with the general view that small firm entrepreneurs are individualistic, 'self made' women and men. In other words, it may be difficult to convince small firm entrepreneurs to agree to co-operate with each other. Small firms are often considered isolated in a structural sense lacking the access to information and resources and in that position find it difficult to overcome their disadvantages (Spath, 1991). According to authors like Spath (1991), Sengenberger & Pyke (1991) "the main problem of small firms is not their size, it is their isolation and powerlessness, particularly in an environment aligned to large private and public enterprises. … small firms have to integrate themselves into a large context of inter-firm relations in order to overcome their resource deficits and to improve their political standing" (Spath, 1991:4). In his extensive studies on small firm behaviour Sweeney comes to a similar view. Because of their multiple roles and limited personal span of control, small entrepreneurs are and must be very selective in the information they gather from the external environment. For a number of reasons they rely on personalised contacts with clients, suppliers, and other entrepreneurs. Through self-help organisation they can extend their capacity to learn about changes in the business environment (Sweeney, 1987).

Inter-firm co-operation as we saw above, may take various forms. The industrial district model conceptualises networking primarily as networking among small firms. Networks may be open or closed, integrate a large or a relatively small number of firms. The size and character of the network would depend on the object and depth of co-operation. Most authors turn a blind eye to networking between large and small firms. Recent surveys have shown however that also asymmetric networking can be advantageous for small firms (e.g. Echeverri-Carroll, et. al. 1998).

Lastly, inter-firm co-operation may have the intent of collective or joint action. In that case, it may take more institutionalised forms like sector trade, producer and

business associations. Most of the case studies, referred to above, document the existence of different forms of 'self help' organisation.

There is as a matter of fact relatively little research on the emergence and roles of different types of business association that could serve as a guide for policy. Levitsky has examined business associations in developing and transition economies (Levitsky, 1992, 1993, 1994) Business associations are membership organisation "set up as 'self help' bodies by groups of businesses and individuals to further the interest of, and respond to the needs of, member enterprises and of the private sector as a whole" (1994:24). They may consist of federations, chambers of commerce and industry, sectoral, regional and local (small) business associations, but also craft and trader's associations, local business clubs, religious groups etc. In developing countries these associations are often not representative as their membership is low, and they are underfunded. More seriously, the associations often concentrate only on political lobbying and neglect their roles as service and information providers. The latter is of crucial significance, can increase their value to individual entrepreneurs and can help to broaden the financial base of the associations. The case studies have demonstrated that there where business associations exist, they play an important role in district dynamics.

Institutional support infrastructure

The institutional infrastructure refers to a range of enterprise support services and a variety of forms may be distinguished (Bennett & McCoshan, 1993). Sign posting is the most elementary one. It consists of providing information to entrepreneurs about the availability of business services, potential business partners, market and of suppliers, sources of finance and technical expertise. Sign posting refers the user to specialist providers. Business skilling actually transfers knowledge to enterprises so that they can undertake tasks themselves. Usually in a more or less standard way, through information exchange, training and counselling. The third type is business advice. That is to say, through counselling or consulting client firms are advised on markets or technological developments. Business assistance refers to situation in which the service provider actually undertakes tasks for a client firm. Finally, business support refers to actual assistance i.e. providing factor inputs to the firm (Bennett & McCoshan, 1993).

As countries open up and markets become exposed to more competition, the external environment of firms becomes more volatile. Information services become

more important to enable the entrepreneur to become aware of these changes and develop appropriate responses. Sign posting is typically a role played by business association.

Business associations are also important providers of business skills, especially for starting entrepreneurs and particular aspects of the business environment (e.g regulatory policies of government) and specific business advice and assistance services, often on a partial or full cost recovery basis. An important category not mentioned so far are non-membership organisations like enterprise development foundations (Carvajal Foundation in Colombia) and local enterprise agencies.

In relation to business support, Levy makes the important observation that "there has been remarkably little empirical research as to whether collective (government, business association and NGO) interventions have been important for the successful development of support systems" (Levy, 1994:3/4). His own research in Korea, Japan, Indonesia and Colombia generates some important indications for policy in relation to export marketing, technological support services and financial support systems. His general conclusion is that in all cases private sources (buyer-trader, similar firms, subcontracting principals and own business associations) are preferred over collective public sources. Benefits vary among SME's in function of their own resource endowments. Collective support mechanisms important in early stages of export growth and function particularly if decentralised to and supporting private support channels (incl. own business associations). Best relates the cases of credit co-operatives and loan guarantee and marketing consortia in several of the Third Italy districts. For example, the loan guarantee consortium of Modena, which has 3500 members, makes loan assessments (peer review) and provides loan guarantees for commercial credit applications of its members (Best, 1990).

Large firms adopting flexible production methods often externalise producer services. At the same time, many other firms are often too small to be able to internalise these services and would have to rely on the presence of specialist firms to supply such services. Examples are financial services, design services, engineering services, procurement, legal and logistic services. Hansen emphasised the strategic role that producer service have in that respect for regional development (Hansen, 1994).

Networking and clustering can render support services more efficient. "The ability of local firms to meet new demands, often depends on the support received from

local institutions and on the underlying basis for inter-firm co-operation (kin networks and strong social interaction). If local institutions (public and private) are strong, clusters can move into new market niches, extend the space of their activities within the commodity chain or develop new links to final markets" (Humphries & Schmitz, 1996: 1867).

The industrial district literature gives a number of examples of institutional support worth mentioning. Based on their review of the European industrial district case studies, Schmitz and Musyck (1994) and Pyke (1992) and (1994) stress the importance of developing technological capacity among firms, finding new markets, training and raising of capital. Starting with the latter, local banks have been instrumental as they have a better knowledge and insight into the development of local clusters than national or international banks do. Self help in credit provision and in organising credit guarantees have been important in some cases. Training refers in most cases to training of workers and of entrepreneurs. In all cases the private sector played a key role defining programmes, co-financing and delivering training while government played a supportive role Associations as well as government provided inputs. in marketing. Associations also played an important role in support services, either on their own or in partnership with government. Examples are technological institutes like CITER in Emilia Romagna, Italy and the Steinbein Foundation in Baden Wurttumberg, Germany which has 300 transfer points to reach out to small and medium sized firms. Decentralised delivery of services by demand driven providers is seen as a basis of success.

Another well-known example is the network development programme implemented by the Danish Technology Institute. Government and business circles felt that the Danish small and medium sized firms were ill equipped to face the challenges of growing international competition. Most of these firms are independent and isolated. Networking was meant to raise competitiveness by bringing groups of entrepreneurs in contact with new products, technologies. Through networking firms could develop new products, establishing new agents and distribution outlets in new markets, and pool individual products into larger product ranges. In these ways firms could jointly overcome obstacles that would be difficult to overcome on an individual basis. External assistance played the role of network broker and facilitator and public funds were used as a leverage to obtain wider private financial support (Humphrey & Schmitz, 1996).

Several commentators have indicated that inter-firm co-operation of this kind does not come easily. For example, Pyke 1994, concludes on the European experiences: “One common lesson from all these initiatives is that inter-firm collaboration between small firms generally requires some kind of external catalyst or brokerage role” (Pyke, 1994: 121). Barzelay, arrives at a similar conclusion in the case of the Marble industry of Macael, Andalucia. Also Meyer-Stamer stressed the role of individual leaders and the existence of role models to stimulate firms to co-operate (Meyer-Stamer, 1998). Several authors stress the importance of an integrating regional strategy. They see the industrial district as a new model for local regional endogenous development. It would involve delegation of functions to local governments and to a range of intermediary organisations and engage institutions close to the firms. It would stress self help and self help organisation of the private sector and be based on a local consensus on the direction of economic development (Sengenberger & Pyke, 1991, Schmitz & Musyck, 1994).

Local embeddedness

It is remarkable to note that in the age of global competition where competition extends itself to all spheres of transformation and transaction, local embeddedness of economic interaction in social relationships has become a recurrent theme. There are several lines along which this has come about. First of all, local social relationships provide important safety nets that allow entrepreneurs to take risk and to innovate in products and markets. For example in the Third Italy case reference is made to traditional family structures that created systems of mutual support (Piore & Sabel, 1983). Secondly, embeddedness provides for intense social interaction, information exchange and rapid diffusion of innovations (Visser, 1996). Thirdly, history and culture of a territory may generate shared values and codes of social behaviour. This facilitates the creation of (situational) trust among entrepreneurs, something which in turn provides the basis for inter-firm collaboration (Knorringa, 1996). Trust reduces transaction costs, as firms need to spend less time and resources to investigate potential contracting parties, to formulate elaborate contracts and to provide for contingencies. Fourthly, the existence of local identity can lay the basis for the building of social consensus regarding local economic development priorities and required courses of public, private and col-

lective action. Finally, local identity can contribute to improve the capacity to resolve conflicts and enhances self-regulatory capacity (Pyke, 1992).

Local governments and local economic development

During the era of the post-world war welfare and developmental state, local governments were primarily concerned with the delivery of basic services and physical planning. Their role in managing or promoting local economic development was rather limited. Several factors have contributed towards a more prominent role of local governments. First of all, industrial restructuring led to massive loss of jobs in established industrial core areas. While for some sectors restructuring had its origin in the seventies (e.g. European textile and footwear industry), the then prevailing economic growth mitigated their effects. However, the economic crises of the late seventies and 80s made the impacts all the more felt. Local governments responded in the form of local crisis management. A second important factor has been the gradual but persistent trend towards decentralisation in the public sector, which has complex and multiple causes (cf Helmsing, 1996). Public responsibilities were transferred to local governments. The need to generate more local revenues obliged local governments to take more interest in economic development of its area. In many countries new legislation facilitated local governments to enter in public-private partnerships. Thirdly, changing perceptions on social security made local government more active in pursuing local employment creation (Bennett, 1990). Fourthly, in a number of countries, national or state governments launched support programmes to enable local governments to become more active in local economic development. The European Union played a significant role in Europe through the Regional Fund and its thematic programmes such as Local Economic Development Action (LEDA), Regional Innovations Strategies (RIS) and Regional Technology Plans (RTPs). Finally, flexible specialisation and industrial district literature has given credibility to local and regional government, especially in relation to economic regulation, infrastructure, social services and housing and support services.

Much in contrast to past practices at national level, local governments generally realise that they are but one of the players in local economic development. Most local authorities, also in relatively affluent countries, spend a relatively minor fraction of their budgets on direct economic development support. More important, however, is the manner in which its discharges its main functions and realise their economic signifi-

cance a) as a of sources of economic opportunity and b) as services enhancing or inhibiting enterprise development and competitiveness (Bennett & McCoshan, 1993).

The flexible specialisation studies recognise the roles of local and regional government, especially the mid-1980 studies. For example, Brusco and Righi (1989) report cases where local and provincial governments in the 'Third Italy' established industrial parks, provided loans to small firms and disseminated information on new technologies and markets. In many instances local governments provided seed funding for projects. The authors also express caution by arguing that local government initiatives rarely played a decisive role in the economic development of the clusters. This has been confirmed in other cases (Schmitz (1992 and 1994), Meyer-Stamer (1998) and Visser (1996).

Blakely makes an useful contribution from a local development management perspective. In his view there are four strategic options for local economic development. The first concerns locality development, which primarily concerns the built environment. The second option is the business development strategy. This amounts to enterprise development via new firm formation and to attracting new businesses to the locality. The third option is the human resource development option which, in modern parlance, increases the employability of workers in increasingly flexible labour markets through training, placement schemes and employment programmes. The fourth concerns community based employment development (Blakely, 1989). The latter has great resemblance to well-known micro-enterprise and informal sector development programmes but contains also elements of alternative development and of social economy.

Pockets of high local unemployment have induced local governments to provide fiscal and other supply side incentives to business (e.g. local tax holidays, subsidised land and services) in order to attract investment and thus generate employment. Over the years this has led, in many countries, to considerable competition between local authorities. In this context local governments face a prisoner's dilemma (King, 1990). If all local governments provide incentives the effect will disappear. However, a local government will certainly loose out if it cease to offer incentives while all others continue to do so. King concludes that local government should instead follow a demand side approach.

4.3 Third generation regional policies

Currently we are moving towards a third generation of regional policies. This third generation of policies is, firstly, a response to the further study and evaluation of endogenous regional development and policies. Secondly, they result from the recognition that globalisation makes territorial production systems, and not just companies, compete with each other. This means on the one hand that new policies cannot be exclusively local but must take into account the position and the positioning of territorial production systems within national and global contexts. On the other hand, policies cannot be exclusively local and regional, to the point of excluding sectoral and (inter)national policies and interventions. Thirdly, and in view of massive private capital flows, one cannot ignore the potential roles of role external investment and firms.Fourthly, co-operation is not only needed among firms, but also among supporting institutions The horizontal co-ordination among a range of local actors needs to be complemented by vertical co-ordination between levels. Lastly, third generation policies are premised on the recognition that new policies need not necessarily require more resources but seek to enhance 'systemic rationality' in the use of existing resources, not via bureaucratic co-ordination but via concertation and convergence.

Third generation policies distinguish themselves from the second generation in the sense that the regulating and supporting territorial institutions must realise that the competitive capacity of regional production systems not only depends on the firms, their suppliers of inputs but also on the basic conditions in the external environment.

External agents and managing the external nexus

Multinational corporations (MNCs) and foreign direct investment are important external agents. The industrial district literature basically ignored them as it focused on local small firms. The conventional wisdom of regional development theory about MNCs and foreign direct investment and its effect of regions continues to be dominated by the so-called 'branch plant propositions'. That is to say, MNCs don't allow their subsidiaries to develop significant local linkages. Even though branch plants may directly contribute to alleviate unemployment in peripheral regions, the predominant view is that this will not contribute to long term sustainable economic development. It may actually have counterproductive effects in terms of ownership/control and of deskilling.

Several scholars have begun to explore to what extent development of new technologies, flexible specialisation and new competition would change these basic propositions. In an extensive review of literature, but mainly in relation to MNCs and the European Union, Young et. al. 1994 come to the conclusion that, under certain strict conditions, MNCs can be a tool for regional economic development. They draw four key policy lessons. First of all, they call for an integrated policy approach to regional development in which technology rather than inward investment per se would be the key policy driver. MNCs can contribute to built strong sectoral or technological clusters provided that linkages are forged with local universities and research institutes and supply links with local companies. Secondly, it requires targeted attraction of MNC investments and continuous follow up to ensure that local embeddedness emerges. A third key point is a better understanding about what are the location considerations of MNC and foreign direct investment and what constitutes the attractiveness of a particular area for MNC investment. Finally, the authors point to the importance of entrepreneurial MNC managers.

These points find support and are developed further by Barquero (1997) who argued that there is a (potential) convergence between on the one hand strategies of MNCs and the economic development strategies of cities and regions. MNCs have changed their own strategies away from the conventional hierarchical headquarter-branch plant configuration. New forms of organisation give subsidiaries more operational autonomy to integrate locally. In highly competitive markets, subsidiaries need JIT supply networks and close interaction with suppliers. In their search for alternative locations, MNCs are not so much concerned with general cost and other advantages but with specific advantages of particular locations, such as its existing economic clusters, particular resources or specific intangible advantages.

Endogenous growth trajectories of clusters of firms can be altered by the arrival of external agents. Clusters often attract external agents, such as trade firms and international buyers. Several case studies reported about the mixed effects this could have on a cluster. It might alter the demand structure and may give larger firms advantages over smaller ones, leading to an internal differentiation within the cluster. Humphrey and Schmitz (1994) explored the implications which different types of global commodity chains may have on the growth of clusters. Sometimes, firms in a cluster operate in different demand segments such that changes in one demand segment do not affect all

firms. In other cases clusters have been successful in responding by developing their own external nexus. By organising there own brand name, with associated quality controls and their own marketing organisation small producers of marble in Macael, were able to shed their isolation and develop a strong national market position (Barzelay, 1994).

Access to outside markets is often not direct, but depends on (national or resident foreign) intermediary firms and traders. Relatively little is known about these trading options for small firms. It may include commercial subcontracting, as in the Agra footwear cluster in India (Knorringa, 1996) or may be trade links (without involving subcontracting) between large intermediary firms and traders and networks of small producers. Yung Whee Rhee et al, (1989) reported on small export trading companies that were responsible for the export success of Hong Kong. These companies purchased from indirect exporters (no commissioning and no subcontracting), and fulfilled roles in product design and quality control. The key to success was their in-depth knowledge of foreign product markets niches.

Developing new markets requires a concerted effort over time that is often beyond the capabilities of individual firms. It needs higher level support. One avenue is collective action, at the level of the cluster or via a network of like-minded firms forming consortia or developing collective actions via their business associations. Another avenue is to link up with sectoral initiative at national level. This brings us to the second important dimension of third generation policies.

New forms of governance: policy networks

Michael Best has been a strong advocate of industrial policy in the context of new competition. The purpose of such a policy would be to promote 'Schumpeterian' competition and (collective) entrepreneurial firms. This means in part, shaping markets and affecting the form that competition takes in order to enhance economic performance. This would be based on: i) a strong anti-trust and pro-competition policy; ii) the promotion of inter-firm networks and of a balance between co-operation and competition; iii) primacy of strategy over planning whereby strategies are not designed by planners but in concert with industry leaders, and, iv) not 'picking winners' but an open sector orientation. Sector specific policies are less prone to special interest politics and corrosive of the consensus and mutual responsibility required to develop and implement

sector strategies (Best, 1990). Perspectives differ as to who should be part of this industrial policy process. Best mentions two key players (government and business leaders), others like Pyke and Sengenberger advocate a tri-partite basis, i.e. including labour unions.

Bennet & McCoshan (1993) go somewhat further and argue that the key challenge is to develop greater systems rationality between all actors. National consensus of industrial priorities needs to be developed in a continuous encompassing process, which includes not only the key ministry concerned and national business organisations but also the participation of sectors and agencies providing key inputs in the business environment of industry (e.g. economic, physical infrastructure). A key question hereby would be how clusters and industrial districts can best be incorporated, via sector or via territory?

Meier-Stamer (1997) in discussing industrial change in Brazil, comes very close to Bennett & McCoshan when he argues the notion of 'systemic competitiveness'. "Sustained industrial competitiveness, rests not only on firm's capabilities (micro) and a stable macro economic framework, but also and in particular on a tissue of supporting, sector specific and specialised institutions and targeted policies (meso) and on governance structures that facilitate problem solving between state and societal actors (meta)" (ibid: 369). Government would act as co-ordinator, moderator and communicator in policy networks with firms, their associations, trade unions and intermediary organisations in science & technology and in training. Successful policy networks depend, among others, on autonomy of collective actors, that are capable to resolve internal conflicts of interests; have trust and commitment to fair exchange and an orientation towards substantial outcomes, joint decision making and information sharing.

LED networks

Meier-Stamer (1997) basically approached the problem from the national level, and raised the problem of how policy networks can be decentralised. Bennet and McCoshan (1993) argued differently. For them local co-ordination is the key. Even though many support systems are nationally organised for reasons of scale and efficiency and cannot be completely decentralised, the implementation takes place at the local level. Therefore, networks must be organised locally. Local economic development networks "are meant to integrate vertical programmes and facilitate the flow of

information about opportunities and about resources that need to be mobilised to seize these". Networks facilitate externalities of economic decision making to become internalised by better attuning decisions to each other, preventing negative and maximising positive externalities. The authors distinguish various types of networks (fragmented, hierarchical, single focus, matrix and flexible task networks) and examine network dynamics. They observe that the capacity to develop LED networks varies strongly by region, such depending on the diversity of their economic structures and level of economic development as well as historical factors explaining the 'thickness or density of institutions'.

Sector programmes can be quite successful in promoting local enterprise development. Humphrey & Schmitz (1996) related the case of SERCOTEC, in Chile which initiated a programme directed at groups of enterprises, seeking to form networks of firms, and let these networks determine priorities for support services and inter-firm cooperation and for collective action on a public-private partnership basis.

In their study of 33 LED networks and public-private partnerships supported by the LEDA programme of the EU, Bennett and Krebs (1994) concluded that "a contrast between networks appears to occur through the developmental stages of LED projects. Government leadership appears important in all stages, with special purpose development agencies playing a key role as gap fillers and catalysts, together with local agents" (Bennett & Krebs, 1994: 139). The structure of local leadership is the crucial determinant of local networks. The more differentiated a local economy & society is, the less integrated would be its collective activities. The more successful regions have coordinated structures of local governance. Their networks appear similar to those found in the Third Italy industrial districts. Network development co-varies with levels of economic development: stagnating and declining regions have fragmented and separate networks (i.e. so-called patchwork configurations). Central government plays a more prominent role in project development and financing in less developed and declining industrial areas than in mature or more developed regions.

To conclude, third generation policies emphasise systemic competitiveness. While second generation policies focused on the actions by firms and inter-firm cooperation from within, the third generation policies stress the importance of the basic conditions in the business environment. The latter is not reduced to the macroeconomic framework, but to a set of meso level (sector and local) interventions to en-

hance the competitiveness of territorial production systems. These territorial production systems need not be restricted to clusters of small firms, as in many of the industrial district studies. Asymmetric network configurations of large and small firms can be as effective or efficient, if not more so. For small firms, asymmetric networks may be a faster route to the acquisition of innovation and competitiveness. Large firms do not control the 'basic conditions' referred to in section 2.3 but are also dependent on their improvement. In contrast to second generation policies, third generation ones stress the importance of networking among support institutions to achieve greater systemic rationality in the overall effort. Industrial governance systems have to become multi-level in order to achieve this. Key to the success of particular industrial localities and regions is how well they manage their respective external nexus and are able mobilise (inter)national and sector support programmes.

5. CONCLUDING OBSERVATIONS

The analysis of the localised nature of economic development has attracted considerable attention in recent years. A good number of the new ideas and contributions to the theory of local and regional development have been originated by analysts who did not have a professional career in this scientific field. Reference is made here in particular to industrial economists and sociologists. In parallel, other economists began to interest themselves in 'geographical economics' (e.g. Krugman, 1991).

Since the early nineties, macro theories based on a sector-region aggregate framework have given way to a range of contributions, which share an industrial organisation and/or theory of the (small) firm perspective. The initial bias towards small firms in the latter group of contributions has gradually given way to a more balanced treatment of firms and inter-firm relations. The relations between small and large firms are not necessarily to the disadvantage of the former. Furthermore, clusters were found to be more heterogeneous, consisting of large, medium and small firms. Heterogeneous clusters may be more viable than 'archetype' homogenous clusters, which may lack innovative capacity and face 'entropic death'.

The initial focus of cluster studies was directed to subcontracting among firms and the (potential) deepening of the division of labour within the cluster. As more studies appeared, it became apparent that the sources of competitive advantage of clusters were more diverse. Relationships with suppliers and with clients were often found

to be more important than those concerning subcontracting per se. Furthermore, the early cluster studies focussed on advantages arising from production (transformation). More recent studies found significant advantages in the transaction sphere (esp. lowering of transaction costs)[3].

In the mid-nineties more attention was given to cluster dynamics. How do clusters develop and how do they face up to heightened international and 'new' competition? Different trajectories were identified which crucially concern the external nexus of clusters. At the same time a greater appreciation emerged for the great variety of types of clusters, both in terms of theoretical configurations as well as in terms of empirical realities in different parts of the world.

In several very recent studies empirical evidence has been provided that collective efficiency contributes to the performance of clustered firms. Heightened competition has induced firms to intensify inter-firm co-operation, which is increasingly considered to be a fundamental component of active collective efficiency. Active collective efficiency can differentiate between firms within a cluster.

The re-birth of second generation policies has been based on new thinking about the behaviour of firms and industrial organisation at the level of the industrial district and had a strong economic orientation. Third generation policies are based on a more institutionalist views of localised economic development in which the sociology of identity and of trust plays a key role.

The study of competitiveness has moved from a concern for the technology of machines and organisation to technology of knowledge and collective learning. With reference to the model presented in figure 1, it may be concluded that second generation theory and policy concentrate on localised structures of industries and interaction between firms. Third generation policies find their justification in the analysis of the role of 'basic conditions', collective learning, local embeddedness and the external nexus.

The promotion of industrial districts would in third generation policy perspective, not signify the end of a national industrial policy but a new distribution of responsibilities and tasks between levels of government. New forms of industrial governance are not restricted to the local level, but also assign roles to national and international actors. Both private and public agencies need to play a stimulating role especially in peripheral regions that lack the physical, social and economic capital to take up their own economic development.

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ENDNOTES

[1]Maillat (1998) introduced the notion of generations of regional policies. He actually distinguishes 4 generations of policies. His classification and the one presented above coincide with regard to the first two generations but there are differences as regards the elements that characterise the third generation.

[2] In her review of the Latin American informal sector debate, Rakowski sees this as one of the four lines of theories explaining the growth of the informal sector (Rakowski, 1994).

[3] Combining the classification of sources of cluster advantages, made by Visser with the conceptual distinction of collective efficiency, one could formulate the following table.

	Sources of competitive advantage of clusters			
	Passive collective efficiency (Local external economies)		Active collective effciency (Economies of joint action)	
	Technological	Pecuniary	Bi-lateral	Multilateral
Transformation	-specialisation -availability of inputs, specialist services -pool of specialised labour skills	lower prices	sharing of resources	credit guarantees producer services by BAs norms & standards
Transaction	availability of buyers information	lower transaction costs	Joint export marketing	procurement & information through associations trade practices
Strategic decisions/ cluster level co-ordination	information	information costs	alliances in marketing, R&D joint learning	collective learning BA governance

Adapted from Visser, 1999 and Schmitz, 1999